

Parkland Way Traffic Study



December 2023



REPORT PREPARED FOR:



CHAMPAIGN
PARK DISTRICT



PARKLAND
COLLEGE

REPORT PREPARED BY:



CHAMPAIGN COUNTY
REGIONAL PLANNING
COMMISSION



PROJECT STAFF:

Rita Morocoima-Black, CCRPC Planning & Community Development Director

Gabriel Lewis, CCRPC Planner III

Sharif Ullah, Lochmueller Group Senior Transportation Engineer

Table of Contents

Introduction	4
Background	4
Parkland Way Corridor	4
Study Objectives	4
Existing Conditions Analysis	6
Geometric Conditions	7
Intersections	7
Access Points	8
Regulatory and Warning Signs	9
Curbs and Gutters	10
Pedestrian and Bicycle Infrastructure	11
Traffic Operational Conditions	11
Speed Study	13
Traffic Distribution	13
Traffic Safety Conditions	14
Crash Data Analysis	14
Crash Trends	15
Crash Types	16
Crash Severity	17
Road Surface and Lighting Conditions	19
Pedestrian and Bicycle Facilities Needs	21
Findings	23
Recommendations	24
Safety Recommendations	24
Speed Limit Enforcement	24
Pedestrian and Bicycle Facilities – Parkland Way	24
Pedestrian Facilities – Perimeter Road	26
Existing Crosswalk Improvements	26
Street Lights	27
Roadway Reconstruction	28

Implementation Plan	30
Timeline.....	30
Short Term.....	30
Medium Term.....	30
Long Term	30
Potential Funding Options.....	32
Illinois Transportation Enhancement Program (ITEP).....	32
Illinois Bike Path Program.....	32
Illinois Department of Commerce and Economic Opportunity (DCEO)	
Federal Match Grant.....	32
Illinois Catalog of State Financial Assistance (CSFA).....	33
USDOT Reconnecting Communities and Neighborhoods (RCN) Program	33
FHWA Active Transportation Infrastructure Investment Program (ATIIP)	33
U.S. Economic Development Administration (EDA) Public Infrastructure	
Grant	34
Other USDOT Grants.....	34
Appendix A: Speed Statistics by Hour.....	35
References	36

Introduction

Background

The Champaign County Regional Planning Commission received a request from the Champaign Park District and Parkland College to conduct a traffic study on Parkland Way from Mattis Avenue to Perimeter Road.

The reconstruction of Parkland Way is cited as a project proposed by the Champaign Park District in the [2007 Agenda of Champaign County Community Projects](#). Parkland Way is the only access to Parkland College from the north and relieves traffic buildup from the only other entrances at Bradley Avenue and Duncan Road. However, when this report was published in 2007, the road was falling into severe disrepair, and public buses and delivery trucks were no longer permitted on the road. This remains the case in 2023. If the road is closed to deterioration, Parkland College students and faculty would suffer as it would take longer to get to the college for class and work. The road needs to be brought up to City standards for transference before the City of Champaign can consider transference of ownership and maintenance.

Parkland Way Corridor

The Parkland Way corridor extends from Mattis Avenue to Perimeter Road. Parkland Way is approximately 0.7 miles long, with one lane per direction along the whole segment. As seen in **Figure 1**, the surrounding land use is open space and recreational. **Figure 2** shows the aerial view of the Parkland Way corridor (highlighted in yellow) in 2023. The annual average daily traffic (AADT) was around 1,800 vehicles/day in 2021. Pedestrian volumes and bicyclist volumes along Parkland Way are low but not negligible during regular weekdays. Also, there are no sidewalks along Parkland Way. There is no on-street parking available; however, there are three parking lots located on the side of the roadway that are accessible directly from Parkland Way. Street lighting is not present along Parkland Way.

