

Providence City Plan Commission

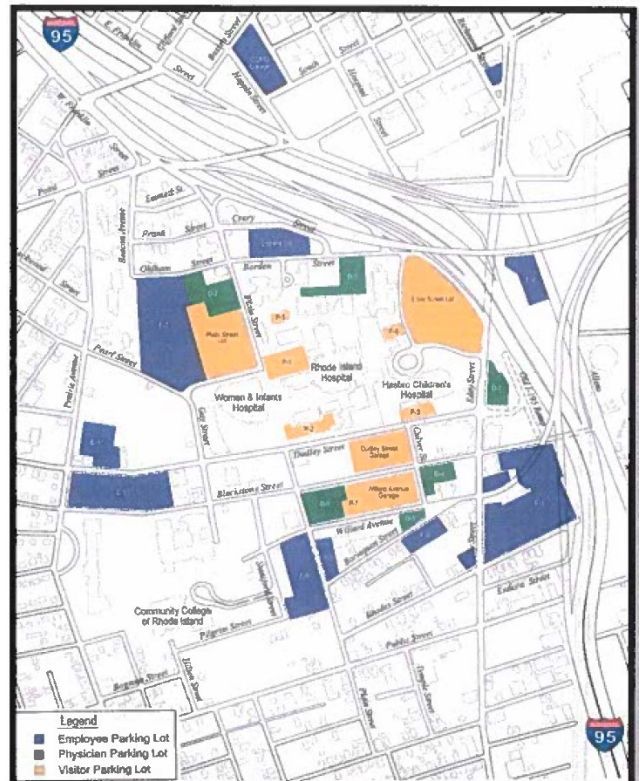
March 15, 2022



AGENDA ITEM 1 ■ RHODE ISLAND HOSPITAL INSTITUTIONAL MASTER PLAN



Map of the Rhode Hospital campus



Parking plan map

OVERVIEW

OWNER/APPLICANT:	Rhode Island Hospital	PROJECT DESCRIPTION:	Institutional Master Plan (IMP) renewal
CASE NO./ PROJECT TYPE:	Institutional Master Plan		
PROJECT LOCATION:	Multiple blocks, bounded generally by Prairie Avenue and Eddy Street	RECOMMENDATION:	Approval of Institutional Master Plan
NEIGHBORHOOD:	Upper South Providence	PROJECT PLANNER:	Choyon Manjrekar

IMP PURPOSE AND DESCRIPTION

Section 1910 of the Zoning Ordinance requires all healthcare institutions to file an Institutional Master Plan (IMP) with the City Plan Commission (CPC) that describes the institution's proposed development over the next five years or more. The Master Plan must be updated every five years and may be amended during that period. The CPC reviews master plans and amendments for compliance with the City's Comprehensive Plan.

SUMMARY/ANALYSIS

The IMP contains the hospitals' mission statement, summary of their relationship with the community, five year objectives, ten year goals and projected improvements and expansion.

The IMP is a required five year update containing the required submittal criteria for IMPs outlined in the ordinance. In addition, the applicant has submitted a comprehensive traffic study detailing traffic movement around the hospital area in addition to future projections of traffic. The IMP elaborates on the hospital's mission to provide healthcare and describes its relationship to the City and surrounding neighborhood. The plan includes an inventory of property owned by the hospital as well as new acquisitions. Notable acquisitions include 425 Richmond Street, 10 Davol Square and 690 Eddy Street which is consistent with the hospital's mission of moving functions off the main campus. No additional land transactions are expected. Except for the Coro complex, no other buildings are on the national register of historic places or local historic districts.

10 Year Goals

RIH has outlined six goals that it will focus on in order to achieve its 10 year vision. They are:

- Upgrading hospital infrastructure
- Accommodating growth in the number of patients treated
- Improving traffic flow around campus
- Modernizing and increasing the number of available beds
- Contributing to the knowledge economy

In addition to this long term vision, a list of objectives, improvements and renovations for specific facilities is included. A parking structure is under consideration as an option to curb the propagation of surface parking lots. Women and Infants Hospital (WIH) which shares a lease with RIH and is a separate institution, is proposing to construct a 20,000 SF addition to their building, but no changes to traffic or parking are expected. No major repairs, renovations or demolitions are proposed other than those listed.

Proposed street changes include abandonment of Marengo Street between 435 Richmond Street and Victory Place. Hospital Street and Globe Street may also be considered for abandonment.

The IMP notes that RIH has received a certificate of need for a CT scanner and has pending certificates of need for a stem cell transplant program and for proton therapy.

Parking and Transportation

The applicant has provided a comprehensive traffic and parking study which analyzes vehicular and pedestrian traffic, parking, public transportation and demand management. It is an update of the conditions of the last traffic study made in 2016. The study area roughly comprises an area bounded by Point Street and I-95 to the North, Public Street and Potters Ave to the South, Eddy Street to the East and Broad Street to the West. The study analyzes the 37 traffic intersections, their levels of service and offers solutions to improve traffic flow.

Changes in parking demand are expected due to changes in hospital policy due to the pandemic and other factors. Changes in the parking patterns are related more to relocating users from lots with over capacity to those that are underused. If additional spaces are required, they can be accommodated using existing supply.

The latter portion of the study outlines access by different modes of transport and discusses solutions to allow for smoother traffic flow. The applicant should work with the Department of Public works to evaluate and implement the proposed solutions.

Public meetings and outreach

Per the plan, the applicant informed community stakeholders and the general public of the upcoming IMP renewal in December and held a public meeting outlining the plan update. Hospital leaders were available to answer questions from the public.

Landscaping

The applicant has included a tree inventory for the entire campus developed in conjunction with the City Forester. Landscaping plans show that the applicant will meet the canopy coverage requirement in addition to replacing and planting new trees.

Findings

Zoning Ordinance

Based on submitted plan, the DPD finds that the IMP has followed the format prescribed by the Zoning Ordinance, including a schedule of public participation and all required elements outlined in Section 1910.

Comprehensive Plan

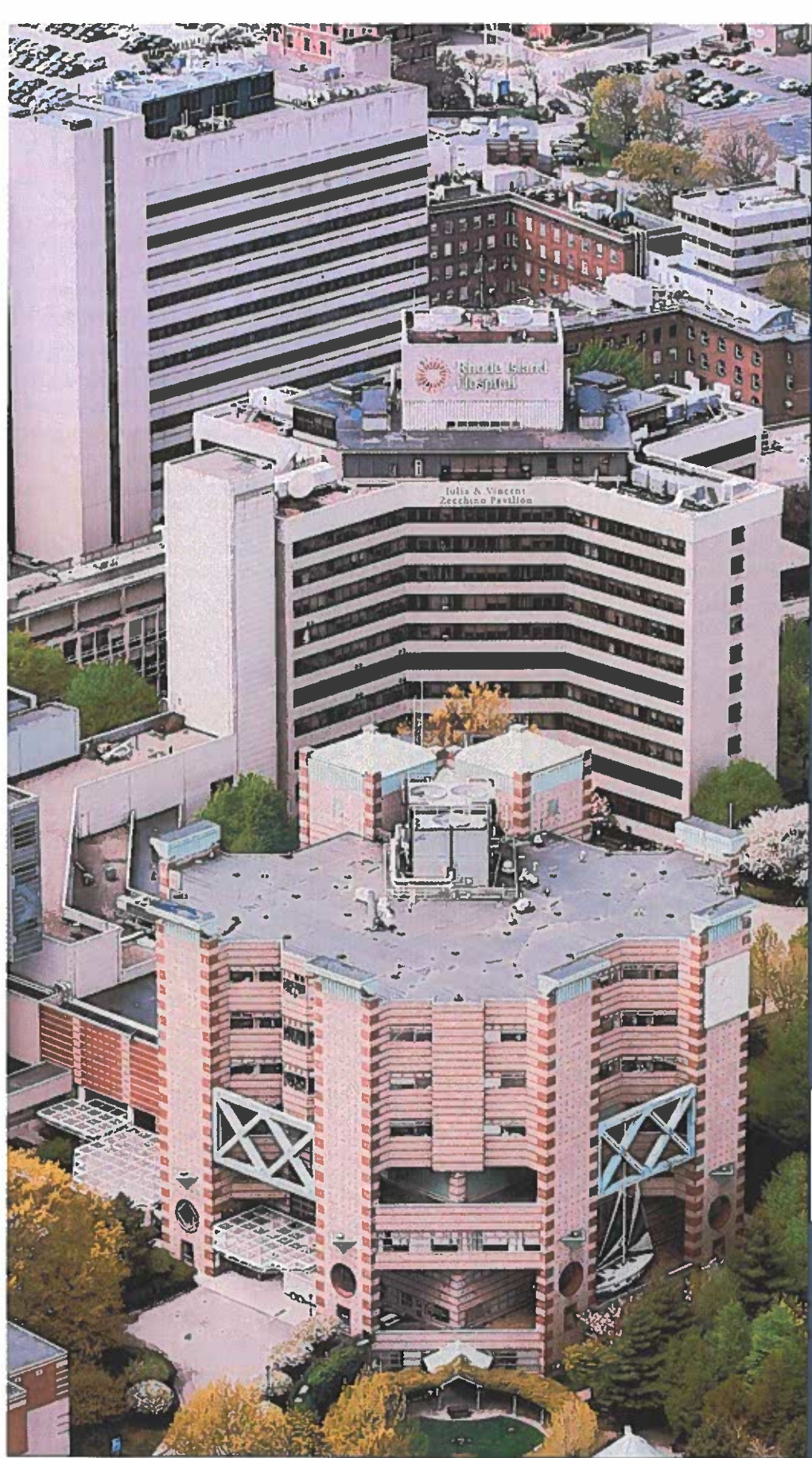
Strategy F of Objective LU-7 of Providence Tomorrow: The Comprehensive Plan requires hospitals to provide five year IMPs to ensure that there is limited growth and negative impacts on neighborhoods. In addition, IMPs are expected to be updated with any new developments between plans. The DPD finds that RIH has satisfactorily described growth that is expected to occur in the near and long term. Based on plans provided, the development is not expected to affect neighboring property. By addressing how new development will fit into the character of the surrounding neighborhood, the amendment is consistent with Strategies A and B of Objective LU-7.

RIH has proposed traffic improvements to limit the negative effects of traffic. The submission of the traffic and parking study is consistent with Objectives M-1 and M-6, which promote provision of varied transportation options and parking.

Recommendation

Based on the analysis and findings contained in this report, the CPC should approve the IMP subject to the following conditions:

- RIH shall return to the CPC with an amended plan should it receive certificates of need for the stem cell transplant unit and proton therapy program.
- RIH shall work with the Department of Public Works to evaluate solutions and implement the changes proposed by the traffic study.



Rhode Island Hospital
Lifespan. Delivering health with care.®

2022

Institutional Master Plan

Submitted To The
Providence City Plan Commission

March 2022

SECTION 1 MISSION STATEMENT

Zoning Ordinance Section 1910(D)(3)(a)

1.1 Mission Statement

Rhode Island Hospital and its pediatric division, Hasbro Children’s Hospital are members of the Lifespan health system and share its mission of *Delivering health with care.*

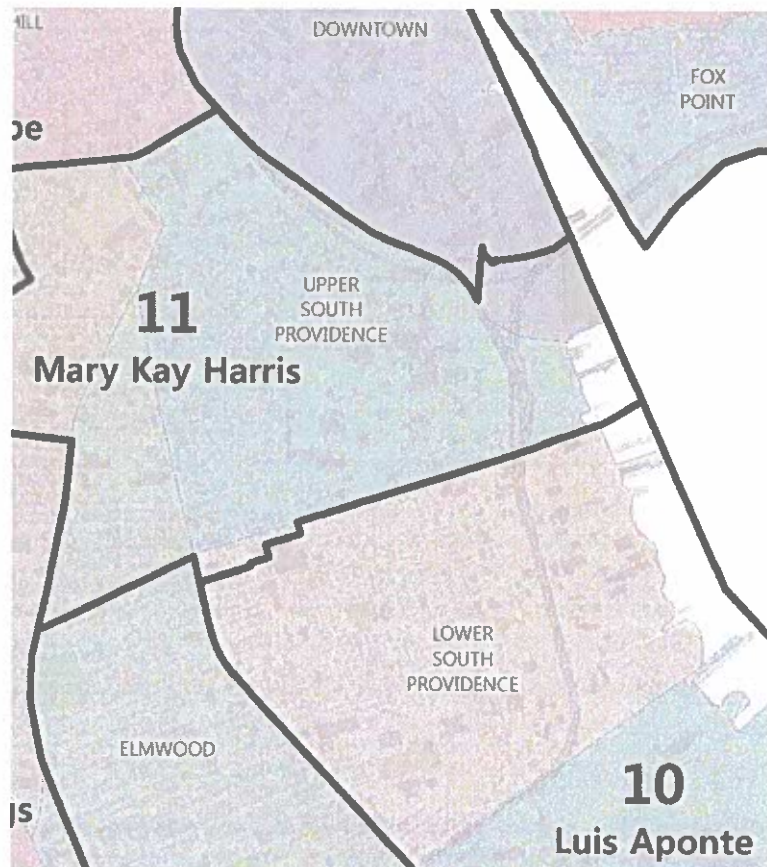
Rhode Island Hospital: Delivering health with care.

Rhode Island Hospital is the largest and only Level 1 trauma center in the state, and the principal teaching hospital of The Warren Alpert Medical School of Brown University.

1.2 Mission in Relation to the Downtown & South Providence Neighborhoods

Rhode Island Hospital’s major facilities span three neighborhoods in Providence.

Its Main Campus is in the Upper South Providence neighborhood of the City’s 11th Ward. Its Coro Complex is in the Jewelry District portion of the Downtown neighborhood in the 1st Ward. The hospital also has significant administrative facilities in the Lower South Providence portion of the 10th Ward as well as ambulatory and administrative sites inside and outside of Providence.



Leveraging Lifespan’s Community Affairs Department, Rhode Island Hospital aims to be a responsible member of the community and a good neighbor. In 2015, the hospital adopted the “Three B’s” approach to community relations and corporate citizenship. This approach requires **building** relationships with neighbors, **bettering** the community through services and programs and applying a **balanced** approach to resolving conflicts when they arise.

Rhode Island Hospital applies the Three Bs through multiple strategies including programming delivered by the Lifespan Community Health Institute (LCHI), sponsorships and donations to neighboring organizations, participation in neighborhood association and Health Equity Zone initiatives, and periodic newsletters in English and Spanish mailed to neighbors’ homes.

Building a relationship with neighbors requires showing up to learn about each other’s goals and priorities and seeking opportunities for collaboration. Rhode Island Hospital does this through community health forums hosted by neighboring organizations like Crossroads R.I. and the Refugee Dream Center. At these forums, Rhode Island Hospital hears from residents about health concerns, health priorities, and how they would like assistance from the hospital. An additional means of receiving direct feedback from neighbors is through collaboration with community groups. Staff from Community Affairs engage with the various groups by disseminating useful program information, attending meetings, and suggesting topics for presentations.

Beyond building relationships with its neighbors, Rhode Island Hospital devotes significant resources to bettering the community through programs and services. LCHI is intentionally located in South

Providence to be both community-based and community-placed. The goal of LCHI is to reduce health disparities and promote health equity through healthy behaviors, healthy relationships, and healthy environments. LCHI works to improve the social, economic, and environmental conditions in our communities by increasing access to high quality health services. They target the most vulnerable neighbors and provide services to help them achieve their full health potential. In Fiscal Year 2020, LCHI delivered health education, health screening, vaccination, behavior change coaching, and social needs screening and referral programs to more than 55,000 people, the majority of whom reside in the Providence metro area. Through strategic partnerships, LCHI also serves as a liaison between Rhode Island Hospital’s service lines and the community, through programs like Safe Sitter that are delivered to school-age children; community learning groups like the Community Health Ambassadors; and health services like flu clinics, COVID testing, and COVID vaccinations performed at local churches, senior centers, subsidized housing sites,

Rhode Island Hospital
By the Numbers

Employees	6,933
Licensed Beds	719
Patient Discharges	33,322
Emergency Department Visits	121,605
Outpatient Visits	292,609
Outpatient Surgeries	12,917
Inpatient Surgeries	9,276
Charity Care	\$17,306,000
Medical Education (Net)	\$73,005,000
Research	\$14,302,000
Subsidized Health Services	\$10,001,000
Community Health Improvement	\$ 742,000
Unreimbursed Medical Costs	\$45,478,000

Total \$160,834,000

Figure 2 RI Hospital by the Numbers (FY 2021)

and community centers.

Lifespan's Workforce Development Program is also based in South Providence. Workforce Development operates the Summer Youth Employment Program that hires more than 100 youth each summer to work in the hospitals and receive concurrent youth development programming and professional exposure. Workforce Development also operates a Workforce Solutions, Training and Teamwork (STAT) program that provides free education and training for four in-demand healthcare positions: Nursing Assistant, Medical Assistant, Pharmacy Technician, and Mental Health Worker. While open to all qualifying applicants, these programs are heavily advertised to and heavily subscribed by youth and adults who reside in the communities surrounding Rhode Island Hospital. Rhode Island Hospital also hosts job fairs in the surrounding neighborhood aimed at providing employment opportunities to those residents within walking distance of the Rhode Island Hospital campus.

Rhode Island Hospital provides donations and sponsorships to non-profits in its vicinity. The hospital has been a key partner to the Rhode Island Free Clinic since its founding and provides free diagnostic services and lab work to Free Clinic patients. The hospital also provides information technology support to the Free Clinic by hosting their email services, and a member of Lifespan Community Affairs Department serves on the Rhode Island Free Clinic's board of directors. Similarly, Rhode Island Hospital is a contributing partner to the Nonviolence Institute (formerly the Institute for the Study and Practice of Nonviolence) in South Providence. The hospital has contributed over \$20,000 in funds each of the last five years and has a system executive who serves on its board of directors. Rhode Island Hospital also sponsors numerous smaller non-profits such as Higher Ground International and organizes employees to volunteer in the community through Team Lifespan. During the winter holiday season, hospital employees generously participate in our annual "Season of Giving" by donating to the coat drive, toy drive, and food drive, and by purchasing holiday gifts for local families. The hospital donates coats and warm winter items to Angeles de la Comunidad (Angels in the Community), the Walking School Bus at Family Service of R.I., Higher Ground International, and more.

Being a good neighbor also extends to the environment and Rhode Island Hospital is proud of its efforts to be a responsible environmental steward. Rhode Island Hospital recycles 29.75% of its overall waste, including composting. Moreover, the cafeteria purchases produce from local vendors whenever possible.

Locating administrative and patient care facilities off the hospital's main campus has helped spur development nearby. For example, as mentioned in the 2016 Institutional Master Plan submittal (IMP), Rhode Island Hospital and Lifespan were key partners along with the Providence Community Health Centers in the redevelopment of the former Federated Lithographers property on Prairie Avenue which is now the site of several Lifespan offices including clinics, job training sites, and a large meeting space that often hosts community events. As a result of these clinical anchors, a Walgreens pharmacy also opened on the site, providing a needed pharmacy and retail site for neighbors. More recently, Rhode Island Hospital leased additional space in the Washington Park neighborhood between Allens Avenue and Eddy Street where new tenants now include a research and development site for Vertex Cell and Genetic Therapies. The hospital believes these leases can have a catalyzing effect, bringing jobs and economic energy to the adjacent neighborhood. Already, a small

café has opened to serve breakfast and lunch.

Rhode Island Hospital recognizes that conflicts can arise between the need to deliver excellent care to the community and how those efforts can disturb our neighbors. The hospital strives to balance the community's health care needs with those of its neighbors and aims to prevent conflicts whenever possible. Neighborhood engagement activities are the best way to build relationships and prevent conflict, but it is also important to provide a mechanism to receive feedback. In August 2016, the Rhode Island Hospital Neighborhood Hotline was established. The Hotline enables abutting neighbors to call with concerns and questions regarding the hospital's impact on the quality of life in the neighborhood. No calls have been received by the hotline in the past year.

Rhode Island Hospital is proud of its efforts to be a good neighbor and these efforts will continue to grow as the hospital strives to fulfill its mission of *Delivering health with care*.

SECTION 2 FACILITIES INVENTORY & CONDITION

Zoning Ordinance Section 1910(D)(3)(b)

Space on the hospital's Main Campus has remained at a premium because so many of the medical services offered are best located adjacent to the hospital staff and equipment needed to deliver specialized care. Accordingly, the long-term trend of locating administrative and certain research activities off the Main Campus has continued since the hospital submitted its last IMP in 2016.

Anticipating likely future research and clinical needs, the hospital acquired property adjacent to the 5.3-acre Victory Place property identified as 425 Richmond Street on October 26, 2021. In addition, the hospital acquired property located at 10 Davol Square as part of the Coastal Medical acquisition in April of 2021. The hospital also acquired 690 Eddy Street in March of 2019. There have been some changes in the properties that the hospital leases which are identified in Exhibit A. If the merger between Lifespan and Care New England moves forward, we may need to amend our plan.

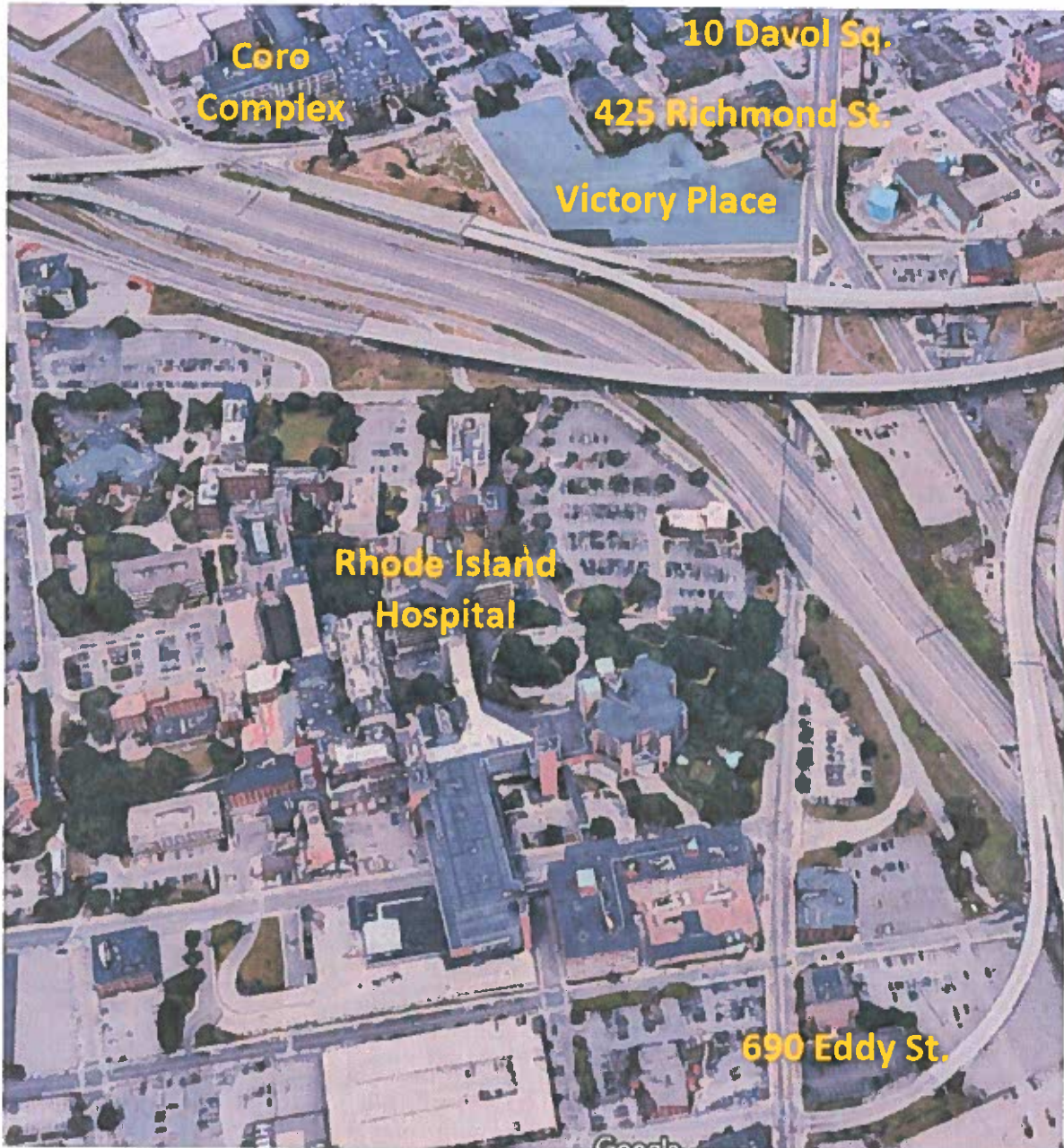


Figure 3 Main Campus, Coro Complex, Victory Place, 10 Davol and 690 Eddy Street

The overall condition of leased and owned properties has continued to improve since 2016 due to significant investments made to maintain and renovate them.

