PACKER PARK

PEDESTRIAN AND BICYCLE IMPROVEMENT PLAN

CPLN 655 MULTIMODAL TRANSPORTATION
JINGYI LI, REGY SEPTIAN, SIHAN REN, TIMOTHY OLIVER, ZIYI TANG

MARCH 2024

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Packer Park Pedestrian and Bicycle Improvement plan seeks to further integrate the two modes in order to capitalize on the presence and benefits of the Franklin Delano Roosevelt (FDR) Park. Promoting a safe and consistent experience for walking and cycling can further encourage residents and visitors alike to use these sustainable travel modes and further define the area's year-round attractiveness aside from sports seasons with neighboring stadiums.

Given the neighborhood's surrounding industrial land use to the west and relatively high throughput roadways such as Broad Street's Southern Boulevard and I-76 ramps, travel outside the neighborhood is largely automobile-focused. However, land zoning shows the vast majority of land parcels are residential and recreational allowing for ease in intra-neighborhood travel by foot or bike. Additional presence of features like wheelchair accessibility to Septa's NRG station, neighborhood organizations like the Packer Park Civic Association and Friends of FDR Park, and wide, open sidewalks on certain roads open the way for complementary improvements as opposed to establishing completely new initiatives and infrastructure. To fully realize the goals of a safe and accessible environment that promotes walking, cycling, and the use of public transportation, highlighting existing infrastructure and increasing the contiguity of pathways is a must. The first steps involve leveraging community involvement in the process through either programmatic efforts like regular ride-along events or partnerships in retrieving foot and bike traffic data. Meanwhile, making the aforementioned contiguous pathways can be accomplished through additions of crosswalks, sidewalk extensions, and implementing school zones along relevant sections of the study area to complement existing projects from Philadelphia Parks and Complete Streets initiatives.

This document gives more detail to the residential and recreational focused Packer Park Neighborhood and reasoning behind recommendations alongside influential initiatives it aims to complement.

1 | EXISTING CONDITIONS


HUMEN PIRAT

STUDY AREA

Figure 1.1: Neighborhood Boundary

(Source: phillyhomegirls.com)

Packer Park is a neighborhood in the South Philadelphia section. About 19 minutes driving from the city center.

The approximate boundaries are Packer Avenue to the north, Hartranft Street to the south including Franklin D. Roosevelt (FDR) Park farther south, Broad Street to the east also known as the Southern Parkway, and I-76 to the far west.

HISTORY OF THE NEIGHBORHOOD

Packer Park neighborhood was named after William Fisher Packer (April 2, 1807 – Sept 27, 1870) who served as the 14th Governor of Pennsylvania from 1858 to 1861.

Packer Park was first built as an approach to the American International Exposition grounds at the Sesquicentennial Exposition of 1926. After the exposition's demolition, in 1935, the US Navy constructed the first high-rise hospital there. By the late 1970s, because of declining use of the facility and studies that determined the building incapable of being renovated for modern medical use, the Navy vacated the area and relocated to the west of Penrose Avenue.

The shift paved the way for the private development of Packer Park on previously marshy terrain, safeguarding the integrity of the borders of Broad Street's Southern Blvd. This development also complemented the architecturally designed FDR Park to the south.

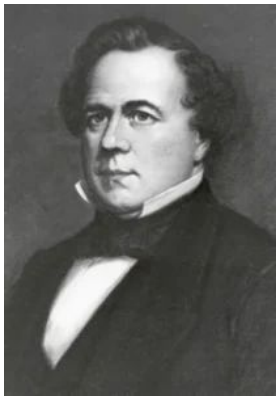


Figure 1.2&1.3: Historical Photo of Packer Park Neighborhood and William Fisher Packer

(Source: https://packerparkliving.com)

DEMOGRAPHIC - AGE

Census Tract 373, Philadelphia, PA

Census Tract in: Philadelphia, PA, Philadelphia County, PA, Pennsylvania, United States

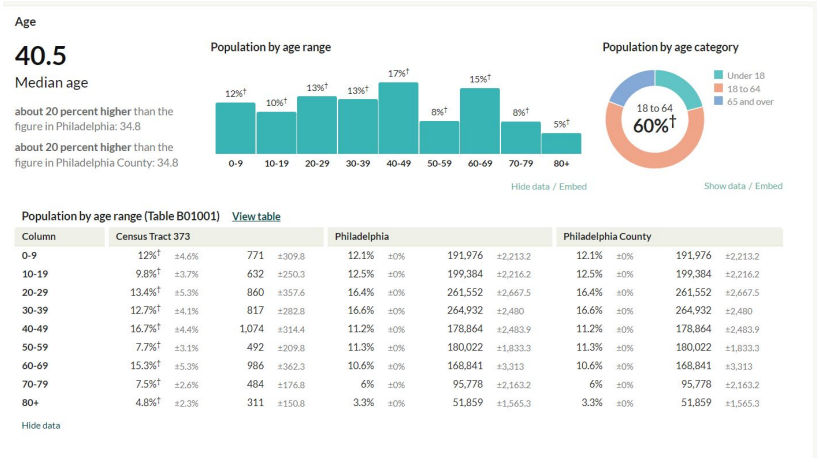
6,427
Population

1 square miles

6,408.7 people per square mile

Census data: ACS 2022 5-year unless noted

Figure 1.4: Packer park neighborhood consist majorly census tract 373.



Age

40.5
Median age

about 20 percent higher than the figure in Philadelphia: 34.8

about 20 percent higher than the figure in Philadelphia County: 34.8

Population by age range

Hide data / Embed

Population by age category

Show data / Embed

Population by age range (Table B01001) View table

Column	Census Tract 373				Philadelphia				Philadelphia County			
0-9	12%†	±4.6%	771	±309.8	12.1%	±0%	191,976	±2,213.2	12.1%	±0%	191,976	±2,213.2
10-19	9.8%†	±3.7%	632	±250.3	12.5%	±0%	199,384	±2,216.2	12.5%	±0%	199,384	±2,216.2
20-29	13.4%†	±5.3%	860	±357.6	16.4%	±0%	261,552	±2,667.5	16.4%	±0%	261,552	±2,667.5
30-39	12.7%†	±4.1%	817	±282.8	16.6%	±0%	264,932	±2,480	16.6%	±0%	264,932	±2,480
40-49	16.7%†	±4.4%	1,074	±314.4	11.2%	±0%	178,864	±2,483.9	11.2%	±0%	178,864	±2,483.9
50-59	7.7%†	±3.1%	492	±209.8	11.3%	±0%	180,022	±1,833.3	11.3%	±0%	180,022	±1,833.3
60-69	15.3%†	±5.3%	986	±362.3	10.6%	±0%	168,841	±3,313	10.6%	±0%	168,841	±3,313
70-79	7.5%†	±2.6%	484	±176.8	6%	±0%	95,778	±2,163.2	6%	±0%	95,778	±2,163.2
80+	4.8%†	±2.3%	311	±150.8	3.3%	±0%	51,859	±1,565.3	3.3%	±0%	51,859	±1,565.3

Hide data

Figure 1.5: Packer Park Neighborhood Age Stats
(Source: https://censusreporter.org/)

According to the 2022 Census Data, the total population of Packer Park Neighborhood is 6,427. The total size of the neighborhood is about 1 square miles, and the population density of the neighborhood is 6,408.7 people per square mile. However, the population density data might be biased due to the large FDR park to the south, which is not for residential use.

The neighborhood's median age stands at 40.5 years. About 17% of its residents are in their forties, while 15% are in their sixties. 13% fall within the age range of twenties to thirties. A majority, comprising 60%, are in the working-age bracket, spanning from 18 to 64 years old.

DEMOGRAPHIC - ETHNICITY/RACE

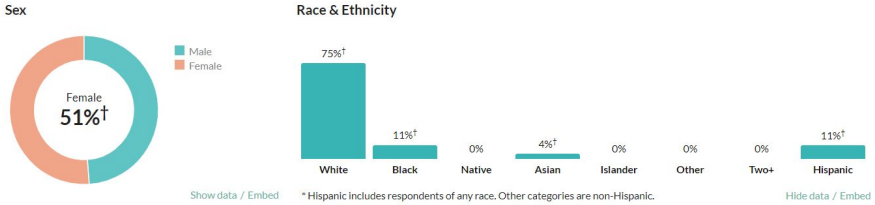


Table B03002 View table

Column	Census Tract 373				Philadelphia				Philadelphia County			
White	74.8%†	±7.9%	4,804	±781	33.5%	±0%	534,291	±1,719	33.5%	±0%	534,291	±1,719
Black	10.8%†	±6.5%	694	±424	39%	±0%	620,615	±3,915	39%	±0%	620,615	±3,915
Native	0%	±0%	0	±16	0.2%	±0%	2,404	±385	0.2%	±0%	2,404	±385
Asian	3.8%†	±3.2%	246	±206	7.5%	±0%	120,108	±1,362	7.5%	±0%	120,108	±1,362
Islander	0%	±0%	0	±16	0%	±0%	391	±121	0%	±0%	391	±121
Other	0%	±0%	0	±16	0.6%	±0%	9,295	±1,827	0.6%	±0%	9,295	±1,827
Two+	0%	±0%	0	±16	3.5%	±0%	56,381	±4,052	3.5%	±0%	56,381	±4,052
Hispanic	10.6%†	±8.3%	683	±539	15.7%	±0%	249,723	±0	15.7%	±0%	249,723	±0

Hide data

Figure 1.6: Packer Park Neighborhood Race Ethnicity Stats

White residents make up approximately 74.8%, with an estimated count of 4,804, representing about 33.5% of Philadelphia's total population.

Black residents constitute around 10.8%, totaling approximately 694 individuals, comprising about 39% of Philadelphia's population.