Figure 1: Parkland Way looking west

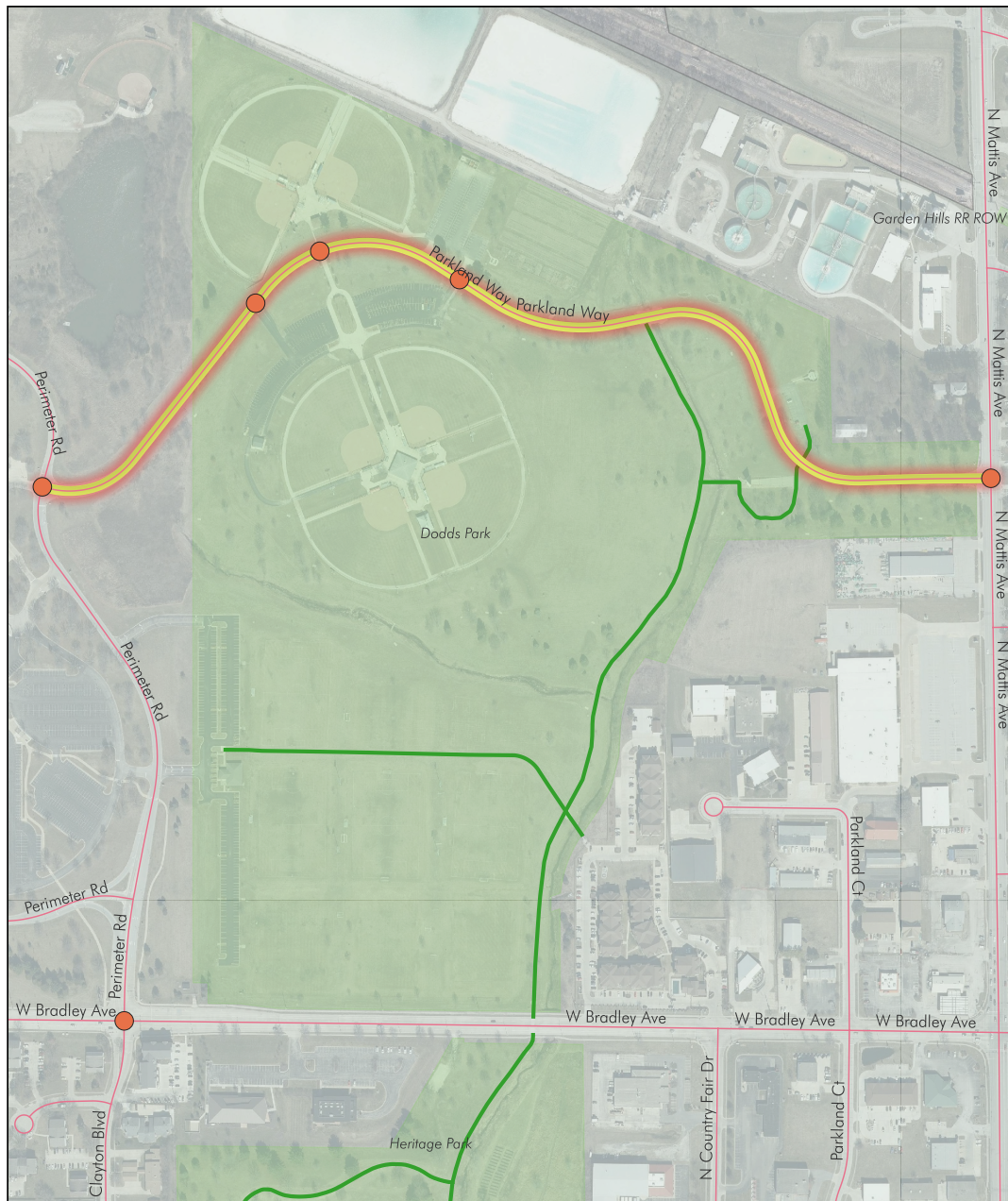


Study Objectives

The study objectives include:

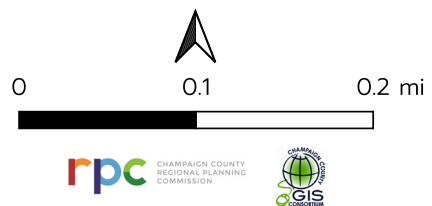
- Conducting an existing conditions analysis
- Conducting a traffic safety analysis
- Analyzing pedestrian and bicycle facilities needs
- Developing recommendations
- Creating an implementation plan

Figure 2: Aerial View of Parkland Way Study Area



Legend

- Traffic Count Locations (6)
- Streets
- Existing Trails
- Public Parks
- Champaign City Limits



Existing Conditions Analysis

The existing conditions analysis includes geometric and traffic operational condition analyses for the study corridor.

The Parkland Way corridor is a local road providing access to Champaign Park District and Parkland College facilities. The average width of the roadway closer to Mattis Avenue is 22 feet with 11-foot lanes in each direction, no shoulders/gutters, nor curbs. Just 500 feet east of the intersection of Parkland Way and Perimeter Road, the roadway width is 30 feet wide with 11-foot lanes and 3-foot gutters and curbs along the whole section. On-street parking is not allowed along the whole roadway section. No sidewalks exist on either side of the Parkland Way corridor. The Parkland Way corridor has concrete surface for most of its length except from approximately 500 feet east of Perimeter Road which has asphalt paved surface. **Figures 3** and **4** show the concrete and asphalt pavement surfaces along the Parkland Way corridor.

Figure 3: Parkland Way Concrete Pavement Surface



Figure 4: Parkland Way Asphalt Pavement Surface



Geometric Conditions

Intersections

The Parkland Way corridor includes two intersections. One is the Mattis Avenue and Parkland Way intersection which is a three-leg signalized intersection located at the east terminus of the corridor. Mattis Avenue has five lanes at this intersection: two lanes in each direction, and a continuous two-way left-turn lane. This left turn lane on the northbound approach provides access to Parkland Way. Mattis Avenue is a major arterial with a 18,600 annual average daily traffic (AADT) in 2022. The west leg of the intersection (Parkland Way) has one lane in each direction, plus an eastbound right turn lane at the intersection. The traffic signal has pedestrian activated push buttons, and there are also marked parallel crosswalks to allow pedestrians to cross Parkland Way and the north leg of Mattis Avenue at this intersection. However, the marked crosswalks are worn out and barely visible, particularly across Parkland Way.

Figure 5: Parkland Way eastbound at Mattis Avenue



The second intersection is the intersection of Perimeter Road and Parkland Way, which is located at the west terminus of the corridor. This is a 4-Way Stop intersection. The north leg of the intersection has a thru/left turn lane, the south leg has a thru/left turn lane and a right turn lane, and the east leg has a thru/left turn lane and a right turn lane. The west leg is the entrance to the Parkland Circle Drive that provides MTD buses access to the MTD bus stop and main entrance to Parkland College. There are no marked crosswalks at this intersection.

The other intersection that was analyzed as part of the study was the intersection of Bradley Avenue and Clayton Boulevard/Perimeter Road. This is a four-leg signalized intersection of a minor arterial (Bradley Avenue) with a local street (Clayton Boulevard/Perimeter Road). The intersection has two lanes in each direction on Bradley Avenue, with right and left turn lanes on the westbound approach, and a left turn lane on the eastbound approach. Clayton Boulevard has one lane in each direction, with a northbound thru/left turn lane, and a right turn lane at the intersection. Perimeter Road has two lanes in each direction, with a right turn lane, a thru/left turn lane, and a left turn lane at the intersection with Bradley Avenue. The traffic signal has pedestrian activated push buttons to allow pedestrians to safely cross the west, north and south legs of this intersection. The intersection has marked parallel crosswalks on the north, south and west legs. There are also MTD bus stops at the northeast, northwest, and southeast corners of the intersection.

