

**DRAFT FOR CITY COUNCIL CONSIDERATION**



Allegheny Health Network



**West Penn**  
Hospital

Hospital Institutional Master Plan

DRAFT

17 AUGUST 2020



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## Mission, Vision, Values & Objectives

West Penn Hospital (WPH) is a proud member of the Allegheny Health Network. Working as an integrated system within Highmark Health, employees are committed to improving health and promoting wellness in our communities, one person at a time. As part of the Allegheny Health Network, WPH is the first hospital in the region to achieve Magnet designation for excellence in nursing services.

### Mission

WPH is designed to deliver high quality, accessible, understandable and affordable experiences, outcomes and solutions for our patients and caregivers.

### Vision

WPH's dedicated and respected employees will be leaders in the health care industry, working to improve the total health care experience of our patients.

## Values

### People Matter

Every person contributes to our success. We strive for an inclusive culture, regarding people as professionals and respecting individual differences while focusing on the collective whole.

### Stewardship

Working to improve the health of communities we serve and wisely managing the assets which have been entrusted to our care.

### Trust

Earning trust by delivering on our commitments and leading by example.

### Integrity

Committing to the highest standards encompassing every aspect of our behavior including high moral character, respect, honesty and personal responsibility.

### Patient-focused Collaboration

Because no one person has all the answers, we are actively seeking collaboration with each other to achieve the right outcomes for our patients.

### Courage

Empowering each other to act in a principled manner and to take appropriate risks to do what is right to fulfill our mission.

### Innovation

Committing to continuous learning and exploring new, better and creative ways to achieve our vision.

### Excellence

Being accountable for consistently exceeding the expectations of those we serve.

## Objectives

The following objectives have been identified for the Institutional Master Plan:

- Address the growing need to provide lower-cost health care services for patients with non-emergent or non-acute conditions. To do so, WPH will look to expand their ambulatory care services. While the specific services are yet undefined, this could include urgent care, diagnostic testing, primary and specialized service offices, and ambulatory surgery. Comprehensive preventative care and long-term wellness programs would likely be incorporated.
- Decrease parking impact on neighborhood streets, to preserve parking for local residents. Increased off-street parking within the EMI district will allow the hospital to grow its services within the EMI district.
- Modernize the mechanical and electrical utility equipment. The goals are to improve energy efficiency, equip the facility with the appropriate systems, and minimize the noise leaving the building. Building further redundancy of critical infrastructure is also a priority.
- Utilize lower volumes and voids within the massing of the existing buildings (particularly the block between Millvale and Mathilda) to support the growth of hospital-based programming. Infill construction will respect the integrity of the building perimeter along the street facades.
- Create a more clearly defined, open, welcoming "front door" to the site. The aging Mellon Pavilion building along Liberty Avenue and the parking garage provide opportunity to develop a "front door" where Millvale meets Liberty.
- WPH acknowledges its stewardship over the existing facility and plans to continue upgrading over time to meet modern standards in operational efficiency. While long-term projections on healthcare models are in flux, the age and physical condition of the Mellon Pavilion will necessitate treatment in some capacity. If the building is not demolished and replaced with a new building, it will likely be stripped down to the structure both inside and out. Aesthetic improvement to the building's facade facing Liberty Avenue is anticipated in the short-term before these more extensive and complete renovations take place.



## Introduction

Established in 1848, West Penn Hospital (WPH) has been serving Bloomfield and the surrounding areas as an academic medical center with an international reputation for excellence and innovation in patient care, education, and research. WPH provides care in a wide range of areas. The largest departments include the cancer institute, the cardiovascular institute, the orthopaedic institute, burn center, and women's health center.

Over the years, West Penn Hospital has earned regional and national recognition for excellence in bariatric surgery, bone marrow and cell transplantation, burn care, cardiac care, nursing, women's and infant's care, and more. West Penn Hospital has 360 licensed beds, approximately 1,000 physicians and 2,000 employees. We are committed to improving and maintaining the good health of people in our communities and utilizing every possible technology, resource and talent to make that happen.

## Services & Specialties

West Penn Hospital provides a full range of health care services, including inpatient, outpatient, and emergency care, as well as highly specialized diagnostic and treatment procedures. The combination of high-tech medicine and compassionate care touches every one of the thousands of patients who enter WPH each year.



## Services Lines Included:

West Penn Hospital offers a variety of specialty areas, including:

- Acute Rehabilitation
- Anesthesiology and Pain Medicine
- Bariatrics
- Burn Care
- Cardiac, Thoracic, and Vascular Surgery
- Colorectal Surgery
- Dermatology
- Emergency Medicine
- Family Medicine
- General Surgery
- Gynecology
- Infectious Disease
- Maternal & Fetal Medicine
- Neonatal, Perinatal Medicine
- Neurology and Neurosurgery
- Obstetrics
- Oral & Maxillofacial Surgery
- Otorhinolaryngology
- Pathology and Laboratory Medicine
- Physical Medicine & Rehabilitation
- Podiatry
- Post-Partum Depression
- Radiation Oncology
- Rheumatology
- Surgery, Minimally Invasive and Robotic-Assisted
- Transplant
- Women's and Infants' Services
- Allergy and Immunology
- Autoimmune Diseases
- Bone Marrow/Cell Transplantation
- Cancer Care Services
- Cardiovascular Disease
- Critical Care Medicine
- Diabetes and Endocrinology
- Esophageal and Lung Disease
- Gastroenterology
- Geriatrics
- Hospitalists
- Internal Medicine
- Minimally Invasive Surgery
- Nephrology
- Nutrition
- Ophthalmology
- Orthopaedics
- Palliative Care
- Pediatrics
- Plastic & Reconstructive Surgery
- Primary Care Medicine
- Pulmonary and Respiratory Disease
- Radiology
- Reproductive Medicine & Fertility
- Sleep Medicine
- Urology and Urogynecology

The hospital also has a number of disease-specific comprehensive centers, including:

- Cancer Genetics
- Digestive Health
- Genetic Disease
- Lupus
- Neuro-oncology
- Prenatal Genetics
- Stroke
- Diabetes
- Epilepsy
- Headache
- Multiple Sclerosis
- Orthopedic Surgery
- Sports Medicine
- Wound Care





### Groups Engaged

- Bloomfield Business Network
- Bloomfield Citizens Council
- Bloomfield Development Corporation
- Bloomfield Garfield Corporation
- Bloomfield Livable Streets
- Bloomfield United
- The Center that Cares
- Friendship Community Group
- Garfield Jubilee Association
- Bloomfield Neighborhood Planner
- Councilwoman Deb Gross



### IMP Community Meetings

June 7, 2018	Bloomfield Development Corporation – Christine Howell Bloomfield Garfield Corporation – Rick Swartz
June 8, 2018	Councilwoman Deb Gross
August 2, 2018	Bloomfield Citizens Council – Janet Scullion Cercone
September 4, 2018	Garfield Jubilee Association, Inc. – Joann Monroe
September 13, 2018	Bloomfield Citizens Council – Group meeting at St. Maria Goretti
September 24, 2018	The Center that Cares
September 27, 2018	All Leaders Group Meeting Councilwoman Deb Gross Bloomfield Business Network Bloomfield Citizens Council Bloomfield Development Corporation Bloomfield Garfield Corporation Bloomfield Livable Streets Bloomfield United The Center that Cares Friendship Community Group Garfield Jubilee Association, Inc.
October 11, 2018	WPH IMP Presentation to Community
October 16, 2018	WPH IMP Presentation to Community
November 27, 2018	WPH Master Plan Community Open House
September 4, 2019	City Planning Department Community Meeting

### WPH Communication

- 11/19/18 - Created flyer for distribution internally and for community groups
- 11/19/18 - Added to WPH Classes & Events web page (<https://www.ahn.org/events/open-forum-wphs-master-plan>)
- 11/19/18 - Added to WPH's home page ([www.AHN.org/westpenn](http://www.AHN.org/westpenn))
- 11/19/18 - Worked with Social Media to create an event on both AHN and WPH Facebook pages and paid to have posts boosted
- 11/20/18 - Mailed postcards to 3,000 residents
- 1/29/19 and 2/7/19 - Presented the proposed IMP to staff





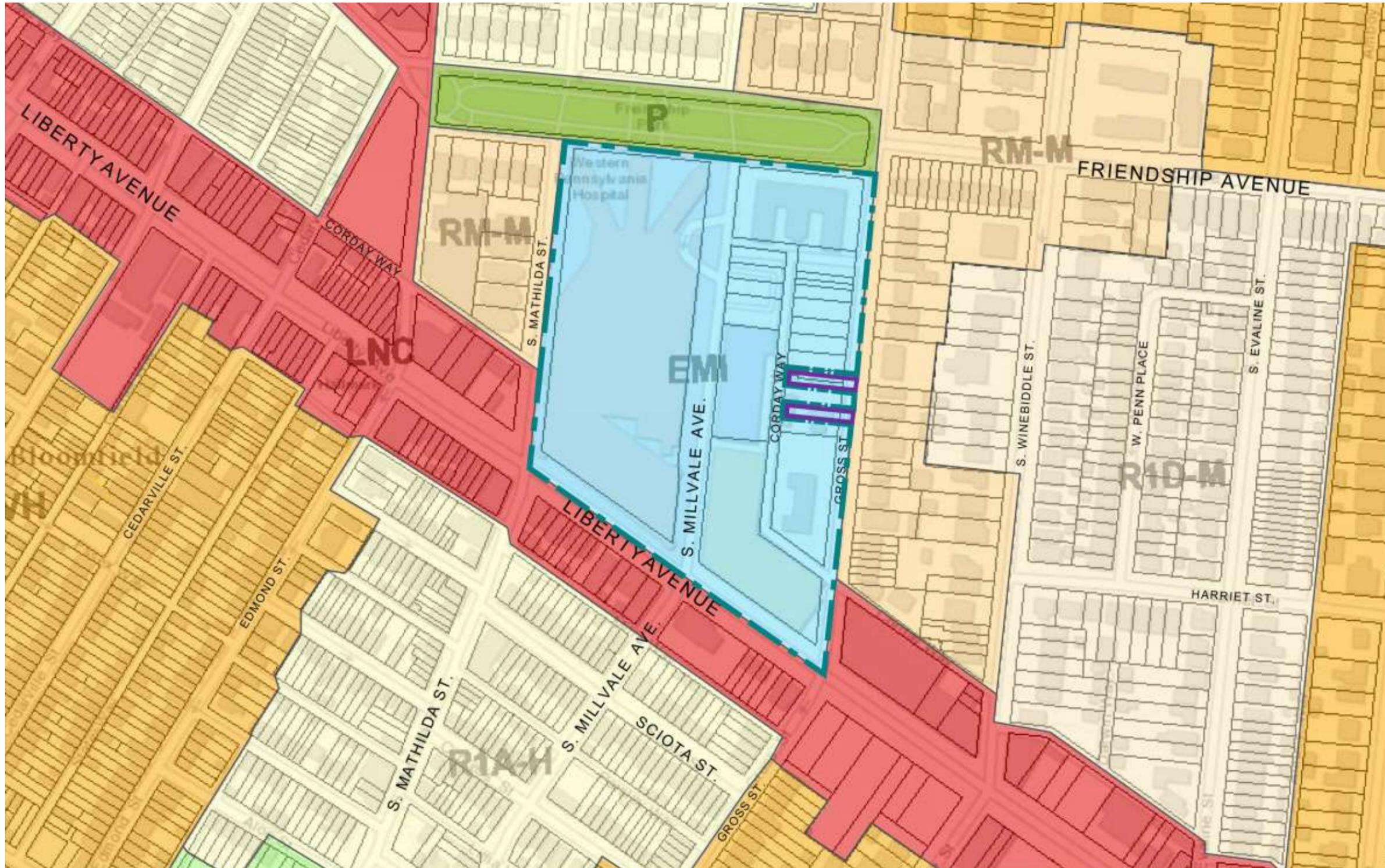
<b>Input Received</b> The following input has been identified as key themes of the community:	<b>WPH Action Items</b> West Penn Hospital's strategies address the input received:
<b>New Garage Proposal</b> <ul style="list-style-type: none"> <li>A neighbor inquired if the height of the new garage was appropriate for the influx of business the new buildings will bring.</li> </ul>	<b>New Garage Proposal</b> <ul style="list-style-type: none"> <li>WPH reduced the amount of garage frontage on Gross Street and made up the necessary parking count by vacating Corday Way for additional square footage.</li> </ul>
<b>Traffic Concerns</b> <ul style="list-style-type: none"> <li>The increased staff needed for the new buildings will cause strain on already limited parking within the neighborhood.</li> <li>The homeowners on Gross Street expressed concern over two-way traffic due to the bus route.</li> </ul>	<b>Traffic Concerns</b> <ul style="list-style-type: none"> <li>WPH will consider working with Port Authority of Allegheny County to offer discounted rates for staff .</li> <li>WPH minimized the length of street allowing two-way traffic on Gross Street by relocating the entrance to the garage expansion. This also prevents increased traffic from entering the more residential portion of Gross Street.</li> </ul>
<b>Campus Circulation</b> <ul style="list-style-type: none"> <li>Multiple community members requested to make the campus more pedestrian friendly because of its urban location.</li> <li>Previous patients, visitors, and staff members requested more direct and clearly marked internal paths to connect the various parts within the campus.</li> </ul>	<b>Campus Circulation</b> <ul style="list-style-type: none"> <li>Trans Associates will implement the addition of crosswalks and a traffic signal at the Gross Street/Liberty Avenue intersection and a crosswalk with pedestrian signals between the ED and the adjacent S. Millvale Avenue lot.</li> <li>Additional skywalks utilizing a common-sense wayfinding strategy will allow for easier access to the various hospital departments through these second floor pedestrian arteries.</li> </ul>
<b>Noise Concerns</b> <ul style="list-style-type: none"> <li>A resident inquired about the location of the helipad and the resulting noise if the building along Liberty Avenue increases in height.</li> <li>A homeowner expressed concern over the possibility of the expanded power plant's increased noise levels.</li> </ul>	<b>Noise Concerns</b> <ul style="list-style-type: none"> <li>WPH will not relocate the helipad and will implement new technology with the construction of the new building to mitigate noise.</li> <li>WPH included noise reduction via improved technology as a goal within the IMP.</li> </ul>

# 1.4 Public Engagement Summary



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**Zoning Legend:**

- Downtown Riverfront
- Planned Unit Development
- Educational/Medical Institution
- Neighborhood Office
- Parks
- Hillside
- Neighborhood Industrial
- Urban Industrial
- Local Neighborhood Commercial
- Urban Neighborhood Commercial
- Single-Unit Attached Residential
- Single-Unit Detached Residential
- Multi-Unit Residential
- Property Not Owned by WPH & Excluded from the IMP
- IMP Boundary Area

Source: Pittsburgh Zoning GIS

**2.1 IMP Boundary**



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## Existing West Penn Hospital Properties

The existing EMI district is bounded by Liberty Avenue to the south, S Mathilda Street to the west, Friendship Avenue to the north, and Gross Street to the east. The planning area for the Institutional Master Plan includes the EMI district described and the properties owned or leased by WPH within one thousand (1,000) feet of the EMI District. The area within the red-lined boundary is the area studied as part of this Institutional Master Plan. This plan indicates all institutional ownership in Bloomfield. The following pages indicate zoning for these properties and the surrounding parcels.

1. West Penn Hospital - 4800 Friendship Avenue
2. Hospital Parking Structure - 4901 Liberty Avenue
3. Service Building - 341 S. Millvale Street
4. Employee Surface Parking Lot - 317-325 S. Millvale Street
5. School of Nursing - 4900 Friendship Avenue
6. Vacant Lots - 316-336 Gross Street
7. Vacant Lot - 342 Gross Street
8. Vacant Lot - 348 Gross Street
9. Vacant Lot & Employee Surface Lot - 366 Gross Street
10. Office/Commercial - 4816-4818 Liberty Avenue
11. Vacant Lot - 4920 Liberty Avenue
12. Surface Parking Lot - 5000 Liberty Avenue
13. Parking Structure - 5120 Liberty Avenue
14. Offices - 4747 Liberty Avenue
15. Clinic/Offices - 4727 Friendship Avenue
16. Clinic/Offices - 5124 Liberty Avenue
17. Clinic/Offices - 5140 Liberty Avenue
18. Clinic/Offices - 5145 Liberty Avenue
19. Vacant Research Building - 720 Gross Street

Legend:

**BLUE** = WPH Owned Property

**GREEN** = WPH Leased Property



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## 2.2 Existing Property & Uses

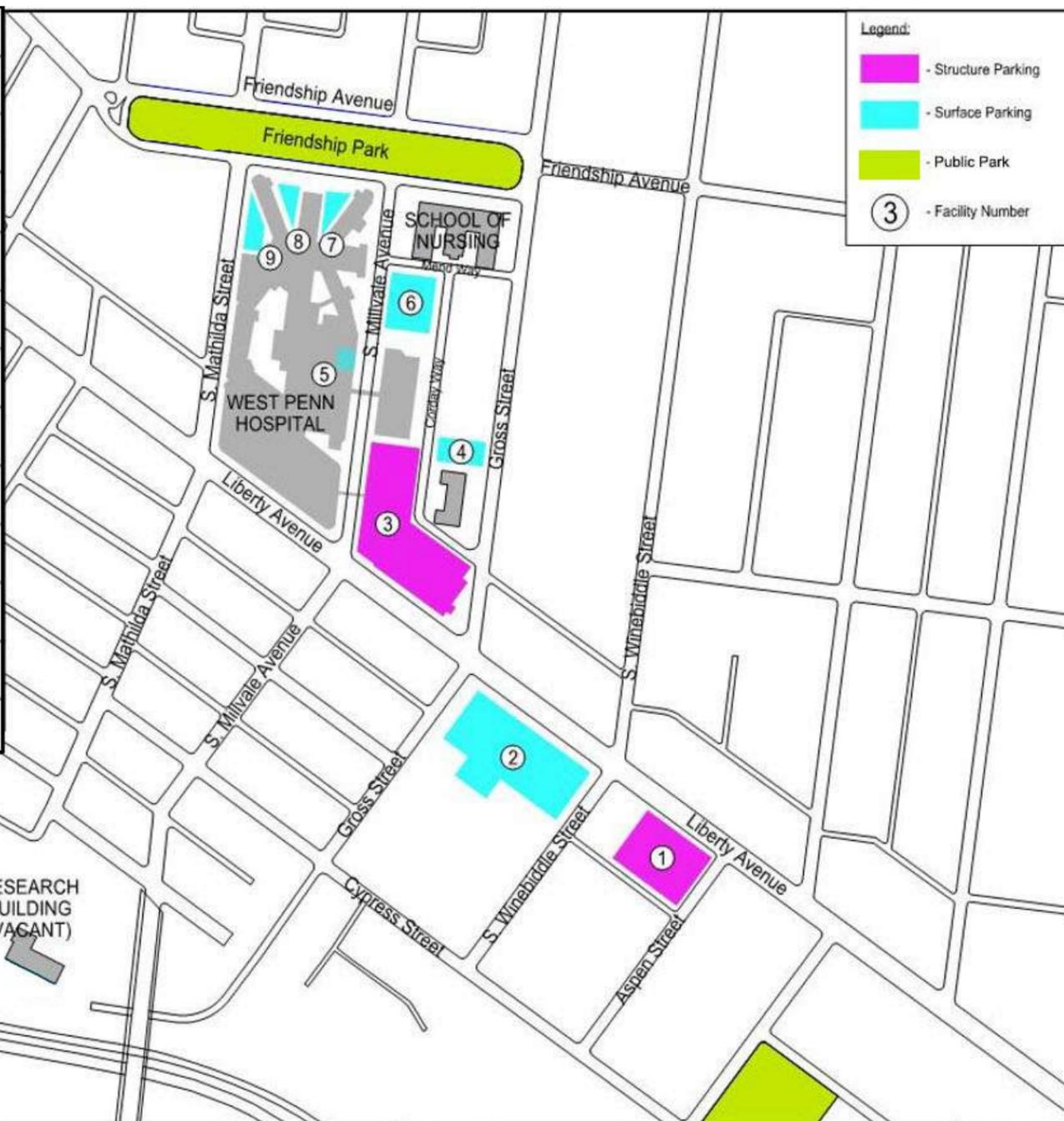
## WPH Properties Owned/Leased within EMI & 1,000 feet of EMI