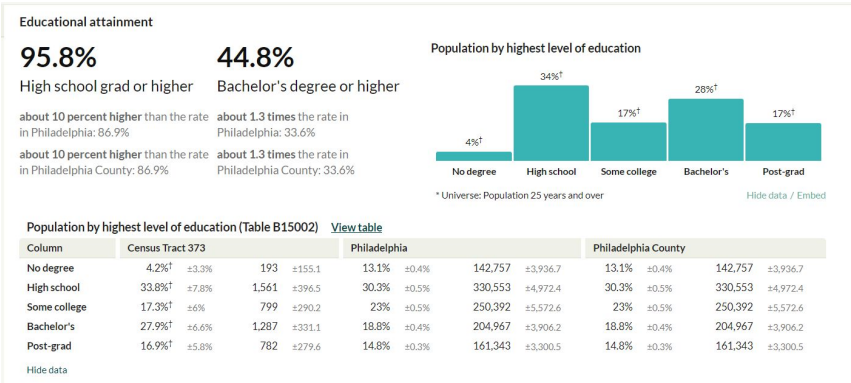
There are no Native American residents nor Pacific Islanders reported in this tract. Other racial groups account for 0% of the population as well.

Asian residents comprise about 3.8%, totaling around 246 individuals, making up about 7.5% of Philadelphia's population.

People identifying with two or more races also constitute 0% of the population.

Hispanic residents make up approximately 10.6%, totaling around 683 individuals, representing about 15.7% of Philadelphia's total population.

DEMOGRAPHIC - EDUCATION



Educational attainment

95.8%
High school grad or higher

about 10 percent higher than the rate in Philadelphia: 86.9%

about 10 percent higher than the rate in Philadelphia County: 86.9%

44.8%
Bachelor's degree or higher

about 1.3 times the rate in Philadelphia: 33.6%

about 1.3 times the rate in Philadelphia County: 33.6%

Population by highest level of education

* Universe: Population 25 years and over

Hide data / Embed

Population by highest level of education (Table B15002) View table

Column	Census Tract 373				Philadelphia				Philadelphia County			
No degree	4.2%†	±3.3%	193	±155.1	13.1%	±0.4%	142,757	±3,936.7	13.1%	±0.4%	142,757	±3,936.7
High school	33.8%†	±7.8%	1,561	±396.5	30.3%	±0.5%	330,553	±4,972.4	30.3%	±0.5%	330,553	±4,972.4
Some college	17.3%†	±6%	799	±290.2	23%	±0.5%	250,392	±5,572.6	23%	±0.5%	250,392	±5,572.6
Bachelor's	27.9%†	±6.6%	1,287	±331.1	18.8%	±0.4%	204,967	±3,906.2	18.8%	±0.4%	204,967	±3,906.2
Post-grad	16.9%†	±5.8%	782	±279.6	14.8%	±0.3%	161,343	±3,300.5	14.8%	±0.3%	161,343	±3,300.5

Hide data

Figure 1.7: Packer Park Neighborhood Education Stats

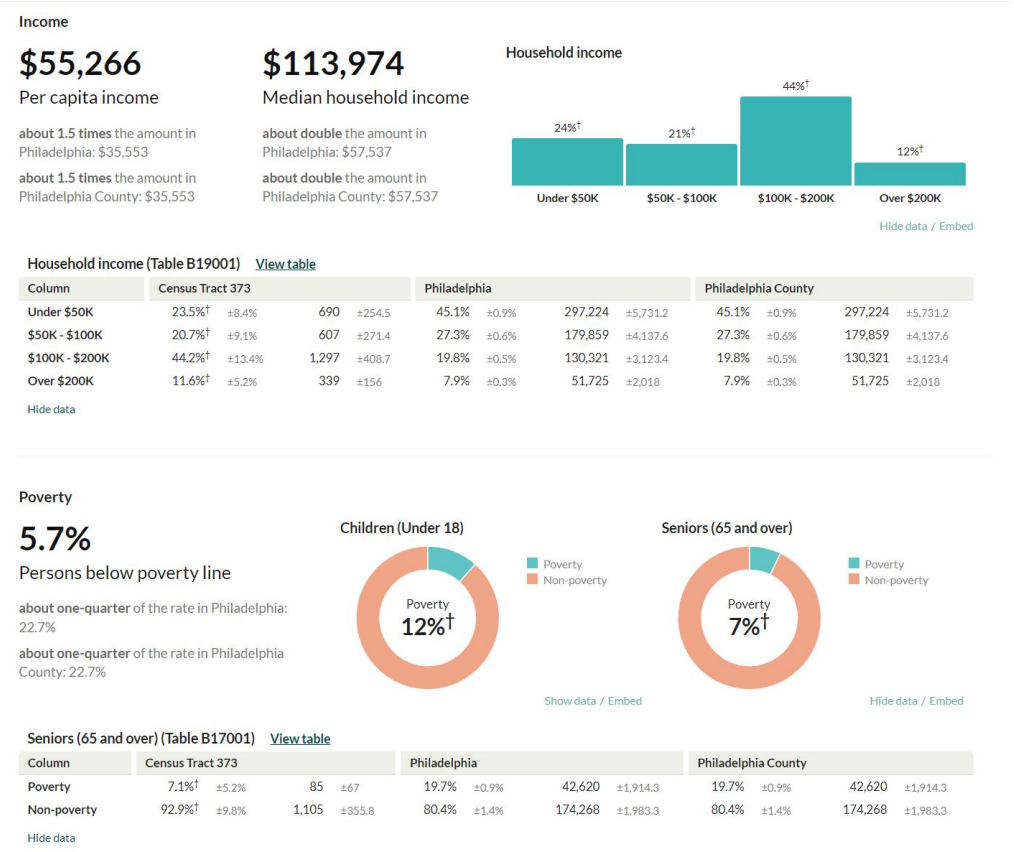
Approximately 95.8% of the population aged 25 and over have attained at least a high school diploma, which is about 10% higher than the rates in both Philadelphia and Philadelphia County, both at 86.9%.

About 44.8% of the population hold a bachelor's degree or higher, which is about 1.3 times the rates in both Philadelphia and Philadelphia County, both at 33.6%.

Approximately 4% of the population have not attained a high school diploma, which is about one-third of the rates in both Philadelphia and Philadelphia County, both at 13%.

Approximately 4.2% have not attained a high school diploma. About 33.8% have attained a high school diploma. Approximately 17.3% have completed some college. Around 27.9% hold a bachelor's degree. About 16.9% have completed post-graduate education.

ECONOMIC STATUS



Income

$55,266
Per capita income

about 1.5 times the amount in Philadelphia: $35,553

about 1.5 times the amount in Philadelphia County: $35,553

$113,974
Median household income

about double the amount in Philadelphia: $57,537

about double the amount in Philadelphia County: $57,537

Household income

Hide data / Embed

Household income (Table B19001) View table

Column	Census Tract 373				Philadelphia				Philadelphia County			
Under $50K	23.5%†	±8.4%	690	±254.5	45.1%	±0.9%	297,224	±5,731.2	45.1%	±0.9%	297,224	±5,731.2
$50K - $100K	20.7%†	±9.1%	607	±271.4	27.3%	±0.6%	179,859	±4,137.6	27.3%	±0.6%	179,859	±4,137.6
$100K - $200K	44.2%†	±13.4%	1,297	±408.7	19.8%	±0.5%	130,321	±3,123.4	19.8%	±0.5%	130,321	±3,123.4
Over $200K	11.6%†	±5.2%	339	±156	7.9%	±0.3%	51,725	±2,018	7.9%	±0.3%	51,725	±2,018

Hide data

Poverty

5.7%
Persons below poverty line

about one-quarter of the rate in Philadelphia: 22.7%

about one-quarter of the rate in Philadelphia County: 22.7%

Children (Under 18)

Show data / Embed

Seniors (65 and over)

Hide data / Embed

Seniors (65 and over) (Table B17001) View table

Column	Census Tract 373				Philadelphia				Philadelphia County			
Poverty	7.1%†	±5.2%	85	±67	19.7%	±0.9%	42,620	±1,914.3	19.7%	±0.9%	42,620	±1,914.3
Non-poverty	92.9%†	±9.8%	1,105	±355.8	80.4%	±1.4%	174,268	±1,983.3	80.4%	±1.4%	174,268	±1,983.3

Hide data

Figure 1.8: Packer Park Neighborhood Income and Poverty Stats

The per capita income is approximately $55,266, which is about 1.5 times higher than that of Philadelphia and Philadelphia County, both at $35,553.

The median household income is about $113,974, approximately double that of Philadelphia and Philadelphia County, both at $57,537. Almost half of the households (44%) earn 100k to 200k.

About 24% of households earn under $50,000 annually, which is roughly half the rate of Philadelphia and Philadelphia County, both at 45%.

Approximately 5.7% of individuals live below the poverty line, which is about one-quarter of the rate in both Philadelphia and Philadelphia County, both at 22.7%. For children under 18, the poverty rate is 12%. Among seniors aged 65 and over, the poverty rate is 7%.

Non-poverty individuals comprise about 93% of the population, which is about 20% higher than the rates in both Philadelphia and Philadelphia County.