Figure 6: Parkland Way westbound at Perimeter Road



Access Points

There are six access points along the 0.7 miles of Parkland Way between Mattis Avenue and Perimeter Road, as shown in **Figure 7**. Most of the access points are on the north side of the road, five to be exact: the driveway to a private residence at 1603 N. Mattis Avenue, the Olympic Tribute parking lot, a gravel entrance for Champaign Park District maintenance vehicles, and two entrances to the Dodds Park Softball Complex northeast parking lot. There are entrances to the Dodds Park Softball Complex southeast and southwest parking lots on the south side of the road. Only one access point is on both sides of the road (to the Dodds Park Softball Complex northeast and southeast parking lots), so almost no traffic is crossing Parkland Way. There are no access-related concerns for Parkland Way.

Figure 7: Parkland Way access locations map



Legend

- Streets
- Existing Trails
- Access Points (6)
- Public Parks



0 0.1 0.2 mi



Regulatory and Warning Signs

Five types of regulatory signs and two types of warning signs exist along Parkland Way, further explained in **Table 1**. **Figure 8** shows the locations of these signs, and are labeled by the Sign Designation given by the Manual on Uniform Traffic Control Devices (MUTCD).

Table 1: Parkland Way Regulatory and Warning Signs

MUTCD Sign Designation	Sign Name	Location(s)	Number of Signs
R1-1	Stop	At Perimeter Road	3
R1-5	Yield to Pedestrians	At the Dodds Park Softball Complex Crosswalk	2
R2-1	Speed Limit 20	Throughout the corridor	6
R10-6a	Stop Here on Red	At Mattis Avenue	1
R10-11b	No Turn on Red	At Mattis Avenue	1
W3-1	Stop Ahead	Approaching Perimeter Road	1
W11-2	Pedestrian Crossing	At the Greenbelt Bikeway Spur to the Olympic Tribute	2

Figure 8: Parkland Way sign locations map

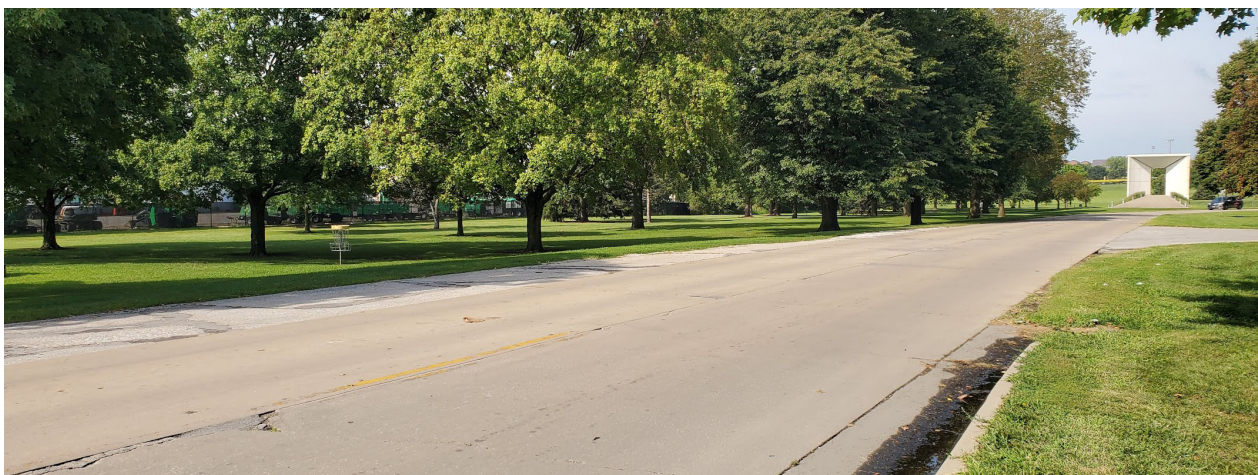


Curbs and Gutters

The majority of Parkland Way has no curbs, gutters, or shoulders. The concrete road surface has a narrow strip of gravel adjacent to it in some places, but the roadway edge primarily transitions to grass and/or drainage ditches.

The only two locations where Parkland Way has curbs and gutters are at its eastern terminus at Mattis Avenue (**Figures 5 and 9**), and the approximately westernmost 500 feet of asphalt roadway surface leading to Perimeter Road (**Figures 4 and 6**). Most of this western section lies on Parkland College property, whereas the remainder of the roadway is on Champaign Park District property.

Figure 9: Parkland Way roadway edge transition from curb and gutter to grass west of Mattis Avenue



Pedestrian and Bicycle Infrastructure

There are no sidewalks nor dedicated bicycle facilities on Parkland Way.

There are two marked continental crosswalks across Parkland Way: at the Greenbelt Bikeway Spur to the Olympic Tribute and its parking lot, and connecting the north and south sides of the Dodds Park Softball Complex. There are also pedestrian crossing signs posted on Parkland Way at these locations (**Table 1** and **Figure 8**).

Sidewalks exist on both sides of Mattis Avenue at Parkland Way. There are also pedestrian activated push buttons at the traffic signal, and marked parallel crosswalks on the north and west legs of the intersection. However, the marked crosswalks are worn out and barely visible, particularly across Parkland Way.

The Greenbelt Bikeway trail owned by the Champaign Park District ends at Parkland Way. From this north terminus, the Greenbelt Bikeway follows the Copper Slough approximately 1.1 miles through Dodds and Heritage Parks (**Figure 1**). However, this trail is only 6.5 feet wide, less than the minimum trail width of 8 feet recommended in the Champaign County Greenways & Trails Plan.