	Owned/Leased	Property/Parcel Name	Land Use	Owned Lot #	Zoning	Story/Height	Area (SF/floor)	Area (GSF)	Parking Spaces
1	Owned	4800 Friendship Avenue	Hospital	0051-A-00241-0000-00 0051-A-00241-0000-01	EMI	6-10 stories/135ft	Varies	≈1,117,447 GSF	18
2	Owned	4901 Liberty Avenue	Parking Structure (General)	0051-F-00192-0000-00	EMI	4-5 stories/30ft	Varies	≈194,696 GSF	777
3	Owned	341 S Millvale	Utility (General)	0051-A-00295-0000-00	EMI	3 stories/30ft	≈17,500 SF/floor	≈83,951 GSF	-
4	Owned	317-325 S Millvale Street	Parking, Commercial (General)	0051-A-00303-0000-00 0051-A-00305-0000-00 0051-A-00306-0000-00 0051-A-00307-0000-00	EMI	-	-	-	≈39
5	Owned	4900 Friendship Avenue	College/University Campus	0051-B-00012-0000-00	EMI	6 stories/80ft	≈15,999SF/floor	≈105,000 GSF	-
6	Owned	316-336 Gross Street	Vacant Lots	0051-B-00014-0000-00 0051-B-00015-000A-00 0051-B-00015-0000-00 0051-B-00016-0000-00 0051-B-00018-0000-00 0051-B-00019-0000-00 0051-B-00020-0000-00 0051-B-00021-0000-00	EMI	-	-	-	
7	Owned	342 Gross Street	Vacant Lot	0051-B-00023-0000-00	EMI	-	-	-	-
8	Owned	348 Gross Street	Vacant Lot	0051-B-00025-0000-00	EMI	-	-	-	-
9	Owned	366 Gross Street	Parking, Commercial (General)	0051-B-00036-0000-00	EMI	-	-	-	≈ 24
10	Owned	4816-4818 Liberty Avenue	Medical Office/Clinic (General)	0051-A-00107-0000-00 0051-E-00351-0000-00	LNC	2 stories	≈2,636 SF/floor	≈5,272 GSF	-
11	Owned	4920 Liberty Avenue	Vacant Lot	0051-E-00371-0000-00	LNC	-	-	-	-
12	Owned	5000 Liberty Avenue	Parking, Commercial (General)	0051-F-00016-0000-00 0051-F-00019-0000-00 0051-F-00023-0000-00 0051-F-00026-0000-00 0051-F-00028-0000-00 0051-F-00030-0000-00	LNC	-	-	-	163
13	Owned	5120 Liberty Avenue	Parking Structure (General)	0051-F-00096-0000-00	LNC	5 stories	≈20,700 SF/floor	≈103,500 GSF	384
14	Leased	4747 Liberty Avenue	Medical Office/Clinic (General)	0051-A-00150-0000-00	LNC	3 stories	≈510 SF/floor	≈1,530 GSF	-
15	Leased	4727 Friendship Avenue	Medical Office/Clinic (General)	0050N-00090-0000-00 0050-N-00093-0000-00	LNC	3 stories	≈10,585 SF/floor	≈31,755 GSF	-
16	Leased	5124 Liberty Avenue	Medical Office/Clinic (General)	0051-F-00107-0000-00	LNC	1-2 stories	≈8,500 SF/floor	≈17,000 GSF	-
17	Leased	5140 Liberty Avenue	Medical Office/Clinic (General)	0051-F-00114-0000-00	LNC	1-2 stories	Varies	≈24,480 GSF	-
18	Leased	5145 Liberty Avenue	Medical Office/Clinic (General)	0051-F-141-0000-00	LNC	1-2 stories	Varies	≈20,000 GSF	-
19	Owned	720 Gross Street	Laboratory/Research (Vacant)	0051-E-00136-0000-00 0051-E-00136-0001-00	UI	5 stories	≈9208 SF/Floor	≈46,000 GSF	-

## 2.2 Existing Property & Uses



West Penn Hospital Parking Facility	Number of Parking Spaces		
	Patient/Visitor	Employee	TOTAL
① Liberty/Aspen Street Garage	0	384	384
② McKean Lot	0	163	163
③ West Penn Millvale Garage	595	182	777
④ Leaseholder Lot (Daly)	0	24	24
⑤ Ambulance Entrance	0	3	3
⑥ S. Millvale Leaseholder Lot (Gravel)	0	39	39
⑦ Ambulance Transfer Lot	0	7	7
⑧ Short Term Physician Lot	0	3	3
⑨ MRI/Radiation/Oncology Lot	0	5	5
⑩ Lawrenceville Lot (Off-Site)	0	444	444
<b>TOTAL WEST PENN HOSPITAL PARKING</b>	<b>595</b>	<b>1,254</b>	<b>1,849</b>



### Parking within the EMI District

Priority use of existing on-campus parking is assigned to patients, their families, and visitors. Almost all staff parking occurs outside of the current EMI district. Some staff parking spaces are within the 1,000-foot radius of the EMI. Employees walk from the lots to WPH.

Staff parking that cannot be accommodated within existing facilities near the hospital are addressed by the remote lot West Penn Hospital operates in Lawrenceville. Shuttle buses transport staff to and from the hospital.

### Loading

WPH receives supplies at its loading dock on S. Millvale Avenue. Some classes of supplies are shipped directly to the hospital by vendors, and others are received at the corporate receiving warehouse in Zelienople where the semi-trucks are unloaded, supplies are sorted, and deliveries are made with smaller trucks. This Master Plan does not address loading activities during construction. Construction management plans will be developed and adopted in due course as specific projects are advanced.

 SCALE: N.T.S.	 <b>Trans</b> ASSOCIATES Small Firm Client Experience, Big Firm Capabilities 4955 Steubenville Pike, Twin Towers Suite 400 Pittsburgh, Pennsylvania 15205, 412-490-0630	PROJECT NO. AHNET00 - 16128	FIGURE
		PROJECT: Allegheny Health Network West Penn Hospital Master Plan Transportation Study	<b>4A</b>
TITLE: Existing Parking Inventory		D.B. MJY	REV. _____
		C.B. CAJ	

## 2.2 Existing Property Uses – Existing Parking and Loading



## WPH Existing Institution

WPH currently has approximately 350 beds, approximately 1,000 physicians, and approximately 2,000 staff members. The hospital is committed to improving and maintaining the good health of people in our communities and utilizing every possible technology, resources, and talent.

Each year WPH accommodates approximately:

- Admits 13,300 patients with an additional 4,800 held for observation
- Records 73,000 outpatient visits
- Handles more than 23,000 emergency department registrations
- Performs more than 12,000 surgical procedures with 2/3 of these being same day/outpatient

The institution has a long history of conducting basic, clinical, and translational research that has contributed to finding more effective ways to prevent, diagnose, and treat disease. This provides their patients with a direct gateway to some of the most cutting-edge treatments and therapies as WPH continually acquires new medical knowledge and translates its findings to help save lives and improve outcomes. The institution continues this commitment through the investment in new research labs for the Esophageal Lung Institute and the Lupus Center of Excellence.

WPH continues its commitment to academic medicine, including graduate and undergraduate medical education and health sciences education. WPH serves as the clinical campus for third- and fourth- year students of the Temple University School of Medicine. WPH is a clinical affiliate hospital of Drexel University College of Medicine and accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing education for physicians.



## WPH Future Volumes and Needs

WPH is planning to see a moderate growth over the next 10 years. WPH plans to build two new buildings, as well as, expand and infill portions of the existing buildings on the campus, including; (1) a new ambulatory care center for non-emergent or non-acute conditions; (2) increased parking; (3) expansion of the utility building; and (4) infill and rooftop additions for hospital-based programming.

### Inpatients

The aging population in the United States will continue to increase reliance on the healthcare industry. While advances in medical technology are increasingly shifting treatment from an inpatient to an outpatient environment providing some alleviation to overcrowding, a continued demand for higher acuity inpatient services remains. WPH anticipates the potential of increasing from approximately 350 to approximately 600 inpatient beds within a 10-year timeframe.

Renovations of the existing hospital nursing units will implement state-of-the-art medical technology including the proliferation of telemetry monitoring capabilities, updates to the latest nurse call system, and addition of negative pressure rooms. Other renovation will entail bringing older units that do not currently serve as direct patient care areas up to code and the standards of a modern healthcare facility.

### Outpatients

As AHN continues to develop its community-based facilities, lower acuity outpatient visits to the WPH campus are expected to decrease. Acuity will increase for those that remain on campus, with overall volume reflecting a net growth. Same day procedures will increase, and new infrastructure to support the volume and disposition of these patients is expected. Primary services that will see increased volume include Obstetrics & Gynecology, Primary Care, Oncology, Neurosurgery, Esophageal/Lung, Auto-Immunity & Diabetes.

### Physicians

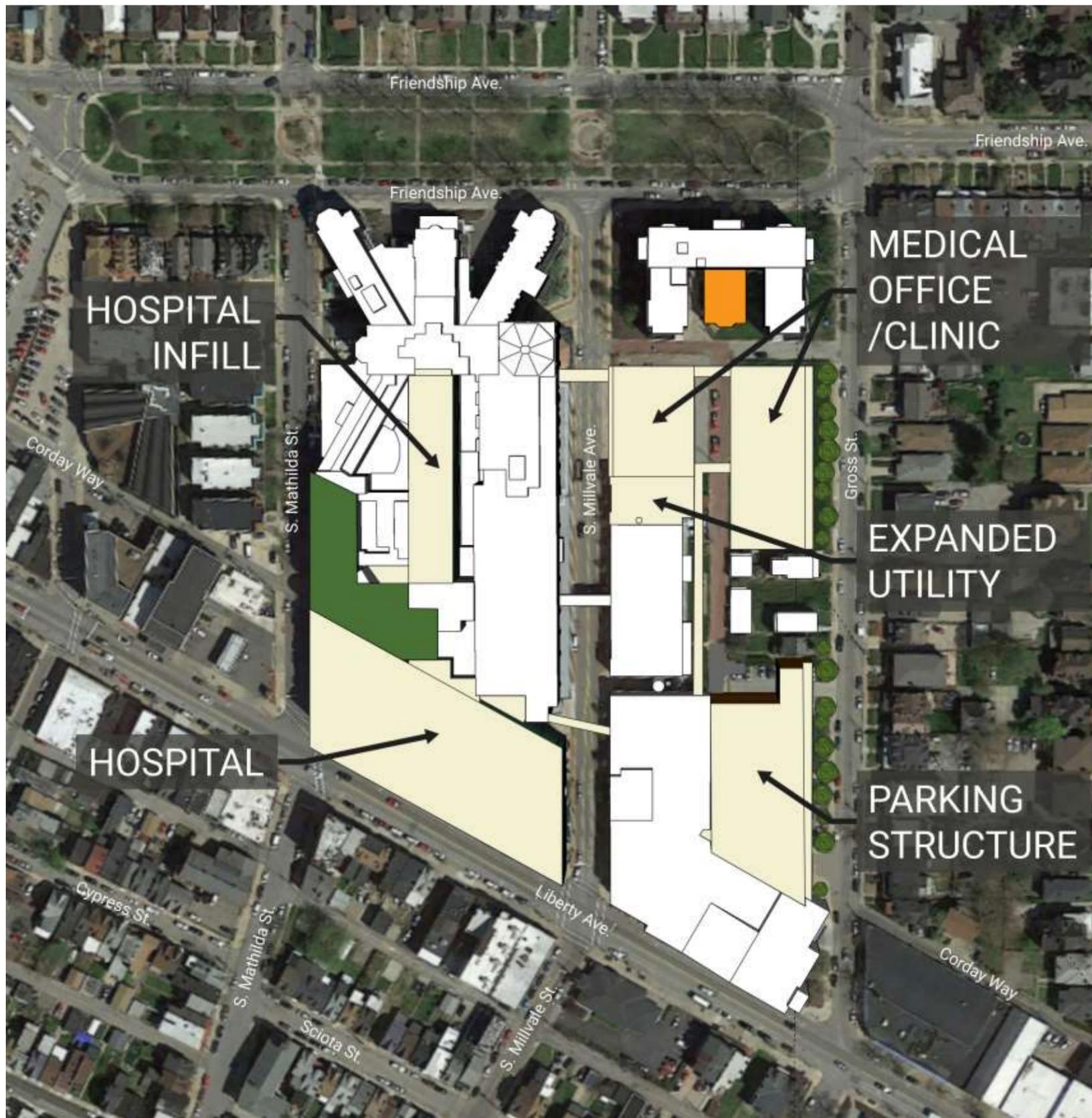
Over the next 10 years, WPH is planning for a physician increase of 5%.

### Staff Members

In accordance with the anticipated growth in inpatient beds, staff growth may increase by approximately 12%, or 215 employees.

## 3.1 Needs of the Institution – Present & Future





## Twenty-Five Year Development Envelope

The twenty five-year development envelope is on West Penn Hospital property and overlaps with the ten-year development envelope. The actual layout within the envelope will be defined as the specific projects are designed and advanced.

### Inpatient Care

#### Repair/Infill at West Tower

- 4 additional stories; 9 total stories
- Approx. 60,000 additional GSF for approx. 1,177,447 Total GSF
- Height of Addition – 60' max.
- Total Height with Addition – 130' max.

### Education

- 4 additional stories; 6 total stories
- Approx. 60,000 additional GSF for approx. 165,000 Total GSF
- Height of Addition – 50' max.
- Total Height with Addition – 80' max.

### Legend:

-  10 Year Plan
-  Hospital Infill – Inpatient Care
-  Education

## 4.1 Twenty-Five Year Development Envelope





## Ten Year Development Envelope

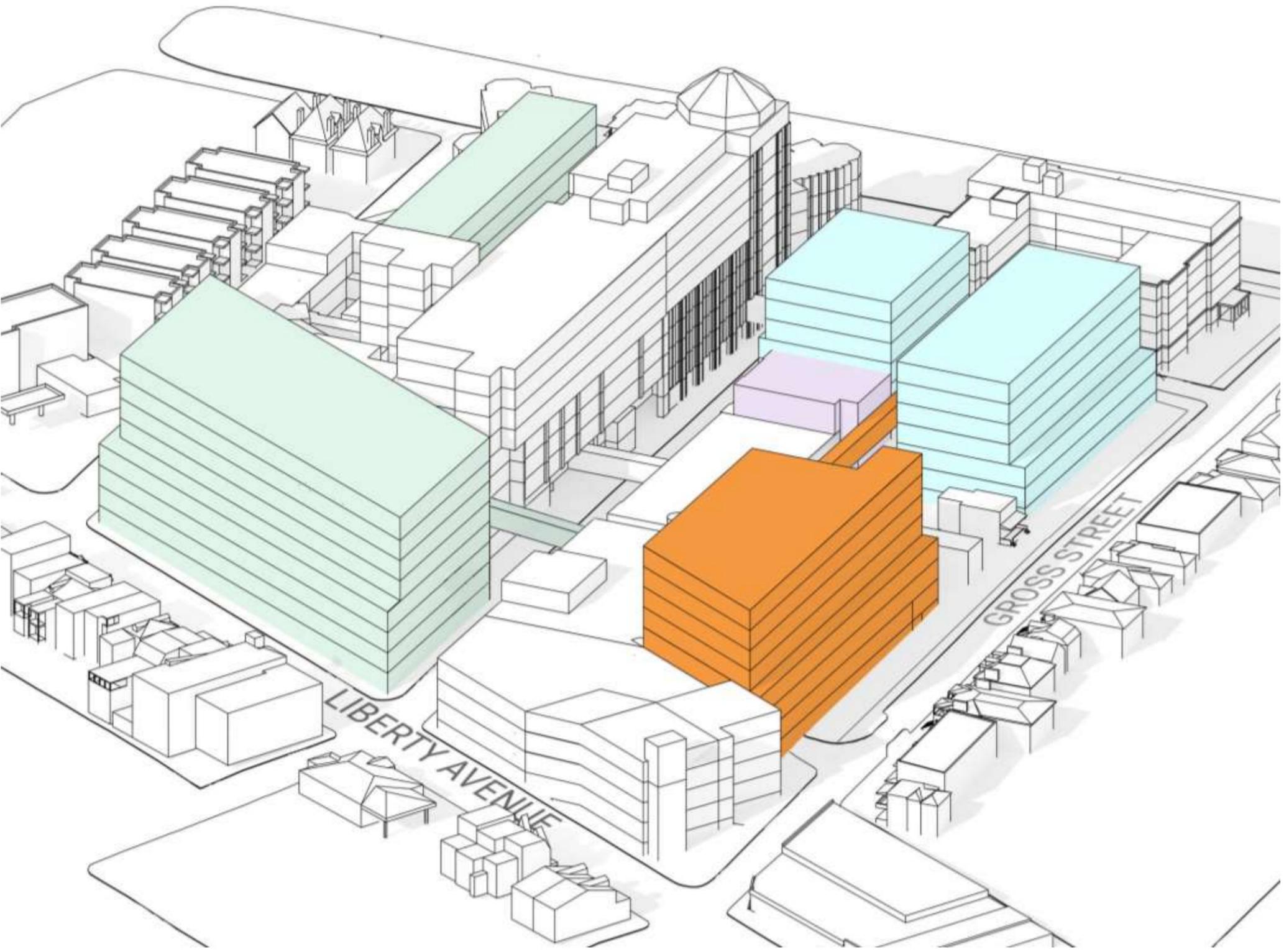
The envelope identifies the outer extent envisioned for anticipated projects. Actual layout within the envelope will be defined as the specific projects are designed and advanced.