ZONING

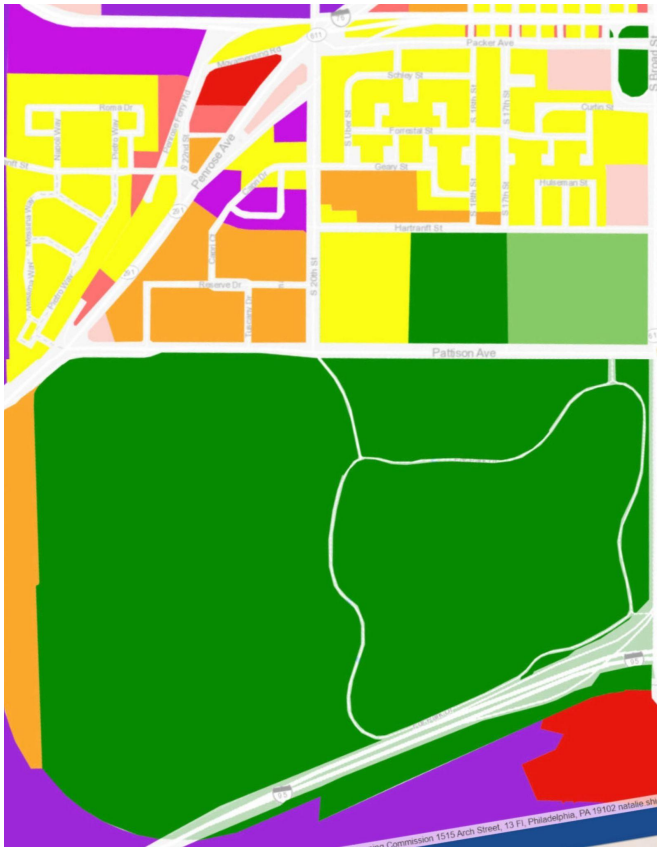


Figure 1.9: Packer Park Neighborhood Zoning
(Source: https://openmaps.phila.gov/)

More than half of the land in the Packer Park neighborhood is designated for recreational purposes, including parks and stadiums.

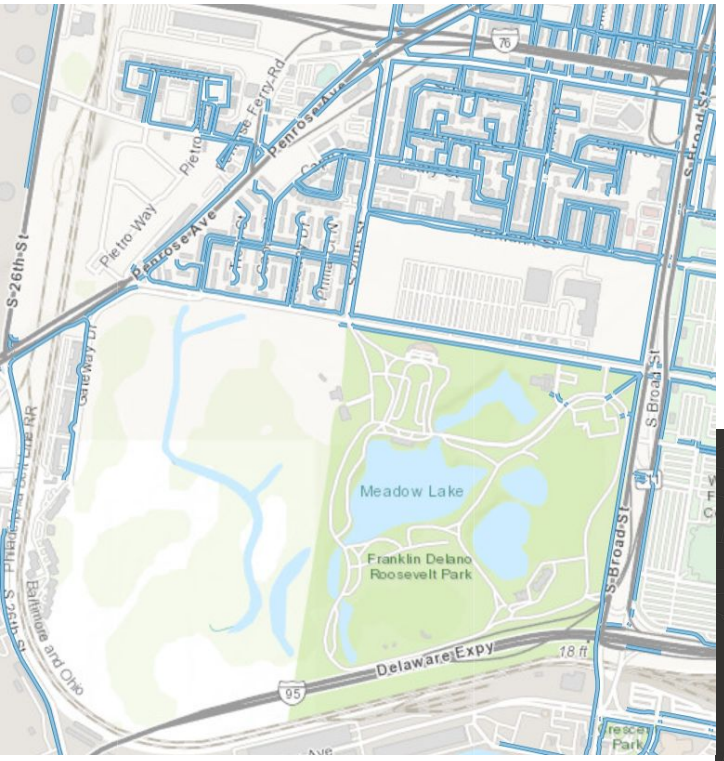
Residential areas primarily consist of attached single-family homes, although there are some detached single-family homes near Broad St, the intersections of Penrose Ave and Pattison Ave, and Penrose Ave and 20th St.

Multi-family housing is situated near FDR park, at the intersections of Pattison Ave and 20th St, and 20th St and Hartranft St.

Commercial mixed-use spaces are generally found between Penrose Ferry Rd, Penrose Ave, Homestead St, and Moyamensing Rd.

Medium industrial areas are located in the northwestern corner of the neighborhood and between the blocks of Penrose Ave, 20th St, and Pattison Ave.

EXISTING SIDEWALK CONDITIONS



Source: dvrpc.org

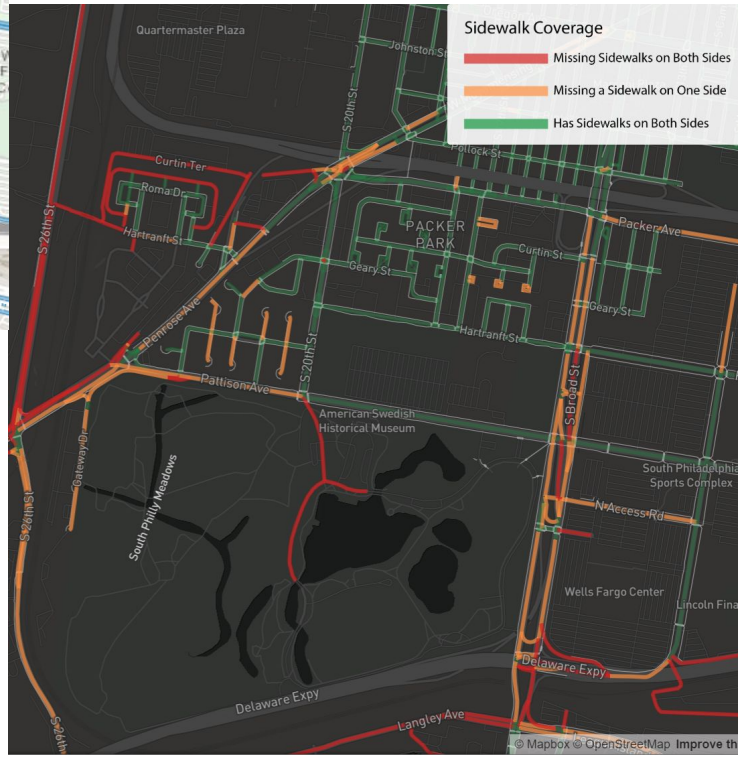


Figure 1.10&1.11: Sidewalk Existing Conditions
(Source: dvrpc.org)

The sidewalk maps reveal a notable discrepancy in sidewalk infrastructure between the west and east sides of 20th Street. Particularly, the northwestern corner of the neighborhood exhibits a significant deficiency, with most streets lacking sidewalks on both sides. Major roads like Penrose Avenue, Broad Street, and West Pattison Street also suffer from a lack of sidewalks.

Additionally, within FDR Park, sidewalk coverage is limited. Gateway Drive lacks sidewalks on one side, Pattison Avenue lacks sidewalks bordering the park, and the routes to the park's parking lots are entirely devoid of sidewalks.

Existing Condition of Sidewalks
- Pattison Ave. in Detail

Figure 1.12: Pattison and S. 20th Pedestrian Corner

Figure 1.13: Parkside Pattison Bus Stop

Figure 1.14: End of Parkside Pattison Sidewalk

Photo Credit: Timothy Oliver

Some knowledge of the Pattison Avenue land use complements the sidewalk coverage tool from DVRPC. The missing portion of sidewalk west of S. 20th St borders the section of FDR Park reserved for the golf course where there are no entrances on the northern side. There are transit stops along Pattison Avenue with the northern side being favored due to the presence of a shelter at 20th St. while a bench somewhat removed from park exits can be found along the park side.

Similarly, trails within the park facilitate pedestrian movement to and from parking lots. However, the lack of pavement on some pathways does restrict accessibility for some individuals.

16

Existing Condition of Bicycle Lanes

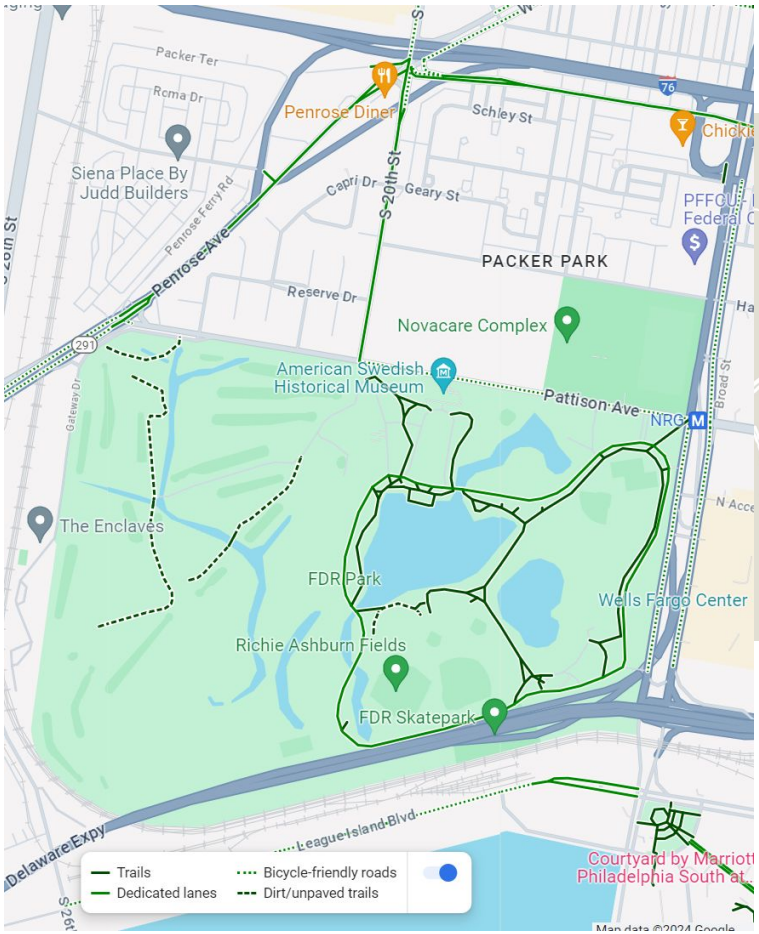
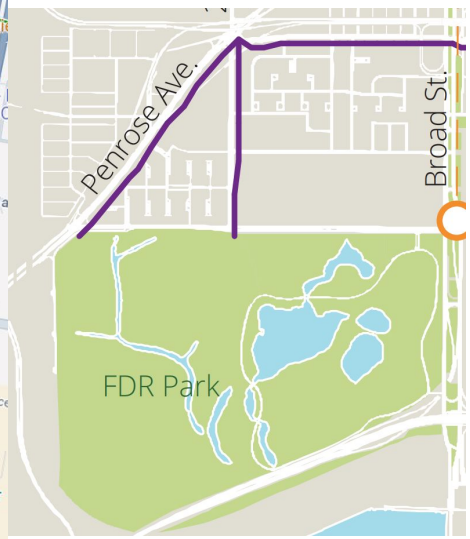
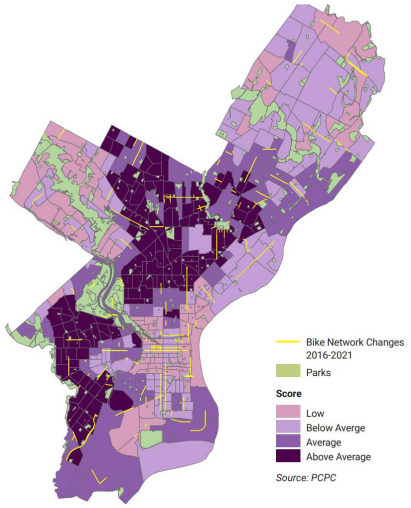


Figure 1.15: Bicycle Lanes on Google Maps





Source: PCPV Report

Figure 1.16: Existing Bike Lanes on PCPV Report

The neighborhood boasts just four bike lanes: one along Penrose Avenue, another on 20th Street, one on Packer Street, and a biking trail encircling the lakes of FDR Park.