The Greenbelt Bikeway also has a Spur to the Olympic Tribute, that crosses Parkland Way to a parking lot on the north side of the road. This trail is only 5.4 feet wide.

Traffic Operational Conditions

The study corridor is a two-way local roadway with a 2021 AADT volume of 1,800 vehicles. The study corridor is a low volume corridor with an unsignalized intersection with Perimeter Road on its west terminus and a signalized intersection with Mattis Avenue on its east terminus. The intersection with Perimeter Road is a four-leg intersection with stop signs on all the approaches to the intersection.

Typical weekday peak hour capacity analysis for the study corridor intersections based on AM and PM peak hours of traffic data collected in August and September 2023 are shown in Table 2. Intersection capacity analysis was completed based on Highway Capacity Manual 2010 Levels-of-Service (LOS) criteria. Level-of-Service (LOS) is a qualitative measure describing operational conditions from "A" (best) to "F" (worst) within a traffic stream or at intersections, which is quantified for signalized and unsignalized intersections in terms of vehicle control delay.

Control delay is a component of delay that results from the type of traffic control at the intersection/approach measure by comparison with the uncontrolled condition. It is the difference between the travel time that would have occurred in the absence of the intersection control, and the travel time that results because of the presence of the intersection control¹.

Table 2: Existing Levels-of-Service at Mattis Avenue and Parkland Way Intersection

Intersection	Approach	AM Peak		PM Peak	
		Control Delay (sec./veh)	LOS	Control Delay (sec./veh)	LOS
Eastbound	Left Turn	27.4	C	34.9	C
	Right Turn	26.5	C	31.8	C
Northbound	Left Turn	2.8	A	2.6	A
	Thru	2.8	A	3.6	A
Southbound	Thru	8.0	A	18.3	B
	Right Turn	8.6	A	18.3	B
Overall Intersection		6.3	A	12.3	B

Table 3: Existing Levels-of-Service at Bradley Avenue and Clayton Boulevard Intersection

Intersection	Approach	AM Peak		PM Peak	
		Control Delay (sec./veh)	LOS	Control Delay (sec./veh)	LOS
Eastbound	Left Turn	16.6	B	18.0	B
	Thru	41.0	D	30.5	C
	Right Turn	41.0	D	30.5	C
Westbound	Left Turn	15.6	B	19.0	B
	Thru	28.7	C	31.1	C
	Right Turn	9.7	A	3.9	A
Northbound	Left Turn	35.5	D	40.4	D
	Thru	12.6	B	14.7	B
	Right Turn	12.6	B	14.7	B
Southbound	Left Turn	22.2	C	28.8	C
	Thru	22.2	C	28.8	C
	Right Turn	22.2	C	28.8	C
Overall Intersection		28.0	C	24.9	C

As can be seen in **Tables 2** and **3**, the intersections of Mattis Avenue/Parkland Way and Bradley Avenue/Clayton Boulevard are experiencing moderate delays in their existing traffic flow during AM and PM peak hours.

Speed Study

The posted speed limit on Parkland Way is 20 miles per hour (mph). CCRPC staff set pneumatic road tubes on Tuesday, October 24, 2023, from 7:00 AM to 7:00 PM for collecting speed data on Parkland Way. CCRPC staff recorded real time speeds of 1,786 vehicles during this 12-hour period. The Metro-Count software calculated the 85% speed as 37.1 mph. In general, the 85% speed represents the speed at or below which drivers will feel comfortable and safe driving on a roadway segment.

Based on the data collected, it was determined that 98.6% of the drivers exceed the posted speed limit of 20 mph. The maximum vehicle speed recorded during the 12-hour period was 58.2 mph. **Appendix A** shows a detailed summary of the speed data collected.

Additionally, the tire tracks on Parkland Way visible in Figures 4 and 6 come from a vehicle speeding out of the Dodds Park Softball Complex southwest parking lot on a Saturday.

Traffic Distribution

Traffic counts were conducted at six locations in the study area, including five locations on Parkland Way (**Figure 1**). The counts were conducted on a weekday and a Saturday in Fall 2023, during a 12-hour period from 7:00 AM to 7:00 PM.

In order to assess the number of cars using Parkland Way to access Parkland College or Champaign Park District facilities at Dodds Park, the count location at Parkland Way and the Dodds Park Softball Complex southwest parking lot was used as the analysis location. This location just east of Perimeter Road is close to Parkland College, and is also on the western edge of Dodds Park.

During the weekday, 98% of cars driving on Parkland Way are accessing Parkland College, while 2% are accessing Dodds Park.

On the weekend, 27% of cars driving on Parkland Way are accessing Dodds Park at this location. The remaining 73% are either accessing Parkland College, or the Dodds Park parking lots on Perimeter Road.

Traffic Safety Conditions

Traffic safety analysis of the study corridor includes the most recent 10-year (2013 to 2022) crash data analysis.

Crash Data Analysis

Traffic crash data from 2013 to 2022 was analyzed for the study corridor. Crash data was obtained from the Illinois Department of Transportation (IDOT) Division of Traffic Safety. The data included total number of crashes, crash types, crash severity, roadway surface, and lighting conditions when crashes happened in order to identify existing safety issues along Parkland Way including its intersection with Mattis Avenue on its east terminus and Perimeter Road on its west terminus.

Apart from the Parkland Way Corridor, the intersection of Bradley Avenue and Clayton Boulevard is also included in the crash analysis. In total, one roadway segment (Parkland Way) and three intersections were analyzed in the safety study (**Figure 10**).