### Legend:

- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care

# 5.1 Ten Year Proposed Development Envelope





**Parking Structure**

<b>Site Location</b>	Gross Street, North of Liberty Avenue; vacate Corday Way to connect to existing garage
<b>Use</b>	Parking Structure
<b>Maximum GSF</b>	200,000 gross square feet
<b>Max. # of Parking Spaces</b>	700
<b>Setbacks</b>	Gross Street: 35 feet North sideyard: 15 feet Corday Way: 0 Feet
<b>Maximum Height</b>	120 feet
<b>Stepback</b>	Gross Street @ 45 feet above street level; min. stepback is 10 feet North sideyard @ 45 feet above street level, min. stepback is 5 feet

**Legend:**

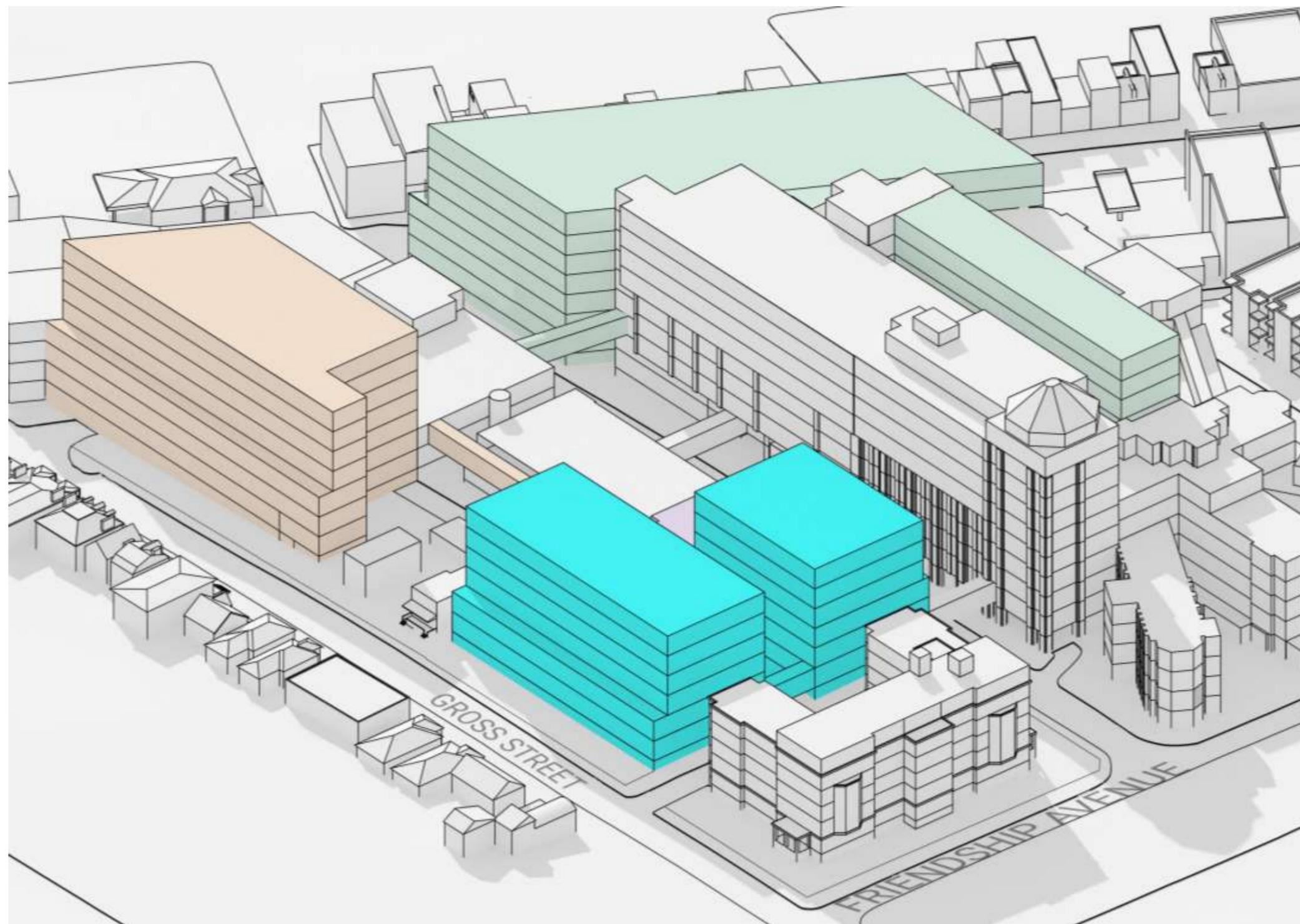
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care

**5.1** Ten Year Proposed Development Envelope



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**Legend:**

- Medical Office/Clinic
- Parking Structure
- Expanded Utility Plant
- Hospital - Inpatient Care

**Medical Office / Clinic  
Outpatient Care**

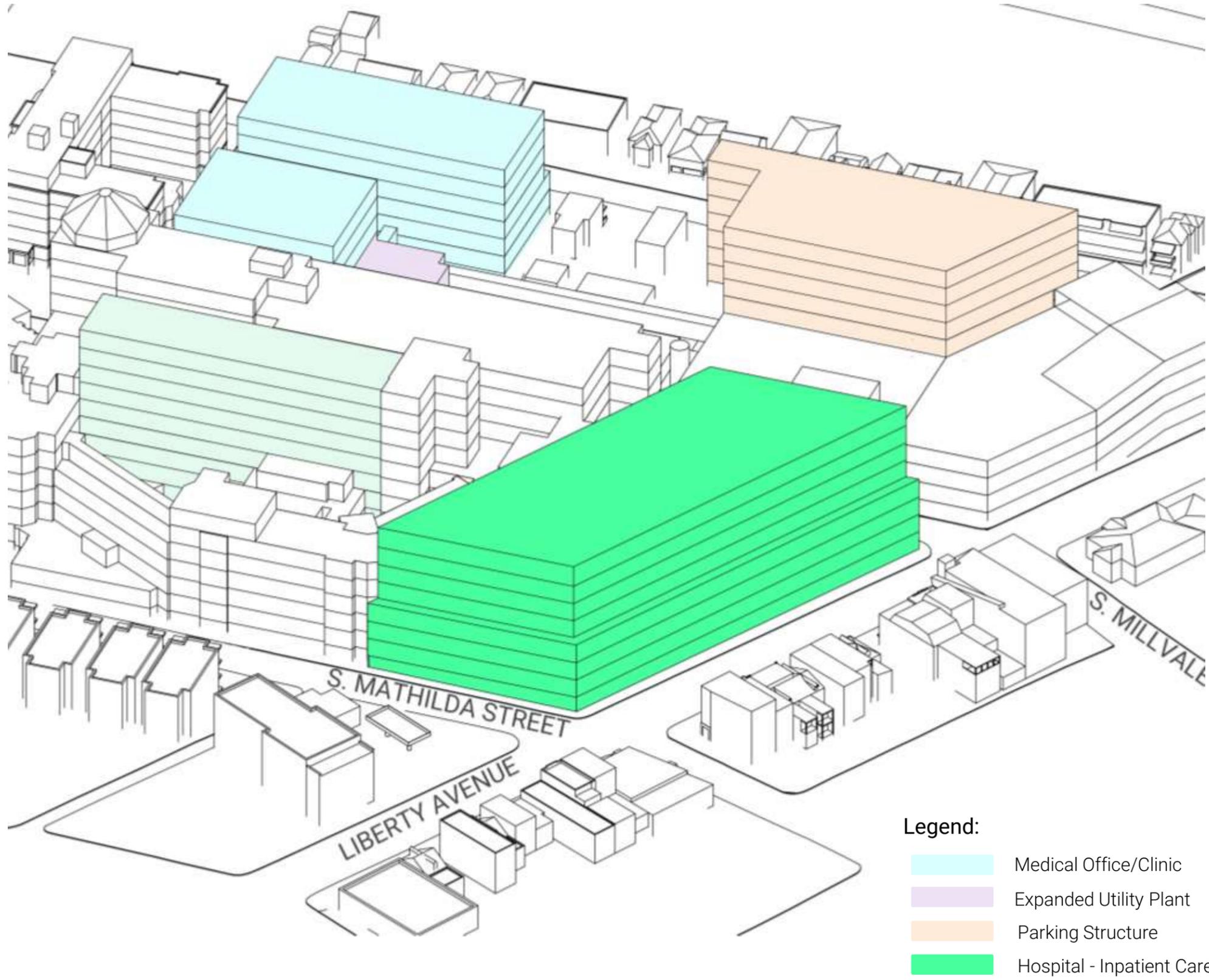
<b>Site Location</b>	Mend Way; Gross Street to Millvale Street
<b>Use</b>	Medical Office/Clinic
<b>Maximum GSF</b>	350,000 gross square feet
<b>Max. # of Parking Spaces</b>	0
<b>Setbacks</b>	Gross Street: 35 feet from curb South sideyard (running from Gross Street to Corday Way): 10 feet Corday Way: 0 feet Mend Way: 0 feet Millvale Avenue: 0 feet
<b>Maximum Height</b>	130 Feet
<b>Stepback</b>	Gross Street @ 45 feet above street level; min. stepback is 12 feet  S. Millvale @ 60 feet above street level; min. stepback is 12 feet  South sideyard along Gross @ 45 feet above street level; min. stepback is 5 feet
<b>Minimum Sidewalk Width</b>	S. Millvale: 15-foot minimum sidewalk width. If the sidewalk width is not possible in the public right of way, the building shall be set back to accommodate the 15-foot sidewalk.

**5.1** Ten Year Proposed Development Envelope



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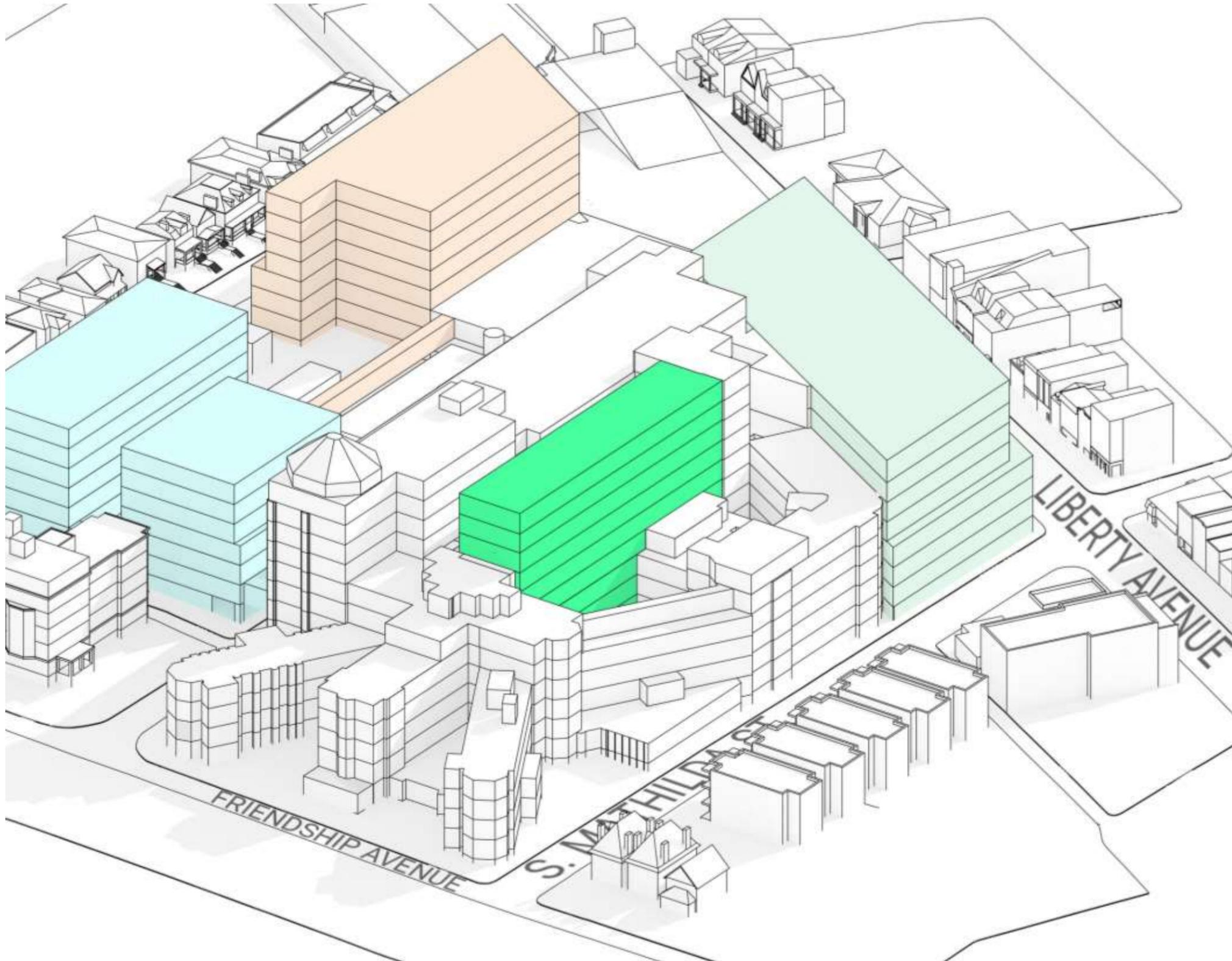




### Hospital Inpatient Care

<b>Site Location</b>	Liberty Avenue between S. Mathilda Street and S. Millvale Street
<b>Use</b>	Hospital
<b>Maximum GSF</b>	450,000 gross square feet
<b>Max. # of Parking Spaces</b>	0
<b>Setbacks</b>	Liberty Avenue: 0 feet S. Mathilda Street: 0 feet S. Millvale Street: 0 feet
<b>Maximum Height</b>	160 feet
<b>Stepback</b>	Liberty Avenue @ 65 feet above Street Level; min. stepback is 10 feet S. Mathilda St. @ 65 feet above Street Level; min. stepback is 10 feet
<b>Minimum Sidewalk Width</b>	Liberty Avenue: 20-foot minimum sidewalk width. If min. width is not possible in the public right of way, the building shall be set back for the 20-foot sidewalk.
<b>Liberty Avenue Character</b>	A maximum 80% of the building may be at the minimum 20-foot sidewalk width. The other 20% shall be set back & designed to break down the building scale.

## 5.1 Ten Year Proposed Development Envelope



### Hospital Infill Inpatient Care

<b>Site Location</b>	Mid-block between S. Mathilda Street, Liberty Avenue, Friendship Avenue, S. Millvale Avenue
<b>Use</b>	Hospital
<b>Maximum GSF</b>	100,000 gross square feet
<b>Max. # of Parking Spaces</b>	0
<b>Setbacks</b>	Not Applicable
<b>Maximum Height</b>	Additional: 90 feet Total: 160 feet
<b>Stepback</b>	Not Applicable

#### Legend:

- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital Infill - Inpatient Care

## 5.1 Ten Year Proposed Development Envelope



**West Penn Hospital  
Institutional Master Plan**  
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**Expanded Utility Plant**

<b>Site Location</b>	2 story addition to the existing power plant on Millvale Street
<b>Use</b>	Utility
<b>Maximum GSF</b>	6,000 gross square feet
<b>Max. # of Parking Spaces</b>	0
<b>Setbacks</b>	Not Applicable
<b>Maximum Height</b>	Additional: 25 feet Total: 55 feet
<b>Stepback</b>	None

**Legend:**

- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care

**5.1** Ten Year Proposed Development Envelope



**West Penn Hospital  
Institutional Master Plan**  
project no. 16-034.2  
Draft 17 AUGUST 2020

## Goals of the Urban Design Guidelines

WPH has been a contributor to the built environment of Bloomfield since 1909. Every phase of new development signaled growth for the neighborhood as well as the institution. Further development of the EMI district is intended to continue that legacy. The following guidelines establish criteria for each development:

- New additions to the district shall architecturally complement the character of the surrounding neighborhood.
- Development shall be guided by the sustainability plan outlined in this IMP and AHN's commitment to advancing sustainable design by building healthy, high performing buildings.
- Materials and colors selected for new construction shall be of high quality, durable, and create continuity within the project area and the existing neighborhood. Green building materials with low environmental impact shall be utilized where possible.
- The impact of new buildings in the public realm will be given special consideration, particularly at the street level.
- The pedestrian experience shall be enhanced by incorporating principles of Universal Design, which promotes spaces for equitable use.
- The design shall address the visual connection with the public realm, the existing historic elements of the hospital, and the surrounding neighborhood.
- The expanded program will be designed to add interest and activity to ground floor and building features, and contextual streetscape features in the public realm.



### Architectural Character of the Neighborhood

The West Penn Hospital campus seeks to create prominent landmark design and construction that speaks to its role within the community. The proposed development shall relate to the existing neighborhood with careful attention to scale, materiality, and site access. Future campus development will serve as an architectural link between the commercial district along Liberty Avenue and the flanking residential zones. Design of each new development component will reflect the existing character of that unique border.



# Architectural Character of the Neighborhood

## S. Mathilda Street

*Multi-Unit Residential Moderate Density District*

S. Mathilda Street lacks uniformity due to half the block turned away from the street and minimal screening for back-of-house areas, such as parking lots and trash disposal. However, the cluster of residences that do face the street create repetition with their pronounced central core and recessed wings. Compared to adjacent streets, these buildings project a more aged appearance with their use of darker red brick and heavy stone base. The feeling of venerableness is further emphasized in the craftsmanship in the masonry details, arched doorways, and distinct cornice. Due to the steep change in elevation from street level, the multiunit residences appear taller than their three-story height.



## Liberty Avenue

*Local Neighborhood Commercial District*

The scale of the two- to three-story buildings and wide sidewalks with ground level storefronts create a comfortable destination for pedestrians. This is further enhanced by the dominance of first floor retail and the emphasis of a human-centric scale over a vehicular one. The lack of setback establishes a linear path through the commercial area but doesn't allow for much public space or areas of respite. Although there is high foot traffic, there is minimal shading and greenery due to immature, widely spaced street trees along the southern exposed street. This is partially remedied with the use of various awnings and canopies which add depth to a flat façade. Most of the fenestration above the storefronts is single or double-hung windows at regular intervals. Building lots fronting on Liberty Avenue range from 20' to 30' wide with the largest peaking around 50'. The detailed craftsmanship, such as the dentil molding, cornices, and pilasters, evokes a distinguished rhythm in the strong neutral-toned brick motif.



## Gross Street

*Multi-Unit Residential Moderate Density District*

Counterbalancing the dense commercial district to its south, Gross Street evokes a more relaxed feel with its sidewalk buffer and well manicured setbacks leading to prominent porches. The one-way street minimizes traffic speed and volume reaching the single-unit residential district. Since the units sit an average of 6'-0" above street level, the main access depends on a series of stairs and do not take accessibility requirements into consideration. Residences peak at two- to three-stories with most having dormers jutting out from steeply sloped roofs. Whether the units are attached or detached, they share the same material palette of brick with wood trim and/or siding as an accent.



## Friendship Avenue

*Parks and Open Space/Single-Unit Attached Residential High-Density District*

Acting as a gateway between the residential community of Bloomfield and the northern end of West Penn Hospital's campus, Friendship Parklet creates a clearly defined pedestrian path by detouring vehicular access. The parklet boasts public amenities, such as benches, streetlamps, and drinking fountains, which create an area of respite away from the commercial district. The deep setback of the residences fronting the parklet further emphasizes the prominence of old, established trees and shrubs along this border. Lot sizes progressively reduce in width from 50' to 25' as the street transitions eastbound from the adjacent multiunit district to a single unit one.



## Architectural Character of the Campus

### Friendship Avenue

The original building on this site is a Classical Revival brick and terra cotta edifice located along Friendship Avenue. The multi-armed footprint pulls back from the sidewalk repeatedly. The variance in depth, while architecturally interesting, prevents this edge of the campus from engaging the public realm. A series of automobile-related paved zones between the building and the sidewalk confuse the definition of entry along this edge. The grand and formal appearance of the porte cochere was once the main entry to the hospital though it has not been so for many decades. A mid-block public transit stop and employee shuttle stop brings a subset of occupants onto the campus. Companion to the original hospital is the West Penn School of Nursing across Millvale. A restrained Classical Revival building sits back and above the sidewalk on a grassy slope. A monumental stair leads to the elevated front porch. Despite the distance, this character of this building harmonizes with its park neighbor. The Gross Street perimeter is also pulled back from the sidewalk.