However, not only are bike lanes scarce within the area, but investment in their construction and enhancement remains minimal as well. The bike network has seen only marginal changes from 2016 to 2021, indicating limited progress in this regard.

PUBLIC TRANSIT

The neighborhood faces challenges in terms of public transit accessibility. Currently, residents have access to just one metro line, located at the intersection of Broad Street and Pattison Avenue. Additionally, only two bus lines serve the area, operating at intervals of 60 minutes. This limited public transit infrastructure poses significant barriers to mobility and connectivity for residents, particularly those who rely on public transportation for commuting to work, accessing essential services, or engaging in recreational activities.

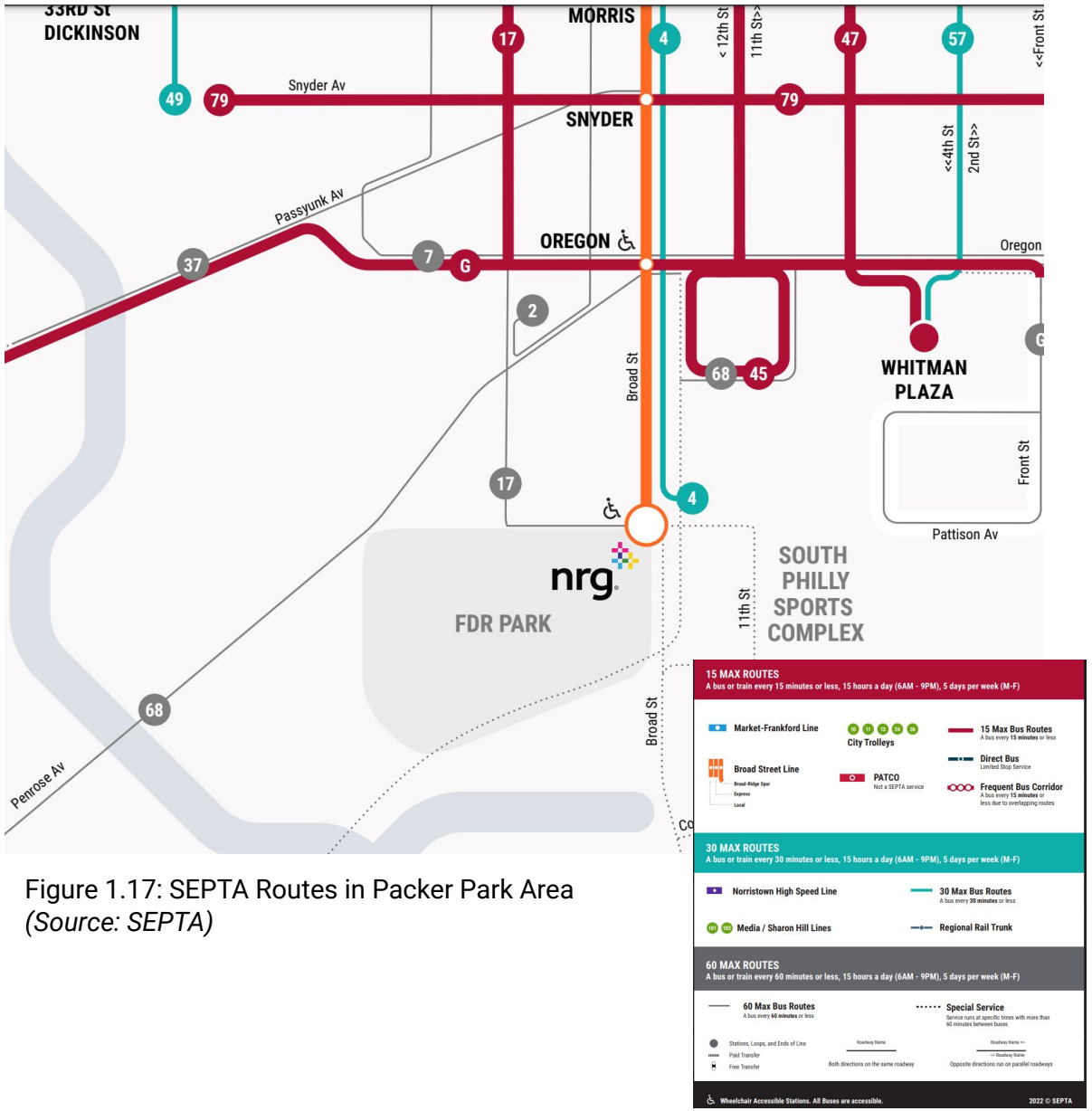


Figure 1.17: SEPTA Routes in Packer Park Area
(Source: SEPTA)

SAFETY

If you reside in South Philadelphia or have ever taken the alternate route to the Stadium area, you're likely familiar with the bustling intersection of 20th Street, Penrose Avenue, Moyamensing Avenue, and Packer Avenue. The current traffic layout can be perplexing for pedestrians, drivers, and cyclists alike, given the width and intricate configuration of the oddly-shaped roadway. Recognizing the challenges posed by the existing setup, the City of Philadelphia is undertaking plans to enhance the functionality of the intersection to better serve all users.

Philadelphia's current Complete Streets project will transition this intersection from a traditional traffic signal to a roundabout, aimed at fostering safer speeds and interactions among individuals utilizing each of the thoroughfares. This initiative seeks to alleviate congestion and enhance overall traffic flow while prioritizing the safety and convenience of pedestrians, motorists, and cyclists navigating the intersection.

Figure 1.18: S 20th, Penrose Ave, and Packer Ave Intersection on Google Maps

2 | ISSUES & OPPORTUNITIES


IN FULL BLOOM

ISSUES

1. **Inconsistent and Uninviting Pedestrian and Cyclist Experience**
   - Pedestrian and cyclist experiences in Packer Park are notably inconsistent and often uninviting, exacerbated by the predominance of residential zones.
   - Lack of essential pedestrian facilities, including street furniture, adequate crossings, and trees, significantly diminishes walking comfortability.
   - High-traffic arteries like Broad St and Pattison Ave, along with complex intersections at 20th Street, Penrose Avenue, Moyamensing Avenue, and Packer Avenue, further contribute to the lackluster sidewalk appeal. These critical points, recognized for their moderate to high traffic stress for cyclists, effectively sever the residential areas from vital commercial areas.

2. **Inadequate Connectivity and Mobility Infrastructure**
   - Limited availability of bike share facilities within the neighborhood, with only one Indego Bike station located at the nearby Wells Fargo Center, approximately 15 minutes away on foot.
   - Absence of dedicated bike lanes in the residential areas of Packer Park, hindering safe and convenient cycling within the neighborhood.

3. **Disjointed Multimodal Transportation Network Hindering Park Access**
   - The adjacency of Packer Park to the FDR Park belies a stark disconnection exacerbated by the formidable barrier of six-lane Pattison Avenue, creating a significant obstacle for residents to access the park. The presence of the Novacare Complex further compounds this issue, acting as a physical barrier that isolates some parts of the neighborhood from the park.
   - This disjointed transportation network severely impedes pedestrian and cyclist access to the FDR Park, undermining the potential for community engagement, recreational activities, and overall well-being.

OPPORTUNITIES

1. **Strategic Location for Access to Employment Hubs**
   - Packer Park's advantageous location within walking distance of the NRG station provides residents with seamless access to major employment hubs like Center City. This proximity presents an opportunity to promote sustainable commuting options, reducing reliance on cars and fostering economic opportunities for residents.

2. **Integration with FDR Park and Sports Hub**
   - Adjacency to FDR Park offers a significant opportunity for seamless integration, enhancing community engagement and vibrancy. Collaboration between Packer Park and the Friends of FDR Park can facilitate joint initiatives that promote recreational activities and cultural events, fostering a vibrant community atmosphere.
   - Furthermore, accessibility to the nearby Wells Fargo Center sports hub not only enriches recreational opportunities but also stimulates economic growth within the neighborhood. Leveraging this accessibility can attract visitors and investment, contributing to the neighborhood's prosperity.

3. **Community Engagement and Collaboration**
   - Harnessing the strength of the existing strong community within Packer Park, including the Packer Park Civic Association and Friends of FDR Park, presents a valuable opportunity for collaborative efforts in implementing the bicycle and pedestrian plan. Engaging these community organizations as partners can ensure that the plan aligns closely with local needs and preferences, fostering a sense of ownership and collective responsibility among residents.