Figure 10: Parkland Way Roadway and Intersections Analyzed



Crash Trends

There were 42 reported crashes within the study area between 2013 and 2022. As can be seen in **Figure 11**, most of the crashes (74%) occurred at the Bradley Avenue/Clayton Boulevard and Parkland Way/Mattis Avenue intersections. **Figure 11** shows the total number of reported intersection crashes, segment crashes, and total crashes per year within the study area.

The highest total number of crashes occurred in 2013 (9 crashes), while the lowest number of crashes occurred in 2020 (1 crash). The total number of crashes initially showed a decreasing trend from 2013 to 2015. Subsequently, it fluctuated around 2 to 4 crashes annually during the period from 2015 to 2019. In 2020, the total number of crashes reached its lowest point. After 2020, the total number of crashes exhibited an increasing trend.

Figure 11: Traffic Crash Trends, 2013-2022

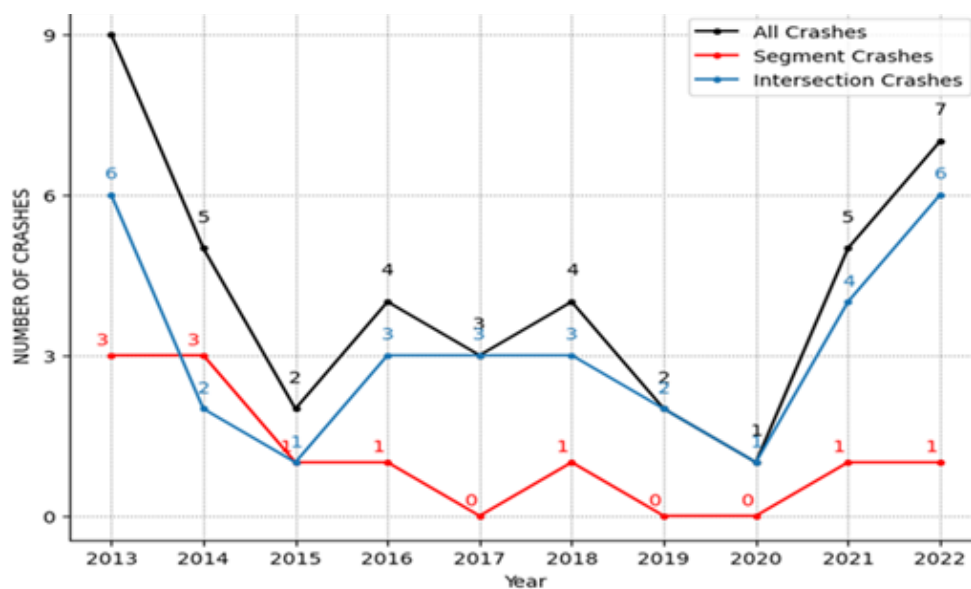


Table 4 indicates that all 31 intersection crashes occurred at the two signalized intersections of Bradley Avenue/Clayton Boulevard and Parkland Way/Mattis Avenue. More than 70% of the crashes happened at the intersection of Bradley Avenue and Clayton Boulevard.

Table 4: Intersection Crashes, 2013-2022

Intersection	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Bradley Ave & Clayton Blvd	3	2	0	3	3	1	2	0	3	6	23
Parkland Way & Mattis Ave	3	0	1	0	0	2	0	1	1	0	8
Total Crashes	6	2	1	3	3	3	2	1	4	6	31

Table 5 shows the years in which the 11 segment crashes occurred along Parkland Way between 2013 and 2022.

Table 5: Parkland Way Crashes, 2013-2022

Segment	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
N Mattis Ave – Perimeter Rd	3	3	1	1	0	1	0	0	1	1	11
Total Crashes	3	3	1	1	0	1	0	0	1	1	11

Crash Types

Tables 6 and **7** shows the predominant crash types at each intersection within the study area from 2013 to 2022. As indicated, more than 70% of the crashes occurred at the intersection of Bradley Avenue and Clayton Boulevard. Additionally, front to rear and turning crashes are the most prevalent crash types at the intersection of Bradley Avenue and Clayton Boulevard, accounting for 52% and 35% of the total crashes, respectively. One pedestrian crash occurred at this intersection in 2021. During that pedestrian crash, a passenger vehicle collided with a man in a wheelchair while making a turn. This crash resulted in a C-injury to the man in the wheelchair.

For the intersection of Parkland Way and Mattis Avenue, turning crashes are the dominant crash type, accounting for 44% of the total crashes. Additionally, a pedalcyclist crash occurred at this intersection in 2013, in which a passenger car hit a cyclist while turning from Parkland Way to Mattis Avenue, causing a C-injury to the cyclist.

Table 6: Intersection Crash Types, 2013-2022

Intersection	Angle	Fixed Object	Front to Rear	Pedal-cyclist	Pedestrian	Sideswipe Same Direction	Turning	Total Crashes
Bradley Ave & Clayton Blvd	0	1	12	0	1	1	8	23
Parkland Way & Mattis Ave	1	1	1	1	0	0	4	8
Total Crashes	1	2	13	1	1	1	12	31

Front to rear crashes are the dominant crash type for segment crashes along Parkland Way, accounting for 36% of the total segment crashes.

Table 7: Parkland Way Crash Types, 2013-2022

Segment	Angle	Fixed Object	Front to Rear	Other Object	Parked Motor Vehicle	Turning	Total Crashes
N Mattis Ave – Perimeter Rd	1	1	4	1	2	2	11
Total Crashes	1	1	4	1	2	2	11

Crash Severity

The severity of a crash is determined by the most severe injury of a person in that crash. The crashes are classified in KABCO scale: 'K' represents a fatal crash; 'A' represents a crash that caused an incapacitating injury, also referred to as a serious injury; 'B' represents a crash that caused a non-incapacitating injury; 'C' represents a crash that caused a reported/not evident injury; and 'O' represents a crash with no indication of injury and that just resulted in property damage (PDO).