Exhibit A is a complete list and description of the facilities RIH owns or leases.

SECTION 3 DESIGNATED HISTORIC PROPERTIES & DISTRICTS

Zoning Ordinance Section 1910(D)(3)(c)

Rhode Island Hospital's Coro Complex, located at 167 Point Street, is within the Providence Jewelry Manufacturing Historic District. The District was first listed on the National Register of Historic Places in 1985, and its boundaries were updated in 2007/2008. The U.S. Department of the Interior, National Park Service, identifies the District with Reference Number 85003088.

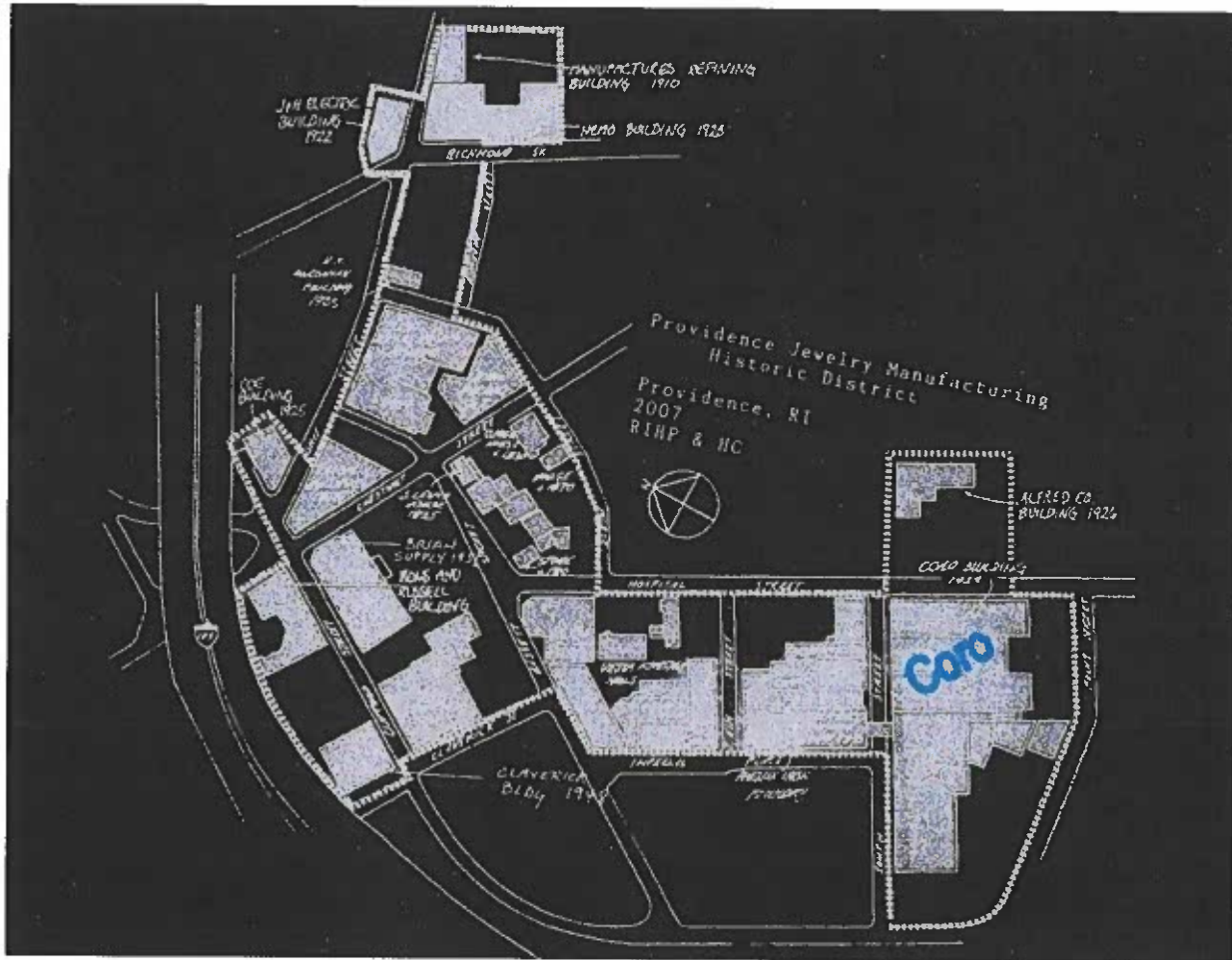


Figure 4 Jewelry Manufacturing Historic District

No other properties Rhode Island Hospital owns are on the National Register of Historic Places nor are any in any local historic districts.

SECTION 4 Completed Goals

Zoning Ordinance Section 1910(D)(3)(d)

Toxicology Lab Renovations

The hospital completed the renovation of its toxicology laboratory in the Ambulatory Patient Center (APC) Building. Completed April 2017.

New Connectors on Main Campus

The hospital removed the South West Pavilion Building on the Main Campus and redeveloped its site. The site contains above and below ground connectors to allow continued access to the adjacent buildings. Completed February 2018.

Additional Operating Rooms

The hospital constructed two additional operating rooms in the Bridge Building on its Main Campus. Completed September 2019.

Pediatric Hematology/Oncology Center at The Tomorrow Fund

The hospital expanded the Tomorrow Fund Pediatric Hematology service on the first floor of Hasbro Children's Hospital. Completed October 2021.

Comprehensive Spine Center

The hospital will be relocating the spine center from the main campus to 690 Eddy Street to support the program's growth. Projected completion, January 2022.

Hasbro Improvement and Modernization

This renovation project was designed to improve and modernize both clinical and non-clinical areas of Hasbro Children's Hospital in a three-year phased approach that allowed for continued seamless operation of services and minimal disruption to patient care activities, resulting in an optimal healing environment for patients and families that reduces stress and provides positive experiences, allowing for more comfortable rest and recovery.

Hasbro Children's Hospital, the 85-bed pediatric division of Rhode Island Hospital, is the state's premier advanced pediatric inpatient and outpatient medical center and the principal pediatric teaching hospital of the Warren Alpert Medical School of Brown University. As the only certified Level 1 pediatric trauma center in southeastern New England, Hasbro is where the community turns to for care that no other ED in the region can deliver. The hospital has its own ambulance service that operates 24 hours a day, seven days a week and is a designated burn center of the American Burn Association and American College of Surgeons.

Hasbro serves more than 5,300 inpatients and 75,000 outpatients each year. Increases in the behavioral health needs of pediatric patients has caused Hasbro to open a 16-bed dedicated inpatient pediatric med/psych unit as well as an additional 8 bed unit used mainly for patients

(20) bed birth center. The addition will not result in an increase in staff, patients, or visitors. As such traffic and parking requirements will not change from current conditions. Off-site parking will be made available for staff during construction. The pre-construction status with respect to the parking will be unchanged and reinstated post construction. This proposed addition is supported by RIH.

SECTION 10 PROPOSED DEMOLITIONS

Zoning Ordinance Section 1910(D) (3)(i)

Rhode Island Hospital is not proposing to demolish any structure, parking garage, parking lot, or any other campus facility at this time.

F

SECTION 11 PARKING PLAN

Zoning Ordinance Section 1910(D)(3)(j)

Rhode Island Hospital’s plans for parking are incorporated in the Transportation and Parking Study accompanying this submission. It anticipates the continued use of valet parking for some 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.

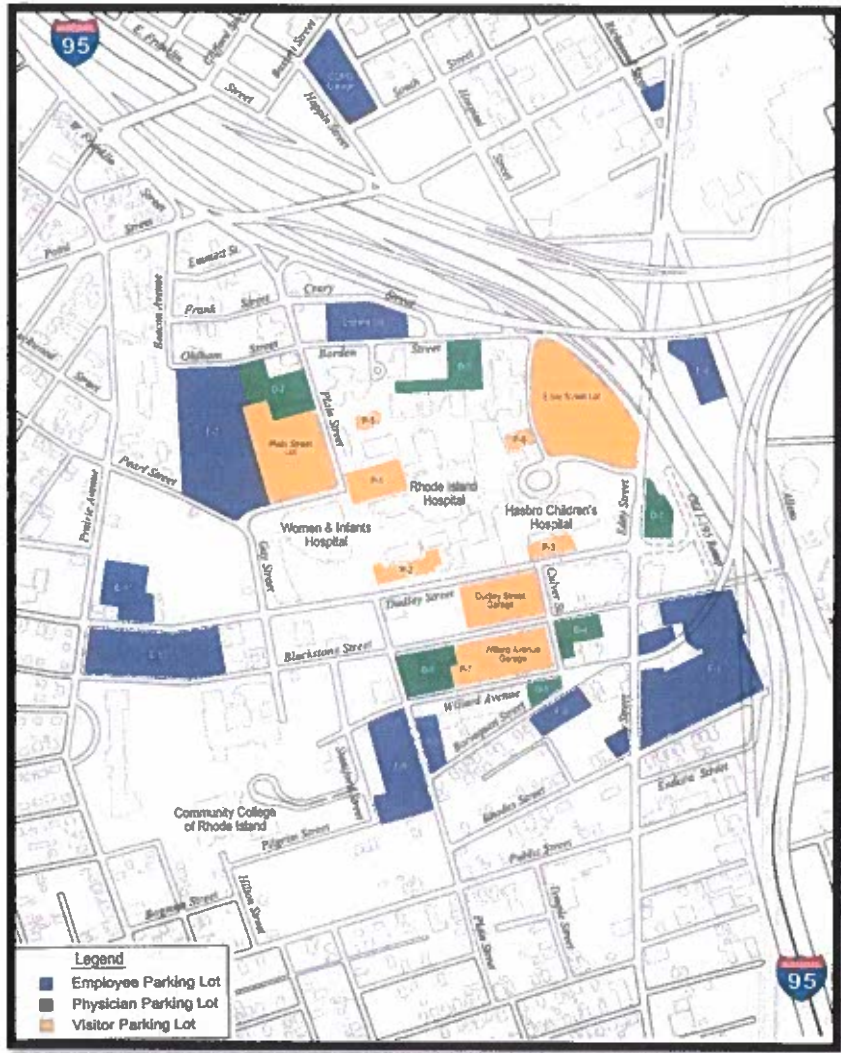


Figure 5 Rhode Island Hospital Parking Areas

SECTION 12 ZONING OR COUNCIL ACTIONS

Zoning Ordinance Section 1910(D)(3)(k)

None. Rhode Island 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(D)(3)(l)

Approved Certificates of Need (CONs)

Rhode Island Hospital – Medical Office Center Ground Floor – CT Scanner

Currently there is one CT at this location. Because outpatient CT demand is so high, scheduling backlogs have required RIH to shift outpatient scans to the inpatient CTs at the Main Building on Meehan 2. Even so, the existing CT in the MOC runs at 94% capacity. These backlogs and the subsequent shift to the inpatient CTs has caused those CTs to also be at capacity, running at 91% utilization. In addition, a change in eligibility for lung cancer screening, released in August 2020, is expected to increase the relative percentage of persons eligible for screening by 87%. As a result, RIH has exhausted its capacity to provide essential CT imaging services.

Installing this new CT will improve access and the care and experience of RIH's and Lifespan's patients by alleviating scheduling backlogs and allowing for the separation of inpatients and outpatients needing a CT scan. It will improve access to care for our community by reducing appointment wait times, which will lead to quicker diagnosis/treatment and a better, more efficient patient care experience.

Pending Certificates of Need (CONs)

Rhode Island Hospital – Lifespan Cancer Institute – Stem Cell Transplant Program

Rhode Island Hospital originally submitted a Certificate of Need (CON) application to the Rhode Island Department of Health for the construction of a bone marrow transplant unit on the 8th floor of the Main Building; however, the hospital decided to withdraw this application in September of 2016.

To meet our objectives, we have filed a CON application for the Stem Cell Transplant Program at Rhode Island Hospital. Rhode Island Hospital (RIH) and its cancer program, the Lifespan Cancer Institute (LCI), proposes to develop an adult autologous stem cell transplant program, also referred to as autologous stem cell rescue, to treat LCI's own eligible patients, the majority of whom currently travel out of state. An autologous transplant program at RIH will improve care for cancer patients by enabling continuity of care with the same clinical team, increase local access to an evolving and state of the art therapy, and decrease the overall cost of care and burden on families. Looking into the future, the presence of an autologous transplant program,

and its attendant FACT accreditation, will enable RIH to offer emerging new treatments such as CAR-T cell therapy as well as gene therapy for diseases such as sickle cell anemia. This is a treatment which represents a potential game-changing curative therapy, addressing an unmet need for the more than 100 adult sickle cell patients at RIH.

Rhode Island Hospital – Gerry House Ground Floor – Proton Therapy

Rhode Island Proton Therapy, LLC is establishing a joint venture between Rhode Island Hospital and Proton Therapy Partners, Inc., and proposes to develop and operate a proton therapy treatment center in Providence, Rhode Island on the Rhode Island Hospital campus to offer this state-of-the-art technology to the residents of Rhode Island within Rhode Island Hospital / Lifespan’s primary service area. This service allows for the specialized, local treatment of patients with selected cancer types that are not amenable to other modalities. The development of proton therapy expands the vital services available to Rhode Island residents and allows for better coordination and integration of care with patients’ RIH-based medical and surgical oncology specialists.

As the leader within the state, Rhode Island Hospital / Lifespan is a prominent health system with the largest tumor registry in the state of Rhode Island. Rhode Island Hospital is the state’s premier advanced academic medical center and the principal teaching hospital of The Warren Alpert Medical School of Brown University. Rhode Island Hospital’s relationship with the Warren Alpert Medical School of Brown University allows for the opportunity to not only provide access to proton therapy but also to ensure access to clinical research and training for medical students, residents, and other medical professionals.

SECTION 14 TRAFFIC STUDY

Zoning Ordinance Section 1910(D)(3)(m)

Accompanying this submission is a Transportation and Parking Study update memorandum that provides a parking study of existing parking lots and structures, analyzes existing traffic generation as well as the future traffic generation predicted from projects proposed in this Institutional Master Plan. The hospital established the scope of the traffic study through consultation with the Director of the Department of Planning and Development and the Traffic Engineer. The Study does not anticipate significant changes to parking or traffic in neighborhoods around the hospital attributable to the hospital’s activities and demonstrates that there is adequate parking available for the hospital.

SECTION 15 IMPLEMENTATION ELEMENTS

Zoning Ordinance Section 1910(D)(3)(n)

To implement the goals and plans in this IMP over the next five years, the Health Services Council, with the assistance of the Rhode Island Department of Health, will publicly consider the two Certificate of Need applications RIH has submitted for its proposed Stem Cell Transplant and Proton Therapy services.

Rhode Island Hospital will continue to use community-sensitive construction techniques for all projects described in this IMP. That means the hospital will:

- Encourage bids from qualified contractors including those in the neighborhood
- Address construction worker parking in the agreement with builders
- Develop site controls that make sense for its campus (i.e., fencing, site access, pedestrian covered walkways, limited storage on site)
- 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, Rhode Island Hospital performed the following actions:

December 2021

- The hospital informed the leadership of the Upper South Providence Neighborhood Association of the plans to submit this IMP.
- The hospital informed officials with the Department of Planning and Development of its plans to hold a meeting with its neighbors regarding an IMP.
- Meetings were held with City officials to discuss the nature and extent of this IMP as well as the scope of the planned Transportation and Parking Study.
- The hospital informed local elected officials about its plans including Senator Tiara T. Mack, Representative Jose F. Batista and Councilwoman Mary Kay Harris.
- The hospital widely publicized a public meeting for its neighbors to discuss its plans - and their anticipated similarity to the hospital's 2016 IMP. In addition to the presenters, leaders from the hospital's facilities, operations and planning teams attended the meeting and answered any questions posed.

SECTION 17 TREE/LANDSCAPING INVENTORY

Zoning Ordinance Section 1910(3)(p)

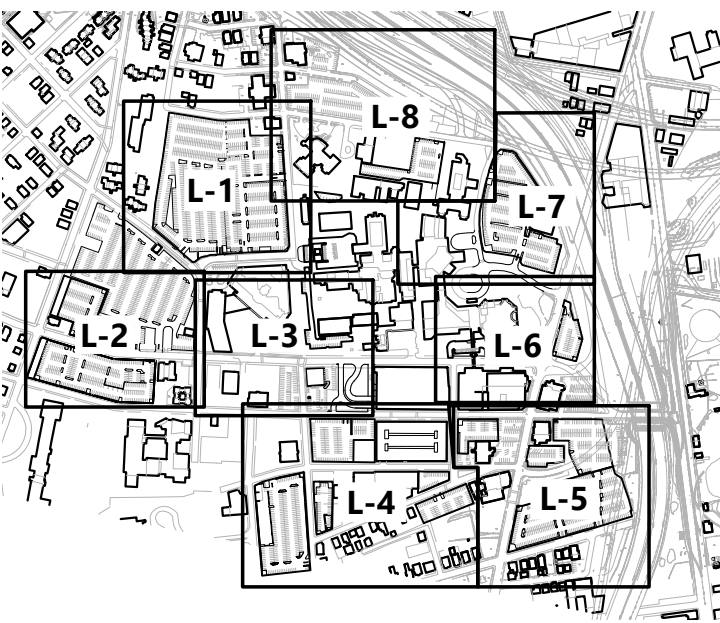
As part of the Institutional Master plan Rhode Island Hospital's representatives have performed a tree and landscape inventory within each of the existing parking lot and street frontage to review the health and viability of the existing trees and plantings. Rhode Island Hospital's representatives have met with the City Forester, Doug Still to review the existing tree canopy and the findings of the inventory. Recommendations

for landscape replacement and the findings of the tree canopy calculations for compliance with the requirements of the City's Ordinances have been submitted with this plan.

SECTION 18 PUBLIC ACCESS

Zoning Ordinance Section 1910(3)(q)

Subject to COVID-19 and related infection-control restrictions, Rhode Island Hospital welcomes the public to its campus to visit patients. Visitor restrictions are revised regularly in consideration of CDC and state health department recommendations. The hospital anticipates that it will make its meeting and conference rooms available to health care and community groups when current restrictions are lifted.



Key
Not To Scale

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Rhode Island Hospital

Rhode Island
Rhode Island

No. Revision Date Appr.

Designed by Checked by

Issued for Date

Client Review 1/12/2022

Not Approved for Construction

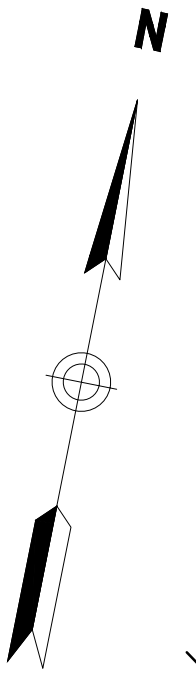
**Institutional Master Plan:
Tree Plantings**

Drawing Number

L-0

Sheet 1 of 10

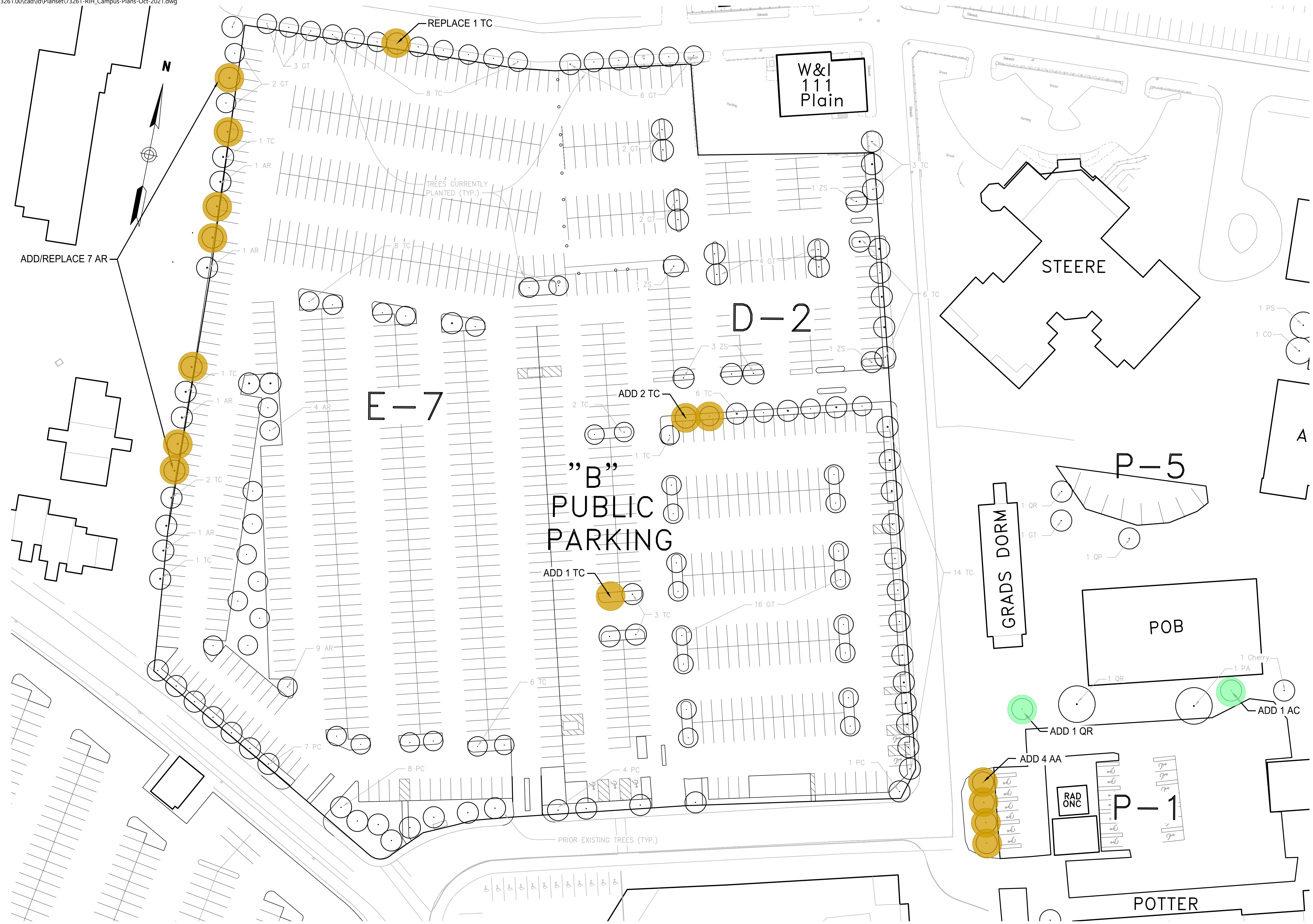
Project Number
73261.00



Legend

- TREES PLANTED TO DATE
- NEW TREES TO BE PLANTED
- TREES TO BE PLANTED TO REPLACE MISSING/POOR CONDITION TREES





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Rhode Island Hospital

Providence Rhode Island

No.	Revision	Date	Appr.