3 | GOALS & OBJECTIVES

GOALS & OBJECTIVES

The primary goal of this plan is to enhance the safety, sustainability, and overall accessibility of multi-modal transportation within Packer Park, benefiting both residents and visitors. We aim to achieve this by upgrading walking and biking infrastructure to encourage greater community participation in recreational activities and improving access to public services. These targeted improvements collaborated with local stakeholders are designed to not only foster a more connected and active community but also contribute to our broader environmental sustainability goals aligning with Philadelphia's master plan.

These goals are predicated on beliefs that:

- The recreational aspect of the park is the most consistent draw for pedestrian and bicycle traffic in the area year-round
- The dominant access to highways and parkways attribute greater focus of developments to automobiles
- The majority of pedestrian activity away from transit stops comes from residents
- Benefits of decreased emissions and environmental impact are more readily evidenced in FDR park and surrounding green space heightening the recreational attractiveness

GOAL #1 (SAFETY)

1. Prioritize the safety of pedestrians and cyclists on the multi-lane roads and intersections.

Objectives:

- Improve road marking design on lanes and intersections with high crash risk and existing infrastructure for biking.
- Add or emphasize traffic calming measures for park entrances and surrounding roads

Since the study area includes public recreational facilities with high human mobility, the design of the urban arterial roads, including S Broad St and Pattison Ave, and city neighborhood roads should guarantee the safety of the residents and visitors from and to the FDR Park. Complex intersections at South Broad St and S 20th St should ensure people using multiple transportation modes and all age groups enough time to cross the roads safely. Automobile roads inside the FDR Park should also be enhanced with marks and signs to achieve the safety goal.

GOAL #2 (CONSISTENT EXPERIENCE)

2. Establish/maintain consistent pedestrian and bike experience

Objectives:

- Highlight existing bike lanes on S Broad St. and Pattison Ave and improve the bike lane protection
- Ensure continuity in sidewalk and bike lane coverage with facility access and monitored behavior

While Pattison Ave and S Broad St around FDR Park are proposed to be biking-friendly, there are no protected bike lanes on both sides, which creates difficulty for cyclists coming from the park who wish to continue biking on the roads. Likewise, the only factors clarifying the bike lanes from an extended road shoulder are infrequent bike trail signage. In the case of pedestrians, consistent sidewalks are efficient to prevent jaywalking and pedestrians walking on the automobile lanes.

GOAL #3 (PROMOTE ACTIVITY)

3. Promote integration of active transportation modes

Objectives:

- Install additional bicycle parking infrastructure for both private bicycles and rideshare units
- Encourage use of key routes for mode transfer to support future policy initiatives

SEPTA rail stations and major park entrances are considered as high bicycle generators in bicycle demand analysis according to the Pedestrian Bicycle Plan in Philadelphia (2012). Since the public transit of Packer Park Neighborhood includes one metro station, the NGR station which is the start of the Broad Street Line, and three bus routes, this goal helps connect the public transportation with walking and biking. It not only creates a sustainable environment, but also promotes a healthy lifestyle and equity for people who do not have access to cars. Implementations should focus on adding biking facilities near the NGR metro station and bus stop shelters along the sidewalks.

GOAL #4 (ACCESSIBILITY)

4. Promote an accessible environment for people with disabilities.

Objectives:

- Ensure smooth and wide sidewalks for adequate accessibility of pedestrians
- Renovate curbs and sidewalk transitions to coincide with park and transit station pedestrian developments
- Include aspects of prior interventions for benefit of visual or hearing impaired.

People with disabilities should have equal opportunities to access public recreational facilities and services. Therefore, the road infrastructures should be updated to enhance accessibility and create an inclusive and comfortable environment for these individuals. Implementations, such as accessible pedestrian signals, extended crossing times and obstacle-free pathways for pedestrians and bikes should be considered. The neighborhood association should also educate the public about the transit needs of individuals with disabilities.

This page is intentionally left blank

4 | IMPLEMENTATION

RECOMMENDATION TIME AND COST CATEGORIES

This plan offers recommendations guided by the previously discussed goals and objectives. The goals outline the intended categories of improvement to the study area in pedestrian and cycling activity, and the detail more concrete actions or observable states that gauge the completion of a goal. The following recommendations offer the most granular detail on key consideration factors and potential types of infrastructure to implement matching the portion of the study area they are applied to. Time and cost categories for these recommendations are as follows with some intentional overlap with ongoing efforts like the FDR Park capital program.

Our recommendations include:

1. Bicycle Network (A1-A5)
2. Pedestrian Network (B1-B5)
3. Policy and Programs (C1-C4)

TIME

SHORT	1 - 3 years
MEDIUM	4 - 6 years
LONG	7+ years

COST

$	Mostly programmatic tasks *(ex: policy, community outreach & education, etc.)*
$$	Programmatic tasks and moderate infrastructure changes *(ex: signage, painting, etc.)*
$$$	Programmatic tasks and significant infrastructure changes *(ex: lane changes or additions, signal changes, etc.)*

BICYCLE NETWORK

A1. Redesign Pattison Ave

COST: $ | TIME: Short

Context:
Pattison Ave is classified as an Urban Arterial that plays a vital role in connecting important locations in South Philadelphia. The total width is 36m (24.5m road and 11.5m sidewalk width). No dedicated cycling infrastructure and bus lanes.

Intervention:
To implement a more cost-effective and efficient intervention without modifying the sidewalks, the following changes can be made to Pattison Ave:

- Reallocate the space currently used for parking lanes to create protected bike lanes on both sides of the street.

Figure 4.1: Current Satellite Image of Pattison Ave

- Install physical barriers to separate the bike lanes from vehicular traffic, ensuring the safety of cyclists.
- Dedicate one lane in each direction specifically for buses, allowing them to move more efficiently and avoid congestion.

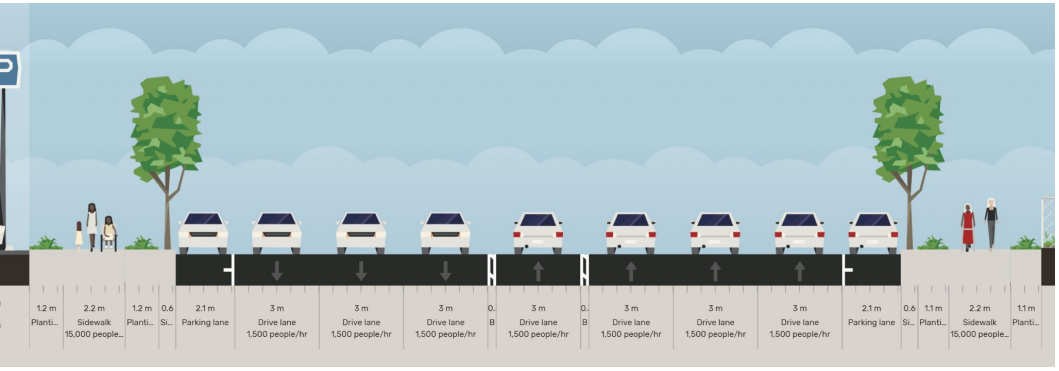


Figure 4.2: Current Section of Pattison Ave

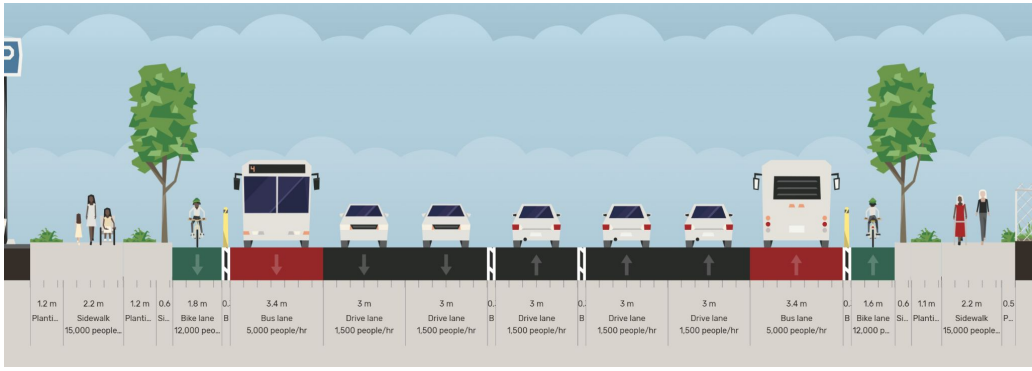


Figure 4.3: Proposed Section of Pattison Ave

BICYCLE NETWORK

A2. Separated Bike Lane for Packer Ave and 20th St

COST: $ | TIME: Short

Context:
Both 20th St and Packer Ave have unprotected bike lanes located on the outer side of the parking lanes, which means that cyclists are exposed to the threat of moving vehicles in the adjacent travel lanes.

Intervention:

- Shift the bike lanes to the inner side of the street, adjacent to the sidewalk. This places the cyclists closer to the pedestrian zone and further away from the moving traffic.
- Mark bike lanes as green
- Relocate the parking lanes to the outer side of the bike lanes, next to the drive lanes creating a buffer between cyclists and vehicles.
- Install physical barriers or protection between the bike lanes and the parking lanes.