Tables 8 and 9 illustrate the severity levels of intersection and segment crashes within the study area. In 2016, a front to rear end crash occurred, resulting in an A-injury crash at the intersection of Bradley Avenue and Clayton Boulevard. This crash was the most severe within the study area between 2013 and 2022.

Table 8: Intersection Crash Severity, 2013-2022

Intersection	A-Injury Crash	B-Injury Crash	C-Injury Crash	Property Damage	Total Crashes
Bradley Ave & Clayton Blvd	1	2	5	15	23
Parkland Way & Mattis Ave	0	0	2	6	8
Total Crashes	1	2	7	21	31

Figure 12: Intersection Crashes, 2013-2022

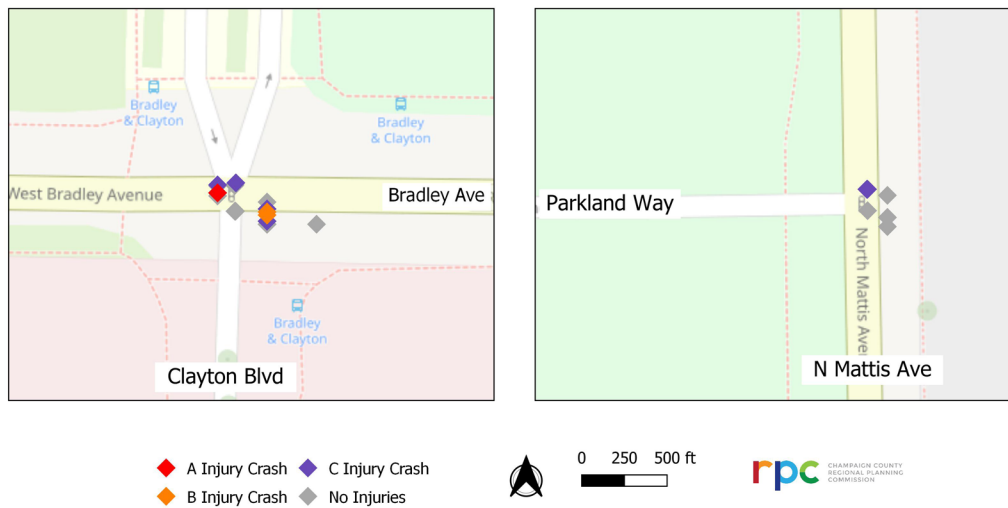


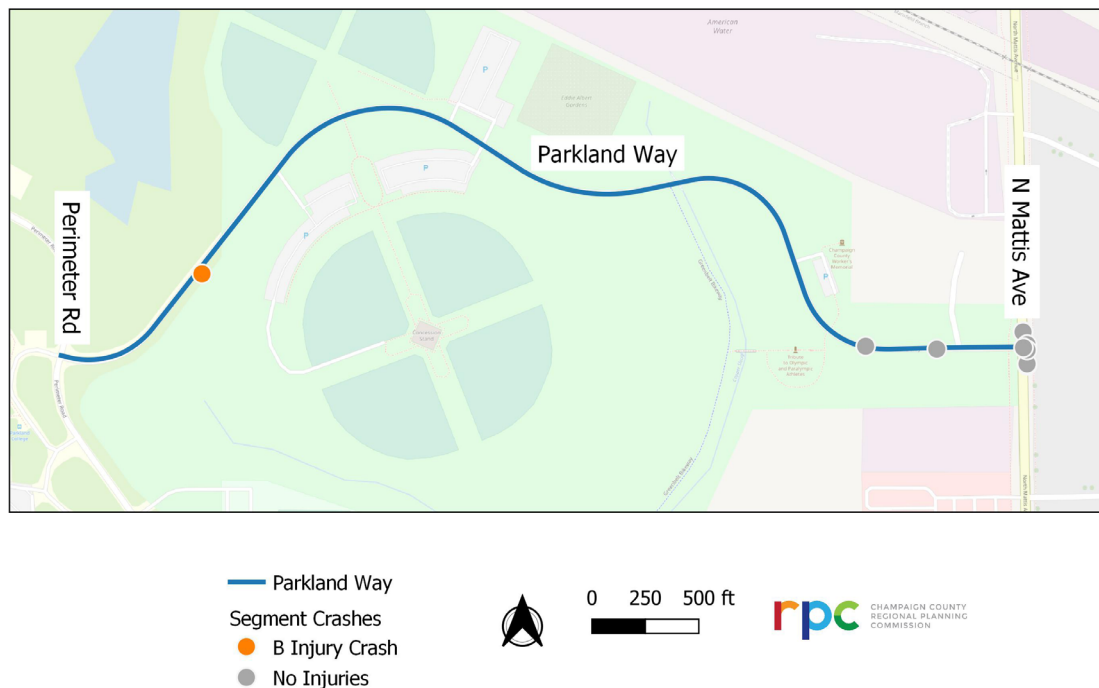
Table 9 displays traffic crash severity levels for the segment crashes along the corridor between 2013 and 2022. In **Figure 13**, although some segment crashes occurred near the intersection of Parkland Way and Mattis Avenue, these crashes were not related to the intersection, such as hitting a parked car or happening in the driveway. Therefore, these crashes are identified as segment crashes.

IDOT established the Safety Tier to evaluate the roadway safety performance and opportunity for improvements. The latest Safety Tier was updated in 2022, categorizing roadway segments into High, Medium, or Low designations. The previous Safety Tier, 2017 IDOT Safety Tier, includes a Critical/5 percent, High, Medium, Low or Minimal designation. The Parkland Way segment was identified as Low in the latest Safety Tiers, while it was categorized as Medium in the 2017 IDOT Safety Tier.