Designed by: _____ Checked by: _____

Issued for: _____ Date: 1/12/2022

Client Review

Not Approved for Construction

**Institutional Master Plan:
Tree Plantings**

Drawing Number

L-1

Sheet 2 of 10

Project Number
73261.00

- Notes:**
- DIGSAFE TO VERIFY LOCATION OF UTILITIES.
 - SCREENED BACK LABELS REPRESENT EXISTING TREES ON SITE.



L-1 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
7	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.
4	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2 1/2" CAL.
4	AA	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2-2 1/2" CAL.
1	AC	AMELANCHIER CANADENSIS	SERVICEBERRY	2-2 1/2" CAL.
1	QR	QUERCUS RUBRA	RED OAK	2-2 1/2" CAL.

L-2 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
13	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.
4	GT	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SKYLINE'	SKYLINE THORNLESS HONEYLOCUST	2-2 1/2" CAL.
4	QP	QUERCUS PALUSTRIS	PIN OAK	2-2 1/2" CAL.
11	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2 1/2" CAL.
7	PP	PICEA PUNGENS	COLORADO BLUE SPRUCE	6' HT.
1	PC	PYRUS CALLERYANA 'ARISTOCRAT'	GALLERY PEAR	2-2 1/2" CAL.
1	GB	GINKGO BILOBA	GINKGO	2-2 1/2" CAL.



Key
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Rhode Island Hospital

Providence Rhode Island

No.	Revision	Date	Appr.

Designed by	Checked by

Issued for	Date

Client Review 1/12/2022

Not Approved for Construction

Institutional Master Plan: Tree Plantings


Drawing Number

L-2

Sheet 3 of 10

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L-3

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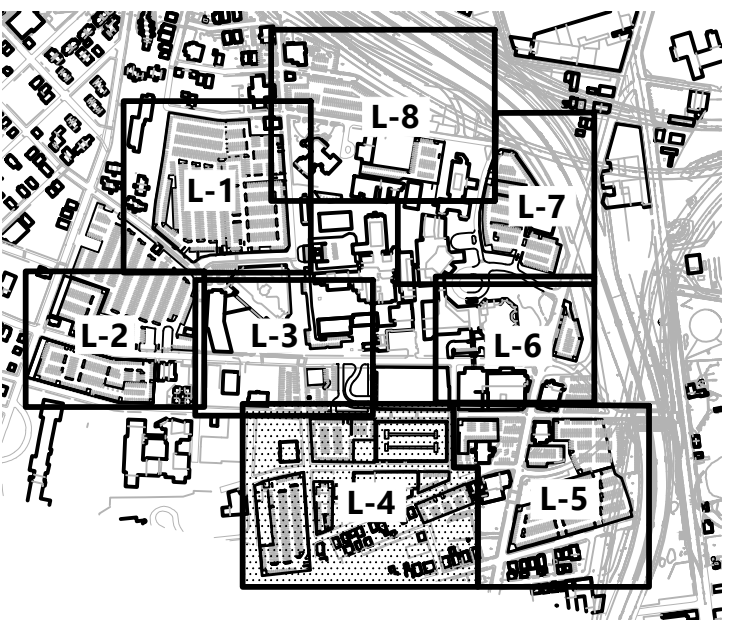
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SOUTHSIDE



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L-3 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
1	QR	QUERCUS RUBRA	RED OAK	2-2 1/2" CAL.
2	GD	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-2 1/2" CAL.



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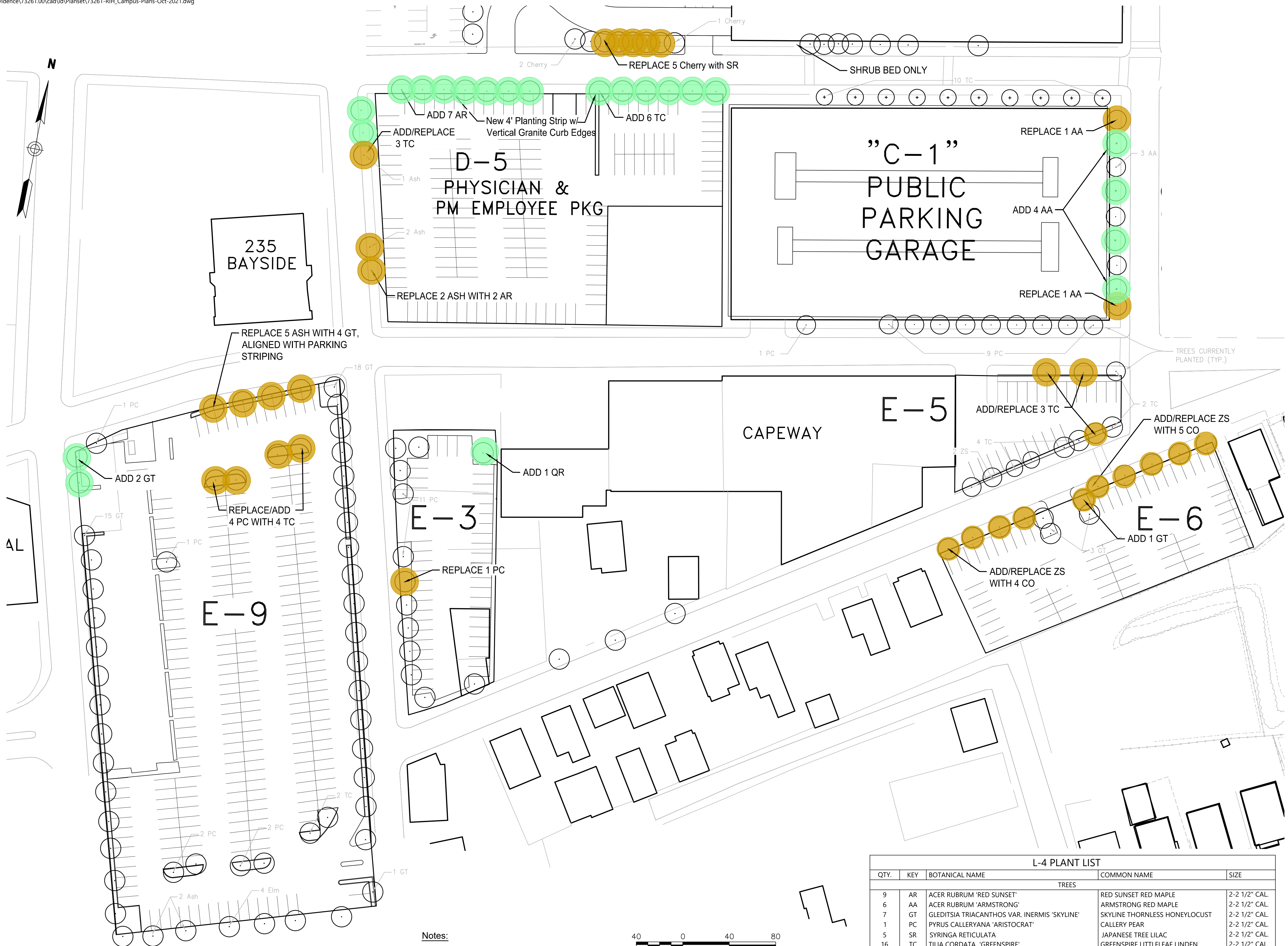
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L-4

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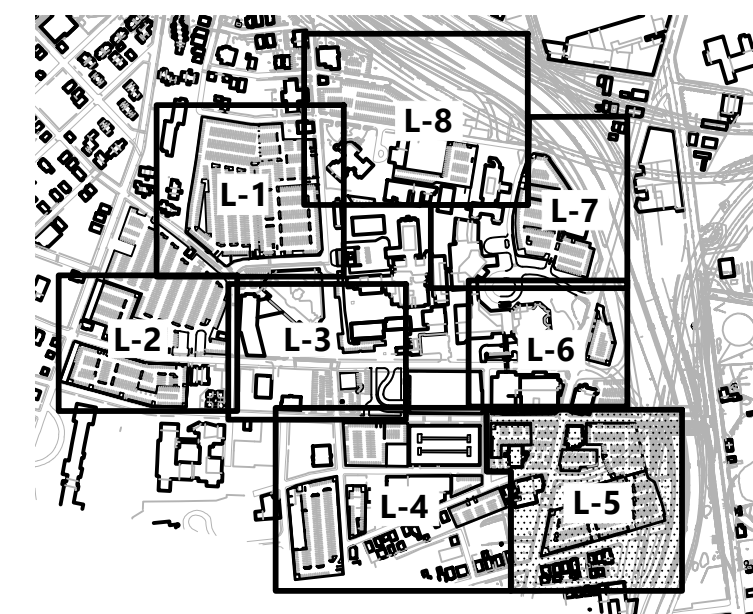
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L-4 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
9	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.
6	AA	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2-2 1/2" CAL.
7	GT	GLEDTISIA TRIACANTHOS VAR. INERMIS 'SKYLINE'	SKYLINE THORNLESS HONEYLOCUST	2-2 1/2" CAL.
1	PC	PYRUS CALLERYANA 'ARISTOCRAT'	CALLERY PEAR	2-2 1/2" CAL.
5	SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	2-2 1/2" CAL.
16	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2 1/2" CAL.
1	QR	QUERCUS RUBRA	RED OAK	2-2 1/2" CAL.
9	CO	CELTIS OCCIDENTALIS	HACKBERRY	2-2 1/2" CAL.



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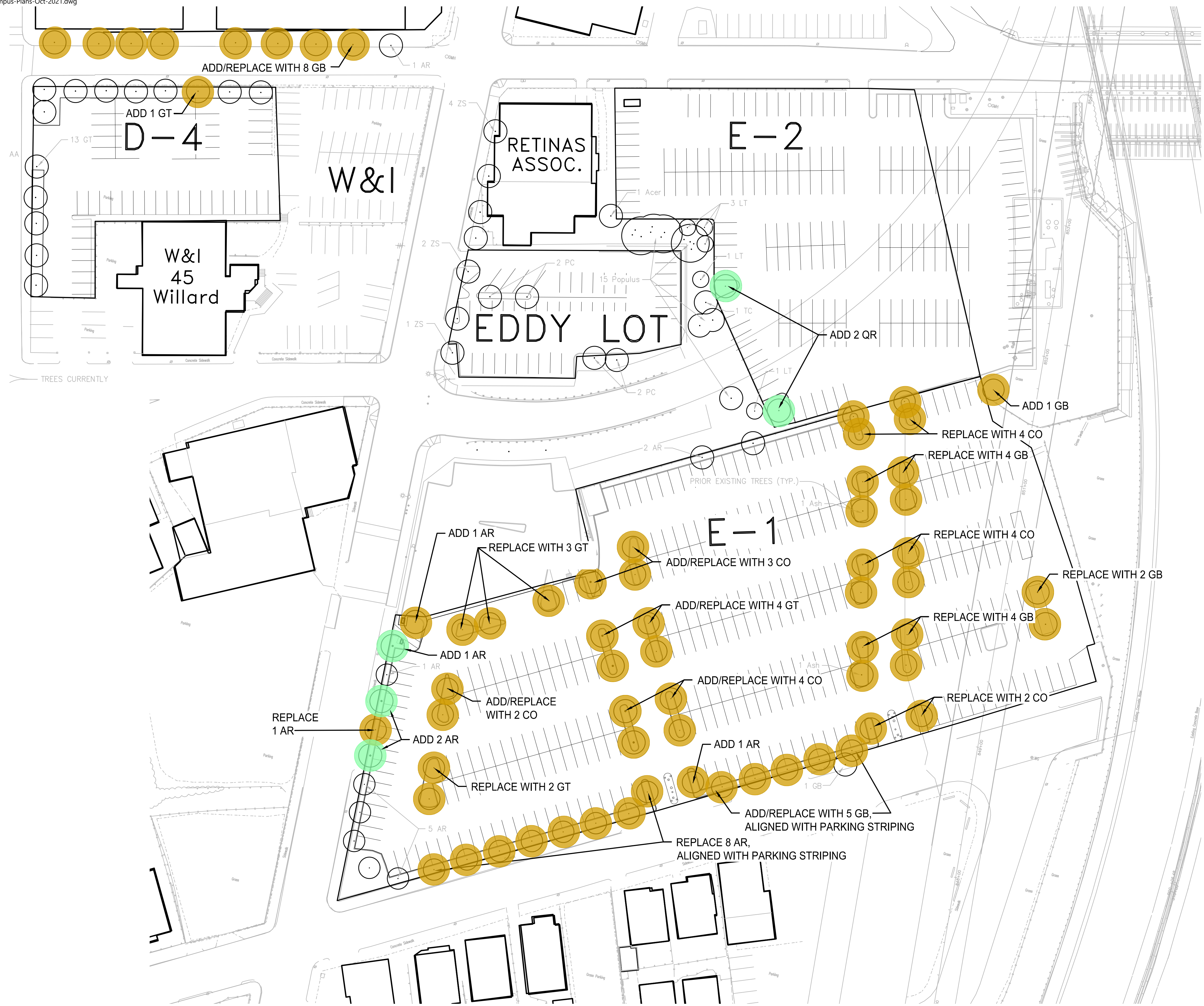
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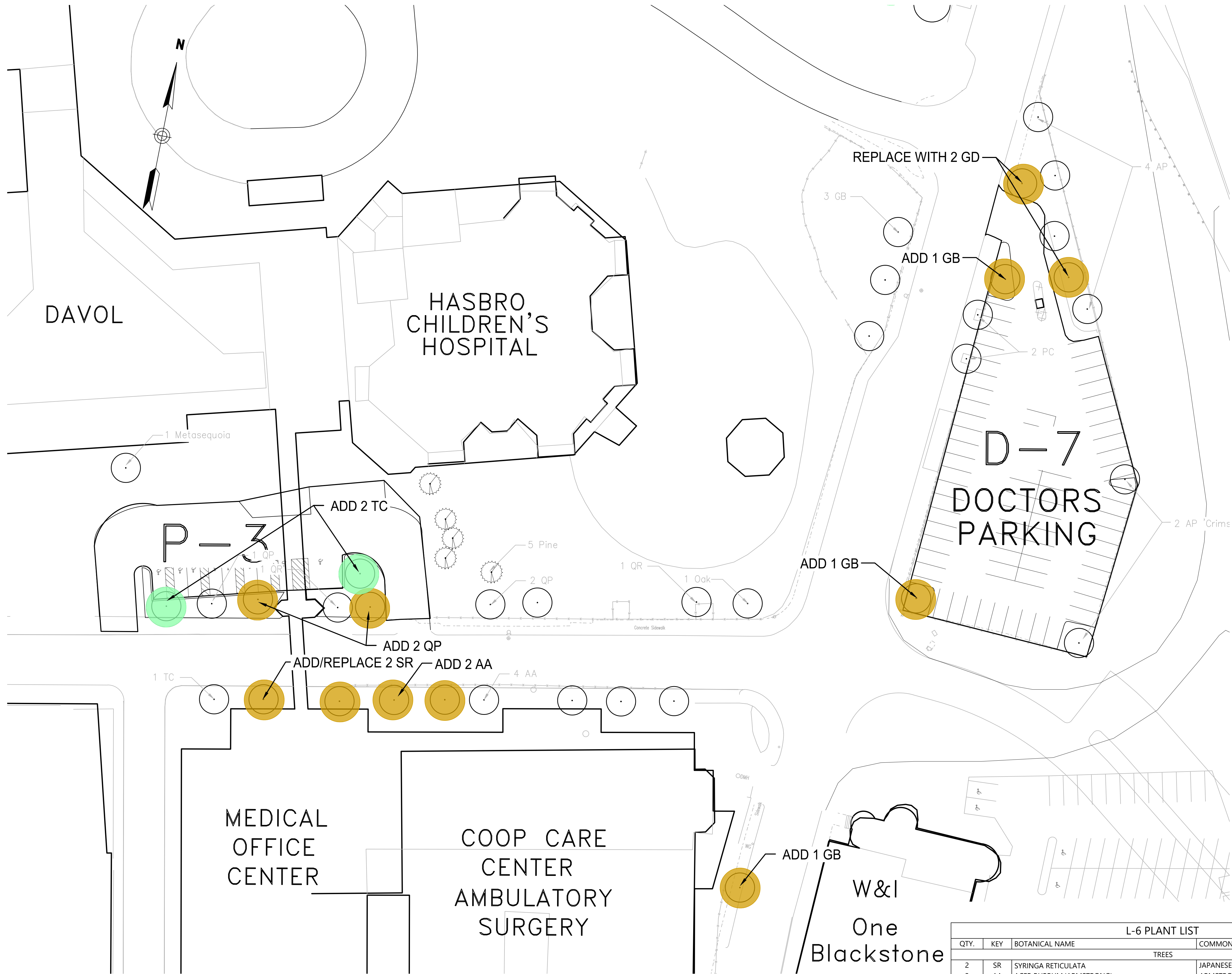
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L-5 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
14	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.
19	CO	CELTIS OCCIDENTALIS	HACKBERRY	2-2 1/2" CAL.
24	GB	GINKGO BILOBA	GINKGO	2-2 1/2" CAL.
10	GT	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SKYLINE'	SKYLINE THORNLESS HONEYLOCUST	2-2 1/2" CAL.
2	QR	QUERCUS RUBRA	RED OAK	2-2 1/2" CAL.



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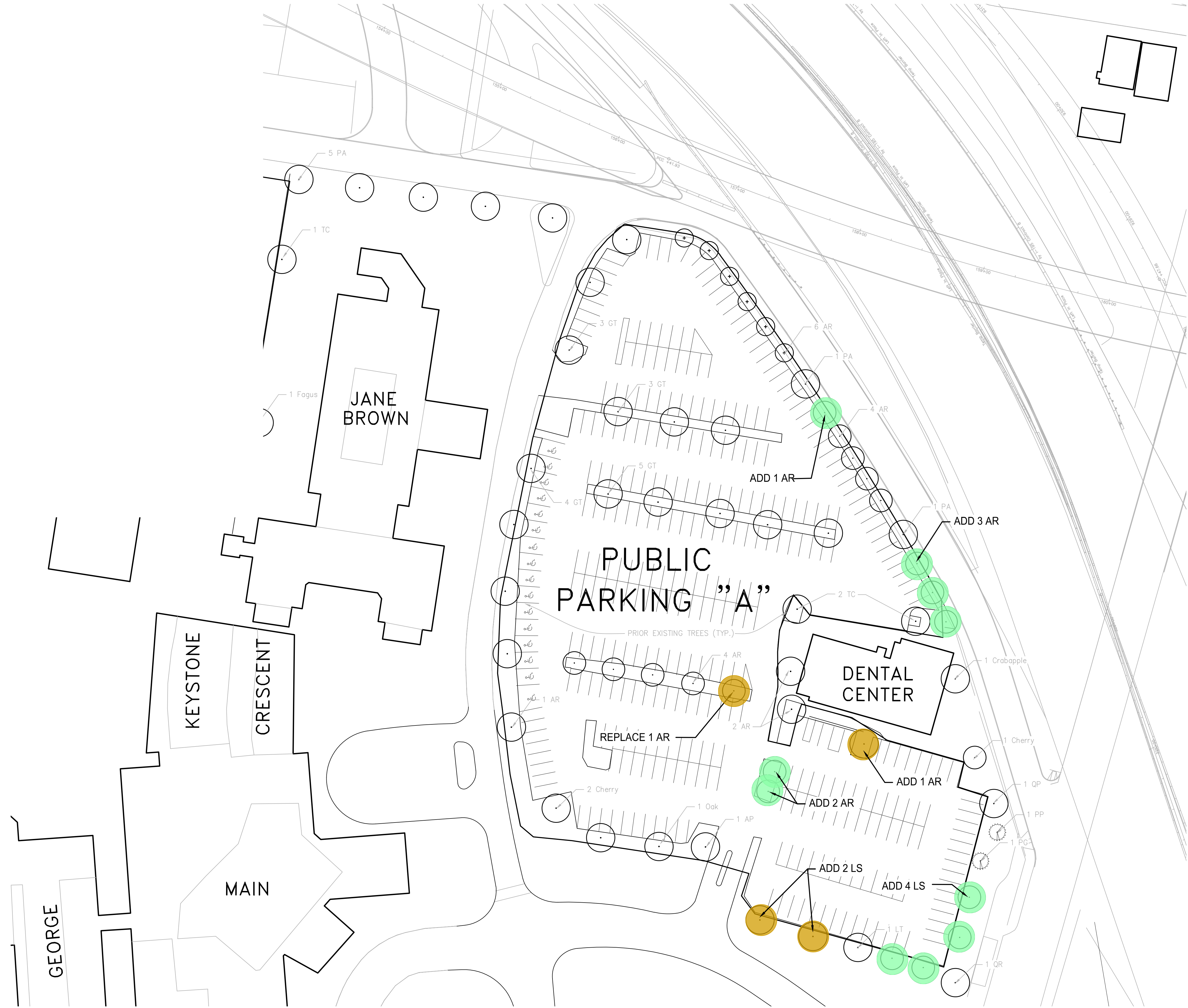
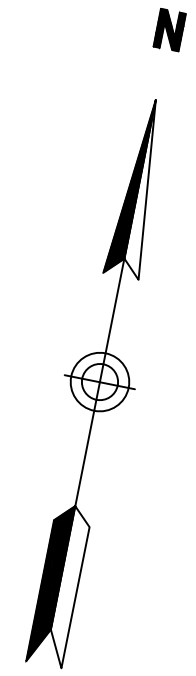
Sheet 7 of 10

Project Number
73261.00

L-6 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
2	SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	2-2 1/2" CAL
2	AA	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2-2 1/2" CAL
3	GB	GINKGO BILOBA	GINKGO	2-2 1/2" CAL
2	GD	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-2 1/2" CAL
2	QP	QUERCUS PALUSTRIS	PIN OAK	2-2 1/2" CAL
2	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2 1/2" CAL

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L-7 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
8	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.
6	LS	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2-2 1/2" CAL.