Figure 4.4: Current Satellite Image of Packer Ave and 20th St

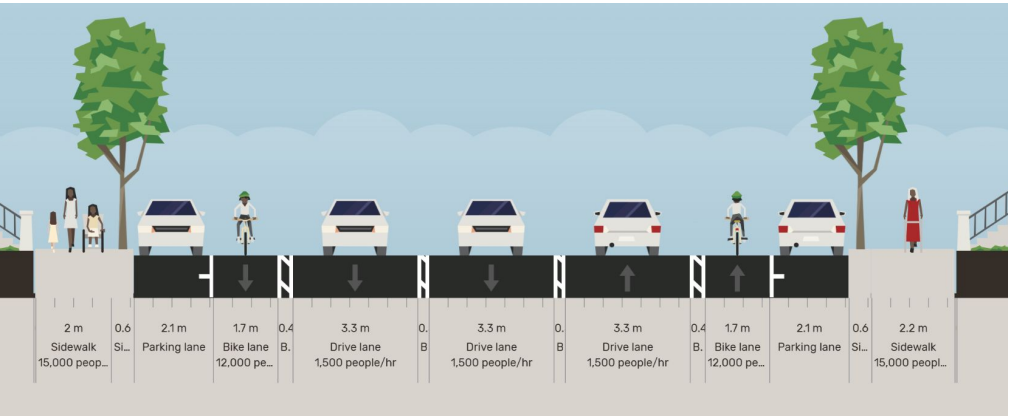


Figure 4.5: Current section of Packer Ave

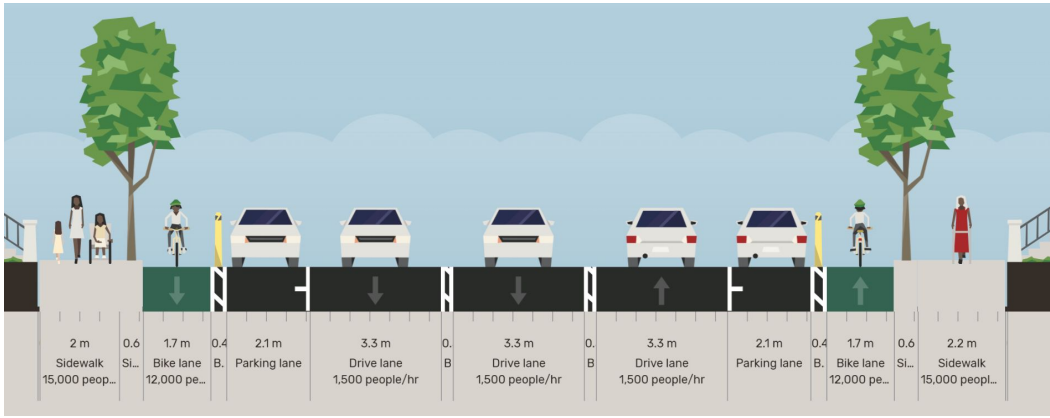


Figure 4.6: Proposed section of Packer Ave

BICYCLE NETWORK

A5. Shared Lanes in Area Bounded by Packer Ave, 20th St, Hartranft St, and S Broad St

COST: $ | TIME: Short

Context:

The streets within the area bounded by Packer Ave, 20th St, Hartranft St, and S Broad St have seen cycling activity, but lack sufficient bike infrastructure. The narrow streets make it challenging to add dedicated bike lanes. However, there is high parking demand in this residential area, making shared lanes a potential solution to improve bicycle access and safety.

Intervention:

- Sharrow markings provide bicycle access without removing scarce parking
- Painted markings are a quick, affordable way to start improving bike safety
- Highlights presence of cyclists and reduces sidewalk riding
- Sharrows complement "share the road" signage to educate drivers
- Should monitor cyclist usage and add more extensive protections if needed

Figure 4.7: Forrestal St

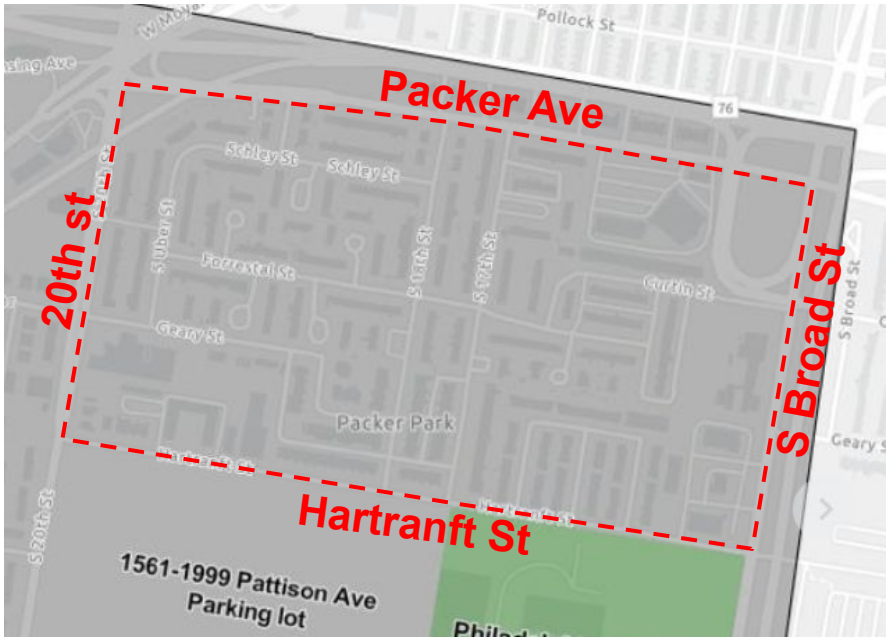


Figure 4.8: Area Bounded by Packer Ave, 20th St, Hartranft St, and S Broad St

Figure 4.9: Sharrow Sign

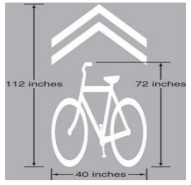


Figure 4.10: Sharrow Street Marking

PEDESTRIAN NETWORK

B1. Install Traffic Signs on Sides of Roads with High Pedestrian Occurrence

Figure 4.11: Examples of Pedestrian Traffic Signs

COST: $ | TIME: Short

Context:

Broad Street, Pattison Avenue, and other roads surrounding FDR Park contain large stretches where pedestrians have no option to cross or where cars may accelerate before a pedestrian crossing is identifiable. Pattison Avenue alone has no crossing for a half-mile stretch despite some pedestrian facilities appearing to invite access from those on the other side of the road like a museum entrance and bus stop. Currently, deer crossing signs and rumble strips exist along Pattison Avenue.

Intervention:

To enhance pedestrian visibility and safety, it is recommended to install traffic signs, including but not limited to:

- Pedestrian crossing signs and “watch for pedestrians” signs, at the entrances of FDR Park, parking lots, and highway exits on both sides of Pattison Ave and S Broad St where they do not have a traffic signal control.
- Rectangular Rapid Flash Beacons on Pattison avenue near the street-side entrance to the National American-Swedish History Museum and the Septa Bus Stop for route 17.

Figure 4.12: Map of Potential Locations of Adding Traffic Signs and RFB.

PEDESTRIAN NETWORK

B2. Prioritize Pedestrian Safety during Philly Sports Events

COST: $ | TIME: Short

Context:

Since the Packer Park Neighborhood is adjacent to several stadiums and complex centers (Philadelphia Eagles, Citizens Bank Park, Wells Fargo Center, Lincoln Financial Field), there would be large events with thousands of audience. Parking lots are located on the east of the neighborhood, causing a great pedestrian flow crossing urban arterial roads. A proper traffic management during large events is essential to ensure the safety of visitors.

Intervention:

- Add vertical crosswalk panels, temporary signal boards and rapid flash beacons to calm the traffic when there are sport events.
- Hire event security staff to cooperate traffic calming with local police.
- Post the road closures, speed limit changes and any other traffic changes related with the event on social media ahead.

Figure 4.13: Examples of Crosswalk Panels and Signal Boards.

Figure 4.14: Event Traffic Management

(Source: Makesafe Traffic Management)

PEDESTRIAN NETWORK

B3. Connect discontinuous sidewalk

COST: $ | TIME: Short

Context:

On the east direction of Pattison Ave between the intersection with Gateway Dr and S 20th Ave, there is an interrupt of the sidewalk, which provide inconvenience to the pedestrians. In Figure 4.15 on the right, Google Street View caught two pedestrians walking on the motor lane, and it will increase the risk of crashes if the visibility is low because of the bad weather conditions or at night when the driver is in a high speed.

Intervention:

Since there are no trees or protected natural species in width range of the proposed segment, a sidewalk can be constructed based on following guidelines:

- A minimum of 5 feet of clear width for the Walking Zone.
- A minimum 5-foot Furnishing Zone to ensure separation between pedestrians and motor vehicles.
- Paved curb ramps should be available on road intersections to be ADA-compliant, using PROWAG standards.

Figure 4.15: Google Street View of People Walking on Automobile Lanes.

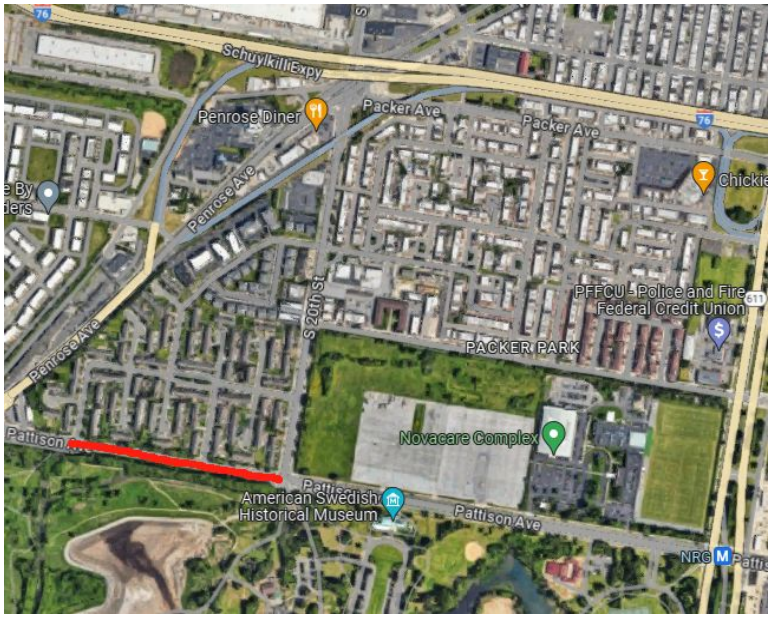


Figure 4.16: Map of Proposed Sidewalk Construction

PEDESTRIAN NETWORK

B4. Identify and improve inadequate or missing crosswalks

COST: $ | TIME: Short

Context:

Busy and complex intersections on S Broad St, Packer Ave, and Pattison Ave use traditional markings for crosswalks, which are not recognizable enough for drivers under poor visibility conditions. Skewed intersections in obtuse angles, such as S Broad St at Pattison Ave and Pattison Ave at Penrose Ave, would make drivers that make right or left turns hard to see the pedestrians and bikes.