Table 9: Parkland Way Crash Severity, 2013-2022

Segment	B-Injury Crash	Property Damage	Total Crashes
N Mattis Ave – Perimeter Rd	1	10	11
Total Crashes	1	10	11

Figure 13: Parkland Way Segment Crashes, 2013-2022



Road Surface and Lighting Conditions

Tables 10 and 11 shows that 52% of the intersection crashes and 73% of segment crashes along this corridor within the study area occurred during dry road surface conditions. However, at the intersection of Bradley Avenue and Clayton Boulevard, 7 out of the 23 crashes occurred when the road surface was wet, or when ice, snow, or slush was present.

Table 10: Road Surface Conditions during Intersection Crashes, 2013-2022

Intersection	Dry	Snow or Slush	Wet	Total Crashes
Bradley Ave & Clayton Blvd	16	5	2	23
Parkland Way & Mattis Ave	7	1	0	8
Total Crashes	23	6	2	31

Table 11: Road Surface Conditions during Segment Crashes, 2013-2022

Segment	Dry	Snow or Slush	Wet	Total Crashes
N Mattis Ave – Perimeter Rd	8	2	1	11
Total Crashes	8	2	1	11

Tables 12 and 13 show that most of the intersection crashes (78%) and segment crashes (55%) occurred during daylight hours.

Table 12: Roadway Lighting Conditions during Intersection Crashes, 2013-2022

Intersection	Darkness	Darkness/ Lighted Road	Daylight	Total Crashes
Bradley Ave & Clayton Blvd	0	5	18	23
Parkland Way & Mattis Ave	1	0	7	8
Total Crashes	1	5	25	31

Table 13: Roadway Lighting Conditions during Segment Crashes, 2013-2022

Segment	Darkness	Darkness/ Lighted Road	Daylight	Dusk	Total Crashes
N Mattis Ave – Perimeter Rd	3	1	6	1	11
Total Crashes	3	1	6	1	11

Pedestrian and Bicycle Facilities Needs

Without any sidewalks or dedicated bicycle facilities on Parkland Way, pedestrians and bicyclists must share the roadway to traverse the corridor. This is occurring based on traffic observations (**Figures 14 and 15**), and traffic count data.

Figure 14: A person runs on Parkland Way while a car drives around them



Figure 15: A bicyclist on Parkland Way



Traffic counts were conducted at five locations on Parkland Way (Figure 1), from 7:00 AM to 7:00 PM on a weekday and a Saturday in Fall 2023. **Table 14** shows the total number of bicyclists and pedestrians at each location during each 12-hour period.

Table 14: Parkland Way Pedestrian and Bicycle Intersection Counts

Intersection	Weekday Pedestrians	Saturday Pedestrians	Weekday Bicyclists	Saturday Bicyclists
Parkland Way & Mattis Ave	26	19	16	17
Parkland Way & Dodds Softball Lot East	0	19	3	12
Parkland Way & Dodds Softball Complex Crosswalk	4	12	4	7
Parkland Way & Dodds Softball Lot West	1	40	3	8
Parkland Way & Perimeter Rd	16	30	11	10

Given the presence of pedestrians and bicyclists using Parkland Way, and that the 85th percentile vehicle speed is almost twice the posted speed limit (**Appendix A**), a pedestrian/bicycle facility separated from vehicles is needed on Parkland Way. The condition of some crosswalks and pedestrian signs in the corridor should also be improved to increase motorist visibility of pedestrians and bicyclists.

Findings

Four major findings arose based on the existing conditions analysis of Parkland Way:

- The geometric conditions show that the lack of sidewalks, bicycle facilities, curbs, and gutters on Parkland Way are a concern.
- There are no issues with traffic operations.
- There are some crashes along the corridor, but no major concerns.
- Speeding cars is a serious issue. The 85th percentile speed is almost twice the posted speed limit.

Recommendations

Based on a comprehensive evaluation of existing roadway geometric conditions, traffic operations, and multi-modal safety conditions, the study team has developed a set of recommendations for addressing the issues identified.

Safety Recommendations

The existing conditions analysis identified several road users' safety-related issues, including inadequate pedestrian and bicycle facilities and significantly higher traffic speeds than the posted speed limit. Such conditions could lead to severe crashes between pedestrians and automobiles and/or bicyclists and automobiles. The study team recommends the following safety measures for the study corridor.

Speed Limit Enforcement

The Champaign Park District and Parkland College should work together with Parkland College Public Safety and the Champaign Police Department to conduct speed enforcement along the study corridor on both weekdays and weekends.

The Champaign Park District should consider installing Dynamic Speed Monitoring Displays (DSMD) for speed management along the study corridor. Such devices have shown effectiveness in speed reduction and improving traffic safety.

Pedestrian and Bicycle Facilities – Parkland Way

The study corridor lacks sidewalks and dedicated bicycle facilities. As a result, pedestrians and bicyclists share the relatively narrow roadway with automobile traffic. Moreover, automobiles operate at significantly higher speeds than the posted speed limit.

A shared-use path should be constructed on the south side of Parkland Way for its entire length. This will separate non-motorized road users from automobile traffic. This facility will also be wide enough for pedestrians and bicyclists to share, and those traveling in opposite directions to safely pass each other.

When paired with the existing sidewalk on the west side of Mattis Avenue, a shared-use path on Parkland Way will also provide a safer facility for people who are traveling by foot or bike between the Champaign County workNet/Parkland College Community Education office on Mattis Avenue and the Parkland College main campus to the west.