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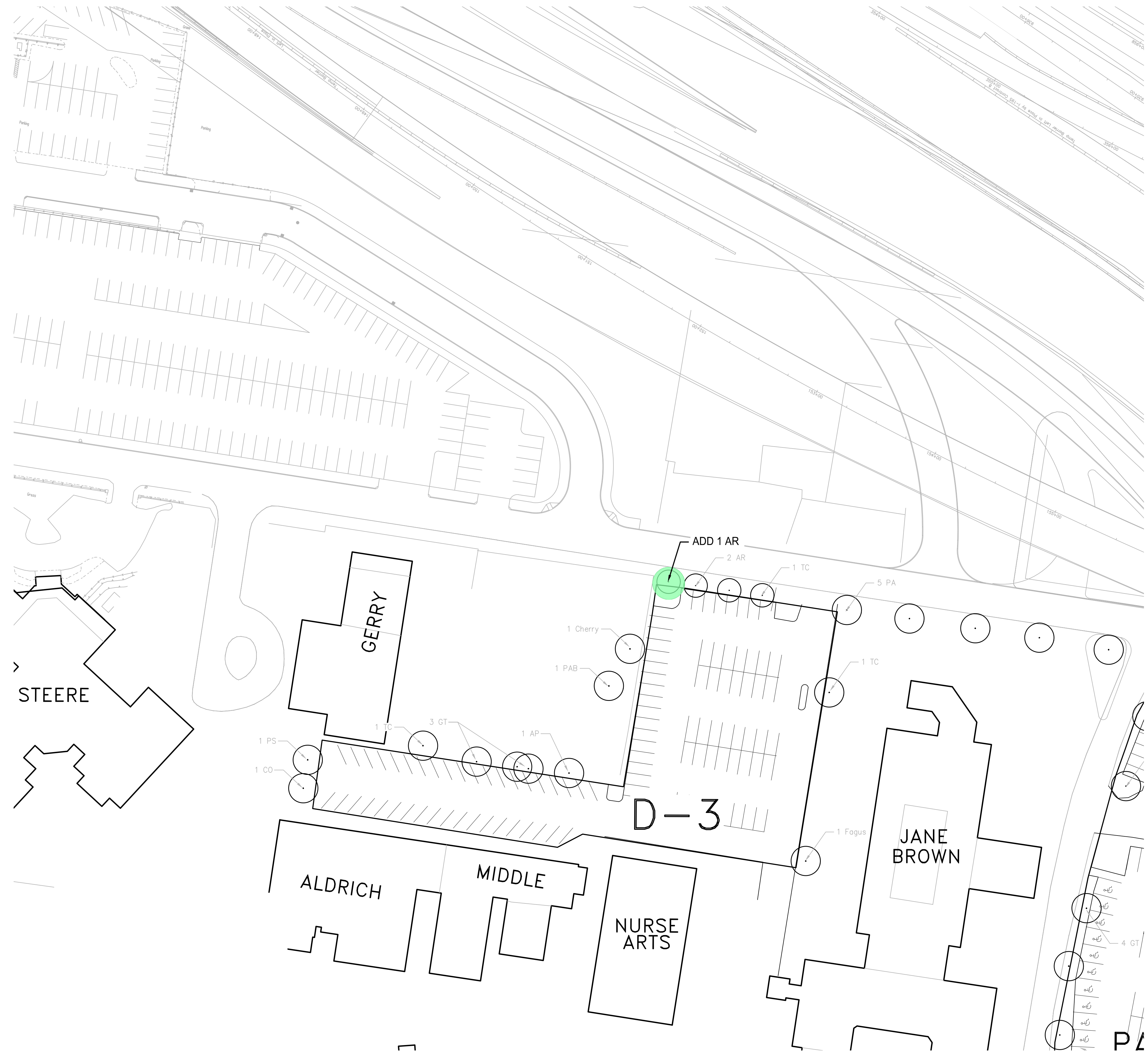
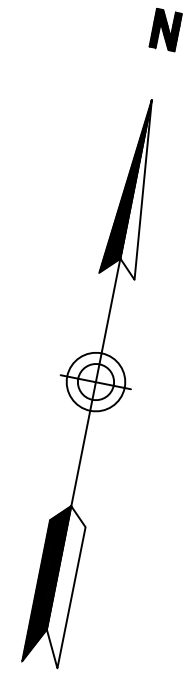
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L-8 PLANT LIST				
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
1	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-2 1/2" CAL.

TRANSPORTATION STUDY

Rhode Island Hospital Campus Providence, Rhode Island

PREPARED FOR

Rhode Island Hospital
Providence, RI

PREPARED BY



1 Cedar Street, Suite 400
Providence, RI 02903
401.272.8100

December 2021

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Introduction and Executive Summary

Introduction

Rhode Island Hospital (RIH) has retained Vanasse Hangen Brustlin (VHB), Inc. to perform a transportation study of the area surrounding the hospital. The study is an update of a prior study conducted by VHB in September 2016, hereinafter referred to as the "2016 Study". This document summarizes the existing transportation system serving the hospital; identifies parking issues; identifies areas of traffic congestion; and discusses possible improvement measures to improve existing deficiencies and enhance future traffic operations. Based on discussions with the City of Providence Department of Planning & Development (Providence Department of Planning), VHB has been directed to reduce the scope of this year's study.

Study Methodology

The following tasks were key components of the methodology in assessing the existing and future transportation conditions within the study area:

- › Inventory of the roadway infrastructure surrounding the hospital areas
- › Review of existing parking facilities
- › Inventory of public transportation and shuttle services
- › Identification of planned transportation improvement projects

- › Review of RIH's current Transportation Demand Management (TDM) strategies
- › Review of other projects in the area surrounding the RIH area that may affect future transportation system operation
- › Assessment of existing and future patient and staffing levels
- › Evaluation of the impact of future hospital growth on the transportation system
- › Development of a transportation improvement program aimed at improving transportation operations in the area
- › Observations of traffic and pedestrian flows

As previously stated, VHB has been directed to reduce the scope of this year's study. Transportation studies prepared in conjunction with previous Institutional Master Plan (IMP) included a detailed evaluation of thirty-seven (37) intersections using standard traffic engineering analysis techniques to establish the baseline that will be used to identify incremental impacts of future traffic growth and the effect of potential improvement measures. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections. The collection of daily and peak period traffic and pedestrian counts was therefore not included in this study.

Executive Summary

This study provides a comprehensive review of the transportation system serving the hospitals and summarizes the analysis of existing and future parking conditions. The following section provides a brief summary of the analysis and the study findings.

Existing Conditions

The transportation analysis contained in this report focuses on a study area generally bounded by Point Street and Interstate Route 95 to the north, Public Street and Potters Avenue to the South, Eddy Street to the east and Broad Street to the west. The study includes analyses and descriptions of:

- › On-street and off-street parking facilities serving RIH
- › Public transportation services
- › Transportation demand management (TDM) programs

As previously discussed, the Providence Department of Planning directed VHB to reduce the scope of this study; therefore, the following items were not included in this report:

- › Traffic operations at thirty-seven (37) intersections and along the surrounding roadway network
- › Pedestrian facilities and patterns

Vehicular Access and Roadway Conditions

The RIH campus area is serviced by an off-ramp from Interstate Route 95 Southbound which intersects Eddy Street, north of Dudley Street. Vehicles can also access the campus area from I-195 westbound via an off-ramp which intersects Eddy Street at Willard Avenue. Northbound vehicles on I-95 exit at Thurbers Avenue (Exit 18) and turn onto Eddy Street northbound to access the RIH campus. Additionally, some of the northbound vehicles on I-95 also access the campus via Point Street (Exit 20). The choice of the exit is based on the parking directions provided on the RIH website.

Vehicles exiting the campus and destined to I-95 and I-195 use the Point Street interchange. I-95 South can also be accessed to the south of the hospital at the Thurbers Avenue on-ramp. I-195 East can also be accessed via Eddy Street and Point Street, by the India Street On-Ramp east of the Point Street Bridge.

The hospital area is bisected by Dudley Street and Blackstone Street, and is bordered by Prairie Avenue, to the west. These roadways, in addition to Plain Street, Pearl Street, Crary Street, Borden Street and Willard Avenue, provide local access to the hospitals.

Traffic Volumes and Traffic Operations

During the course of the study, VHB observed traffic conditions along the various roadways and intersections within the study area. Feedback provided by RIH relative to existing traffic operations was also taken into consideration. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the collection of traffic data and the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections; however, a few general traffic observations are noted below.

Based on general observations during November and December 2021, congestion and other operational deficiencies have remained consistent with observations from past Institutional Master Plan planning efforts. Although there have been traffic volume and pattern changes due to the pandemic, Eddy Street and Point Street were identified as the two areas that are most congested.

In regard to the existing traffic signal operations, it should be noted that the City of Providence made a decision to program a pedestrian recall within all city owned traffic signal controllers during the pandemic. This means that any traffic signal phase that has an associated pedestrian interval assigned to it will be serviced every cycle, even if there are no pedestrians present at the intersection. A pedestrian recall impacts the ability of the traffic signal controllers to reallocate green time to other phases and reduce delays/queues at the intersection. The increases in delays and queues due to this decision by the City could have impacts on response times to the hospital. If the City chooses to keep the pedestrian recalls in place on a permanent basis, they will continue to impact traffic in the study area under future conditions.

Parking

On-Street Parking

On-street parking plays a modest role in accommodating RIH parking activity. Spot counts conducted in November and December of 2021 show that most of the designated time-limited parking spaces within the immediate vicinity of the hospital are fully used during the midday. It should also be noted that the signs restricting parking along most study area roadways in poor condition with many signs missing or faded, making it difficult to determine where parking is restricted.

Off-Street Parking

The off-street parking at the main campus totals 4,266 parking spaces, including some 100 employees parked remotely at the CORO garage. Rhode Island Hospital provides self-parking and valet-parking options for its visitors and patients. In total, there are 1,554 public parking spaces among the various RIH parking facilities. About two-thirds of the RIH parking, some 2,232 spaces, is used for RIH staff parking.

The visitor/patient parking demand has dropped since the 2016 Study due to the impacts of the COVID pandemic and new hospital policies that have been implemented. It is expected that many of the policies will remain in place and current conditions are representative of the “new normal”; therefore, the parking demand will remain lower than previous studies. The employee and doctor lots continue to be at or near capacity, which is consistent with previous studies, although management strategies have been adapted. As in past years, excess parking capacity for visitor cars remains in the Willard Avenue Garage and additional parking for employees is currently available in the CORO Garage.

Public Transportation and Shuttles

The RIH campus area is served by several Rhode Island Public Transit Authority (RIPTA) routes as well as several hospital related shuttles. Four RIPTA bus routes (1, 3, 4, and 6) provide services to RIH and the R-Line bus route provides service to stops on Broad Street. RIH also provides shuttles that operate between the main campus and the CORO center as well as to employee parking lots, and the RIH facilities off of Allens Avenue (south of Thurbers Avenue). The Brown Daytime Shuttle provides transportation from Brown University to Downtown Providence, the Jewelry District and RIH for Brown and RISD students, faculty, and staff.

Pedestrian Activity

As previously stated, the Providence Department of Planning directed VHB to forgo the collection of pedestrian and traffic volumes in the study area. The majority of the pedestrian activity throughout the study area was along routes to/from the parking areas. Compared to the 2016 Study, employee pedestrian volumes overall have remained comparable; however, visitor pedestrian volumes have reduced due to new protocols implemented due to the pandemic which are expected to remain in

place. In general, the pedestrian activity during the afternoon peak period was higher than the morning peak period due to the greatest combination of employees and visitors.

Transportation Demand Management

RIH provides a number of transportation demand management (TDM) programs, which are designed to reduce the number of vehicle trips and the amount of parking. This program includes the following elements.

- › RIPTA Pass Program where passes can be purchased
- › Remote parking at the CORO Center with shuttle service to the main campus
- › Facilities on-site including multiple ATM locations, cafeteria, pharmacy, chapel, and a gift shop

Future Conditions

Transportation conditions in and around the RIH campus area are not expected to significantly change in the future. There may be some minor growth in traffic volumes associated with generalized regional growth and traffic growth due to specific projects near the RIH campus area (there are currently no major projects that are proposed). There is no proposed growth of RIH operations due to known projects that would result in traffic or parking growth. As previously noted, the Providence Department of Planning directed VHB to forgo the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections.

Transportation System Improvements

Based on discussions with the RIDOT and City of Providence Planning Department, there are no major infrastructure improvements proposed in the study area. The 2016 Study identified two projects that were being proposed (the Eddy Street Corridor Improvements/Dudley Street Extension project and the Downtown Transit Corridor project).

One of the remaining elements of the RIDOT I-195 relocation (IWAY) project includes corridor improvements along Eddy Street and the extension of Dudley Street to the east of Eddy Street to connect with Blackstone Street. This project will improve access to the hospital from the south by shifting traffic from Eddy Street to Allens Avenue, which is less congested. The design of this project is currently being reevaluated. It is recommended that the RI Hospital remain actively involved in the design process to ensure that their transportation needs are addressed in the final design plans. The Downtown Transit Corridor (DTC) project has been completed.

Traffic Growth

Transportation conditions in and around the RIH campus area are not expected to significantly change in the future. There may be some minor growth in traffic

volumes associated with generalized regional growth and traffic growth due to specific projects near the RIH campus area (there are currently no major projects that are proposed).

As part of this study, employee/staff and in- and out-patient growth projections were reviewed. The review suggested that little or no growth was expected at RIH.

Through discussions with the Providence Department of Planning and Department of Traffic Engineering, there are no major projects identified near the study area that would have any major impacts on traffic operations. Additional development is anticipated in areas that were opened up as a result of the relocation of I-195 which can be expected to have an impact on future traffic operations north of the RIH campus area. However, since specifics about such initiatives are not known at this time, traffic associated with these projects is not included in this study.

2026 Traffic Analysis

Based on discussions with the Providence Planning Department, VHB was directed to forgo the preparation of a detailed traffic assessment of the traffic operations. Based on this direction, VHB has not projected future traffic volumes or performed traffic analysis.

Projected Parking Conditions

Based on a review of employee/staff and in- and out-patient growth projections, there is projected to be little or no growth. Over the next five years, the changes within the RIH parking system will relate more to relocating employees/staff from lots that are over capacity to lots with available capacity. Any additional staff parking required can be accommodated by assigning more employees to the CORO Garage.

If additional spaces should be required for patients/visitors, they can be accommodated in the current parking system without increasing the parking supply. Any new patient/visitor parking can be accommodated in the Willard Avenue Garage, the Dudley Street Garage, or by valet parking.

Improvement Measures

The following potential improvement measures have been identified to improve traffic operations under existing and future traffic volume conditions.

Roadway Infrastructure Improvements

Potential roadway infrastructure improvements were presented in the previous 2016 Study and included a comparison of the capacity analysis results for the study locations under the "2021 Projected" and "2021 Projected with improvement measures". The improvements and analysis are still relevant in addressing traffic congestion in existing "hot spot" locations and should still be considered. It should be noted that any improvements to study area roadways and intersections will not

only benefit the general public and hospital employees/visitors/patients, but it will also improve the travel times of the RIH shuttles and RIPTA busses.

Eddy Street Corridor Improvements/Dudley Street Extension

The Eddy Street corridor represents one of the congestion “hot spots” within the RIH campus area that requires further review and identification of potential capacity enhancement measures. There are times when congestion from the Eddy Street/Thurbers Avenue intersection extends past the RIH campus area (especially when there is an “incident” on Interstate Route 95).

As stated in the Future Conditions chapter, there were two projects that were identified in the 2016 Study that would impact traffic conditions along the Eddy Street Corridor (the Eddy Street Corridor Improvements/Dudley Street Extension project and the Downtown Transit Corridor project).

The design of the remaining elements of the RIDOT I-195 relocation (IWAY)IWAY project is currently being reevaluated. It is recommended that the RI Hospital remain actively involved in the design process to ensure that their transportation needs are addressed in the final design plans.

Previous concept plans for the Eddy Street Corridor have considered restriping and minor widening to provide improvements. Other modifications were also considered including converting Blackstone Street to one-way eastbound from Culver Street to Eddy Street and restriping it as two eastbound. These various plans should be discussed with the city and RIDOT.

In addition to the specific improvements identified for locations along the corridor, it is recommended that, when exploring future development potential along Eddy Street near RIH, uses that generate high traffic volumes not be as they could further exacerbate the existing congestion on the roadway. It is also recommended that access management principles be applied to Eddy Street in the area of RIH to limit the number of curb cuts and related vehicle conflicts along this stretch of roadway.

Point Street Corridor

Another congestion “hot spot” identified with significant impacts to RIH related traffic operations is the Point Street corridor. Potential measures to improve overall traffic operations in the area are included in this study.

Improvements to the Point Street intersections with Prairie Avenue, Beacon Street, and East Franklin Street should be considered.

Other Locations

Improvements at the following locations should also be considered:

- › Improvements to the Pearl Street intersections with Service Road/Gay Street and Prairie Avenue should also be considered.
- › The potential for extending Frank Street to Prairie Avenue, through the residential development west of Beacon Avenue, should be explored.

- › Although not included in the study area, it is recommended that the intersection of Eddy Street/Thurbers Avenue be reconstructed to incorporate capacity improvements.
- › If additional development occurs along Prairie Avenue, additional widening along Prairie Avenue and upgrades to the existing traffic signals at the intersections of Prairie Avenue/Public Street, Broad Street/Public Street, and Broad Street/Potters Avenue should be considered.

Improvements on Shuttles

RIH should review their current shuttle routes to determine if there are more efficient ways to get employees and visitors to and from the parking areas. Adjustments to the number of shuttles, number of routes, direction of travel, and times of arrivals/departures should all be evaluated.

Parking Improvements

The RIH parking system will continue to provide adequate parking for its patients, visitors, and staff over the next five years through active management of the RIH parking system. Any projected new parking demand can be accommodated in the existing parking system—at the Willard Avenue Garage and Dudley Street Garage for patient/visitor parking and at the CORO Garage for staff parking.

Transportation Demand Management

While RIH currently provides various TDM services, they should continue to look at ways to further encourage public transportation and reduce the number of vehicle trips and the required amount of parking on campus. At a minimum, this should include improved outreach to RIH employees including conversations with RIPTA about pass subsidy programs and other TDM measures.



2

Existing Conditions

Reviewing the existing transportation conditions and identifying the critical access and circulation issues are the first step in the development of the Rhode Island Hospital (RIH) Comprehensive Transportation Study. This chapter quantifies existing traffic, parking, pedestrian, and public transportation conditions on and around the hospital campus. For the purpose of this study, the “RIH campus area” refers to the network of buildings and parking areas making up RIH and the supporting roadway network.

Study Area

Rhode Island Hospital is located within the Upper South Providence neighborhood and abuts other Providence neighborhoods. Within the Upper South Providence neighborhood, the main hospital campus area is separated from Providence’s Jewelry District by Interstate Route 95. Downtown Providence is located to the north, the Lower South Providence neighborhood is located to the south, and the Elmwood and West End neighborhoods are to the west. The following institutions are within or near the hospital campus area in the Upper South Providence neighborhood:

- › Women & Infants Hospital of Rhode Island (W&I), a Care New England hospital, is located to the west of the RIH buildings. Women & Infants Hospital is bounded by Dudley Street to the south, Gay Street to the west, and Service Road to the north.

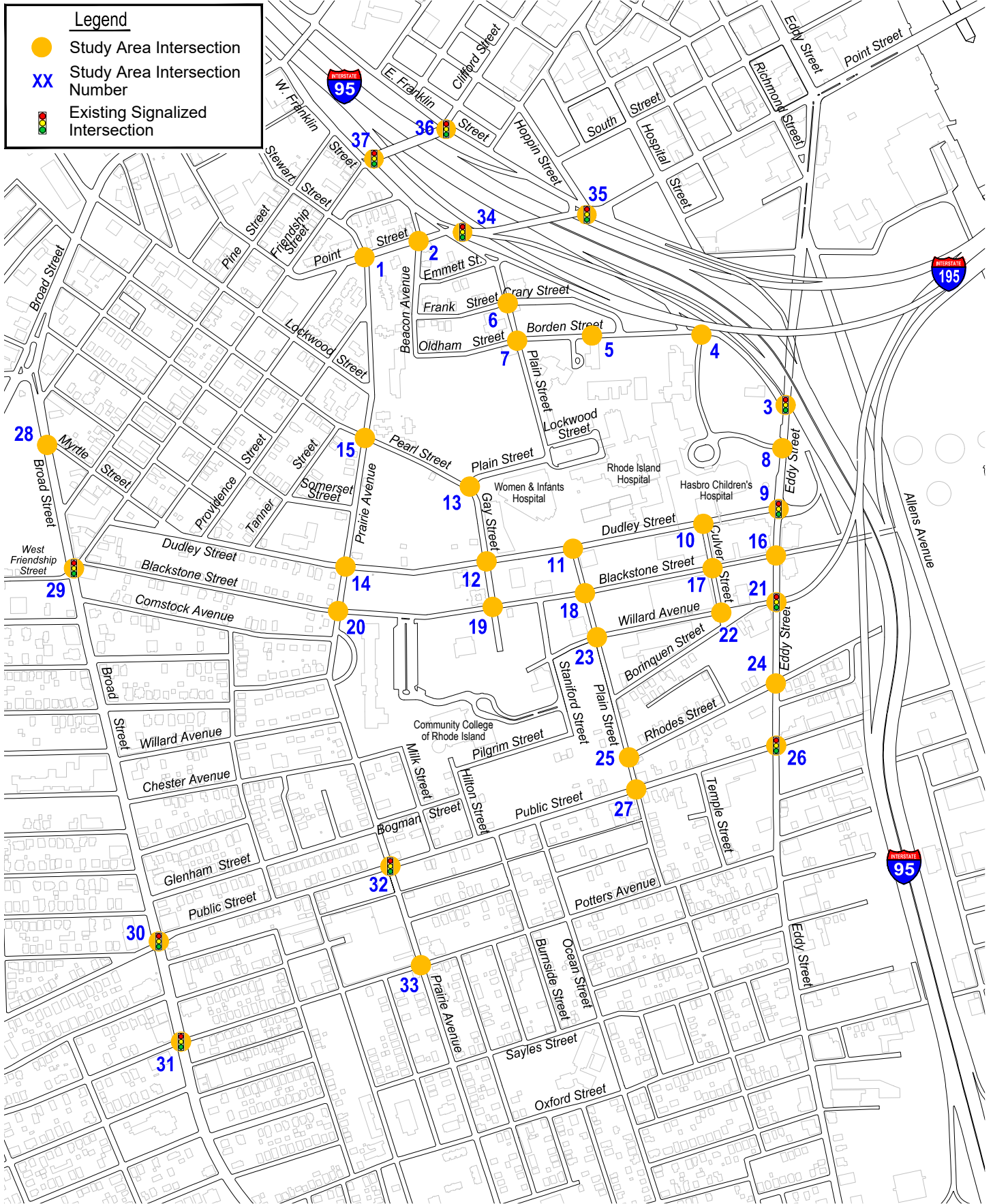
- › The Liston Campus of the Community College of Rhode Island, a public institution of higher learning, is located to the southwest of RIH on almost seven acres of land. The campus is generally bounded by Pilgrim Street to the south, Prairie Avenue to the west, Blackstone Street to the north, and Staniford Street to the east.
- › The Urban League of Rhode Island (ULRI) is a community-based, non-profit organization that educates and assists minorities. The ULRI is located on Prairie Avenue to the west of CCRI. It is bounded by Blackstone Street to the north and Chester Street to the south.
- › The Metropolitan Regional and Technical Center (The Met) is a group of small, public high schools open to all Rhode Island students in grades 9-12. The Public Street Campus is generally bounded by Public Street to the south, Hilton Street to the west, Pilgrim Street to the north, and Plain Street to the east.
- › The Community Preparatory School is an independent middle school, grades three through eight with enrollment of approximately 150 students. The school is located to the west of the main RIH campus area on the north side of Somerset Street between Tanner Street and Prairie Avenue.

These neighboring institutions also have an impact on transportation operations in the area. RIH and its neighbors depend on a transportation system that is comprised of various modes including automobiles, public transportation, bicycling, and walking.

The project study area is generally bounded by Point Street and Interstate Route 95 to the north, Public Street and Potters Avenue to the south, Eddy Street to the east and Broad Street to the west, as shown in Figure 2-1.