Intervention:

Renovations for road intersections (Figure 4.18) can be based on the design of S Broad St in Philadelphia downtown:

- Renovate traditional crosswalks into colored paved crosswalks at complex and diagonal intersections.
- Install curb extensions with paintings on Hartranft St at S Broad St intersection.
- Install signs to alert pedestrians at crosswalks of Schuylkill Expressway.

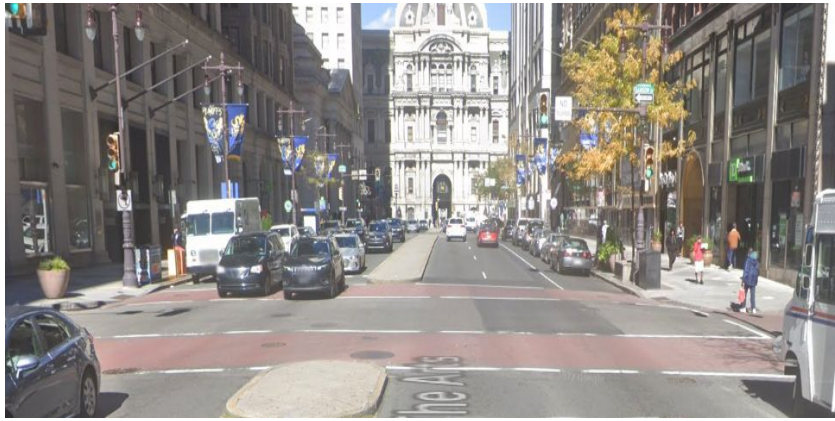


Figure 4.17: Example of Colored Crosswalks in Downtown Philadelphia

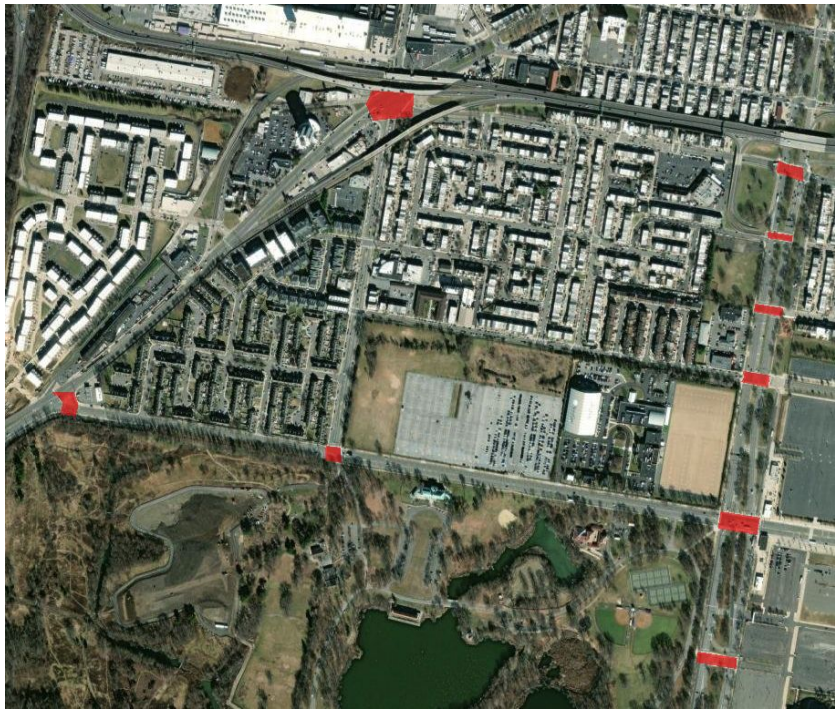


Figure 4.18: Map for Proposed Intersections with Renovations.

PEDESTRIAN NETWORK

B5. Construct a raised median for the diagonal intersection at Packer Ave and Penrose Ave

COST: $ | TIME: Short

Context:

The intersection of Packer Ave and Penrose Ave is complex and diagonal. The bidirectional Packer Ave with two straight lanes and one right-turn lane makes the pedestrians hard to cross in one signal cycle, especially for older groups and people with disabilities. Pedestrians will be in a dangerous condition when the automobile signals turn green.

Intervention:

The Pedestrian Bicycle Plan (2012) provides several infrastructure to mitigate the problem, including:

- Pedestrian crossing islands and median crossing islands.
- Signal timing and sequencing.

In this case, a raised median is recommended between straight and right-turn land in the west direction of Packer Ave.

Figure 4.19: Current Condition of Packer Ave at Penrose Ave Intersection from Google Maps

Figure 4.20: Example of Median Island (Philadelphia Pedestrian and Bicycle Plan, 2012, p. 54)

POLICY & PROGRAMS

C1. Build out annual programming to promote cycling in the neighborhood

COST: $ | TIME: Short

- **Youth Cycling Initiative:**
  - Partner with local schools and community centers to offer youth cycling classes and group rides
  - Teach bike safety, maintenance and riding skills to elementary and middle school students
  - Provide bicycles and helmets to underserved youth through an earn-a-bike program or subsidies

- **Community Ride-Alongs**
  - Monthly community-led bike rides to promote cycling as a communal activity.
  - Riders of all ages welcome, with special routes for young cyclists.

- **Cycle-to-Work Incentive**
  - Incentive programs for companies whose employees commit to cycling to work.
  - Corporate challenges and rewards for the most cycling miles logged by staff.
  - Development of a 'Cycle Commuter Map' to highlight optimal commuter routes.

Figure 4.21: Group ride of Members of the National Youth Bike Council in Fairmount Park, Philly

Figure 4.22: Community Bike Ride by Lansdowne Borough and Greater Philadelphia Bicycle Coalition

POLICY & PROGRAMS

C2. Creating a school zone along 20th st, Geary St, and Hartranft St

COST: $$ | TIME: Short

Context:

The section of 20th St spanning from Geary St to Hartranft St serves as a critical pathway for students commuting to the two schools located within this corridor (Philadelphia Classical School on Geary St and Holy Spirit Church on Hartranft St). The current conditions of the road and cycling infrastructure present a higher stress environment for young cyclists, which may deter cycling as a safe and preferred mode of transportation to school. Establishing a school zone with improved bike facilities along this stretch can greatly enhance safety, encouraging more students to cycle to school while reducing traffic congestion during peak school hours.

Intervention:

Designation: Establish a 15 mph school zone on 20th st, Geary St, and Hartranft St, leveraging § 3365(b) of the PA Code. Prepare and submit detailed plans showing pedestrian and cycling traffic patterns around the two schools for Department approval.

Implementation Strategy:

- Signage: Install enhanced signage, including flashing beacons and restricted hours panels, at the beginning and end of the school zone.
- Infrastructure Upgrade: Improve bike lanes, signage, and crossings on 20th St to create a low-stress cycling environment for students.
- Duration: The reduced speed limit will cover the time periods when students are typically arriving at and leaving school, ensuring minimal impact outside of school hours.

Figure 4.23: Flashing Beacons and LED Signs

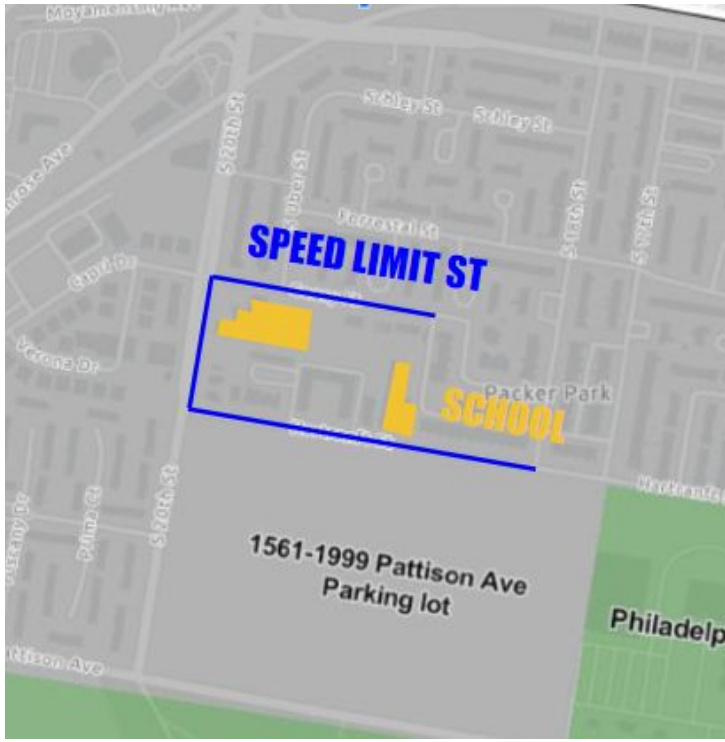


Figure 4.24: Zone along 20th st, Geary St, and Hartranft St

44

POLICY & PROGRAMS

C3. Remove parking within 20 feet of intersections

COST: $ | TIME: Short

Context:

Parked cars at corners make it hard for drivers and walkers to see. This can cause accidents.

Banning parking in close proximity to intersections has several benefits: Enhances visibility for all, reducing the chance of accidents. Frees up space that can be utilized for improved cycling infrastructure or public realm enhancements.

Intervention:

- No parking within 20 feet of where streets cross.
- Use signs that fit with what's already around so they're easy to understand.
- Use the extra space to make the neighborhood look better with things like plants or art.

Along with taking away parking near corners, we should slowly try to cut down the need for parking. We could watch how permits are given out, slowly cut back on them, or change the costs and ways we give them out.