### Liberty Avenue

Mellon Pavilion, a five-story Brutalist brick and concrete structure, occupies the opposite face of the campus along Liberty Avenue. This building has a clear entrance of a vaulted fabric canopy signaling the drop off zone, but the monumental scale of the façade articulation overpowers any human-scaled details. The street level massing has a rhythm of tall, deep niches occupied by benches. Beyond these elements, the massing rises straight up at the lot line. There is no acknowledgement of the two to three-story traditional commercial buildings across Liberty. The hospital's primary parking garage across S. Millvale Avenue shares that Brutalist architectural style. The layout of the garage is aligned with the steep north to south slope of S. Millvale Avenue and the primary vehicle entrance on Millvale. The parking deck along Liberty is half a floor level above the sidewalk, which creates a largely blank façade of brick and concrete lacking pedestrian engagement. The height of the buildings and the lack of setbacks at upper levels create an architectural canyon with inconsistent degrees of light and shade.

### Gross Street

The edge of WPH's urban campus does not extend the length of Gross Street, providing opportunities for development. The historic character of the School of Nursing and the existing parking garage bookend a series of grass lots and two existing residential buildings on private properties. The majority of the sidewalk adjacent to the campus has few trees or planters.

### Mathilda Street

The hospital massing along Mathilda Street is a mixture of architectural styles and scales. The largest structure is one of the oldest. Articulated brick with terra cotta details, this tower retains the historic character of the Friendship Avenue buildings. However, expressionless low-scale additions interrupt that identity. Street trees are present, but not close enough to create a strong landscape buffer along the public right-of-way.

### S. Millvale Avenue

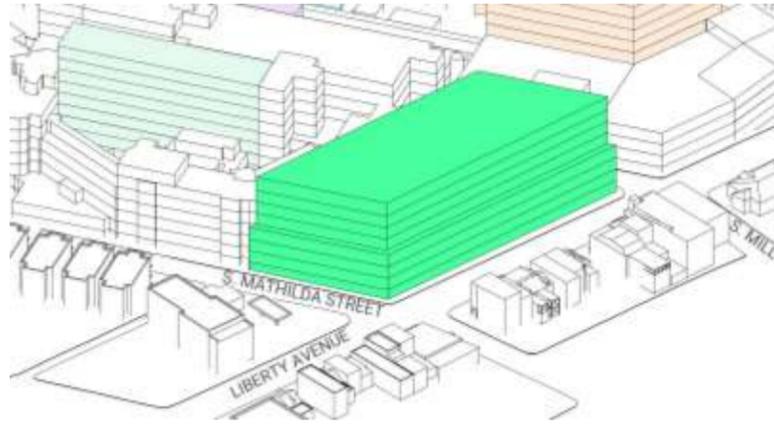
Millvale Avenue serves as the functional spine of the campus from where a significant portion of the hospital's support systems are accessed. While there are several entrances to the buildings along Millvale, none represent a main entrance. Located mid-block, the primary loading docks conflict with the emergency department. Ambulances and patient drop-off vehicles intersect the pedestrian zone. The main hospital building is of monumental scale with Postmodern articulation. Small trees and brush intermittently dot the sidewalks but overall, brick and concrete dominate the streetscape.

### Conclusion

The role WPH plays in the urban landscape differs significantly based on each street bounding or bisecting the campus. There is no singular or prominent architectural style or "front door" to the campus. Instead, each building is a distinct product of the architectural trends of the time in which it was constructed. The end result is a campus whose primary characteristic is brick and whose urban identity is "institution."



## Building Design Guidelines



### Mellon Pavilion Replacement Site

The Liberty Project inpatient expansion will be the symbolic front door to the campus. The architectural design should reflect the technological advancements and human-centered principles of the hospital. It is also important that this new building feels as if it belongs in the neighborhood of Bloomfield. The following design guidelines establish a set of goals and parameters to ensure the success of the future project.

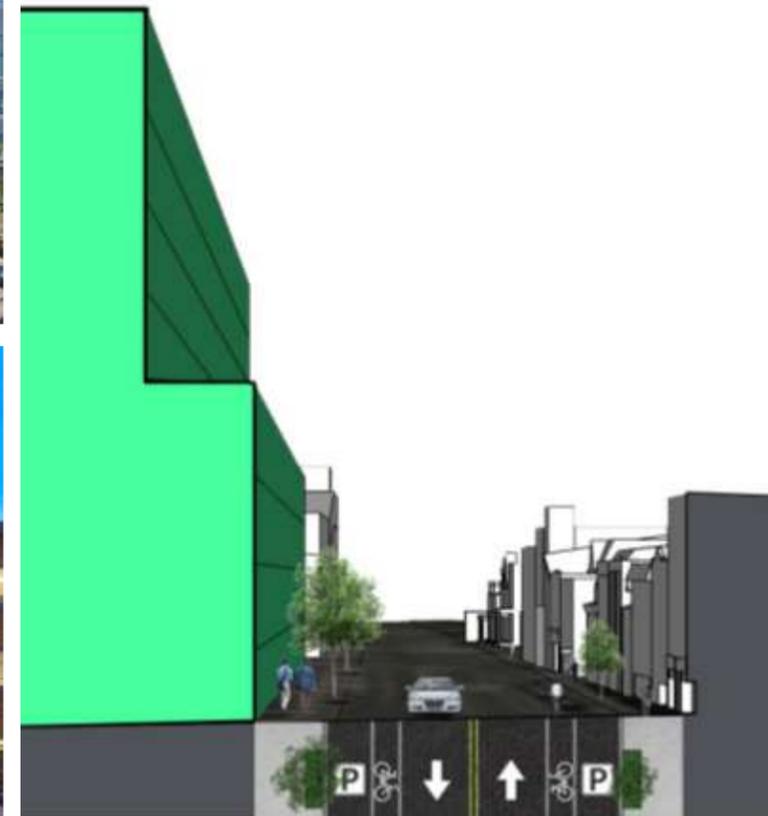
#### Building Design Goals

- The building should be designed to be engaging and attractive from the pedestrian scale, while also exuding high design quality from a distance.
- The façade of the building should reflect the varying widths of neighboring buildings. Strategies should be multi-scalar and intentional, manipulating light and shadow, pattern, and texture to create human scale.
- The building shall be built of durable, high quality materials that are easily cleanable.
- Service entry to the buildings shall not be located on Liberty Avenue or across from any residential buildings.
- The building's mechanical systems shall meet the outlined sustainability goals. Building equipment, vents, ducts, or other systems shall be well incorporated into the overall building design. This shall include rooftop screening of mechanical equipment to minimize visual impact and ventilation louvers that complement the aesthetic quality of the building façade.

#### Ground Floor/Streetscape

The ground floor and streetscape of this site is critical to the future success. The building must connect users inside the building with the bustling street life outside. The following points shall be considered during design:

- Development shall incorporate opportunities for public interaction. Seating, lighting, bike parking, shade, and landscaping in the transition from public to private will encourage those interactions.
- Development shall respond to the bus stop on Liberty Avenue by integrating infrastructure such as lighting, canopies, leaning rails, etc. to make it a more inviting place to wait.
- Transparent glazing shall dominate the ground floor facades to encourage walkability and human engagement.
- The public entrances must be clearly emphasized and easy to find.
- Street level spaces shall be programmed to allow for retail type development with community presence.



#### Architectural Elements

Materiality and detailing heavily influence building character and sense of place. They can ensure that the development is appropriately woven in the neighborhood fabric. The building materials chosen must compliment the existing architecture of the West Penn Hospital campus and Bloomfield as a whole by reflecting the historic commercial scale of Liberty Avenue. Unique materials may be used to highlight or accent components of the building's design but should not be a dominant feature.

Acceptable primary materials include:

- Brick
- Architectural concrete
- Glass
- Terra Cotta

Acceptable accent/secondary materials include:

- Metal: aluminum, copper, etc.
- Stone
- Wood
- Pre-cast concrete
- Ceramic tile
- Any primary material

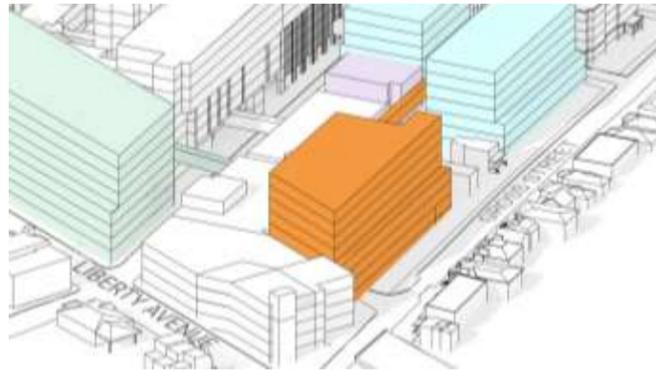
Materials to avoid include:

- Oversized metal panels
- Fiber cement panels
- Synthetic STUCCO/EIFS
- Vinyl or aluminum siding
- Concrete block
- Mirrored or highly reflective glass

Upper Left: Tepper School of Business  
Lower Left: Cherry Hospital, Goldsboro, NC  
Right: Typical Liberty Ave Street Section



## Building Design Guidelines



### Gross Street Structured Parking Site

The addition of a second parking structure between Gross Street and Millvale Avenue is a necessary investment to ensure the expanded facilities of West Penn Hospital continue to be easily accessible to the many patients, staff, and visitors that pass through its doors daily.

#### Building Design Goals

- The design of this new parking garage should reflect the architectural character of its surroundings, and intensely study the effect it will have on them.
- The project should have as little negative impact as possible on the surrounding site with regards to light, sound, and aesthetics.
- Entry to the garage shall be clear and visible from Liberty Avenue, utilizing wayfinding features such as tasteful signage, canopies, setbacks, etc.
- The façade of the garage shall be broken up along Gross Street to reflect the smaller scale of the homes across the street.
- Architectural screens shall be utilized to visually block cars from public view. Appropriate techniques include screening with tightly spaced metal louvers, decorated perforated metal panels, and metal mesh.

#### Ground Floor/Streetscape

The site surrounding the project should be thoughtfully designed and integrated into the overall building design. Introducing green spaces, seating, and other urban interventions gives the site a more welcoming feel. Access to the garage will be closed overnight to prevent car headlights from intruding on neighbors.

#### Architectural Elements

Parking garage façade design is typically an afterthought after the programmatic needs and the structure required. The aesthetics and function of the building's façade should be just as intensely studied. Elements of the façade need to be open air, screening, and responsive to the surrounding area.

Acceptable primary materials include:

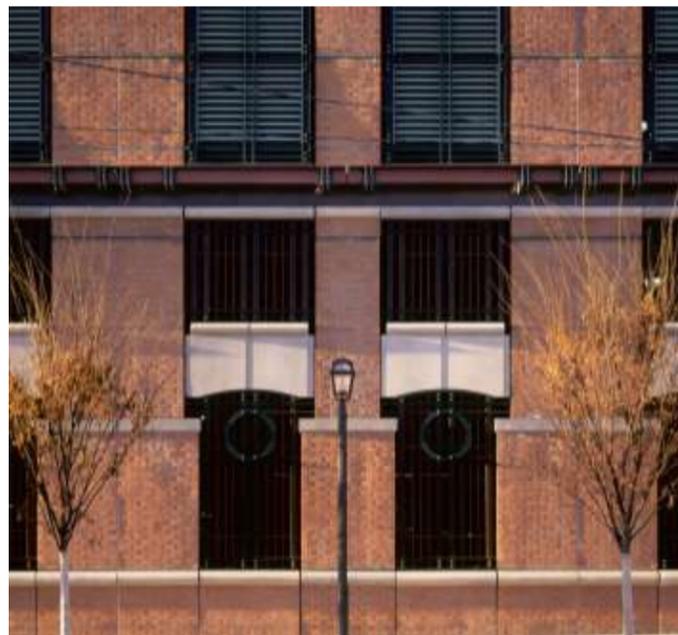
- Architectural concrete
- Brick

Acceptable accent/secondary materials include:

- Perforated metal panel
- Glass
- Stone
- Pre-cast concrete
- Wood
- Concrete masonry units
- Any primary building material

Materials to avoid include:

- Oversized metal panels
- Fiber cement panels
- Synthetic STUCCO/EIFS
- Vinyl or aluminum siding
- Mirrored or highly reflective glass



Left: WPH Aspen St. Garage – Pittsburgh, PA  
Middle: CMU Parking Structure – Pittsburgh, PA  
Right: Typical Gross Street Section – Two Way

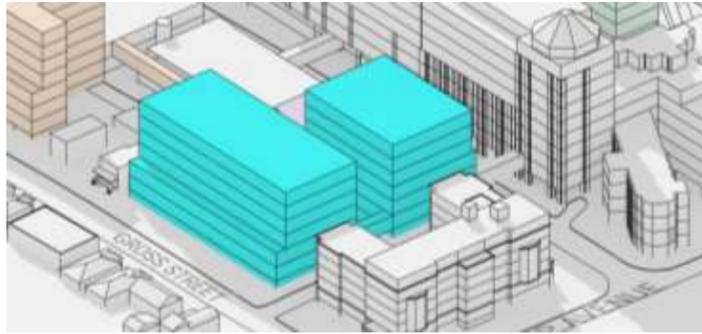
## 5.3 Urban Design Guidelines



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# Building Design Guidelines



## Outpatient Care Site

The addition of an outpatient care facility along Mend Way, between Gross Street and Millvale Avenue, can uniquely transform the character of the institution and the surrounding neighborhood. The building will be a freestanding addition to the campus, connecting to the existing hospital and garage via an elevated pedestrian bridge. This project should be designed in a way that is reflective of the surrounding campus and neighborhood but also reflects current design trends. The building should be respectful of the past yet firmly express itself as a building of today and the future.

## Building Design Goals

- The building massing needs to be acutely aware of its effects on the nursing school to its north, the main hospital entry to its west, and the neighboring housing to its east.
- Design measures should minimize any “canyon effect” where little to no direct sunlight reaches any point on the street between buildings.
- While a mostly glass ground floor is ideal for wayfinding and encouraging the flow of the public in and out of the structure, it is not ideal when there are private homes across the street.
- Light and noise pollution should be contained within the campus to minimize negative effects on the residential neighbors.
- Entry and wayfinding should be abundant and clear. Architectural elements, such as canopies, ground floor glazing and streetscape, help visitors quickly and easily navigate the campus.
- Building service entry should be screened and discreet while still being easily accessible.
- Any mechanical systems or louvers should be covered and integrated into the overall design language of the building.

## Ground Floor/Streetscape

This project will effectively fill a large void on the campus, and therefore has the opportunity to make the block a more pedestrian friendly environment for employees, visitors, and patients. The streetscape between the campus and the building is what makes this project a part of the campus and should be designed to a high level of thought and detail.

- Sidewalks and paths should be organized around the building so that pedestrians can quickly and efficiently move from the site to anywhere else on the campus.
- Along the main pedestrian corridors should be nodes of calm places for people to sit, rest, and unwind. These spaces offer visitors moments of escape in a potentially difficult time in life and should be designed with the care and attention to detail that they deserve.
- The streetscape should be adequately lit for safety but respect any light pollution concerns from the surrounding areas.
- The Gross Street facade shall not look like the rear of a building.

## Architectural Elements

Due to this building’s prominence and location on the campus, it should reflect the modern and innovative medicine that is performed within its walls. The façade of the building should be made of durable and easily cleanable materials with a restrained use of transparency for the Gross Street facade. Those used should be on the cutting edge of performance, sustainability, and modern aesthetics.

Acceptable primary building materials include:

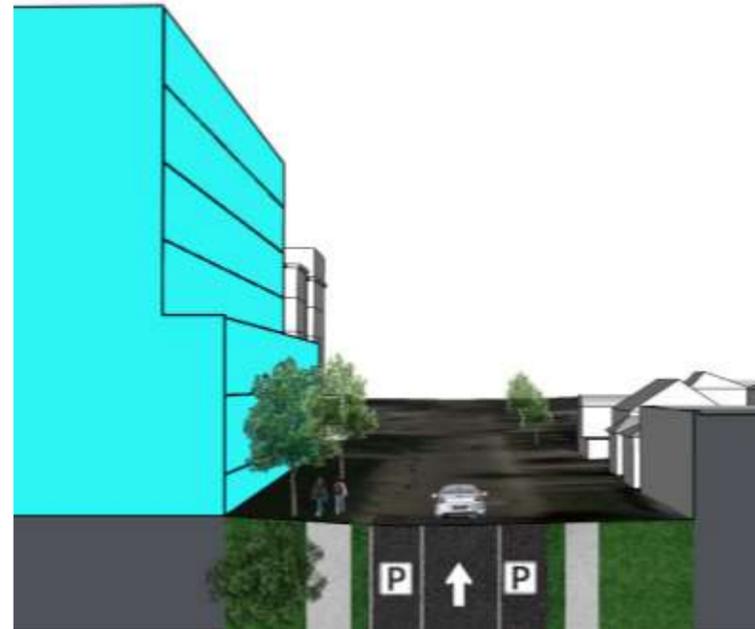
- Brick
- Architectural concrete
- Glass
- Terra cotta

Acceptable accent/secondary materials include:

- Metal: aluminum, copper, etc.
- Stone
- Pre-cast concrete
- Wood
- Ceramic tile
- Composite metal panels
- Concrete masonry units
- Any primary material

Materials to avoid include:

- Synthetic STUCCO/EIFS
- Mirrored or highly reflective glass
- Vinyl or aluminum siding

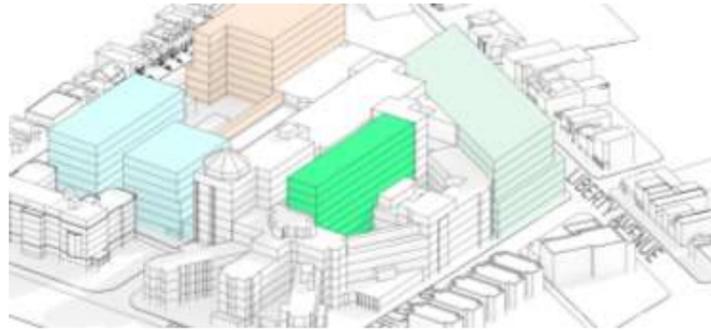


Left: Omagh Hospital – United Kingdom  
 Middle: University of Minnesota Health Clinics  
 Right: Typical Gross Street Section – One Way

# 5.3 Urban Design Guidelines



## Building Design Guidelines



### Architectural Elements

The materiality of the building should directly reflect that of the surrounding buildings at major connection points in order to ease the transition between the old and the new. Connection to the old building can lead to a more modern design approach as the building projects itself as its own entity within the surrounding architectural landscape.

Acceptable primary materials include:

- Brick
- Architectural concrete
- Pre-cast concrete
- Glass
- Terra cotta

Acceptable accent/secondary materials include:

- Metal: aluminum, copper, etc.
- Stone
- Wood
- Ceramic tile
- Concrete masonry units
- Any primary material

Materials to avoid include:

- Synthetic STUCCO EIFS
- Vinyl or aluminum siding,
- Mirrored or highly reflective glass



### Utility Site

The Millvale Street Utility building plays an important role in the continuous care of all patients at the hospital. As such, the design of this addition should add to the character of the campus, not subtract from it.

### Building Design Goals

- All active mechanical vents and louvers should be placed away from S. Millvale Avenue.
- The building should be composed of durable materials that are easily cleaned and upkept.
- The overall design should be simple, economic and reflect the fact that it is not a public building.



### Architectural Elements

The details for the power plant expansion should reflect the industrial nature of the building and be perceived as an aesthetically pleasing and intentional structure.