Transportation studies prepared in conjunction with previous Institutional Master Plan (IMP) included a detailed evaluation of thirty-seven (37) intersections using standard traffic engineering analysis techniques to establish the baseline that will be used to identify incremental impacts of future traffic growth and the effect of potential improvement measures. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections. This decision was based on the following:

- › Traffic volumes at study area intersections were significantly impacted due to the effects of the pandemic.
- › Traffic conditions have not returned to pre-pandemic conditions/patterns, in fact, they will likely continue to evolve.
- › The roadways and intersections have not fully reached the “new normal” peak traffic volumes and patterns because many businesses are still determining what the new hybrid of in-office/remote work environment will be.



Study Area
 Rhode Island Hospital/
 Women & Infants Hospital
 Providence, Rhode Island

Figure 2-1



- › There are no proposed major changes to the hospital that will significantly changes traffic conditions.

In regard to the existing traffic signal operations, it should be noted that the City of Providence made a decision to program a pedestrian recall within all city owned traffic signal controllers during the pandemic. This means that any traffic signal phase that has an associated pedestrian interval assigned to it will be serviced every cycle, even if there are no pedestrians present at the intersection. A pedestrian recall impacts the ability of the traffic signal controllers to reallocate green time to other phases and reduce delays/queues at the intersection. The increases in delays and queues due to this decision by the City could have impacts on response times to the hospital. If the City chooses to keep the pedestrian recalls in place on a permanent basis, they will continue to impact traffic in the study area under future conditions.

Vehicular Access

The following section describes the hospital area, vehicular access, and roadway circulation. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the collection of traffic volumes and the preparation of a detailed traffic assessment of the traffic operations.



Vehicular Access

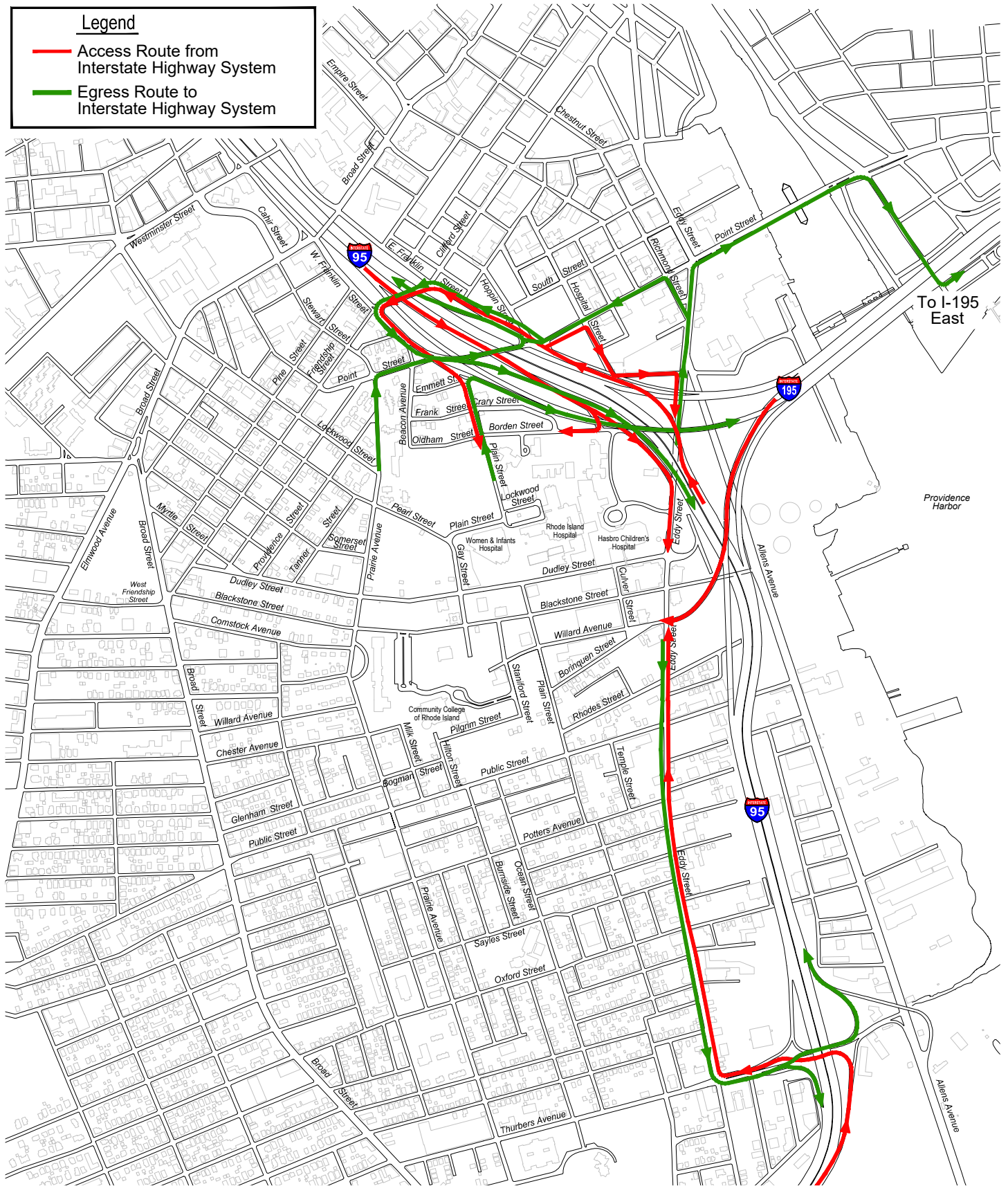
The RIH campus area is serviced by an off-ramp from Interstate Route 95 Southbound which intersects Eddy Street, a principal urban arterial that borders the campus to the east, north of Dudley Street. In addition, vehicles can access the campus area from I-195 westbound via an off-ramp which intersects Eddy Street at Willard Avenue. The campus area is also bisected by two urban collector roadways: Dudley Street and Blackstone Street, and is bordered by another urban collector roadway, Prairie Avenue, to the west. These roadways, in addition to several city streets such as Plain Street, Pearl Street, Crary Street, Borden Street, and Willard Avenue, provide vehicular access to the campus.

Interstate Highway Connections

The existing primary connections between the RIH campus area and I-95 and I-195 are shown in Figure 2-2. As shown, the I-95 South Eddy Street off-ramp (Exit 19) provides direct access to the RIH campus area for vehicles traveling south on I-95. From I-195 travelling west, vehicles traveling to the hospital area exit at Eddy Street (Exit 1B) and access the campus via Willard Avenue. Vehicles traveling northbound on I-95 exit at Thurbers Avenue (Exit 18) and turn onto Eddy Street northbound to access the RIH campus. Additionally, some of the northbound vehicles on I-95 also travel north of the Thurbers Avenue exit to access the campus via Point Street (Exit 20). The choice of the exit for vehicles traveling north on I-95 is based on the parking directions provided on the RIH website.

Legend

-  Access Route from Interstate Highway System
-  Egress Route to Interstate Highway System



0 500 1000 Feet



Primary Interstate Highway Connections **Figure 2-2**
Rhode Island Hospital/
Women & Infants Hospital
Providence, Rhode Island

Vehicles exiting the RIH campus and destined to I-95 North/South and I-195 East use the Point Street interchange. I-95 South can also be accessed to the south of the hospital at the Thurbers Avenue on-ramp. I-195 East can also be accessed via Eddy Street and Point Street, by the India Street on-ramp east of the Point Street Bridge.

Roadways

The primary roadways providing access to the hospitals are described below.

Eddy Street

Eddy Street is a north-south principal arterial roadway which runs from Ship Street in Providence's Jewelry District to Broad Street at the Cranston city line. Within the study area, Eddy Street is approximately 33 feet wide, with parking prohibited along both sides of the road. Eddy Street provides access to the RIH main entrance and to three hospital surface parking lots located on the east side of Eddy Street.

Traffic signals currently exist at the Eddy Street intersections with the I-95 South off-ramp, Dudley Street, the I-195 West off-ramp/Willard Avenue, and Public Street. The unsignalized intersections along Eddy Street are controlled by stop-signs on the east-west "minor street" approaches.

Dudley Street

Dudley Street is an east-west urban collector roadway which runs from Eddy Street to Friendship Street. Myrtle Street, a local roadway, provides a connection from Broad Street to Dudley Street, which is used for access to the RIH campus area. Dudley Street currently serves as the primary access roadway to the RIH campus from the east and provides direct access to the Emergency Department and several RIH buildings as well as Women & Infants Hospital. Within the study area, Dudley Street is approximately 30 feet wide. Parking is prohibited along both sides of the roadway from Prairie Avenue to Eddy Street with the exception of a short segment along the south side of Dudley Street east of Prairie Avenue.

Dudley Street/Eddy Street is a signalized intersection. The Dudley Street intersections with Gay Street and with Prairie Avenue are controlled by all-way stop signs, and the remaining unsignalized intersections along Dudley Street within the study focus area are controlled by stop signs on the north-south "minor street" approaches.

Blackstone Street

Blackstone Street is an east-west urban collector roadway which runs from Allens Avenue (Route 1A) to Broad Street/Friendship Street. Within the study area, Blackstone Street is approximately 20 feet wide west of Prairie Avenue, 25 feet wide between Prairie Avenue and Culver Street, and 22 feet wide between Culver Street

and Eddy Street. In the block between Prairie Avenue and Gay Street, Blackstone Street is one-way eastbound with parking generally allowed on the north side and prohibited on the south side. Between Plain Street and Culver Street four-hour multi meter parking is enforced between 8:00AM and 6:00PM.

The intersections of Blackstone Street with Gay Street and with Plain Street are controlled by all-way stop signs. At the intersections with Eddy Street and with Prairie Avenue only vehicles on Blackstone Street are required to stop. The remaining unsignalized intersections along Blackstone Street are controlled by stop signs on the north-south "minor street" approaches.

Prairie Avenue

Prairie Avenue is a north-south urban collector roadway which runs from Point Street to Broad Street. Within the study area, Prairie Avenue is approximately 30 feet wide, although in the area just south of Point Street, Prairie Avenue is approximately 24 feet wide. In general, there are currently no signs restricting parking along the east side of Prairie Avenue and signs restricting parking along the west side, except in a few segments. It can be assumed that parking is allowed along the eastern side of the roadway, except where the roadway geometry would prohibit vehicles from safely parking. Few vehicles were observed parking along Prairie Avenue, except between Pearl Street and Dudley Street and just north of Pearl Street where all potential spaces were typically occupied.

The intersection of Prairie Avenue and Public Street is controlled by a traffic signal. The Prairie Avenue intersections with Point Street, Pearl Street, Dudley Street, and Potters Avenue are currently controlled by all-way stop signs, and the intersection with Blackstone Street is controlled by stop signs on the Blackstone Street eastbound approach.

Plain Street

Plain Street is a north-south local roadway that runs from West Franklin Street to Lockwood Street/Service Road north of Women & Infants Hospital. South of Women & Infants Hospital, Plain Street runs from Dudley Street to Potters Avenue. Within the study area, Plain Street is approximately 24 feet wide with parking generally restricted on both sides between Dudley Street and Willard Avenue. From Willard Avenue to Borinquen Street parking is restricted on the east side but is not restricted on the west side. From Borinquen Street to Public Street, there are currently no signs restricting parking, so it is assumed that parking is allowed. Parking is generally restricted on both sides of the northern section of Plain Street (between Emmett Street/Service Road and Lockwood Street; however, there are missing signs including the section between Oldham Street/Borden Street and Frank Street/Crary Street.

The intersection of Plain Street/West Franklin Street and Point Street is controlled by a traffic signal. The intersection of Dudley Street with Plain Street is stop controlled on Plain Street only. The intersections of Plain Street with Frank Street/Crary Street, with Blackstone Street, with Willard Avenue, and with Public Street are controlled by all-way stop signs. The remaining unsignalized intersections along Plain Street within the study area are controlled by stop signs on the east-west "minor street" approaches.

Willard Avenue

Willard Avenue is an east-west local roadway that runs from Eddy Street to Staniford Street and from Prairie Avenue to Broad Street. Within the study area, Willard Avenue is approximately 24 feet wide, with parking generally prohibited along both sides of the road. Parking is allowed on the south side of the roadway west of Plain Street. Willard Avenue is one-way westbound between Eddy Street and Plain Street, and two-way between Plain Street and Staniford Street and from Prairie Avenue and Broad Street.

The intersection of Willard Avenue with Plain Street is all-way stop controlled. The intersection of Willard Avenue and Culver Street/Borinquen Street is controlled by stop signs on the Culver Street/Borinquen Street approaches. The intersection of Willard Avenue and Eddy Street is controlled by a traffic signal.

Public Street

Public Street is an east-west minor arterial roadway which connects Elmwood Avenue (Route 1) to Allens Avenue. Within the study area, Public Street is approximately 30 feet wide. Currently, there are signs restricting parking along Public Street between Eddy Street and Prairie Avenue on the southern side of the roadway. There are no parking restrictions along the north side of Public Street. Few parked vehicles were observed along the roadway with the exception of a few vehicles and vans related to the Met School located between Hilton Street and Plain Street. Land use along Public Street is a mix between residential and institutional developments, with a few businesses.

Traffic signals exist at the study area intersections of Public Street with Eddy Street, Prairie Avenue, and Broad Street. The unsignalized intersection of Public Street with Plain Street is controlled by all-way stop signs.

Broad Street

Broad Street is a north-south principal arterial roadway that runs from Empire Street to the Cranston city line. The roadway is approximately 43 feet wide in the area between Myrtle Street and Blackstone Street/Friendship Street. It widens near the signalized intersections with Public Street and Potters Avenue to provide for turning lanes. Parking is generally allowed along both sides of Broad Street.

Traffic signals exist at the study area intersections of Broad Street with Blackstone Street/Friendship Street, Public Street, and Potters Avenue. The unsignalized intersection of Broad Street with Myrtle Street is controlled by stop signs on the “minor street” approaches.

Observed Conditions

During the course of the study, VHB observed traffic conditions along the various roadways and intersections within the study area. Feedback provided by RIH relative to existing traffic operations was also taken into consideration. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the collection of traffic data and the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections; however, a few general traffic observations are noted below.

Based on general observations during November and December 2021, congestion and other operational deficiencies have remained consistent with observations from past Institutional Master Plan planning efforts. Although there have been traffic volume and pattern changes due to the pandemic, Eddy Street and Point Street were identified as the two areas that are most congested.

Traffic Signal Operations

As shown in Figure 2-1, there are twelve (12) existing signalized intersections within the study area. As previously noted, the Providence Department of Planning directed VHB to forgo the preparation of a detailed traffic assessment of the traffic operations of the signalized study area intersections. Based on this direction, VHB did not perform a review of signal equipment in the study area.

In regard to exiting traffic operations, it should be noted that the City of Providence made a decision to program a pedestrian recall within all city owned traffic signal controllers during the pandemic. This means that any traffic signal phase that has an associated pedestrian interval assigned to it will be serviced every cycle, even if there are no pedestrians present at the intersection. A pedestrian recall impacts the ability of the traffic signal controllers to reallocate green time to other phases and reduce delays/queues at the intersection. The increases in delays and queues due to this decision by the City could have impacts on response times to the hospital. If the City chooses to keep the pedestrian recalls in place on a permanent basis, they will continue to impact traffic in the study area under future conditions.

Traffic Volumes

Per the direction of the Providence Department of Planning, no traffic data was collected.

Traffic Operations Analysis

Per the direction of the Providence Department of Planning, no traffic operations analysis was performed. Figure 2-3 shows the potential “hot spots” within the RIH Campus area that were identified in the 2016 Study. Based on general observations during November and December 2021, congestion and other operational deficiencies have remained consistent with observations from past Institutional Master Plan planning efforts. Although there have been traffic volume and pattern changes due to the pandemic, Eddy Street and Point Street were identified as the two areas that are most congested.

Parking

The RIH campus is served by an extensive system of off-street parking spaces and a small amount of on-street parking. In addition, RIH owns several other parking lots that are leased by Women and Infants Hospital. The following describes the current parking supply and peak parking utilization at the RIH.

On-Street Parking

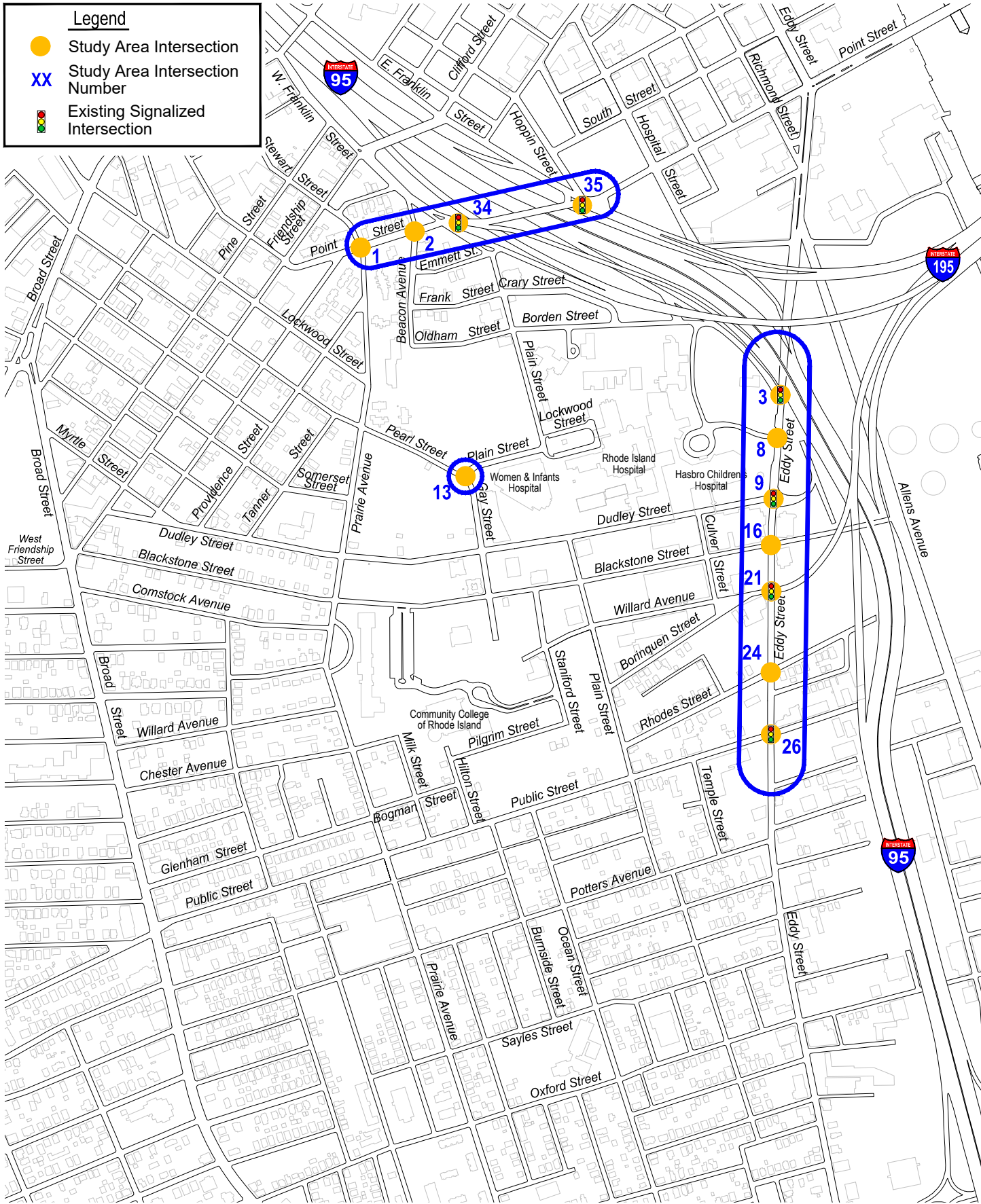
The on-street parking locations and posted restrictions near the RIH campus are illustrated on Figure 2-4. There are approximately 60 metered/multi-metered parking spaces close to the hospital; spread among Oldham Street, Pearl Street, Blackstone Street, and Culver Street. There are also a few non-metered on-street parking spaces on Gay Street near the Ronald McDonald House. Farther from the main hospital buildings, where land uses transition to residential neighborhoods, there are no posted on-street parking restrictions. Of note is that the informal parking that used to occur on the old I-95 off ramp at the intersection of Eddy Street and Dudley Street has been eliminated since the hospital’s last institutional master plan update.

On-street parking plays a modest role in accommodating RIH parking activity. Spot counts conducted in November and December of 2021 show that most of the designated time-limited parking spaces within the immediate vicinity of the hospital are fully used during the midday. There were as many as 90 cars parked near the hospitals on Oldham Street, Pearl Street, Gay Street, Blackstone Street and Culver Street.

The time-limited on-street parking is presumed to be used primarily by visitors. Farther from the hospital, some on-street parking without time limits used by employees was observed. There are typically about 25 cars parked on Prairie Avenue near Pearl Street that appear to be used by employees of Women and Infants Hospital. On-street parking by RIH employees was observed on Borinquen Street, Rhodes Street and Plain Street. There are an estimated 30 additional RIH employee vehicles among the other streets.

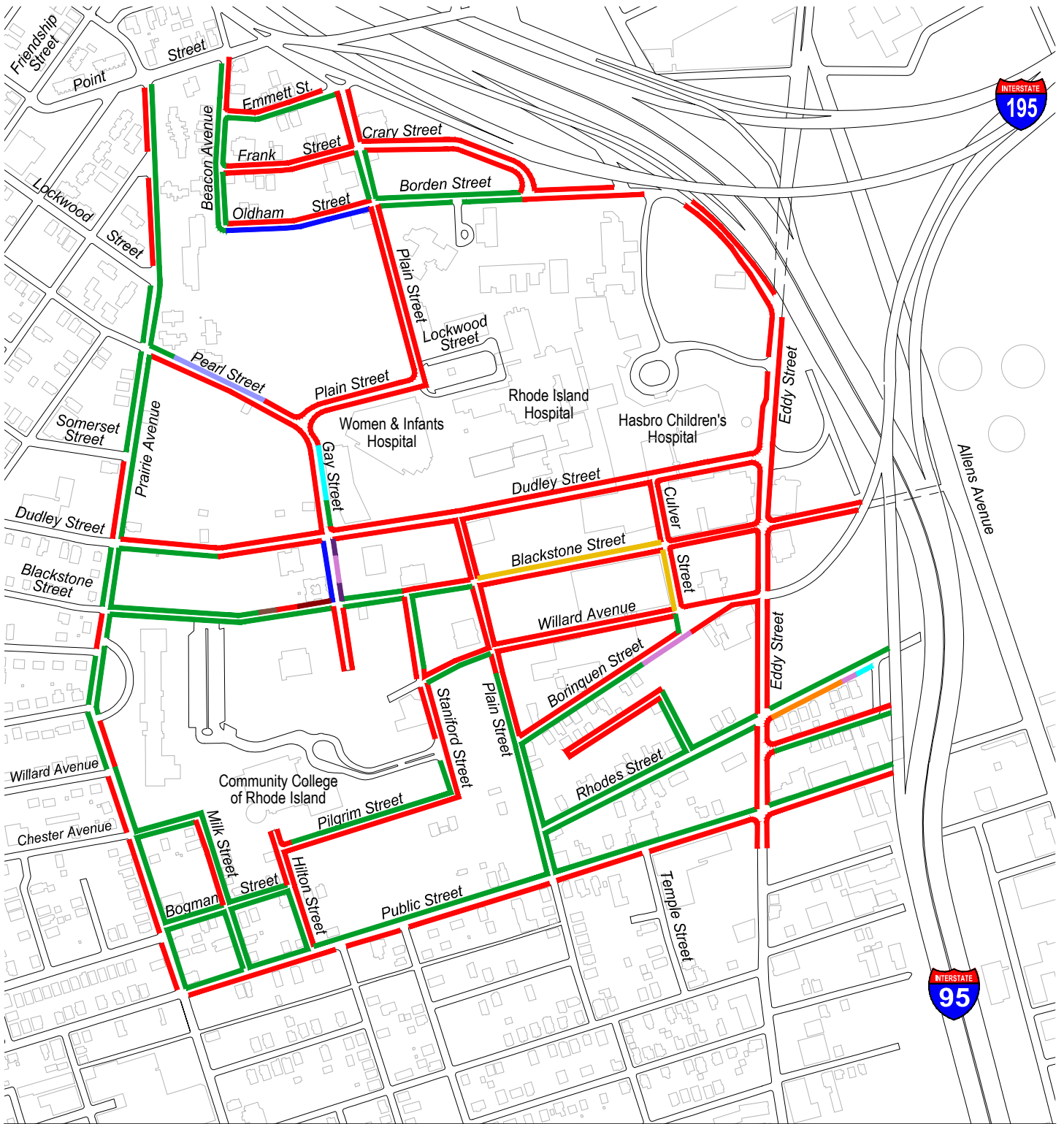
Legend

- Study Area Intersection
- XX Study Area Intersection Number
- 🚦 Existing Signalized Intersection



Study Area Hot Spots
Rhode Island Hospital/
Women & Infants Hospital
Providence, RI

Figure 2-3



Legend			
	No Parking		Four Hour Parking (8:00am - 6:00pm)
	No Parking (1:00pm - 5:00pm) School Days		One Hour Parking (8:00am - 6:00pm)
	No Clear Restriction Posted		Two Hour Parking (8:00am - 6:00pm)
	15 Minute Parking Pickup and Dropoff		Two Hour Metered Parking (8:00am - 6:00pm)
			Four Hour Metered Parking (8:00am - 6:00pm)
			Loading, Delivery, Courier, & Shuttle Parking
			Handicap Parking



Existing On-Street Parking
Rhode Island Hospital/
Women & Infants Hospital
Providence, Rhode Island

Figure 2-4

There is little double parking or illegal parking that occurs on streets near the hospitals. The exception is a section of Lockwood Street adjacent to Women and Infants Hospital. There are often as many as five or six W&I Hospital and contractor vehicles parked in this area.