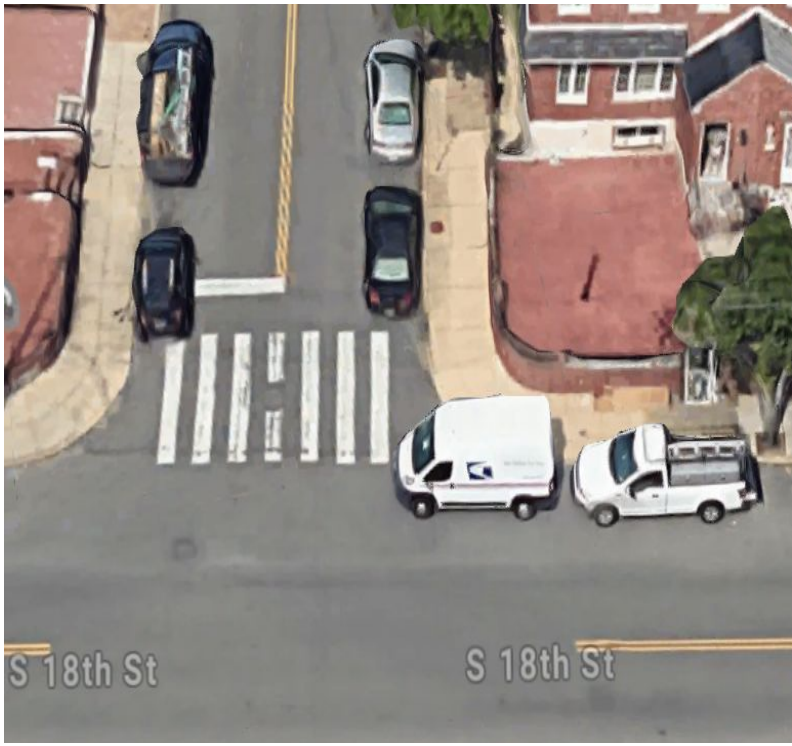


Figure 4.25: Example Intersection (S18th & Hulseman st) where Parking should be Removed

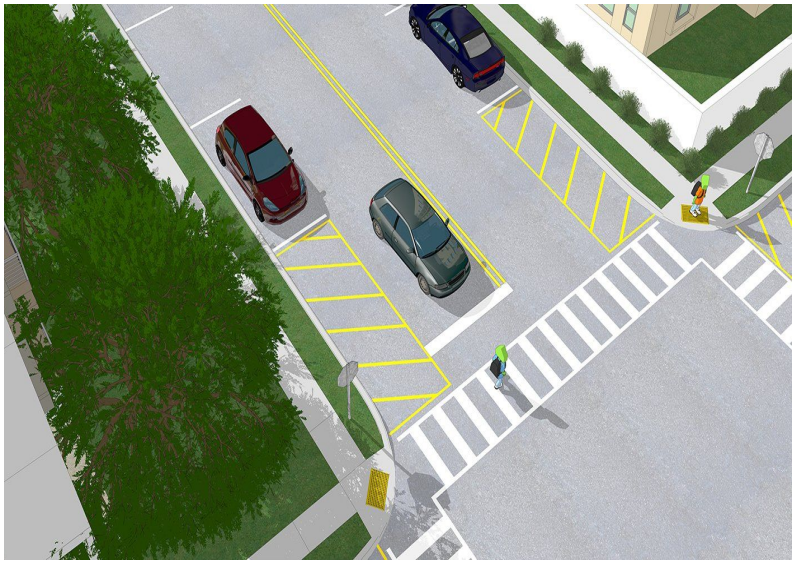


Figure 4.26: Example of Intersection Removed Parking within 20 feet

45

POLICY & PROGRAMS

C4. Maintenance

COST: $ | TIME: Short

Context:

Faded crosswalks, bike lanes and potholes are major problems of maintenance in this neighborhood.

The following streets should be considered for the improved maintenance:

Penrose Ave, Hartranft St, S 22th St, Boise Pl, and etc.

Intervention:

Employees and residents should quickly report problems like potholes to the city with a call to 311.

Regular monthly updates on facility conditions are needed, and action plans should be made for repairs.

PCDC need to create clear plans for this. Keeping the areas clean is also important for a good walking and biking experience.

Figure 4.27: Example of Faded Crossings: Hartranft St & S 22th St

Figure 4.28: Example of Faded Bike Lanes: 2158 Penrose Ave

Figure 4.29: Example of Potholes and Cracks: 3153 Boise Pl

IMPLEMENTATION

Execution

Among the two children-targeted and three pedestrian-focused recommendations, we identify key areas where neighborhood authority is necessary for complete implementation.

Introductory phasing of these recommendations such as “supporting Safe Routes for School (SRFS) and public spaces” can be accomplished with inclusion of education on safe walking routes and additional monitoring for students, faculty, and staff of nearby schools like the Philadelphia Classical School.
With this intervention in effect, surveying students or monitoring their departures from school can be used to propose limits for the suggested school zone on S. 20th St. as an additional traffic calming measure.

Likewise, residential facility organizations like the Friends of FDR Park will be essential in promoting developments such as extensions to the Pattison Avenue sidewalk given ongoing capital projects like the FDR Park Plan. These moderate infrastructure recommendations focused on Pattison Avenue such as highlighting bike lanes through paint and adding crosswalks and signals deally occur in a phase from 2025-2028 which can capitalize on the FDR Park Plan’s 20th Street Gateway Phase and contribute to trail and wetland focused Nature Phase with heightened pedestrian access.

As mentioned with the addition of crosswalks and signals, the significant infrastructure changes would potentially take longer to implement fully, but the other changes would present ample opportunity to gather community feedback and provide information for support in relevant policy or actions.

IMPLEMENTATION

Monitoring & Evaluation

The four goals of the plan can be evaluated by the following metrics.

1) a continuous, annual 5% decrease in pedestrian or cycling fatalities in the area for the first 5 years and net decrease afterwards
2) Improved community perception of safety and presence of complete walking or cycling routes to/from the park
    a) Including high weight given to handicap or disabled perception respondents
3) An increase of visitors to the park for programs, events, or general visitation if recorded

We recommend sharing this plan with potential partners like the Friends of FDR Park and nearby schools to facilitate specific times monitoring and recorded perceived park traffic (ingress or egress). Therefore, collaboration with other plans can be eased and potential barriers to policy implementation can be mitigated.

Funding & Partnerships

Local level government can be a prime partner in facilitating policy or project funds for many roads in the study area. The maintenance and upkeep of road cleanliness would also be possible through them. We advise the municipality of Philadelphia to apply for the Greenways, Trails, and Recreation Program to fund park maintenance and cleaning along roads like Pattison Avenue at the Pennsylvania Department of Community & Economic Development's website.

Where the Broad Street section of this study area is a state road (State Highway 611), integration of the road into the JFK/Market St. Vision Zero Pilot project might see potential for bike lanes to be created there. In the meantime, voices of the community and park organizations like PhilaParks can shorten the timeframe for other recommendations and aid in evaluation or procuring funds for specific areas of the plan.

This page is intentionally left blank

REFERENCES

Census Tract 373, Philadelphia, PA (n.d.).
https://censusreporter.org/profiles/14000US42101037300-census-tract-373-philadelphia-pa/

City of Philadelphia (2021). “Market/JFK Vision Zero pilot project (15th to 20th streets)”.
https://www.phila.gov/documents/market-jfk-vision-zero-pilot-project-15th-to-20th-streets/.

City of Philadelphia (2021). “20th St., Penrose, Packer, Moyamensing traffic calming project”.
https://www.phila.gov/documents/20th-st-penrose-packer-moyamensing-traffic-calming-project/

DVRPC (n.d.). https://www.dvrpc.org/webmaps/sidewalk-gaps/

Legal Information Institute. “67 Pa. Code 212.501 - School zone speed limits”.
https://www.law.cornell.edu/regulations/pennsylvania/67-Pa-Code-SS-212-501#:~:text=(1)%20To%20establish%20a%20school,the%20school%20zone%20to%20the.

(2023). *Manual on Uniform Traffic Control Devices for Streets and Highways* (11th ed., pp. 128). U.S. Department of Transportation, Federal Highway Administration.

Open Maps (n.d.). https://openmaps.phila.gov/

Packer Park (n.d.). https://www.phillyhomegirls.com/neighborhoods-1/packer-park

Pedestrian and Bicycle Plan (2012).

Pedestrian and Bicycle Plan Progress Report (2021).

Pennsylvania Department of Community & Economic Development (2023). *Greenways, Trails, and Recreation Program (GTRP): Program Guidelines*. https://dced.pa.gov/download/greenways-trails-recreation-program-gtrp-guidelines/?wpdmdl=81379.

Philadelphia Parks & Recreation (2021). “FDR Park Plan Overview”.
https://myphillypark.org/what-we-do/capital-projects/fdr-park/.

Urban Street Design Guide. National Association of City Transportation Officials. https://nacto.org/publication/urban-street-design-guide/

SEPTA Transit Network Philadelphia & Vicinity (2023).
https://censusreporter.org/profiles/14000US42101037300-census-tract-373-philadelphia-pa/

The History of Packer Park (2012). https://www.phillyhomegirls.com/neighborhoods-1/packer-park

REFERENCES

Image sources

Cover :
https://www.inquirer.com/resizer/TN5we0trdpHnC8A4a-ytsFIx6hQ=/filters:format(webp)/cloudfront-us-east-1.images.arcpublishing.com/pmn/D55ZO57YTBCZTJRCEHKDD7RQUM.jpg

Page 5:
https://www.fdrparkphilly.org/

Page 7:
https://whyy.org/articles/the-pandemic-helped-make-fdr-park-better-now-it-has-to-survive-the-aftermath/

Page 21:
https://loveyourpark.org/blog/four-reasons-to-love-fdr-park

Page 25:
https://whyy.org/articles/the-pandemic-helped-make-fdr-park-better-now-it-has-to-survive-the-aftermath/

Page 33:
https://www.trulia.com/n/pa/philadelphia/packer-park/156196/