Acceptable primary materials include:

- Brick
- Architectural concrete
- Pre-cast concrete
- Terra cotta
- Metal panel

Acceptable accent/secondary materials include:

- Metal: aluminum, copper, etc.
- Stone
- Wood
- Ceramic tile
- Concrete masonry units
- Any primary material

Materials to avoid include:

- Fiber cement panels
- Synthetic STUCCO EIFS
- Vinyl or aluminum siding
- Mirrored or highly reflective glass

Left: The Green Building – Louisville, KY

Right: Ville de Levis – Levis, Canada



## Streetscape Character of the Neighborhood

### Street Elements

- Improvement to crosswalks at crucial intersections around campus
- Incorporation of inviting amenities like benches, canopies, and awnings creating places to pause
- Installation of contextually appropriate lighting that provides safe passage but does not cause light pollution
- Upgrade to internal campus sidewalks and paving
- Clear notation of traffic/bike lane markings
- Opportunities for public art

### Screening

- Incorporation of vegetative and/or man-made screening of unsightly elements at the ground level
- Reduction of sight lines to objectionable views at the roof top



## Tree Planting Opportunities



Existing Tree Canopy – Potential Canopy Increase

- IMP Environmental Study Area
- Existing Tree Canopy
- Conceptual Tree Placement

### Tree Preservation

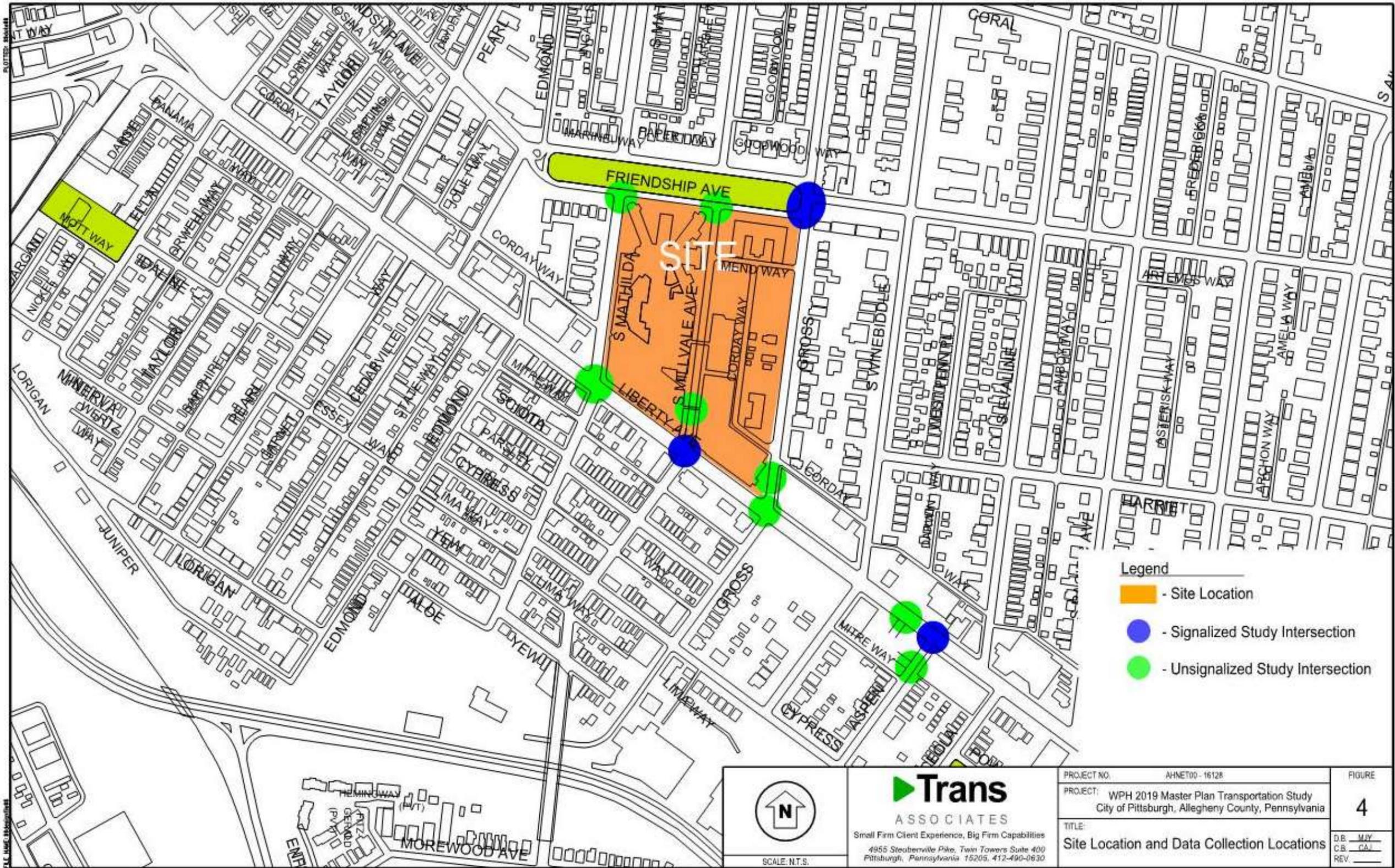
- New development plans shall include a tree inventory and discussion of tree preservation and supplementation as it pertains to the individual project and the context.

### Street Trees

- Increase in Bloomfield's shade canopy to reduce heat island effect
- Enhancement to pedestrian experience, especially in areas like the Liberty Avenue commercial corridor
- Integration of bio-retention planters to assist in removing pollutants from runoff and better management of stormwater volume of in the streets
- Further creation of continuity within the neighborhood

### Landscape

- Studies have shown that visual contact with natural elements have positive health outcomes of patients as well as on staff and visitors. Design of new development shall explore approaches to incorporate of natural elements.
- Along Gross Street, integration of a landscape buffer between the sidewalk and building face for native/adaptive plant species will create a buffer for residential across the street just as it does at the School of Nursing.
- Incorporation of architectural elements and massing that provide a human scale
- Creation of a cohesive and well-balanced pedestrian environment unique to its urban context
- Reduction of impervious materials where possible in the design



## 6.1 Mobility Plan - Existing



West Penn Hospital  
Institutional Master Plan  
project no. 16-034.2  
Draft 17 AUGUST 2020

PLOTTED: 1/27/2020

	West Penn Hospital Parking Facility	Number of Parking Spaces		
		Patient/Visitor	Employee	TOTAL
①	Aspen Street Garage	0	384	384
②	McKean Lot	0	163	163
③	West Penn Millvale Garage	595	182	777
⑤	Ambulance Entrance	0	3	3
⑦	Ambulance Transfer Lot	0	7	7
⑧	Short Term Physician Lot	0	3	3
⑨	MRI/Radiation/Oncology Lot	0	5	5
⑪	New Gross Street Garage	375	325	700
TOTAL WEST PENN HOSPITAL PARKING		970	1,072	2,042

**Legend:**  
 - Parking Garage  
 - Parking Lot



FILE NAME: P:\ahnet00\1628 - West Penn HospitalMaster Plan\Figures/Parking Inventory.dgn



 SCALE: N.T.S.	 <b>Trans</b> ASSOCIATES Small Firm Client Experience, Big Firm Capabilities 4955 Steubenville Pike, Twin Towers Suite 400 Pittsburgh, Pennsylvania 15205, 412-490-0630	PROJECT NO. AHNET00 - 16128	FIGURE <b>10</b>
		PROJECT: WPH 2019 Master Plan Transportation Study City of Pittsburgh, Allegheny County, Pennsylvania	D.B. <u>AMK</u> C.B. <u>CAJ</u> REV. _____
TITLE: <b>Future 2029 Parking Inventory</b>			

# 6.2 Mobility Plan - Goals



**West Penn Hospital Institutional Master Plan**  
 project no. 16-034.2  
 Draft 17 AUGUST 2020



**TABLE 18  
2029 FUTURE PARKING ALLOCATION  
WPH 2019 Master Plan Transportation Study  
City of Pittsburgh, Allegheny County, Pennsylvania**

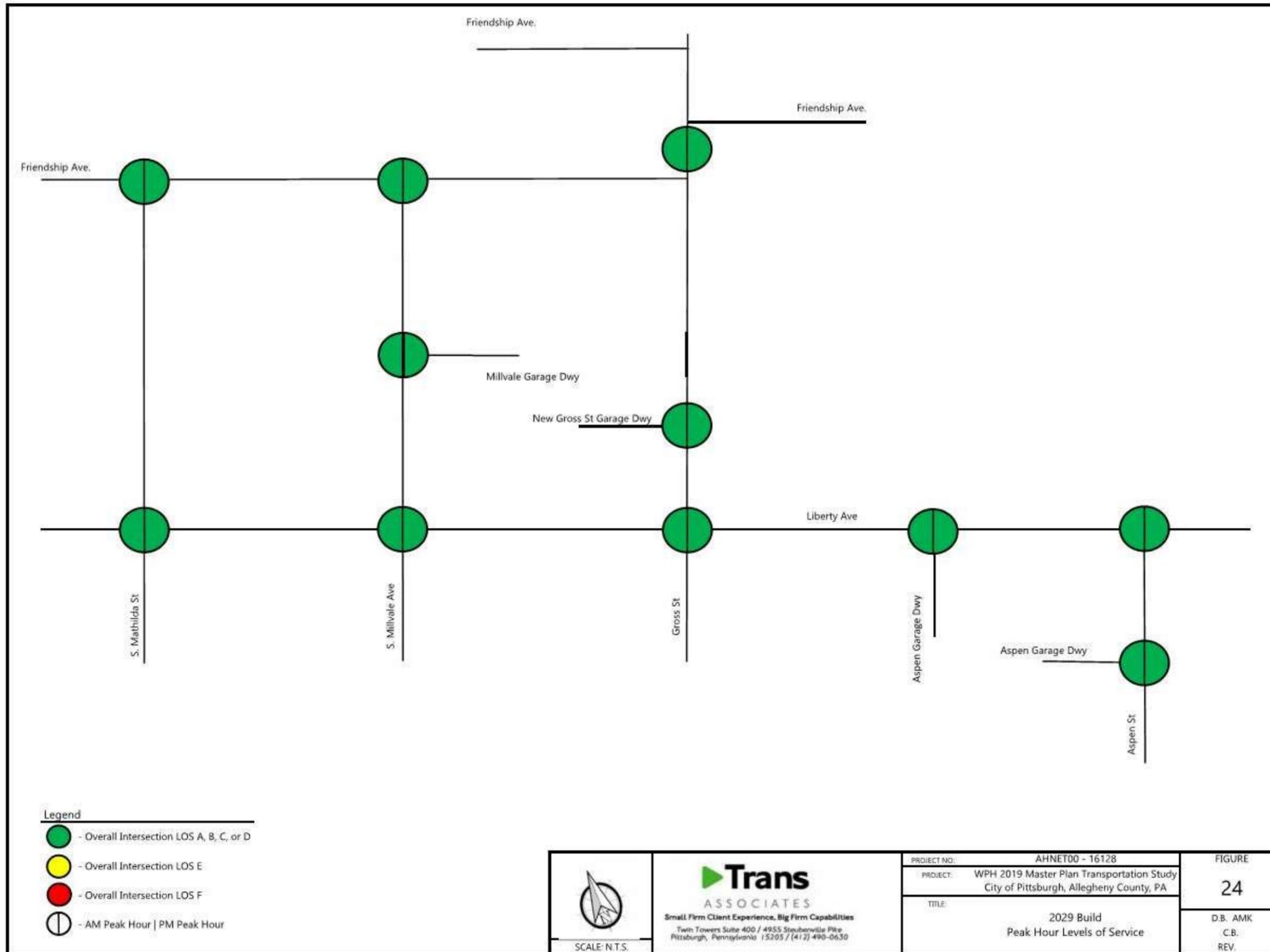
Parking Facility	Number of Parking Spaces		
	Patient/Visitor Spaces	Employee Spaces	Total Spaces
<b>On-Campus WPH Parking Facilities</b>			
West Penn Millvale Garage	675	102	777
Ambulance Entrance	--	3	3
Ambulance Transfer Lot	--	7	7
Short Term Physician Lot	--	3	3
MRI/Radiation/Oncology Lot	--	5	5
New Gross Street Garage	375	325	700
Subtotal, On-Campus WPH Parking Facilities	1,050	445	1,495
<b>Off-Campus WPH Parking Facilities</b>			
McKean Lot	--	163	163
Aspen Street Garage	--	384	384
Subtotal, Off-Campus WPH Parking Facilities	--	547	547
<b>TOTAL - All Parking Facilities</b>	<b>1,050</b>	<b>992</b>	<b>2,042</b>

Source: Analysis by Trans Associates.

### Parking Analysis – Principal Findings

1. Parking priority will be given to patients and visitors, with parking available to them in locations convenient to their destinations.
  - a. The net increase in on-campus parking spaces will be 637 spaces with the completion of all of the 10-year IMP projects.
  - b. The increase in parking demand is projected to be 373 spaces with completion of all of the 10-year IMP projects.
  - c. Patients destined for the Hospital or the new Ambulatory Care facility will park in either the Millvale Garage or the new 700 space Gross Street Garage, with access provided via both Millvale Avenue and Gross Street. Vehicular circulation will be possible between the garages. The Gross Street driveway will be closed after 8:00 p.m. on weekdays and on weekends and holidays.
  - d. After patient/visitor demand is satisfied, all remaining spaces in the Millvale Garage and the new Gross Street Garage will be reserved for physicians/staff.
2. The Lawrenceville Shuttle Lot will continue to be owned by West Penn Hospital, with employee shuttle service discontinued after construction of the new Gross Street Garage. The Lawrenceville Lot will be reserved for instances of overflow parking and special event parking.
3. Employee parkers will continue to use the off-site McKean Lot and the Aspen Street Garage, with 547 off-site parking spaces provided.
4. Bicycle parking facilities and showers will be provided for the 10-year master plan conditions as required by the City of Pittsburgh Zoning Code.





## Traffic Capacity Analysis

Capacity analyses were performed at the study intersections for the 2018 existing, 2029 no-build (without master plan components), and 2029 build (with master plan components) conditions. Analyses were performed using the methodologies published in the Highway Capacity Manual 2010, by the Transportation Research Board using Synchro, Version 10 traffic analysis and simulation software. Results of the future 2029 build (with all 10-year master plan components) conditions capacity analyses with signal timing optimization and mitigation measures in place indicate that all intersections and approaches are projected to operate with levels of service of D or better with the following exception:

- Liberty Avenue and Aspen Garage Driveway (unsignalized) during the PM peak hour – the northbound driveway approach will operate at LOS F with 61.6 seconds of delay.



## Transportation Demand Management (TDM) Plan

West Penn Hospital (WPH) is currently evaluating a program of potential TDM strategies intended to reduce the volume of single-occupancy vehicle traffic to the WPH campus. The specific TDM initiatives selected for pilot programs and/or permanent implementation will be determined prior to submission of the final transportation report for the first on-campus development project to be constructed on the campus. Based on the transportation survey results, 82.2% of employees currently drive to the WPH campus. WPH's TDM strategy will have a target of reducing that percentage to 65-70% within five years of the opening of the first IMP development project.

Potential TDM Initiatives for WPH Staff	
INITIATIVE	ACTIONS
Create Leadership Role	<ul style="list-style-type: none"> <li>WPH will appoint a TDM Coordinator to manage TDM strategies and initiatives for the WPH campus.</li> <li>This individual will be responsible for developing and implementing effective communication programs to promote TDM options to new and current WPH employees.</li> <li>The individual will be responsible for assessing the effectiveness of the TDM initiatives, modifying them as appropriate, and providing updates to the City of Pittsburgh DOMI. TDM information will also be made available to individual physicians' office staff as well.</li> <li>To promote the programs and provide individual employee assistance, the TDM coordinator will be available for individual consultation in the forms of email, telephone calls and in-person individual meetings.</li> <li>The TDM coordinator will submit a status report documenting the results of TDM initiatives every three years to DOMI.</li> </ul>
Increase Public Transit Use	<ul style="list-style-type: none"> <li>Engaging with the Port Authority of Allegheny County (PAAC) to explore their Job Perks program which provides the opportunity for employees to purchase pre-tax monthly transit passes through payroll deduction. Additionally, the PAAC also offers stored cash value through the program for employees with flexible or unpredictable schedules.</li> <li>Engage with PAAC regarding providing monthly transit passes for employees in certain departments as an employee recruitment strategy.</li> <li>Analyzing a WPH-supported 'Guaranteed Ride Home' program for WPH employees to boost potential transit ridership.</li> </ul>
Increase Bicycle Use	<ul style="list-style-type: none"> <li>Increased use of Healthy Ride bike sharing program. Explore offering free or discounted Healthy Ride membership through the Healthy Ride Corporate Membership Program.</li> <li>Active promotion of bicycle storage and shower facilities to increase employee bicycling.</li> </ul>
Promote Use of Ridesharing Programs	<ul style="list-style-type: none"> <li>Promote Zipcar and rideshare usage as supplement to public transit or other single-occupancy vehicle alternatives (bike, walk, carpool, etc.).</li> <li>Establish priority carpool/vanpool parking on the WPH campus as required to meet needs.</li> <li>Promote the use of the Southwestern Pennsylvania Commission (SPC) Commuter Connects program for establishment of carpools and vanpools for employees.</li> </ul>
Utilize Operational Policies	<ul style="list-style-type: none"> <li>Maximize use of the current WPH flexible work hours/telecommute program.</li> <li>Establish alternatives to staff usage of private automobiles for transportation between AHN campuses. Methods to be explored will include:               <ul style="list-style-type: none"> <li>Designate rideshare (e.g., Uber/Lyft) pick up/drop off locations at main entrances of WPH facilities to facilitate ease of use.</li> <li>Maximize ridesharing to corporate meetings.</li> <li>Maximize use of web conferencing.</li> </ul> </li> </ul>

### TDM Strategies for Patients, Visitors and General Public

Reducing private vehicle trips for patients and visitors is more of a challenge than changing employee commuting patterns. Patients and visitors originate from various locations near and far and make less frequent trips to WPH than employees. Additionally, patients/visitors may not physically be able to participate in active transportation modes.

However, patients, visitors, and the general public could take advantage of TDM initiatives that are created primarily for WPH staff if they are aware that those options exist.