It should also be noted that the signs restricting parking along most study area roadways in poor condition with many signs missing or faded, making it difficult to determine where parking is restricted.

Off-Street Parking

The off-street parking facilities at the RIH campus are depicted on Figure 2-5. As listed in Table 2-1, there are 4,266 parking spaces, including parking in two leased lots and some 100 employees parked remotely at the CORO garage.

Table 2-1 Off-Street Parking Facilities

VISITOR PARKING	Lot	No. of Spaces
Undesignated Visitor Parking	Plain Street Lot ¹	309
	Eddy Street Lot	348
	Dudley Street Garage ²	286
	Willard Avenue Garage	447
Designated Visitor Parking	P-1 (Valet, Oncology)	49
	P-2 (HC, MRI)	38
	P-3 (Hasbro)	14
	P-5 (HC)	6
	P-6 (Short-term)	12
	P-7 (Valet) ³	45
	Subtotal: Visitor Parking	
EMPLOYEE PARKING:	Lot	No. of Spaces
	E-1 ⁴	507
	E-2 (Leased)	102
	E-3	44
	E-6	68
	E-7	619
	E-9	254
	E-10	297
	E-11	134
	Borden Street (leased)	107
	CORO Garage ⁶	100
Subtotal: Employee Parking		2,232
PHYSICIAN PARKING:		
	D-1	21
	D-2	133
	D-3	80
	D-4	55
	D-5	122
	D-7	69
Subtotal Physicians:		480
TOTAL RIH Parking		4,266

1. Count for Plain Street Lot does not include 100 spaces typically used by W&I visitors and patients
2. 81 spaces blocked for COVID Testing (some construction vehicles/materials also parked in this area)
3. 45 is minimum capacity of P-7. Additional cars could be tandem parked if necessary
4. Construction fence blocked off 9 spaces due to ongoing work on 690 Eddy Street
5. 125 is minimum capacity. Parking lot is gravel, without marked spaces.
6. There are more than 900 spaces at the CORO Garage. Approximately 100 are used by employees from the RIH campus
7. Excludes 43 spaces used by W&I staff

RIH Public Parking

Rhode Island Hospital provides self-parking and valet-parking options for its visitors and patients. The primary public parking areas at RIH are the Eddy Street Lot, the Plain Street Lot, the Dudley Street Garage, and the Willard Avenue Garage. One of the public parking lots, the Eddy Street Lot, is shared with W&I visitors. Valet parking is available at Hasbro, the Ambulatory Patient Center, and the Medical Office Complex.

In addition to the primary public parking areas, there are also some small public parking lots that are restricted to specific users, such as patients with disabled parking placards, dialysis patients, etc. In total, there are 1,554 public parking spaces among the various RIH parking facilities.

The standard fees for the public parking areas are \$5.00 for those parking 30 minutes to two hours, \$6.00 for two to four hours, and \$7.00 for four to 24 hours. There are also some discounted parking rates, such as for family members of in-patients and patients coming to the hospital regularly for outpatient services.

RIH Staff Parking

About two-thirds of the Rhode Island Hospital parking, some 2,712 spaces, is used for RIH staff parking. There are 480 parking spaces among six lots used by physicians, and 2,232 spaces among the ten parking lots used by employees. Two of the employee parking lots, E-2 and the Borden Lot, and one of the doctor's lots (D-7) are leased.

Utilization of Off-Street Parking

The 2016 Study noted that most parking lots were full on the busiest days of the week during the peak months, but excess parking for visitors was available in the Willard Avenue Garage and any temporary excess parking for employees was managed by tandem parking. The 2016 Study also noted that parking is managed as necessary to ensure adequate parking availability.

The visitor/patient parking demand has changed due to the impacts of the COVID pandemic and new hospital policies that have been implemented. Based on these factors, the parking demand for visitors/patients has dropped since the 2016 Study. It is expected that many of the patient/visitor policies will remain in place; therefore, the parking demand will remain lower than the prior studies. Based on discussions with Lifespan, the November 2021 parking conditions are representative of the new normal regarding parking demand conditions at the hospital. The employee and doctor lots continue to be at or near capacity. The utilization of the employee and doctor lot parking system today is comparable to past years, although management strategies have been adapted.

There are currently obstructions in several parking lots that reduce the total number of available parking spaces during the parking occupancy counts performed in November and December 2021. There were 81 parking spaces blocked off in the Dudley Street Garage that were designated for COVID testing and a few spaces were occupied by construction vehicles and materials. Employee lot number E-1 had 9 spaces blocked by construction fencing. Based on historic plans, a drive aisle has been added to the north end of the lot which resulted in the loss of additional spaces. Parking lot number P-7 is currently used to store shuttle busses.

Excess parking capacity for visitor cars remains in the Willard Avenue Garage. Spot counts during November and December 2021 indicate that at least 150 parking spaces are available even on busy days. In addition, valet parking operations have been enhanced during the past five years and there is the ability to store more cars in the valet park storage areas (such as P-7, which is currently being used for shuttle bus storage) if need be.

As stated in the 2016 Study, the most substantial change in the management of employee parking over previous studies is the change from using attendants for tandem parking in employee lots to leasing additional parking (Borden Street) instead. As in past years, additional parking for employees is currently available in the CORO Garage. The hospital routinely tracks the availability of parking in the CORO Garage

Public Transportation

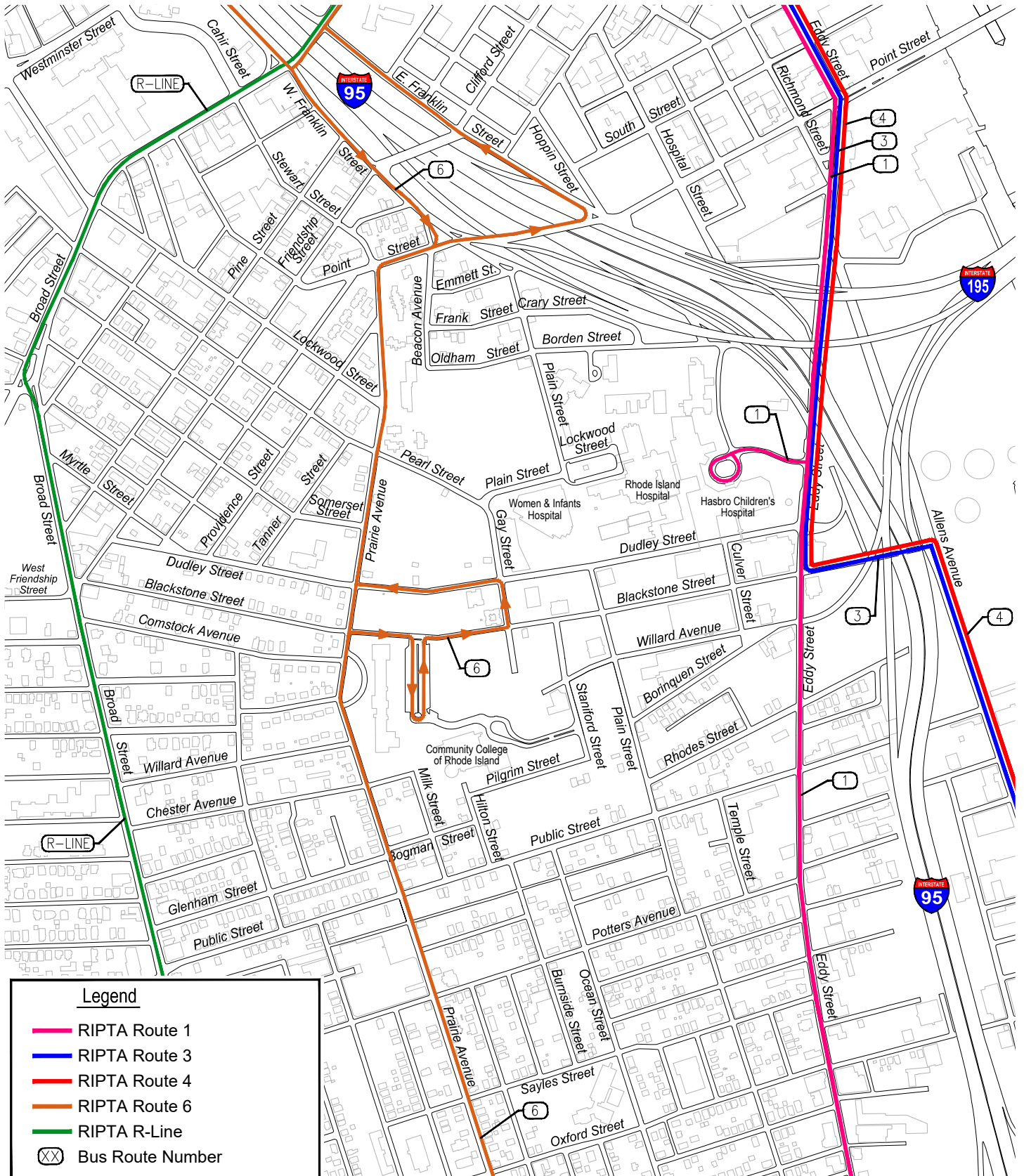
The RIH campus area is served by several Rhode Island Public Transit Authority (RIPTA) routes, as shown in Figure 2-6. Commuters without direct service from their area can take any bus service to Kennedy Plaza and transfer to any of the four routes described below to reach the RIH area.

Bus Service

There are several existing RIPTA bus routes that currently serve the RIH campus area:

- › Route 1 Eddy/Hope/Benefit (all trips serve study area)
- › Route 3 Oakland Beach (all trips serve study area)
- › Route 4 Warwick Avenue
- › Route 6 Prairie/R.W. Zoo (all trips serve study area)
- › R-Line (all trips travel along Broad Street, proximate to the study area)

A brief description of the routes that service the RIH area on all trips throughout the day is included below. The R-Line provides frequent service along the Broad Street corridor, which is at the western end of Blackstone Street, approximately one-half mile from the RIH campus area.



Legend

- RIPTA Route 1
- RIPTA Route 3
- RIPTA Route 4
- RIPTA Route 6
- RIPTA R-Line
- Bus Route Number



Route 1 Eddy/Hope/Benefit

Route 1 operates on to approximately 20-minute headways during the weekday hours. This route connects T.F. Green Airport in Warwick with the South Attleboro commuter rail station in Massachusetts with stops in Warwick, Cranston, Providence, and Pawtucket. Key transfer points along the route include Rhode Island Hospital, Kennedy Plaza in Providence, Thayer Street in Providence, and the Pawtucket Transit Center.

Route 3 Oakland Beach

Route 3 operates on approximately 40-minute headways during the weekday hours and 35-minute headways otherwise. The route begins at Oakland Beach Road at Suburban Parkway in Warwick, Rhode Island, and continues to and along Warwick Avenue through Airport Road (Hoxsie Four Corners) and Post Road to Norwood Avenue in Cranston. From there, the route continues along Narragansett Boulevard, Allens Avenue, and Blackstone Street to Eddy Street where it stops outside of Rhode Island Hospital on the way to Kennedy Plaza and the Providence Train Station.

Route 4 Warwick Avenue

Route 3 operates on approximately 40-minute headways during the weekday hours. The route begins at Warwick Neck Avenue and Barton Avenue in Warwick, Rhode Island, and continues to and along Warwick Neck Avenue to Samuel Gorton Avenue, Longmeadow Avenue, Tidewater Drive, and West Shore Road to Warwick Avenue in Warwick. From there, the route continues along Warwick Avenue to Narragansett Parkway, Broad Street, Norwood Avenue, Narragansett Boulevard, Allens Avenue, and Blackstone Street to Eddy Street where it stops outside of Rhode Island Hospital on the way to Kennedy Plaza and the Providence Train Station.

Route 6 Prairie Avenue/Roger Williams Park Zoo

Route 6 operates on approximately every 30-minute headways during the weekday hours up to 60-minute headways otherwise. The route begins at the Roger Williams Park Zoo in Providence and continues along Broad Street then Prairie Avenue to stop at the CCRI Providence Campus and continues by making a loop around the RIH campus area before making its final stop at Kennedy Plaza.

R-Line

R-Line is a Rapid Bus, which operates on approximately 10-minute headways during the weekday hours. The route begins at the Pawtucket Transit Center and continues along Main Street to stop at Kennedy Plaza in Providence before making its final stop along Broad Street at Montgomery Avenue, which is the Providence/Cranston city line.

Shuttle Service

In addition to the various RIPTA routes serving the RIH and W&I campuses, there are several shuttle routes. RIH operates a shuttle service that runs continuously between the CORO Center parking garage and the Zecchino Pavilion (main building) as well as the Physician's Office Building (POB).

An additional shuttle van, referred to by RIH as the "Silver Bullet", runs between the RIH facilities off of Allens Avenue (south of Thurbers Avenue) and the Zecchino Pavilion (main building) entrance.

In addition, the Brown Daytime Shuttle provides transportation from Brown University to Downtown Providence, the Jewelry District and Rhode Island Hospital for Brown and RISD students, faculty, and staff.

Pedestrian Activity

Based on discussions with the Providence Department of Planning, VHB was directed to forgo the collection of pedestrian and traffic volumes in the study area. As previously described, Lifespan has stated that the November and December 2021 parking conditions are representative of the new normal regarding parking demand at the hospital. Due to the high density of parking areas and hospital destinations in these few blocks, pedestrian volumes vary widely from intersection to intersection. Significant hourly pedestrian volumes were observed in the following areas:

- › Crossing Blackstone Street at Culver Street, between the Willard and Dudley garages
- › Crossing Dudley Street at Culver Street, opposite the Dudley garage
- › Crossing Eddy Street at Blackstone Street, in the vicinity of parking lot E-1
- › Crossing Culver Street at Blackstone Street, between the Willard and Dudley garages

The majority of the pedestrian activity throughout the study area was along routes to/from the parking areas. Often, pedestrians followed paths away from the roadway. There was also heavy pedestrian activity observed at the midblock pedestrian crosswalks on Plain Street, Service Road, and Gay Street adjacent to the large parking areas. Compared to the 2016 Study, employee pedestrian volumes overall have remained comparable; however, visitor pedestrian volumes have reduced due to new protocols implemented due to the pandemic which are expected to remain in place. In general, the pedestrian activity during the afternoon peak period was higher than the morning peak period due to the greatest combination of employees and visitors.

Transportation Demand Management Programs

Rhode Island Hospital provides a number of transportation demand management (TDM) programs, which are designed to reduce the number of vehicle trips and the amount of parking. The following section describes the management program.

RIPTA Pass Program

As described in the Public Transportation section, the RIH campus area is served by several RIPTA bus lines in addition to various shuttles. Employees can purchase RIPTA monthly passes at Rhode Island Hospital.

Remote Parking at the CORO Center

As described in the Parking section, some employees working at the main RIH campus are assigned to parking at the CORO Center garage and travel to/from the main campus via RIH shuttle buses. This practice has been in place for many years. Currently about 100 parking spaces at the CORO Center garage are used for these employees. The CORO garage is readily accessible from I-95, I-195, and other primary routes and thus those parking there do not travel through the local roadway system near the main campus and do not contribute to congestion in that area.

Other Transportation Demand Management Techniques

Some of the facilities and services provided for patients and visitors within RIH serve as TDM measures, as additional trips to locations off-site are not required. These include multiple ATM locations, a cafeteria that is open daily, a pharmacy (open Monday through Friday from 7:00 AM to 11:30 PM weekdays and 8:00 AM to 4:30 PM on Saturday and Sunday), a chapel, and a gift shop.



3

Future Conditions

Transportation conditions in and around the RIH campus area are not expected to significantly change in the future. There may be some minor growth in traffic volumes associated with generalized regional growth and traffic growth due to specific projects near the RIH campus area (there are currently no major projects that are proposed). There is no proposed growth of RIH operations due to known projects that would result in traffic or parking growth. Based on discussions with the Providence Department of Planning, VHB was directed to forgo the preparation of a detailed traffic assessment of the traffic operations at the thirty-seven study area intersections.

Transportation Infrastructure Improvements

Based on discussions with RIDOT, the Providence Department of Planning, and Department of Traffic Engineering, there are no major infrastructure improvements proposed in the study area. The 2016 Study identified two projects that were being proposed (the Eddy Street Corridor Improvements/Dudley Street Extension project and the Downtown Transit Corridor project). The following is a summary of the status of these projects.

Eddy Street Corridor Improvements/ Dudley Street Extension

One of the remaining elements of the RIDOT I-195 relocation (IWAY) project includes corridor improvements along Eddy Street and the extension of Dudley Street to the east of Eddy Street to connect with Blackstone Street. One of the benefits of this connection is to provide an alternate route to hospital traffic that currently travels north on I-95 and takes the Thurbers Avenue exit. When the road extension is completed, it is expected that signage improvements will be implemented at the Thurbers Avenue exit to promote the use of Allens Avenue over Eddy Street for traffic destined to the RIH campus area. The design of this project is currently being reevaluated. It is recommended that the RI Hospital remain actively involved in the design process to ensure that their transportation needs are addressed in the final design plans.

These improvements will also include the elimination of what remains of the Eddy Street Off-Ramp. In the 2016 Study this abandoned off-ramp was used as free parking. These vehicles have been relocated to alternate locations.

Downtown Transit Corridor

The Downtown Transit Corridor (DTC) project has been completed. As previously stated, the City of Providence made a decision to program a pedestrian recall within all city owned traffic signal controllers during the pandemic. This means that any traffic signal phase that has an associated pedestrian interval assigned to it will be serviced every cycle, even if there are no pedestrians present at the intersection. A pedestrian recall impacts the ability of the traffic signal controllers to reallocate green time to other phases and reduce delays/queues at the intersection. The increases in delays and queues due to this decision by the City has impacts on transit operations and could have impacts on response times to the hospital. If the City chooses to keep the pedestrian recalls in place on a permanent basis, they will continue to impact traffic in the study area under future conditions.

Regional Traffic Growth

Transportation conditions in and around the RIH campus area are not expected to significantly change in the future. There may be some minor growth in traffic volumes associated with generalized regional growth and traffic growth due to specific projects near the RIH campus area (there are currently no major projects that are proposed).

Hospital Growth

As part of this study, employee/staff and in- and out-patient growth projections were reviewed. The review suggested that little or no growth was expected at RIH.

Site Specific Traffic Growth

Through discussions with the Providence Department of Planning and Department of Traffic Engineering, there are no major projects identified at this time near the study area that would have any major impacts on traffic operations.

Additional development is anticipated in areas that were opened up as a result of the relocation of I-195 which can be expected to have an impact on future traffic operations north of the RIH campus area. However, since specifics about such initiatives are not known at this time, traffic associated with these projects is not included in this study.

2026 Projected Traffic Volumes and Traffic Analysis

Based on discussions with the Providence Department of Planning, VHB was directed to forgo the preparation of a detailed traffic assessment of the traffic operations. Based on this direction, VHB has not projected future traffic volumes or performed traffic analysis of future conditions.

Projected Parking Conditions

Based on a review of employee/staff and in- and out-patient growth projections, there is projected to be little or no growth. Over the next five years, the changes within the RIH parking system will relate more to relocating employees/staff from lots that are over capacity to lots with available capacity

The amount of parking displaced by roadway projects may total as many as 30 spaces. The potential displaced parking includes about 30 on-street spaces, assumed to be used primarily by RIH visitors and patients, which might be displaced from Blackstone and Culver streets if Blackstone Street were made one-way to help improve traffic operations at the Blackstone/Eddy intersection.

If additional spaces should be required for patients/visitors, they can be accommodated in the current parking system without increasing the parking supply. Any new patient/visitor parking can be accommodated in the Willard Avenue Garage, the Dudley Street Garage, or by valet parking. There are typically more than 150 empty parking spaces in the Willard Avenue Garage even during the busiest

months. It should also be noted that there are currently 81 parking spaces blocked off in the Dudley Street Garage designated for COVID testing and a few spaces were occupied by construction vehicles and materials.

Any additional staff parking required can be accommodated by assigning more employees to the CORO Garage. On the busiest day during April, which is a peak month of the year for parking, there were 150 empty parking spaces. On most days there were more than 200 empty parking spaces.

Future Pedestrian and Transit Conditions

Based on discussions with the Providence Department of Planning and Department of Traffic Engineering, there are no major projects identified at this time near the study area that would have any major impacts on pedestrian operations or transit conditions.



4

Improvement Measures

This chapter identifies potential measures on the roadway network serving the RIH campus area with the goal of improving traffic operations under 2026 projected traffic conditions.

Roadway Infrastructure Improvements

Potential roadway infrastructure improvements are described in the following sections. These improvements were presented in the 2016 Study and included a comparison of the capacity analysis results for the study locations under the "2021 Projected" and "2021 Projected with improvement measures". The improvements and analysis showing the benefits are still relevant in addressing traffic congestion in existing "hot spot" locations and should still be considered.

Eddy Street Corridor

As depicted in Figure 2-3, the Eddy Street corridor represents one of the congestion "hot spots" within the RIH campus area that requires further review and identification of potential capacity enhancement measures. Although there are times when congestion from the Eddy Street/Thurbers Avenue intersection extends past the RIH campus area (especially when there is an "incident" on Interstate Route 95),

some of the potential measures to improve overall traffic operations in the area are described below.

As stated in the Future Conditions chapter, there were two projects that were identified in the 2016 Study that would impact traffic conditions along the Eddy Street Corridor (the Eddy Street Corridor Improvements/Dudley Street Extension project and the Downtown Transit Corridor project).

The remaining elements of the RIDOT I-195 relocation (IWAY) project includes corridor improvements along Eddy Street and the extension of Dudley Street to the east of Eddy Street to connect with Blackstone Street. One of the benefits of this connection is to provide an alternate route to hospital traffic that travels north on I-95 and takes the Thurbers Avenue exit. When the road extension is completed, it is expected that signage improvements will be implemented at the Thurbers Avenue exit to promote the use of Allens Avenue over Eddy Street for traffic destined to the RIH campus area. The design of this project is currently being reevaluated. It is recommended that the RI Hospital remain actively involved in the design process to ensure that their transportation needs are addressed in the final design plans.

Previous concept plans for the Eddy Street Corridor have considered restriping and minor widening to provide the following improvements:

- › Eddy Street northbound left-turn lane onto Willard Avenue
- › Two northbound through lanes on Eddy Street between Willard Street and Blackstone Street
- › Eddy Street northbound left-turn lane onto Dudley Street
- › Eddy Street southbound right-turn lane onto Dudley Street
- › Eddy Street northbound left-turn lane into the RI Hospital Main Entrance
- › Two southbound lanes on Eddy Street between Borden Street and the RI Hospital Main Entrance and increase the length of the bus bay
- › Restriping the Borden Street eastbound approach to Eddy Street to provide a shared left-turn/right-turn lane and a right-turn lane

Other modifications that were considered include the following:

- › Converting Blackstone Street to one-way eastbound from Culver Street to Eddy Street and restriping it as two eastbound lanes
- › Blackstone Street and the proposed new Dudley Street Connector were considered to be two way on the east side of Eddy Street under one alternative and one way on a different alternative

In addition to the specific improvements identified for locations along the corridor, it is recommended that, when exploring future development potential along Eddy

Street near RIH, uses that generate high traffic volumes not be considered on the east side of Eddy Street as they could further exacerbate the existing congestion on the roadway. It is also recommended that access management principles be applied to Eddy Street in the area of RIH to limit the number of curb cuts and related vehicle conflicts along this stretch of roadway.

Eddy Street/Blackstone Street

As the RIDOT Eddy Street Corridor/Dudley Street Extension and RIPTA/City of Providence Downtown Transit Connector (DTC) projects are designed, consideration should be given to converting Blackstone Street to one-way eastbound between Culver Street and Eddy Street. This modification is projected to reduce the level of vehicular delays at the intersection of Eddy Street/Blackstone Street and to optimize the access and egress to the Willard Avenue parking garage with Willard Avenue already being one-way westbound. The Blackstone Street eastbound approach to Eddy Street could be restriped as a shared left-turn/through lane and an exclusive right-turn lane

The conversion of Blackstone Street to one-way and restriping the eastbound approach to allow for a shared left-turn/through lane and an exclusive right turn lane is projected to reduce the delays during both the weekday morning and evening peak hours. Although the eastbound shared left-turn/through lane is projected to be congested, the traffic signals and improvements along Eddy Street would likely create gaps in the traffic stream to allow traffic from Blackstone Street to turn onto Eddy Street.

If Blackstone Street is converted to one-way it is recommended that on-street parking along Blackstone Street, between Culver Street and Plain Street, and along Culver Street, between Blackstone Street and Borinquen Street, be eliminated to allow for improved traffic flow along both roadways.

Eddy Street/Dudley Street

To reduce vehicular delays and congestion at the Eddy Street/Dudley Street intersection, the existing southbound right turn lane could be extended all the way to Borden Street by widening Eddy Street. This measure has the potential to increase vehicular storage capacity on that section of the roadway and also reduce the durations for which the RIH main entry driveway is blocked by vehicular queues.

It is projected that the Eddy Street southbound through vehicular queues would be reduced, which in turn allows traffic exiting the RIH main driveway and traffic on Borden Street to enter the Eddy Street traffic stream more easily. The cross section in

this area may need to be further widened to accommodate bike lanes along each curbline.

Eddy Street/Zecchino Pavilion (RIH main building) Driveway

The Zecchino Pavilion driveway is located between Dudley Street and Borden Street. Field observations and feedback from RIH indicated that vehicles exiting the driveway currently face delays during certain times of the day, primarily due to congestion related to vehicular queues on Eddy Street. To reduce the delays for vehicles exiting the driveway, it is recommended that the driveway exit onto Eddy Street be restricted to right turns only for all vehicles except RIPTA buses and CORO shuttles. The restricted left-turn movements could be replaced at the Borden Street driveway that provides access to the Borden Street/Eddy Street traffic signal. In addition, a new northbound left-turn lane could be constructed on Eddy Street by widening the roadway so that vehicles waiting to turn left into the driveway do not impede through vehicular traffic on the roadway. By restricting left-turns out of the Zecchino Pavilion driveway, the delays for traffic exiting the driveway are projected to be greatly reduced.

It should be noted that driver compliance with turn restrictions based solely on signage is generally low and therefore, the effectiveness of this measure, especially during the initial months of implementation, could be limited. But, even if some of the left turning vehicles comply and use the Borden Street driveway rather than the driveway onto Eddy Street, operations at the Eddy Street driveway can be expected to improve over existing conditions. Additionally, the signage will help promote the fact that drivers have the choice to use an alternate driveway that provides access to a signalized intersection for left turns. Internal signage in the parking lot can also be implemented to guide and encourage vehicles to use the signalized intersection for left-turns onto Eddy Street northbound.

In addition to the turn restrictions noted above, it is also recommended that the existing unsignalized pedestrian crosswalk north of the Zecchino Pavilion (RIH main building) driveway be eliminated. The pedestrians that use this crosswalk currently can be directed to cross at the southerly unsignalized crosswalk at the intersection near parking lot D-7.

Point Street Corridor

Another congestion “hot spot” identified with significant impacts to RIH related traffic operations is the Point Street corridor. Potential measures to improve overall traffic operations in the area are described below.

Point Street/Prairie Avenue

With the existing geometry at the intersection of Point Street and Prairie Avenue, the Prairie Avenue northbound movement currently operates, and is projected to continue to operate, poorly during the weekday afternoon peak hour periods with long delays and vehicle queues. In order to accommodate the existing and projected traffic, it is recommended that Prairie Avenue northbound approach be widened to provide two lanes (a shared left-turn/through lane and an exclusive right-turn lane). In addition, the intersection should be restriped to make effective use of the available pavement. For example, the eastbound approach on Point Street could be shifted towards the center line such that the northbound right-turn movement from Prairie Avenue is minimally impacted by the eastbound through traffic. The recommended geometry for the intersection is schematically depicted in Figure 4-1. Due to the limited right-of-way along Prairie Avenue north of Providence Street, the existing width of the sidewalks along Prairie Avenue would need to be reduced in order to accommodate the third lane.

With the proposed widening to add an exclusive right-turn lane on the northbound approach, the delays are projected to be greatly reduced.

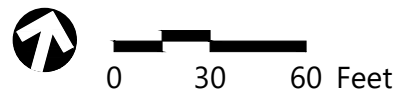
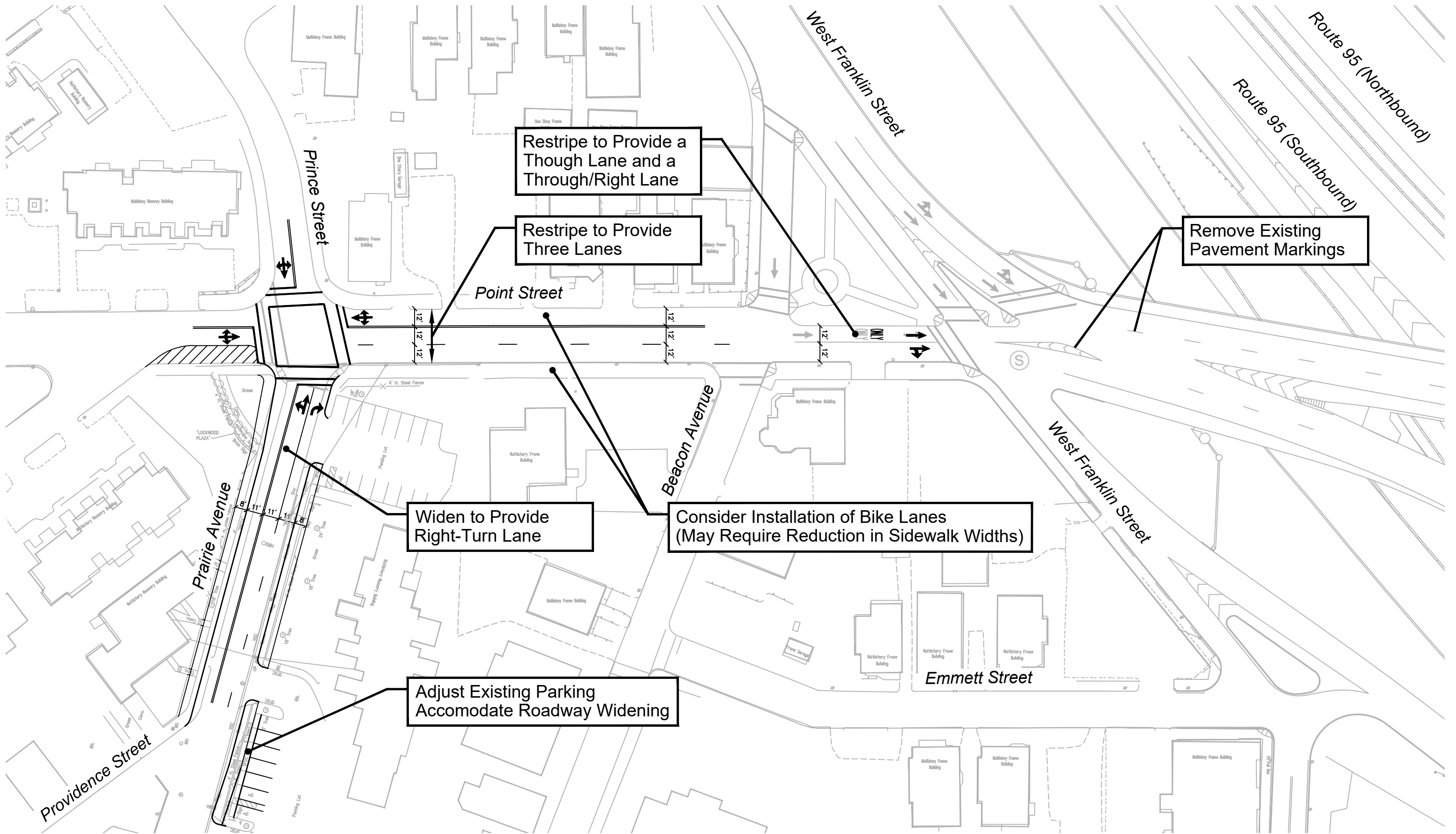
If additional/future development occurs along Prairie Avenue or if more traffic from the hospital parking areas is routed to Prairie Avenue, consideration may need to be given to the signalization of this intersection. Additional analysis would be required to determine if a traffic signal is warranted.

The City may want to consider the installation of bike lanes along Point Street. Incorporating bike lanes into the proposed alternatives would require reducing the width of sidewalks on one or both sides of Point Street.

Point Street/Beacon Avenue

The Beacon Avenue northbound approach to Point Street currently operates with long delays during the weekday afternoon peak hour period, and the condition is expected to worsen in the future. The Point Street eastbound queue from the intersection of Point Street with Plain Street/West Franklin Street frequently backs up through the intersection with Beacon Avenue. The intersection is also used by the CORO Express shuttle, which experiences delays during periods of congestion at the intersection.

In order to address the congestion, several alternative solutions are identified below for further consideration by the City, RIDOT and the hospital. Some of the alternatives build upon other alternatives, and could be treated as phases of implementation, with the more complex phases implemented when the associated capacity enhancement becomes necessary and/or construction funding becomes



Point Street/Prairie Avenue
Conceptual Improvement Plan
Rhode Island Hospital/Women & Infants Hospital
Providence, Rhode Island

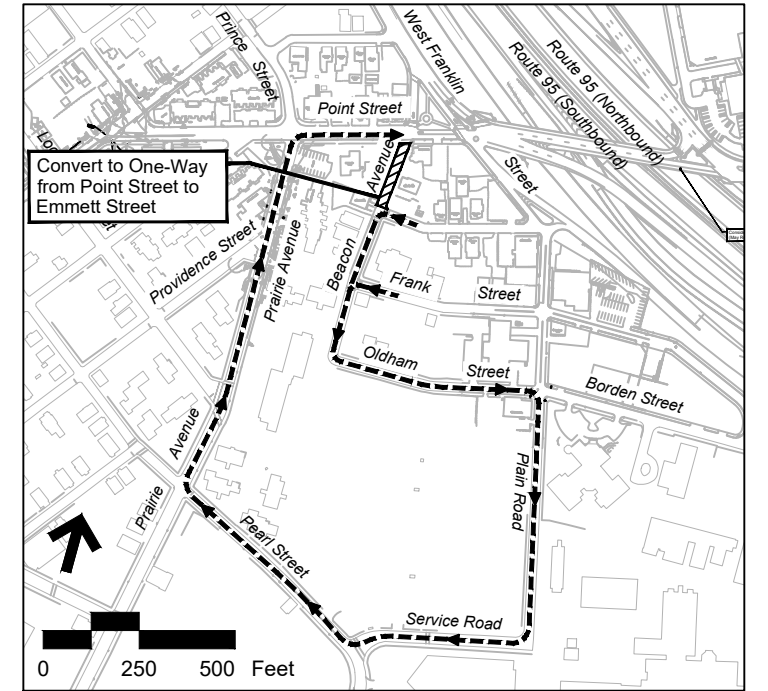
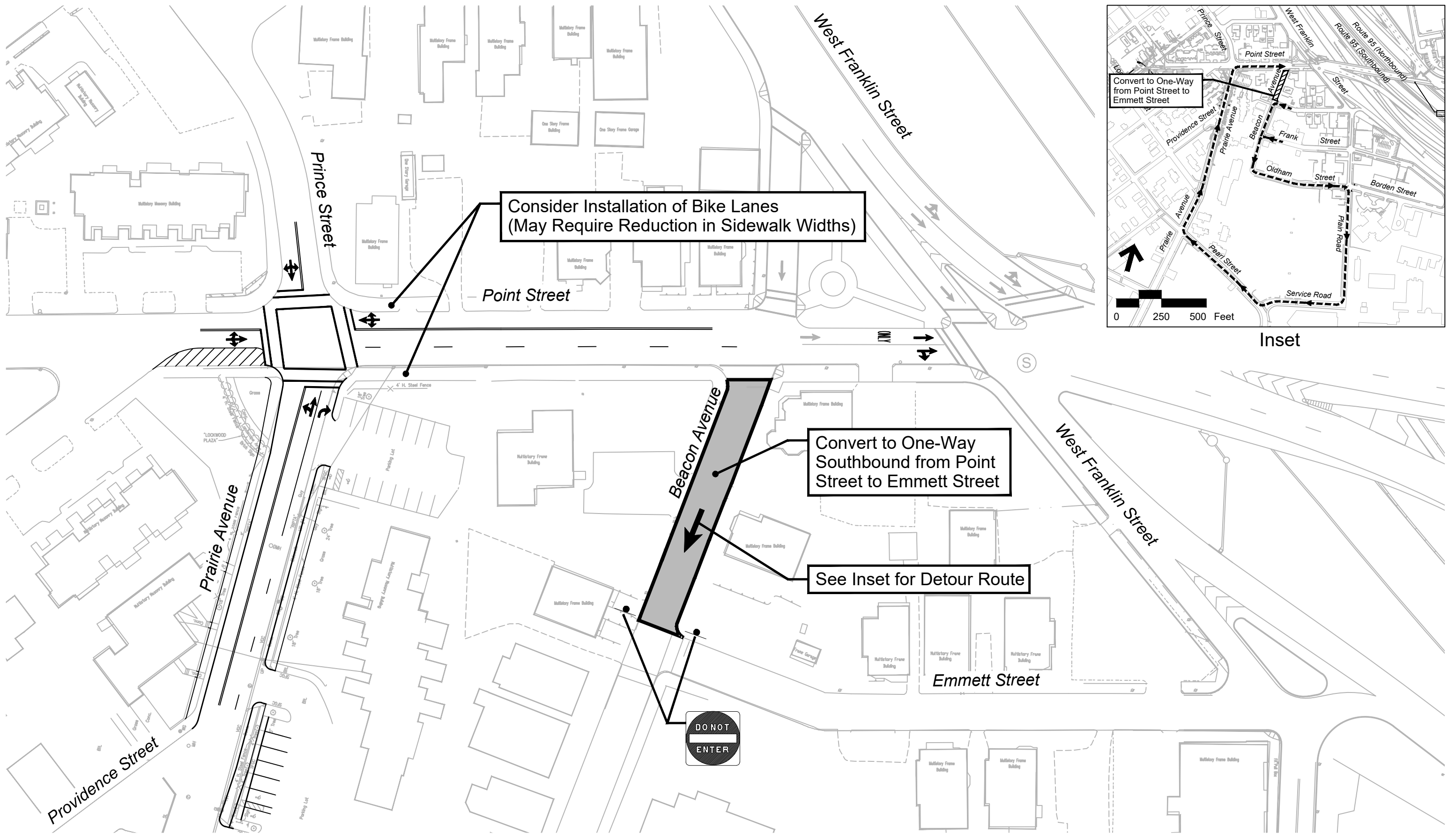
Figure 4-1

available. All options benefit from restriping Point Street, from Prairie Avenue to Beacon Avenue, to provide two lanes in the eastbound direction, and restriping the Point Street eastbound approach at West Franklin Street to provide a through lane and a shared through/right lane.

As previously stated, the City may want to consider the installation of bike lanes along Point Street. Incorporating bike lanes into the proposed alternatives would require reducing the width of sidewalks on one or both sides of Point Street.

The following options should be considered as modifications that would improve traffic operations during the peak periods.

- › Option 1: Building upon the geometric improvements identified for the intersection of Prairie Avenue/Point Street identified previously, consider signaling that intersection to meter the traffic flow on Point Street. Metering traffic volume at the Prairie Avenue intersection with a traffic signal has the potential to create gaps in the traffic for vehicles on northbound Beacon Avenue to turn onto Point Street. This solution may provide only marginal improvements over existing conditions, because of the limited queue stacking distance between Beacon Avenue and West Franklin Street.
- › Option 2: Restrict Beacon Avenue, between Point Street and Emmett Street, to one-way southbound operation. Reroute existing northbound Beacon Avenue traffic to Plain Street, Service Road, Pearl Street, Prairie Avenue to Point Street as shown in the inset on Figure 4-2. This option would impact the CORO Express Shuttle operation because it will require a detour of the shuttles via a longer route on Prairie Avenue. If a new connection could be provided between Beacon Avenue and Prairie Avenue (as a continuation of Frank Street), even if only one-way westbound, the feasibility and benefits of this option would be significantly enhanced.
- › Option 3: Signalize the intersection of Point Street/Beacon Avenue and operate it on the same traffic signal controller as the Point Street/West Franklin Street intersection, as depicted in Figure 4-3. As with Option 1, this solution is also projected to only marginally improve the deficiencies at the location, because of the limited queue stacking distance between Beacon Avenue and West Franklin Street. However, this option has better queue management potential than Option 1.
- › Option 4: In addition to signalizing Beacon Avenue as in Option 3, widen eastbound Point Street to a three-lane approach from Beacon Avenue to West Franklin Street, in order to improve queue stacking potential and vehicular processing capacity at the Point Street/West Franklin Street intersection. This

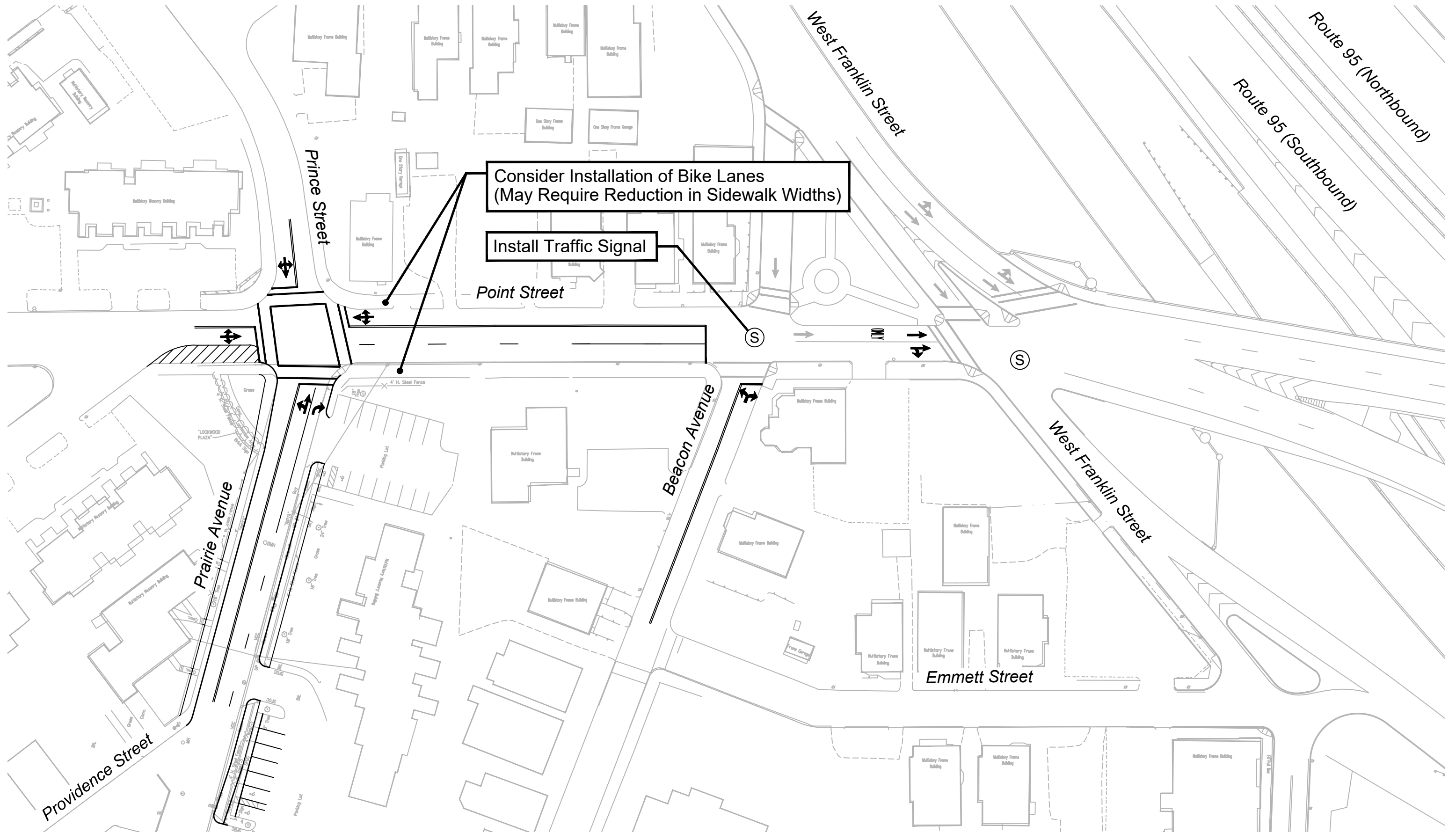


Inset



Beacon Avenue Option 2
 Conceptual Improvement Plan
 Rhode Island Hospital/Women & Infants Hospital
 Providence, Rhode Island

Figure 4-2



Beacon Avenue Option 3
Conceptual Improvement Plan
Rhode Island Hospital/Women & Infants Hospital
Providence, Rhode Island

Figure 4-3

improvement option is schematically shown in Figure 4-4. Appropriate signage will need to accompany this plan to ensure that drivers select the correct lane before reaching the Point Street/West Franklin Street signalized intersection.