INITIATIVE	ACTIONS
Utilize Applicable Staff TDM Initiatives	<ul style="list-style-type: none"> <li>Provide bicycle storage facilities.</li> <li>Establish easily accessible Uber/Lyft pick-up/drop-off locations.</li> </ul>
Consider Patient/Visitor-Focused Initiatives	<ul style="list-style-type: none"> <li>Include information on public transit, cycling, pedestrian paths, and car share stations on the WPH website, and provide this information and links to WPH physician offices for use by their patients.</li> <li>Deployment of real-time transit and rideshare information screens in the main lobby of WPH to allow both patients/visitors and employees to see their options before they leave the facility.</li> </ul>



## Recommendations

### Additional TDM Actions

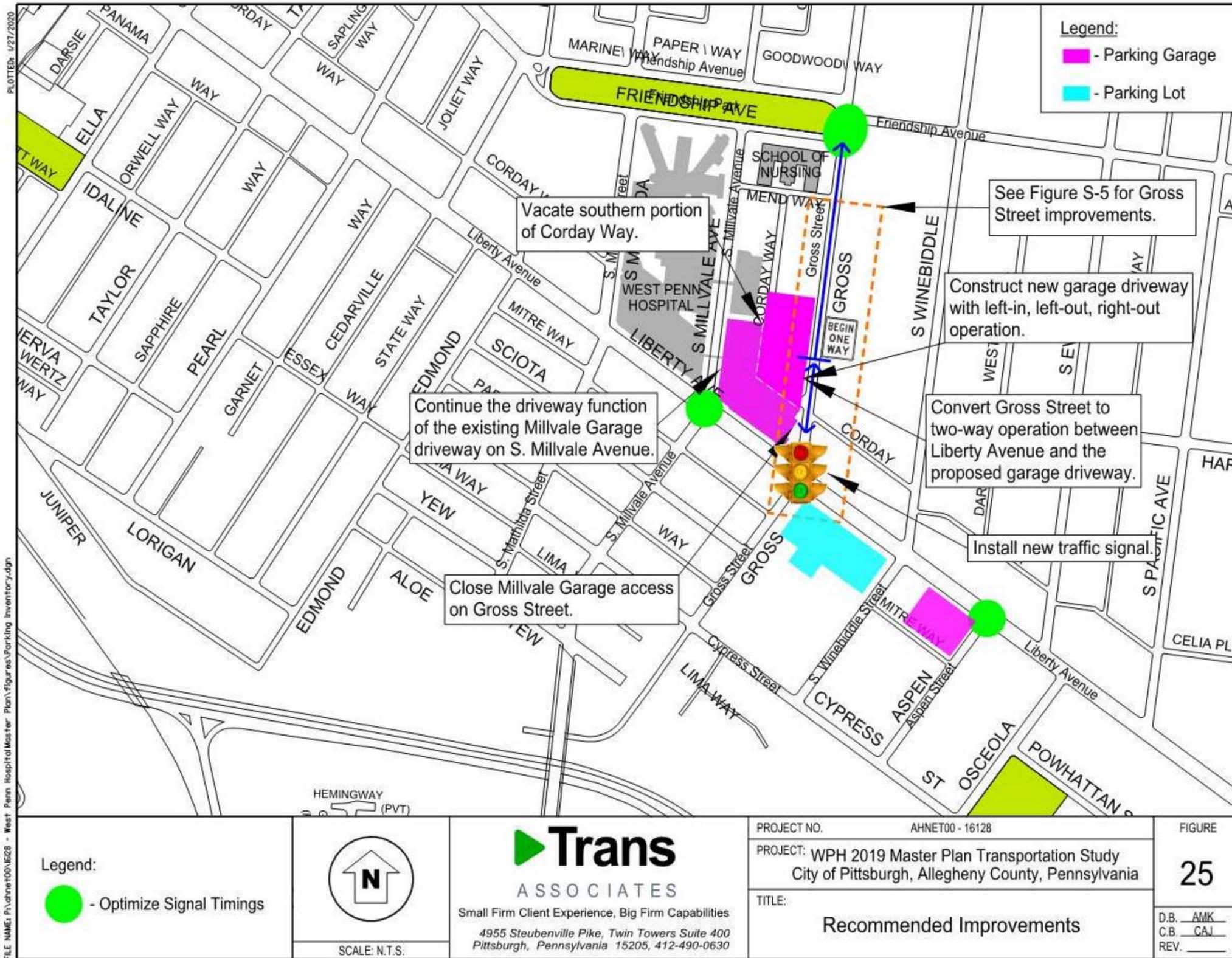
There are additional potential mobility-related actions which could be undertaken as part of the TDM strategy development, including:

- Installing at least two electric vehicle (EV) charging stations in the new WPH garage for use by patients/visitors and staff.
- Converting existing parking spaces in Millvale Avenue garage to some spaces with electric vehicle charging stations.
- Exploring partnering to provide one or more charging stations in the new WPH garage.
- Address the possibility of permitting neighbor parking in the new WPH parking garage during weekday evenings (after hours) and overnight, and on weekends and holidays.
- Provide wayfinding signage to WPH.

ACTION	DETAILS
Under the 2029 build conditions, the following mitigation measures are required in order to minimize impacts on intersection levels of service. These mitigation measures are illustrated in the accompanying figures in this section, as well as, in the Transportation Impact Study dated 2/14/19 in the Appendix.	
Improve traffic signal operations in the area	<ul style="list-style-type: none"> <li>• Optimize peak hour traffic signal timings</li> <li>• Optimize network peak hour signal timing offsets</li> </ul>
Convert Gross Street to two-way operation between Liberty Avenue and the proposed new Gross Street Garage driveway	Parking will be removed along the western side of Gross Street. Approximately three metered spaces and one residential permit parking spaces (Zone H) will be removed, all of which are adjacent to WPH property
Construct new Gross Street Garage driveway on Gross Street to permit left turns in and left turns/right turns out	<ul style="list-style-type: none"> <li>• Close the Gross Street Garage driveway from 8:00 PM to 6:00 AM</li> <li>• Permanently close the existing Gross Street driveway of the Millvale Garage</li> <li>• Provide 6'x25' bump-outs at start of one-way portion of Gross Street.</li> </ul>
Install new traffic signal at the Liberty Avenue/Gross Street intersection with pedestrian amenities	Pedestrian Amenities: <ul style="list-style-type: none"> <li>• Pedestrian push buttons</li> <li>• Countdown signals</li> <li>• Audible equipment</li> <li>• Thermoplastic piano key pedestrian crosswalks and stop bars</li> </ul>
Upgrade pedestrian amenities at the Liberty Avenue/South Mathilda Street, Friendship/Millvale, Friendship/Mathilda and the Friendship Avenue/Gross Street intersections.	Pedestrian Amenities: <ul style="list-style-type: none"> <li>• Thermoplastic piano key pedestrian crosswalks and stop bars</li> </ul>
Upgrade Safety Measures on Liberty Avenue	<ul style="list-style-type: none"> <li>• Provide safety upgrades including lighting and additional measures to be identified to connect pedestrians from public transit to the West Penn Hospital Campus</li> <li>• New pedestrian push buttons, countdown and audible equipment at the existing S. Millvale &amp; Liberty traffic signal</li> <li>• Thermoplastic piano key pedestrian crosswalks and stop bars</li> </ul>
On South Millvale Avenue install a mid-block crossing with a Rectangular Rapid Flashing Beacon (RRFB)	Additional Pedestrian Amenities: <ul style="list-style-type: none"> <li>• Pedestrian push buttons</li> <li>• Thermoplastic piano key pedestrian crosswalks and stop bars</li> <li>• In-pavement lighting between the Main Entrance/ED and the ED parking lot</li> </ul>
Provide a new secured and covered bicycle parking facility in the new Gross Street Garage. The location is shown in Section 7.7.	Provide outdoor public bicycle racks as in the Pedestrian Circulation diagrams of Section
Wherever roadways and sidewalks are disturbed, provide new streetscape treatments in accordance with City of Pittsburgh standards	Consider lighting, street furniture, and landscaping features
Vacate southern portion on Corday Way.	Create a hammerhead turn around to allow for continued services to private residences.

## 6.2 Mobility Plan - Goals



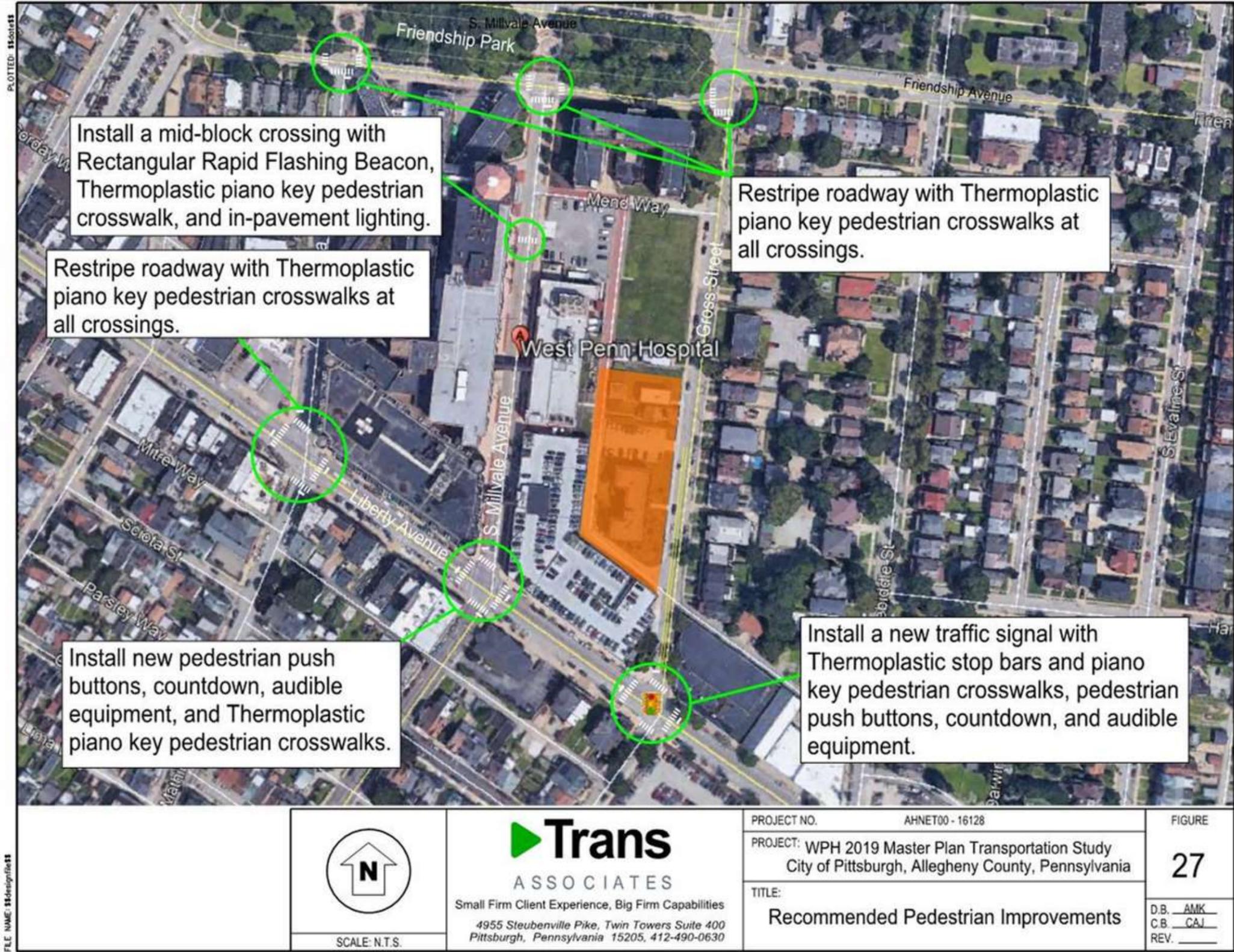


## Recommendations

Recommended improvements outlined here will be implemented as part of the new parking structure development scope.

# 6.3 Mobility Plan - Proposal





### Recommendations

Pedestrian improvements outlined here will be implemented as part of the new parking structure development scope.

FILE NAME: 16designfig11



SCALE: N.T.S.



Small Firm Client Experience, Big Firm Capabilities  
4955 Steubenville Pike, Twin Towers Suite 400  
Pittsburgh, Pennsylvania 15205, 412-490-0630

PROJECT NO. AHNET00 - 16128  
PROJECT: WPH 2019 Master Plan Transportation Study  
City of Pittsburgh, Allegheny County, Pennsylvania  
TITLE: Recommended Pedestrian Improvements

FIGURE  
**27**  
D.B. AMK  
C.B. CAJ  
REV. \_\_\_\_\_

Legend:

Future Parking

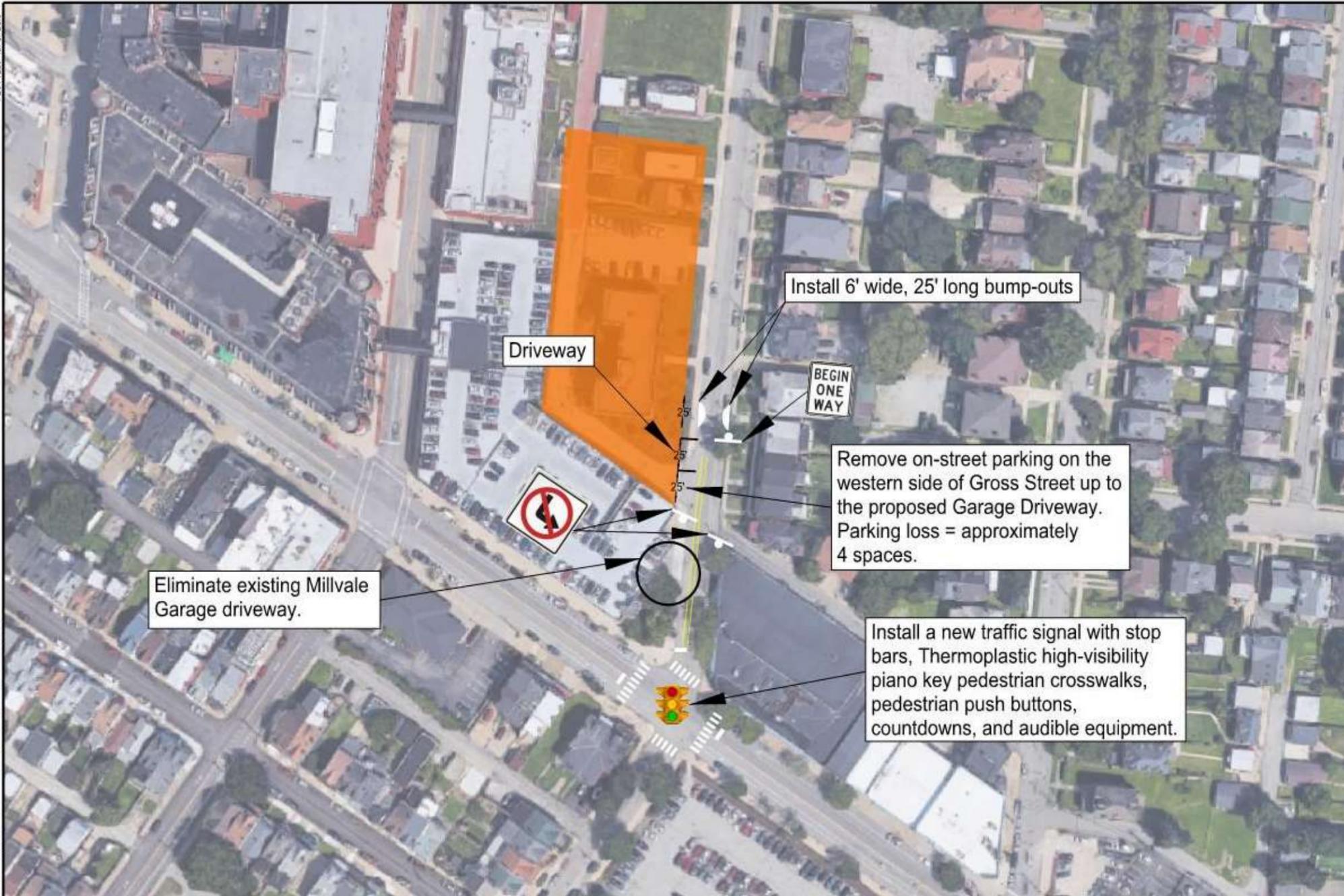
## 6.3 Mobility Plan - Proposal



West Penn Hospital  
Institutional Master Plan  
project no. 16-034.2  
Draft 17 AUGUST 2020



FILE NAME: P:\chm\00\1628 - West Penn Hospital\Master Plan\Figures\Parking Inventory.dgn  
PLOTTER: 10/3/2019



 SCALE: N.T.S.	 Small Firm Client Experience, Big Firm Capabilities 4955 Steubenville Pike, Twin Towers Suite 400 Pittsburgh, Pennsylvania 15205, 412-490-0630	PROJECT NO. AHNET00 - 16128	FIGURE
		PROJECT: WPH 2019 Master Plan Transportation Study City of Pittsburgh, Allegheny County, Pennsylvania	28
TITLE: Gross Street Improvements		D.B. AMK	C.B. CAJ
		REV. _____	

## Recommendations

Gross Street improvements outlined here will be implemented as part of the new parking structure development scope.

Legend:

Future Parking

# 6.3 Mobility Plan - Proposal

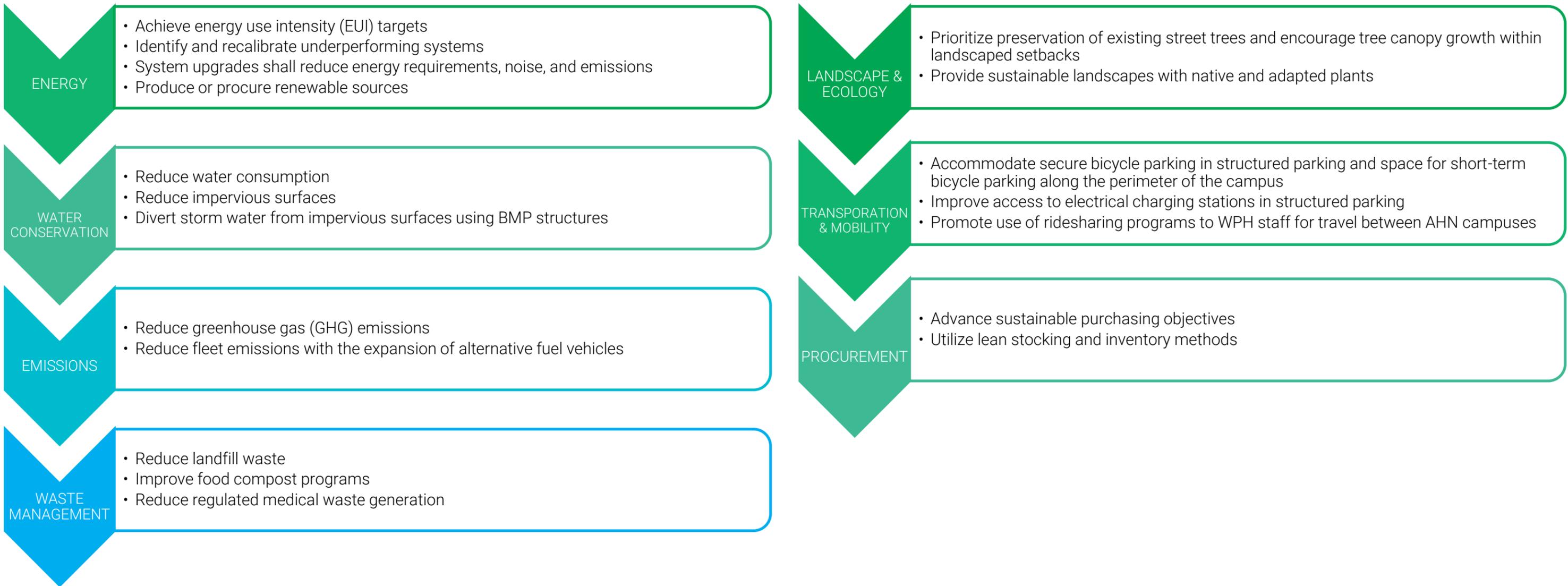


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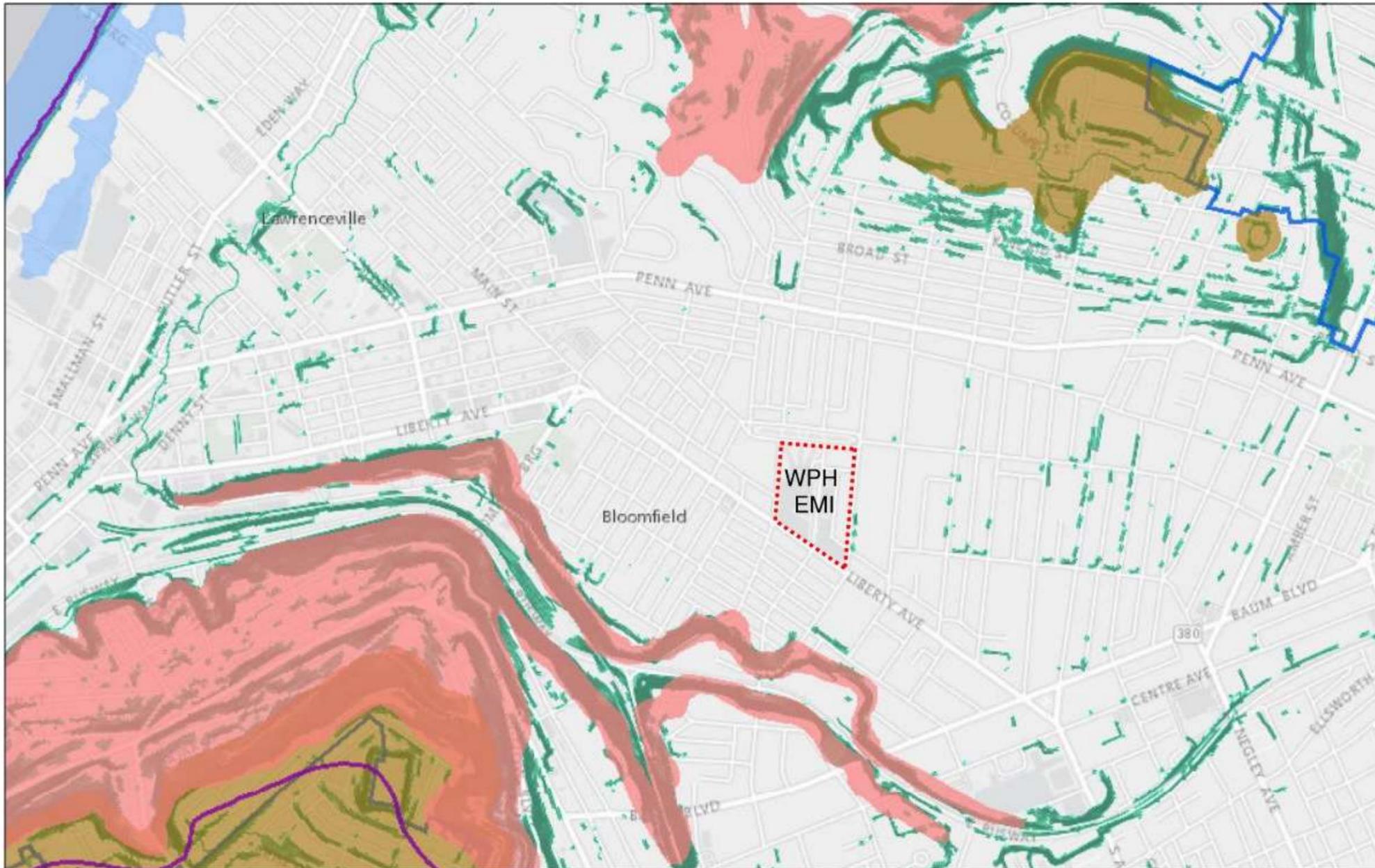
# Environmental Initiatives

West Penn Hospital has a role to play as environmental steward in Bloomfield and its surrounding communities. Informed by the sustainable goals and actions established by the City of Pittsburgh, The Allegheny Health Network (AHN) is in the process of developing a sustainability plan that will set forth a strategic framework for future development at its family of hospitals including West Penn Hospital. Outlined in this IMP are preliminary goals that have been organized into seven impact areas.



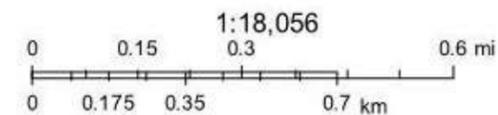
## 7.1 Environmental & Sustainability Goals





City of Pittsburgh - GIS Division  
 Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the

December 1, 2017



## Environmental Overlay Districts

The West Penn Hospital campus is located on a highly developed urban site within the Bloomfield neighborhood. The intent of the 10-year master plan is to contain future development within the existing West Penn Hospital EMI district. This plan uses WPH's existing land resources to accomplish the hospital's objectives and does not anticipate any additional land acquisition.

As demonstrated in the adjacent map there are no environmental constraints identified within the EMI district per the City of Pittsburgh Zoning Ordinance. In addition, the district is not located in any environmental overlay districts.

### Landslide-Prone Overlay District – NOT APPLICABLE

There are no steep slopes in the vicinity of the hospital EMI district. The location of the nearest steep slopes has been identified on the Environmental Overlay District Plan well outside of the EMI district. The Master Plan does not anticipate building any new structures within a hillside or landslide-prone district.

### View Protection Overlay District – NOT APPLICABLE

Due to the elevation of the site, there are no view corridors in the Bloomfield or surrounding neighborhoods that are affected by the West Penn Hospital campus.

### Flood Plain– NOT APPLICABLE

The EMI is not in or adjacent to a flood plain.



## Energy

Several industry best practices are being considered in the areas of energy conservation, energy efficiency, and alternative/renewable energy for our existing buildings, major renovations and new construction projects. We aim to implement the following practices:



Continuously monitor, track and report on energy management activities, performance improvements, cost reductions, greenhouse gas emissions, energy and water savings, and other appropriate performance measures.



Implement energy efficient best practices like lighting upgrades to LED, efficient motors and variable frequency drives, and building automation system upgrades.



Incorporate renewables and clean energy initiatives like combined heat and power and electric vehicles charging stations.

## Civic Partnership

### Pittsburgh 2030 District

AHN is committed to adopting energy management policy to reduce energy consumption and costs in our facilities and to promote the long-term environmental and economic sustainability of our operations. As a partner of the Pittsburgh 2030 District, administered by The Green Building Alliance, we want to be fully aligned with the City of Pittsburgh in achieving its goals.

### Benchmarking

As a participant of *The Pittsburgh Building Benchmarking Ordinance* effort, AHN benchmarks performance of all its buildings by tracking and reporting their energy and water consumption. West Penn Hospital complies with the city's ordinance by reporting the same information each year.

## Goals of Stormwater Management

West Penn Hospital is sited in the A-22 sewershed, the third largest CSO in the sewer system based on annual overflow volume. Due to chronic surface flooding, Sewershed A-22 has been recognized as a high priority. Although much of the development in the ten-year plan will be built within previously established footprints, the introduction of more impervious surfaces is a likely consequence. As such, the IMP intends to improve upon early efforts and define opportunity areas within the campus for future Best Management Practices (BMP) structures. Some potential BMP structures under consideration include Vegetated Roof, Porous Pavement/Pavers, Planters/Tree Pits, and Rain Gardens. New development will comply with the stormwater management requirements at the time of the project.

### Vegetated Roof

The installation of a vegetated roof is a BMP for stormwater runoff which will improve building insulation and mitigate the urban heat island effect. This layered system typically consists of vegetation, growing medium, filter membrane, drainage, waterproofing, and insulation installed on top of a flat or slightly-sloped roof. The ten-year plan addition – Outpatient is a candidate for this BMP structure.

### Porous Pavement/Pavers

These systems consist of porous asphalt, porous concrete or paver blocks underlain with a uniformly-graded stone bed which allow stormwater to drain and be stored temporarily until it can infiltrate into the underlying soils. Porous pavement and pavers are ideal for walking paths, sidewalks, plazas, and other similar uses. The proposed sidewalk along Mend Way is a candidate for this BMP structure. Future improvements to existing sidewalks may also benefit from this practice.

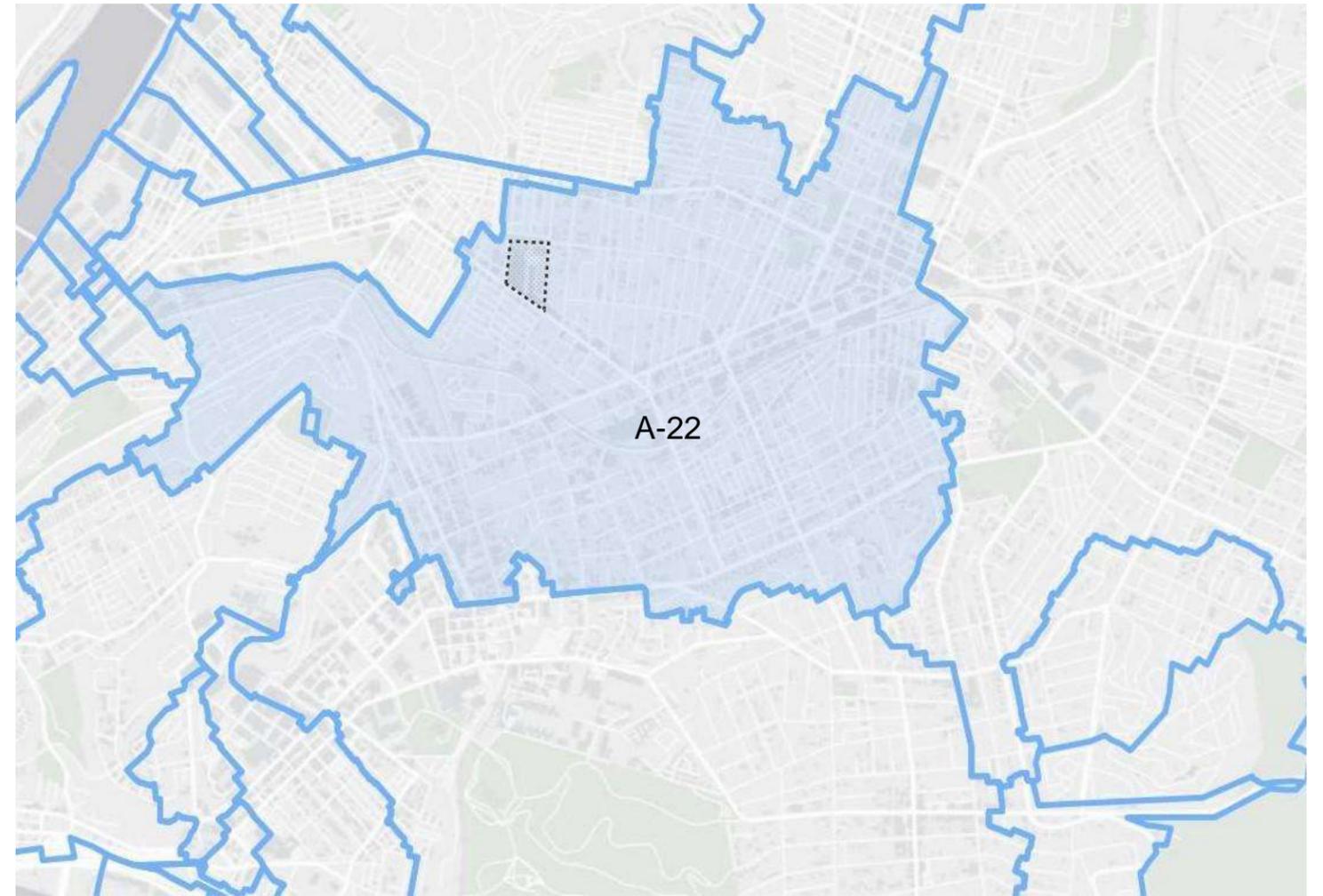
### Planters/Tree Pits

Planters or tree pits are small scale landscaped islands where runoff can be directed through the vegetation, soil, and underlying stone. They are ideal for areas adjacent to buildings and streetscapes. Future building entries and the proposed sidewalk are candidates for this BMP structure. Future improvements to existing sidewalks may also benefit from this practice.

### Rain Gardens

A rain garden is a bioretention system consisting of an excavated shallow depression planted with specialized vegetation to collect and filtrate water through soil and gravel layers prior to discharging downstream. Rain gardens ideally should be installed adjacent to impervious surface areas to disconnect the runoff from the down stream storm sewer system. The proposed landscaped setbacks along Gross Street are candidates for this BMP structure.

Given the limitation of each project site, each future project will need to evaluate these and other selected BMP practices for feasibility and desired outcomes. The BMP structures and identified opportunity areas noted in this section are intended for planning purposes only.



## Green Buildings

Driven by its mission to create a remarkable health experience for all people, AHN is committed to advancing sustainable design by building healthy, high performing buildings following the principles defined by LEED and WELL building standards. This IMP highlights five design and performance factors intended to inform the planning process for construction at West Penn Hospital.

### Clean Construction

A construction activity pollution prevention plan that focuses on reducing pollution by controlling soil erosion, waterway sedimentation, airborne dust generation, hazardous material (asbestos, mercury, lead, PCBs, and mold) removal or encapsulation in existing buildings undergoing renovation shall be implemented alongside enforcement of a construction indoor air quality management plan.

### Long Term Emissions Control

To help improve indoor air quality over an extended period of time, where possible, newly installed furniture and furnishings shall meet VOC emission thresholds set using either ANSI/BIFMA e3-2011 Furniture Sustainability Standard sections 7.6.1 or 7.6.2, tested in accordance with ANSI/BIFMA Standard Method M7.1-2011 (or any more recent version) or California Department of Public Health (CDPH) Standard Method v.1.1-2010 (or any more recent version).

Additionally, where possible, newly installed flooring and thermal and acoustic insulation (excluding duct and pipe insulation) inside the building shall meet the VOC emission thresholds per the California Department of Public Health (CDPH) Standard Method v.1.1-2010 (or any more recent version).

### Short Term Emissions Control

To minimize the impact of rapidly emitting VOCs on indoor air quality, where possible, newly applied adhesives, sealants, paints and coatings applied inside the building shall meet all VOC emission thresholds recommended in the WELL Building standard v2 Materials Feature X12.

### Water Quality

The hospital promotes safe and clean water through the implementation of proper filtration techniques and regular testing. All water being delivered to the project area except water not designated for human contact meets U.S. EPA drinking water regulations and standards.

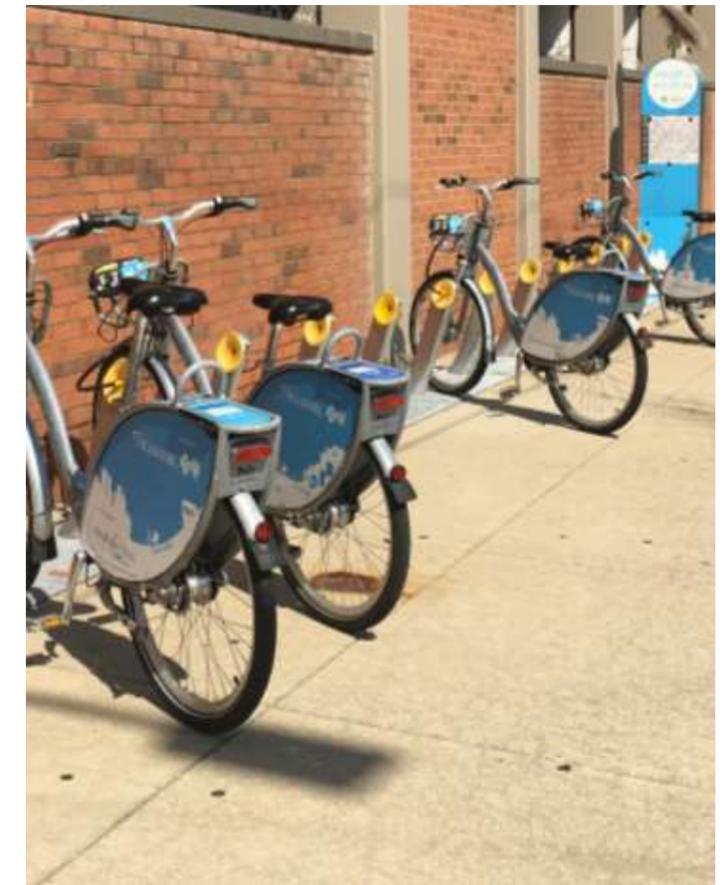
### Energy Star

Purchase ENERGY STAR specified standard appliances, when available.

## Eco-Conscious Transportation

With cars being a major consumer of fossil fuels and contributors to greenhouse gases, West Penn Hospital recognizes the need to encourage alternatives to the typical single occupant, private vehicle. New development will consider incorporating the following strategies:

- Electrical capacity in structured parking will be such that expansion of electrical charging stations is a feasible upgrade in the future.
- Ample, secured bicycle parking will be accommodated in new structured parking.
- Bus stops along Liberty Avenue and Friendship Avenue will be maintained.
- The Transportation Demand Management Plan, included in this document, will be followed.
- Since 2015, AHN and Highmark have been proud sponsors of Healthy Ride. AHN will continue to support Healthy Ride at its West Penn Hospital Campus.



## Waste Management

AHN strives for sustainable consumption and diversions practices. The following practices shall guide the planning process for construction at West Penn Hospital by considering sourcing, usage, and method of disposal.

### Landfill Diversion

For any existing or new AHN facility, implement building-wide sustainable waste programs that are designed to divert materials away from landfills and support AHN's sustainability initiatives. This includes activities relating to construction and demolition waste by recovering, reusing, and recycling materials.

### Incorporate Waste and Recycling Considerations in New Facility Design

Maximize cost efficiencies and drive increased recycling rates by incorporating waste and recycling considerations into the design phase of new facilities. Very simple tweaks at the design phase of a facility can go a long way in helping AHN achieve recycling goals.

### Waste Reduction and Waste Stream Standardization

Waste reduction and standardization practices can drive significant cost savings and program success long-term. Incorporate into the planning phases of a building's operation the cost-benefit analysis of purchasing sustainable (compostable) materials as well as incorporating internal receptacles consistent with the system's standard.

### Reduce Risk and Ensure Compliance with Regulations

The complexities associated with a healthcare facility's waste stream require thoughtful material management systems designed to reduce risks associated with handling, storing, treating, transporting and disposing of hazardous waste streams. A commitment to implementing the correct material management systems will adhere to regulatory compliance and ensure a safe experience for hospital staff and visitors.

### Signage and Staff Education

Create and display signage prominently throughout AHN's facilities which will increase recycling rates and, in turn, divert materials away from landfills. The signage will provide clear instructions on what to recycle (and what not to recycle) as well as the appropriate receptacle to use for recyclable materials. In addition to the signage, educating all members of AHN's staff who interact with waste will reinforce the waste program and increase higher recycling rates.

## Water Conservation

AHN's sustainability initiatives related to water consumption of potable and non-potable water sources is inspired by guiding principles expressed in LEED v4. We aim to implement the following practices:

### Building Water Use

Employ strategies that in aggregate use, at a minimum, 20% less water than the water use baseline calculated for the building (not including irrigation). The baseline shall meet the requirements of the plumbing code requirements as stated in current Uniform Plumbing Code or International Plumbing Code pertaining to fixture performance.

### Process Water Use

Employ strategies that in aggregate use, at a minimum, 20% less water than the process water use baseline calculated for equipment performance requirements as detailed in LEED Water Efficiency Water Use Reduction Prerequisite.

### Minimize Potable Water Use for Medical Equipment Cooling

For all medical equipment in the project, demonstrate that potable water use will be minimized for equipment cooling.

## Bird-Safe Design

Project development plans shall consider bird-safe glazing techniques to minimize bird collisions, particularly from ground level to 60 feet in height and adjacent to green roofs.

In addition, lighting design shall consider strategies to minimize light pollution that affects night-flying migration patterns. When using LED technology, it is important to consider color temperature. Large amounts of blue light can be harmful to wildlife.





## Existing Open Spaces

The Friendship Parklet is a public green space north of West Penn Hospital that is popular among patients and employees, as well as the surrounding community. It is not part of the EMI and will not be affected by the IMP.