- › Option 5: As a further enhancement to Option 4, and to open up the potential for future development at and adjacent to 79 Plain Street, widen Beacon Avenue and Frank Street and, potentially close Emmett Street as shown in Figure 4-5.

Each of the above solutions has its advantages and disadvantages and achieves the goal of reduced delay for Beacon Street and Point Street traffic to varying levels of success. Cost implications of each of the solutions, as well as construction feasibility, will need to be further evaluated, before deciding on the appropriate solution(s) for short- and long-term implementation. VHB has performed a preliminary review of the five options to understand the relative benefits that can be realized with each option. After a preferred option is selected, a more detailed analysis can be performed to quantify the operations benefits associated with the solution.

As previously stated, the City may want to consider the installation of bike lanes along Point Street. Incorporating bike lanes into the proposed alternatives would require reducing the width of sidewalks on one or both sides of Point Street.

Point Street/ East Franklin Street

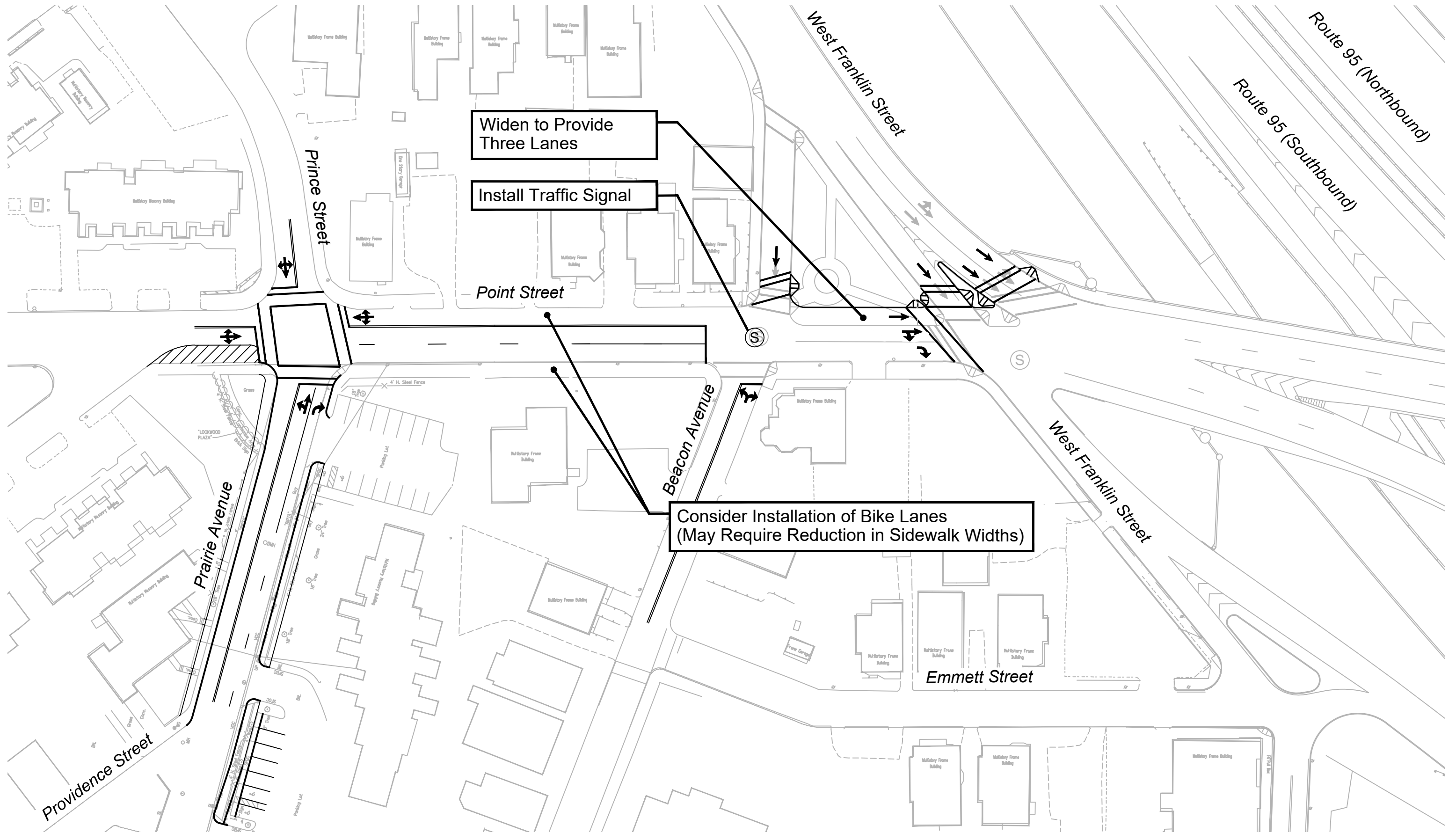
Traffic flow through this intersection, especially during the afternoon commuter peak hours, is impeded due to the limited capacity afforded by the intersection geometry. As discussed previously, congestion at the intersection also impacts the CORO shuttle that drops-off/picks-up passengers at the CORO building main entrance.

To improve the traffic operations at the intersection, it is recommended that the median island on the Point Street westbound approach be modified and the lane markings at the intersection be changed to create a second right-turn lane onto East Franklin Street northbound. The improvement is schematically depicted in Figure 4-6.

Appropriate signage will need to accompany this plan to ensure that drivers select the correct lane before reaching the signalized intersection.

As previously stated, the City may want to consider the installation of bike lanes along Point Street. Incorporating bike lanes into this alternative would require reducing the width of sidewalks on one or both sides of Point Street.

RIDOT Wrong Way Driving Mitigation Program have been implemented at this intersection. Improvements included extending the median island on the westbound approach as well as geometric improvements.



Beacon Avenue Option 4
Conceptual Improvement Plan
Rhode Island Hospital/Women & Infants Hospital
Providence, Rhode Island

Figure 4-4

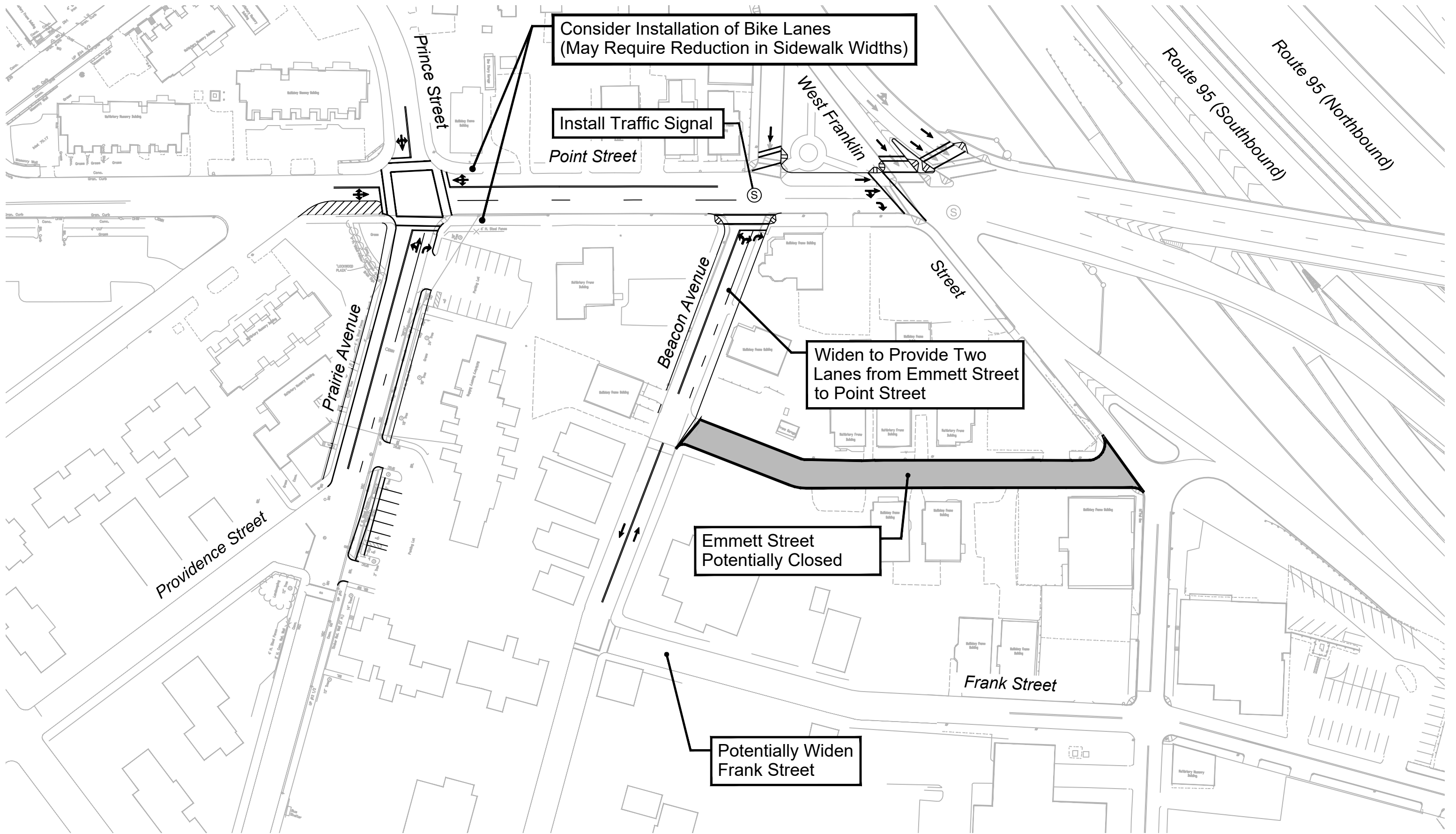


Figure 4-5
Beacon Avenue Option 5
Conceptual Improvement Plan
Rhode Island Hospital/Women & Infants Hospital
Providence, Rhode Island

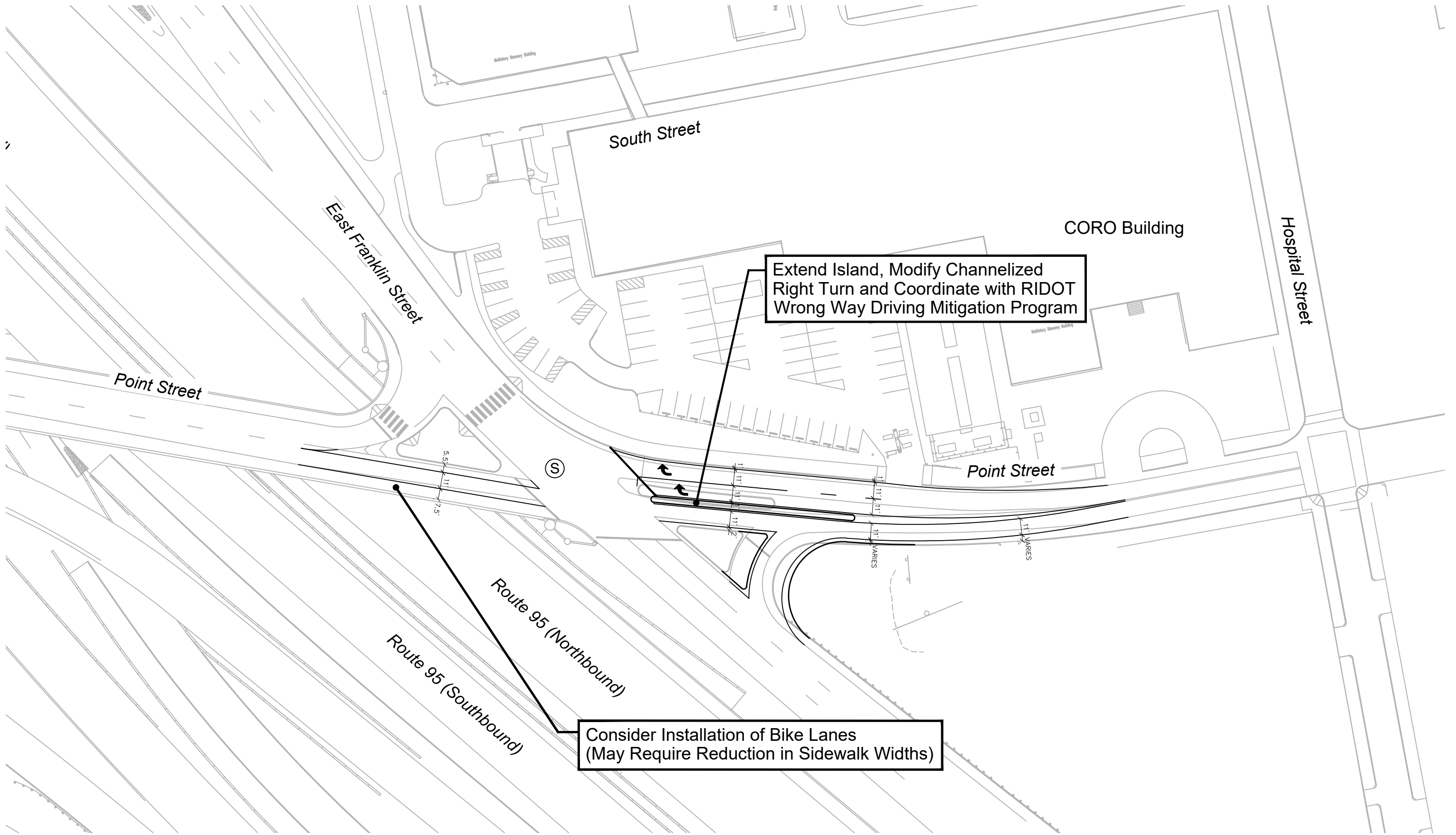


Figure 4-6
 Point Street/East Franklin Street
 Conceptual Improvement Plan
 Rhode Island Hospital/Women & Infants Hospital
 Providence, Rhode Island

Other Locations

Service Road/Gay Street/Pearl Street

Due to the existing geometry and lack of visible pavement markings and signage at the intersection, the Service Road approach currently operates, and is projected to continue to operate, poorly during the weekday afternoon peak hour period. In order to accommodate the projected traffic volumes, help reduce driver confusion and potentially improve safety, it is recommended that the Service Road be widened to the north to create separate left and right turn lanes at the intersection and the pavement markings and signage at the intersection be refreshed, as shown in Figure 4-7. A clearly visible stop sign should also be posted on the Service Road approach to the intersection. Finally, due to the limited width of pavement available for two-way travel on Pearl Street as a result of on-street parking, it is recommended that on-street parking on Pearl Street be restricted between the Service Road and Prairie Avenue.

Prairie Avenue/Pearl Street

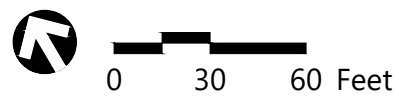
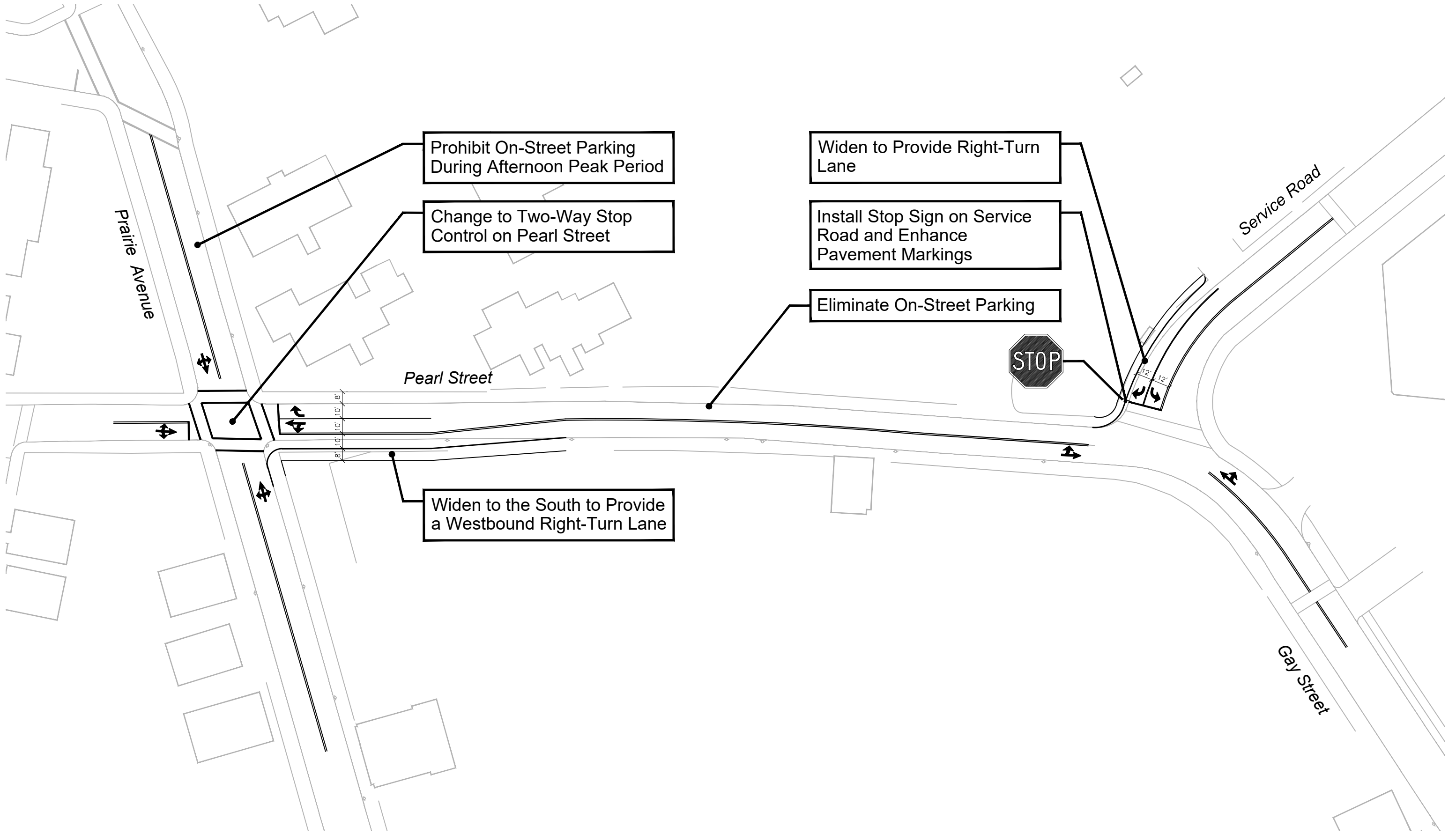
With the existing geometry at the intersection of Prairie Avenue and Pearl Street, the Prairie Avenue northbound and Pearl Street westbound movements are projected to operate poorly during the weekday afternoon peak period with long delays and vehicle queues on both approaches. In order to accommodate the projected traffic, this alternative proposes to widen Pearl Street to the south to provide an exclusive westbound right-turn lane as shown in Figure 4-7. The four-way stop control at this intersection could be eliminated so that the traffic along Prairie Avenue will not be required to stop (assuming Beacon Avenue remains two-way). Parking along Prairie Avenue north of Pearl Street should be prohibited at least during the afternoon peak period to minimize disruptions to traffic flow.

With the proposed widening and modifying the Stop control from an all-way stop to a two-way stop control, the weekday evening peak hour delays are projected to be greatly reduced for the northbound and southbound approaches because the stop signs would be removed. Delays on the westbound approach would continue to be long.

Additional Improvements

Additional improvement measures for consideration are summarized below.

- › Regardless of the option to improve traffic operations near the Point Street/Beacon Avenue intersection, in the long term, the potential for extending Frank Street to Prairie Avenue, through the residential development west of



Pearl Street Corridor
Conceptual Improvement Plan
Rhode Island Hospital/Women & Infants Hospital
Providence, Rhode Island

Figure 4-7

Beacon Avenue, should be explored. This long-term improvement has the benefit of relieving congestion on Beacon Avenue without causing undue congestion at other locations within the RIH campus area, such as the Gay Street/Pearl Street/Service Road intersection.

- › Some of the roadways within the RIH campus area, such as Eddy Street, are planned for upgrades by the RIDOT. It is recommended that the roadways throughout the campus be evaluated/monitored and a program for upgrades be developed, as needed, when poor pavement condition impact drainage and traffic flow.
- › Although not included in the study area, it is recommended that the intersection of Eddy Street/Thurbers Avenue be reconstructed to incorporate capacity improvements including potential right-of-way acquisitions for additional lanes. It should be noted that constrained capacity at this intersection is one of the major causes of congestions problems experienced farther to the north on Eddy Street, near the RIH campus.
- › If additional development occurs along Prairie Avenue as envisioned under the Prairie Avenue Revitalization Initiative, consideration may need to be given to additional widening along Prairie Avenue and upgrades to the existing traffic signals at the intersections of Prairie Avenue/Public Street, Broad Street/Public Street, and Broad Street/Potters Avenue.
- › If feasible, consideration should also be given to reestablishing Plain Street between Service Road and Dudley Street for improved circulation through the campus. The need for this additional connection may be strengthened in the future depending on the location of additional parking.

Effect of Roadway Improvements on Shuttles

As noted in the Existing Conditions chapter, in addition to RIPTA buses, the RIH campus area is also served by a network of shuttle routes that connect the main campus with the parking lots, CORO building to the north and the Annex to the south. However, the congestion that currently impacts general traffic flow through the area also affects shuttle operations. Some of the roadway enhancements outlined previously can be expected to help shuttle operations as well. Some of these improvements are outlined below.

- › Lack of intersection delineation and adequate and clearly visible traffic signage currently affects traffic flow at the intersection of Pearl Street/Gay Street/Service Road. The proposed improvements at this intersection would benefit the Blue shuttle route that travels through the intersection.

- › Restriping and optimization of signals along Eddy Street can be expected to help the shuttle operations.
- › Extension of the southbound right turn lane at Dudley Street to the north will help reduce the amount of time vehicular queues block shuttles that turn left out of the main hospital driveway.
- › Shuttles exiting onto Point Street from the CORO Building during the peak hours often encounter long queues extending back from the Point Street/East Franklin Street intersection. Improvements proposed for the intersection has the potential to reduce delays currently encountered by shuttles leaving the CORO building.
- › Improvement options for the Point Street/Beacon Street intersection would benefit the CORO Express route by reducing the delays and vehicular queues on eastbound Point Street.
- › Finally, RIH should review their current shuttle routes to determine if there are more efficient ways to get employees and visitors to and from the parking areas. Adjustments to the number of shuttles, number of routes, direction of travel, and times of arrivals/departures should all be evaluated.

Parking Improvements

The Rhode Island Hospital parking system will continue to provide adequate parking for its patients, visitors, and staff through active management of the RIH parking system. Any projected new parking demand can be accommodated in the existing parking system—at the Willard Avenue Garage and Dudley Street Garage for patient/visitor parking and at the CORO Garage for staff parking.

It should be noted that the signs restricting parking along most study area roadways in poor condition with many signs missing or faded, making it difficult to determine where parking is restricted.

Transportation Demand Management Program

RIH currently provides TDM programs to its employees, as discussed in the Existing Conditions chapter of this report. It is recommended that the hospital continue to look at ways to reduce the number of vehicle trips and the amount of parking. At a minimum, this should include improved outreach to RIH employees including conversations with RIPTA about pass subsidy programs and other TDM measures.