The hospital block between S. Mathilda Street and S. Millvale Avenue is very dense. The open lots between S. Millvale Avenue and Gross Street are currently used as surface parking and a vacant fenced green space that is not intended for pedestrian use.

### Legend

- ⋯⋯⋯ Pedestrian Circulation
- \* Emergency Point of Entry
- \* Pedestrian Point of Entry
- Public Transportation Bus Stop
- Open Space

## 7.7 Open Space – Existing Conditions





## Proposed Open Spaces

Contextually appropriate landscaping and site work will be addressed during future design phases. There is potential for landscaping enhancements from the corner of Liberty Avenue, north along Gross Street, and around the lawn of the School of Nursing building. The 35-foot setback along Gross Street offers the largest opportunity for open green space, which is provided by the setbacks established in the Ten-Year Plan.

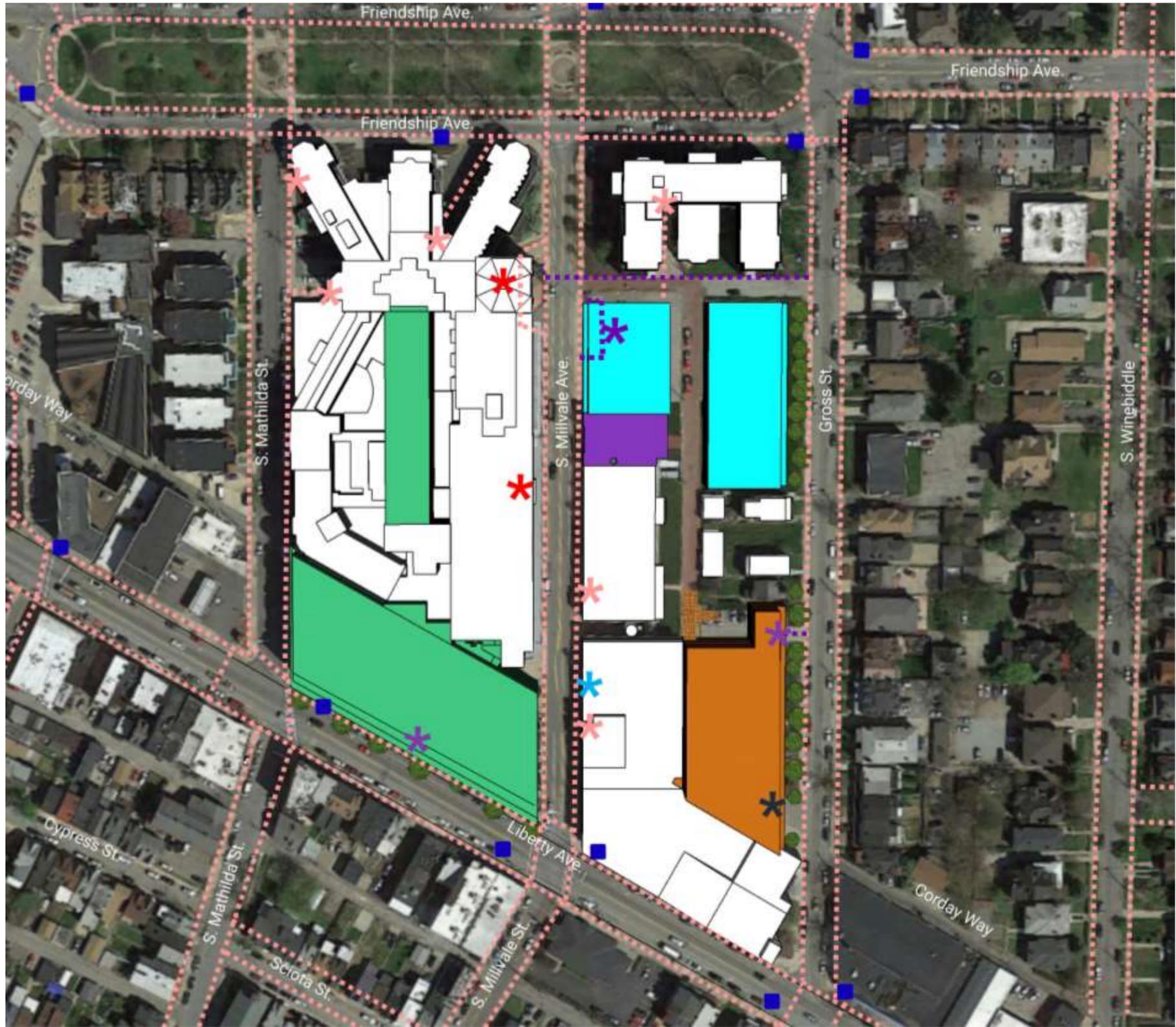
Infill between S. Mathilda Street and S. Millvale Ave will not diminish access to open space. Further, vegetated roofing, although it may not be open to the public, assists in mitigating heat island effect and stormwater runoff.

### Legend

-  Public Transportation Bus Stop
-  Open Space/Park
-  10 Year Plan Addition – Outpatient
-  10 Year Plan Addition – Inpatient
-  Parking Addition
-  Landscape Enhancement Areas
-  Potential Vegetated Roof

## 7.7 Open Space – Proposed





### Pedestrian Circulation – Street Level

The existing public pedestrian circulation occurs along city sidewalks at the perimeter of the EMI district as well as through the center of the campus on S. Millvale Avenue. There are marked pedestrian entrances along Liberty Avenue, S. Mathilda Street, and Friendship Avenue. However, most of the staff and patients enter the hospital through the main parking garage at the corner of Liberty and Millvale. Four (4) mass transit buses run along Liberty Avenue with a fifth route that runs nearby on Penn Avenue.

In the 10-year plan, established pedestrian paths will be maintained. In addition, a sidewalk along Mend Way (south edge of the School of Nursing site) leading from Gross Street and S. Millvale Avenue will be formalized.

**Legend:**

- ⋯⋯⋯ Existing Pedestrian Circulation
- ⋯⋯⋯ New Pedestrian Circulation
- \* Emergency Point of Entry
- \* Vehicular Point of Entry
- \* Pedestrian Point of Entry
- Public Transportation Bus Stop
- Open Space/Park
- 10 Year Plan Addition – Outpatient
- 10 Year Plan Addition – Inpatient
- Parking Addition

## 7.7 Pedestrian Circulation – Existing & Proposed





## Pedestrian Circulation – Upper Level

Most of the navigation within the existing facilities occurs at the second-floor level. The existing parking complex is connected to the hospital by a skywalk. This then leads to stair towers and elevators or access to the east, west and north hospital towers and the respective elevator lobbies for each of those buildings..

Any future infills and additions within the EMI will prioritize second floor connections to these existing routes.

In order to tie the new structures into the existing elevated circulation of the hospital, two (2) additional pedestrian bridges at the second-floor level are proposed. One will connect the Outpatient Center to the main hospital tower across S. Millvale Street, just above the existing emergency department. The other pedestrian bridge would connect the new parking structure to the new Outpatient Center traveling above Corday Way.

Given the intended phasing of the 10-year development, the existing walkway that leads from the existing parking garage to Mellon Pavilion, across S. Millvale, will be eliminated and replaced by a new bridge connecting the parking structure to the south end of the existing hospital to remain.

A common-sense wayfinding strategy will be implemented to encourage patients, visitors, and staff to access the various hospital departments through these second-floor arteries.

### Legend:

- Existing Pedestrian Circulation (Asterisk = vertical circulation)
- New Pedestrian Circulation (Asterisk = vertical circulation)
- On-Site Parking
- 10 Year Plan Addition - Outpatient
- 10 Year Plan Addition – Inpatient
- Parking Addition

## 7.7 Pedestrian Circulation – Existing & Proposed





## Bicycle Circulation & Storage

Liberty Avenue, Millvale Avenue, and Friendship Avenue already feature marked bike lanes. Bicycle commuting continues to grow as an alternate mode of transportation in the city. West Penn currently provides bicycle parking in the existing Millvale Avenue garage. New development outlined in the 10-year plan intends to increase the number of spaces available. The new garage along Gross Street will incorporate bicycle parking that is both covered and secure. The new hospital wing along Liberty Avenue will incorporate short term parking near the main building entrance. The medical office building along Mend Way will also feature short term parking as well. Furthermore, West Penn Hospital continues to support the existing the City's Healthy Ride stations along Liberty Avenue.

### Bicycle Parking Locations

Location	Status	Type	# of Spaces
Gross Street Garage	Proposed	Covered & Secured	83
Millvale Garage	Existing	Covered	7
Liberty Avenue Entrance	Proposed	Exterior, Short-term	40
Friendship Ave. Entrance	Proposed	Exterior, Short-term	10
Millvale Entrance	Proposed	Exterior, Short-term	10
<b>Total Bike Spaces in the EMI</b>			<b>150</b>

### Legend

- Bicycle Circulation
- ◆ Bicycle Storage
- ◆ Healthy Ride Station
- Bus Stop

## 7.7 Bicycle Circulation – Existing & Proposed



## Neighborhood Enhancement Strategies

The institutional master plan describes the development of this area while maintaining or minimizing the impact of the existing and new facilities on the quality of the surrounding neighborhoods. Specific impacts addressed in the Master Plan include:

### Vehicular & Pedestrian Circulation

In Section 6.2 Mobility Plan – Proposal, a number of strategies are presented to improve pedestrian safety. Strategies addressing vehicular circulation look to minimize impacts on the residential streets.

### Loading Docks

Loading docks for the new developments will be located off the service alleys (for the garage, and outpatient building) and along Millvale (for the hospital expansion only). This will reduce noise disruptions for nearby residents and would provide screening by the surrounding EMI buildings. Existing loading docks will be maintained.

### Emergency Entrances

WPH acknowledges that the Emergency Helicopter flights have an impact on noise for the surrounding neighborhoods. There are no plans within the next 10 years to move the existing helicopter pad as the existing flight paths are FAA approved.

### Lighting

The present site lighting standards of the Bloomfield neighborhood will be maintained. Light pollution reduction strategies, such as cut-off style and IDA Dark-sky-approved fixtures, shall be addressed per new development plan. The priority is to limit the light spill onto neighboring properties.

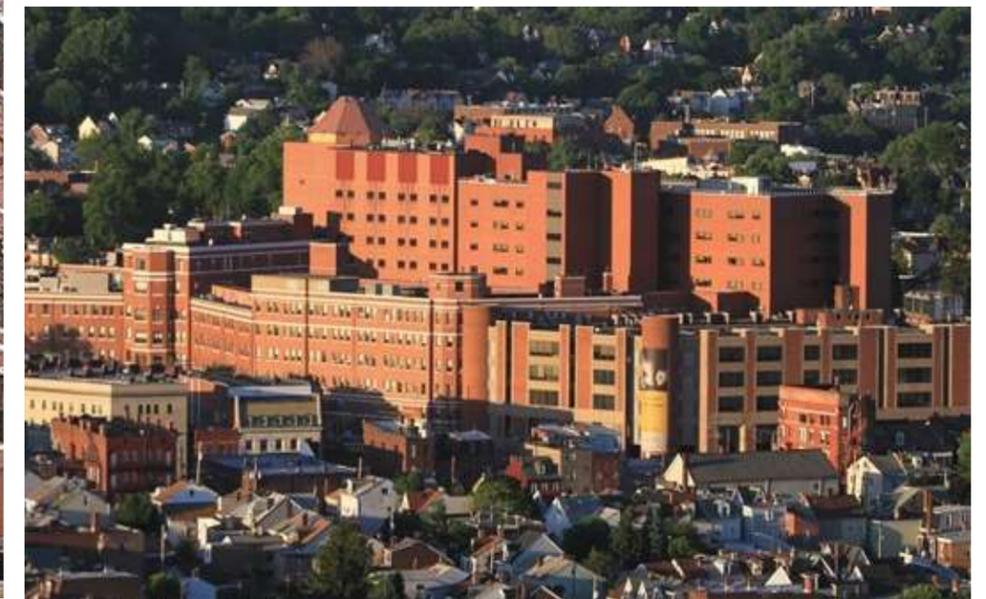


## Neighborhood Engagement

West Penn Hospital is committed to fully engaging in and supporting any ongoing or future city-led planning processes and neighborhood plans adopted in Bloomfield. Any future projects included as part of this IMP that would impact the surrounding neighborhood will involve community consultation. WPH will continue to hold public community meetings and engage with the surrounding resident associations, community development groups, and business associations in due course as specific projects are advanced.

## Economic Impact

WPHA has served Bloomfield and the surrounding communities since 1848 and remains one of the largest employers in the area. WPH currently employs almost 1,000 physicians and 1,790 employees, and WPH expects to maintain these jobs and expand employment commensurate with growth of the hospital. With specialized services like bariatric surgery, bone marrow and cell transplantation, burn care, cardiac care, women's and infant care; WPH draws patients and visitors throughout the tri-state area. WPH was the first hospital in western Pennsylvania to achieve Magnet Recognition and Magnet Redesignation from the American Nurses Credentialing Center. This prestigious recognition has led the hospital and its surrounding businesses to continue to thrive.



# 8.1 Neighborhood Protection Strategy



West Penn Hospital  
Institutional Master Plan  
project no. 16-034.2  
Draft 17 AUGUST 2020

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**Event: Community Presentation for Daley Building Demolition**  
**Location: Bloomfield Community Development Offices**  
**Date: 12/5/17**

COMMENT	RESPONSE
Improve lighting along and within the Friendship Parklet.	WPH is considering additional lighting along the Friendship Avenue property line.
Keep employee parking within the WPH footprint rather than community parking areas.	The master plan increases on-site parking to significantly increase the capacity on-site and alleviate on-street parking.
Maintain WPH's commitment to current landscaping.	WPH will continue to provide high-quality landscaping and the IMP provides for additional landscaping improvements.
Limit interruption of utilities during construction periods.	WPH will comply.
Move dumpster area from Gross Street.	Dumpsters were removed.
Incorporate vegetated roof to combat heat island effect.	The master plan does address the exploration of vegetated roofs on new projects.
Open up the green space resulting from the Daley Building demolition for temporary public use.	WPH has complied.



**Event: Community Presentation to Bloomfield Citizens Council Membership**  
**Location: St. Maria Goretti Lower Level**  
**Date: 9/13/18**

COMMENT	RESPONSE
Any plans to develop property beyond the current EMI boundary?	The 10-year plan does not include development on property beyond the EMI district.
How many beds will be in the ambulatory care building?	The new ambulatory care building will be outpatient only. The 10-year plan focuses in-patient growth between Mathilda and Millvale.
The parking garage is too far away from the emergency department entrance.	WPH pointed out that the ER entrance offers valet parking service which places your car right across the street at the corner of Millvale and Mend Way.
How can community members communicate further with WPH?	WPH will continue to communicate with community stakeholders and members regarding future development. IMP updates and meetings are also provided on WPH's website.

## 9.1 APPENDIX: Community Engagement Notes



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**Event: Community Presentation – Open Invitation**  
**Location: WPH School of Nursing Auditorium**  
**Date: 10/16/18**

COMMENT	RESPONSE
WPH should offer discounted rates at the existing garage to reduce staff parking in the neighborhood.	WPH will consider such strategies as part of the Transportation Demand Management plan.
Additional crosswalks are needed at crucial intersections in and around the WPH campus.	Master plan includes additional crosswalks along Liberty Avenue at Gross, Millvale, and Mathilda.
WPH parking garage breaks up the commercial feel on Liberty Avenue.	WPH acknowledges this. Parking calculations for the 10-year plan requires the existing garage to remain.
A homeowner on Gross Street expressed concern about proximity of the garage entrance to the houses.	Master plan provides transportation and operational strategies to reduce impact on Gross Street residents.
The ground floor of the replacement building for Mellon Pavilion should be a more welcoming entrance.	The Building Design Guidelines for the Mellon Pavilion Replacement (page 22) emphasizes pedestrian-friendly, easily identifiable entrances. The specific design of the new building will be presented to the community for comment at the time of development.
Where will the helipad be during the Mellon Pavilion replacement? Will there be extra noise if the Liberty Avenue building increases in height?	The helipad flight path will not be revised. Liberty Avenue will continue to be the path.
Will the power plant updates increase noise levels?	The master plan massing is designed to help buffer utility noises. Mechanical and electrical equipment has also generally gotten quieter in newer models.
Attendees voiced concern that the notification for the community members were delivered by USPS later than desirable. Is there a better way to notify residents?	WPH stated that they requested each of the community groups spread the word on the meetings. WPH will pursue other methods of communicating the next meeting date.



**Event: Community Open House**  
**Location: WPH School of Nursing Auditorium**  
**Date: 11/27/18**

COMMENT	RESPONSE
Mellon Pavilion replacement should create a more welcoming street-level 'front-door' to the hospital and encourage safety for visitors arriving via bus.	The specific design of the new building will be presented to the community for comment at the time it will be developed.
Wayfinding within and around the hospitals will be critical to encourage visitors and staff to use on-site parking, rather than the surrounding neighborhood.	The Traffic Demand Management Plan (see Section 6) prioritizes patient and visitor parking on-site and reducing employee traffic and its impact on the surrounding neighborhood.
WPH to support and encourage staff and visitors to use public transportation.	The TDM encourages use of public transportation and alternate forms of transportation (See Section 6).
WPH supports the idea of resident-only permit parking on Gross Street.	WPH supports but notes this is a city Parking Authority item.
Add crosswalks, speed-tables, traffic signals at critical intersection?	The master plan includes such street improvements in Section 6.
Any increased traffic from the new garage to be kept as close to Liberty Avenue as possible to minimize disruptions to the neighbors.	The master plan outlines operational strategies to address this item in Section 6.
Reduce noise with improved technology in the expanded utility building.	WPH concurs.
Minimize effect of site lighting and headlights on Gross Street houses.	This will be considered when adding street lights.
Discourage smoking in Friendship Park.	The City has posted no-smoking signs in Friendship Park.



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COMMENT	RESPONSE
Neighborhood still concerned about losing parking spaces on Gross Street.	Master plan includes additional crosswalks along Liberty Avenue at Gross, Millvale, and Mathilda.
Neighborhood still concerned about the on-street parking of employees.	WPH would support a petition to the City to make permit parking 24 hours. WPH will look at operational changes to incentivize on-campus parking to decrease on-street parking. Since the meeting, WPH now offers free parking in the campus garage to employees on weekends and evenings.
Will there be windows on the Gross Street side? Privacy is a concern for residences.	There will be windows on the Gross Street facades of the Outpatient building. This building is intended for use during normal business hours only which will help maintain privacy into the homes.
How will people get into the Gross Street outpatient center?	WPH emphasized that the street level front door is Millvale. Pedestrian bridge to connect parking garage to ambulatory care building.
Concern about vehicular access to the individual houses on west side of Gross Street through Corday Way.	The portion of Corday was behind the private residences will be maintained. The turnaround at the vacated portion will be designed to accommodate service and emergency vehicles.
Recommended solar power on roofing considered the southern exposure.	The IMP sets sustainability goals for each future development. Solar panels will be one of the options considered to meet the goals.
Smoking – numerous employees smoking in Friendship Park, how to curb this?	WPH understands this concern. They already monitor the park and clean up cigarette litter when needed. In the future, WPH may consider developing smoking shelters to address this issue.
When will the pedestrian improvements be implemented?	Pedestrian improvements noted in the IMP will be implemented as part of the initial development phase.
Group asked for further explanation of garage function.	The Gross Street garage access will be closed 8 p.m. to 6 a.m.

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Allegheny Health Network



**West Penn**  
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