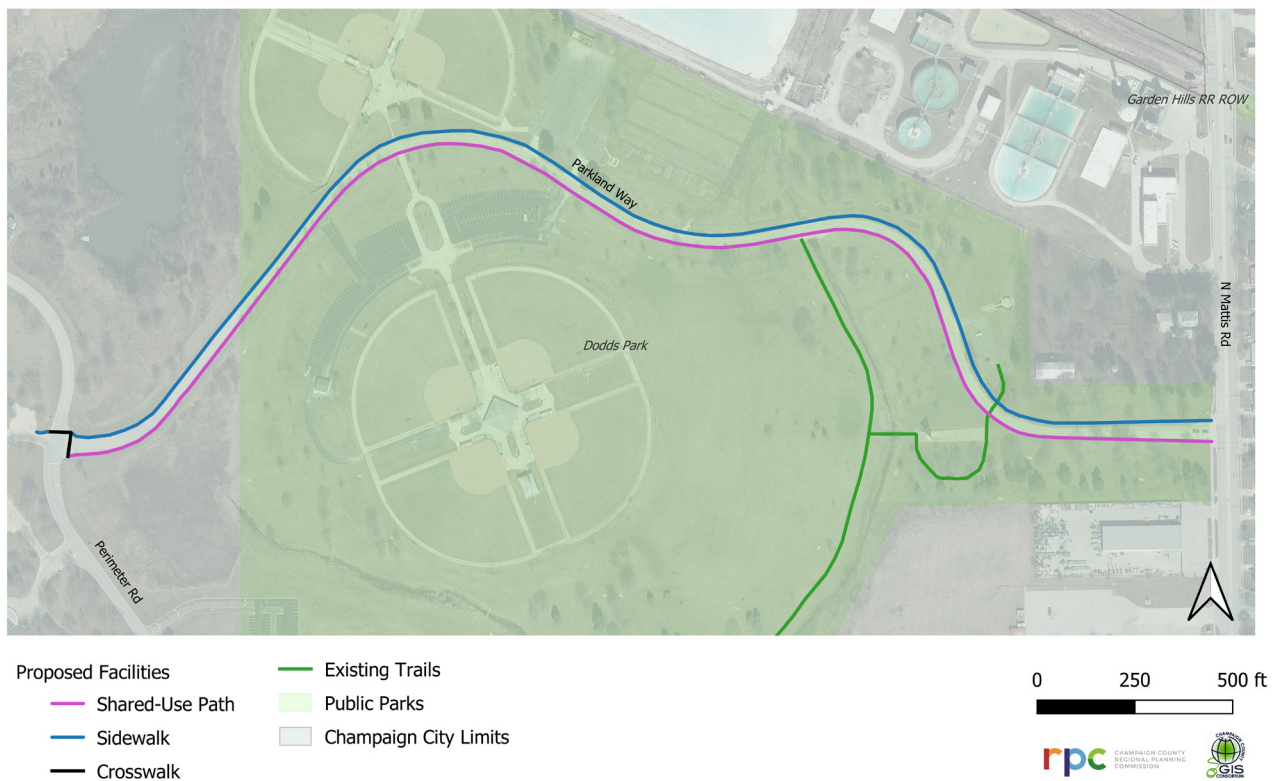
A sidewalk should also be built on the north side of Parkland Way to facilitate safer pedestrian travel. This sidewalk should be constructed from Mattis Avenue to the west side of the Parkland Way/Perimeter Road intersection, to connect it to the existing sidewalk and the main entrance of Parkland College.

Crosswalks should be striped on the north and east legs of the Parkland Way/Perimeter Road intersection, to connect the proposed shared-use path and sidewalk to the existing sidewalk west of this intersection.

Figure 16 shows the recommended pedestrian and bicycle facilities along Parkland Way.

Figure 16: Proposed Pedestrian and Bicycle Facilities along Parkland Way

Parkland Way Traffic Study – Proposed Pedestrian and Bicycle Facilities



Pedestrian Facilities – Perimeter Road

On the southwest side of Dodds Park, there are parking lots between the soccer fields and Perimeter Road. However, when all parking spaces in these lots are in use, Dodds Park visitors must park in the Parkland College parking lots on the west side of Perimeter Road.

Figure 17 shows that an existing sidewalk runs from the Parkland College parking lots west of Perimeter Road, crosses Perimeter Road via a marked crosswalk, and continues on the east side of the crosswalk. However, from this point, the existing sidewalk continues south along Perimeter Road.

From the Perimeter Road crosswalk, it is recommended to construct a new east-west sidewalk and stripe a new crosswalk across the Dodds Park parking lot to the existing north-south sidewalk on the west side of the Dodds Park soccer fields. **Figure 17** shows the location of these recommendations.

Figure 17: Proposed Pedestrian Facilities near Perimeter Road

Parkland Way Traffic Study - Proposed Sidewalk



Existing Crosswalk Improvements

The marked parallel crosswalks on the north and west legs of the Parkland Way/Mattis Avenue intersection should be restriped, since they are currently worn out and barely visible. The Champaign Park District will be responsible for striping the crosswalk on the west leg, and they will need to work with IDOT to restripe the crosswalk on the north leg. Crosswalk restriping will improve motorist visibility of pedestrians and bicyclists.

The two mid-block continental crosswalks on Parkland Way were restriped in 2022. These crosswalk markings should be restriped in the future when they start to fade, to maintain crosswalk visibility.

The signs along Parkland Way at its two mid-block crosswalks are outdated, and should be replaced. At the Greenbelt Bikeway Spur crosswalk to the Olympic Tribute and its parking lot, the yellow crosswalk signs that read “PED XING” are no longer used as best practice nationally. At the Dodds Park Softball Complex crosswalk, the “Yield Here to Pedestrians” signs are outdated because Illinois state law requires motorists to stop for pedestrians in marked crosswalks.

It is recommended to replace these signs with the following fluorescent yellow-green pedestrian warning signs at both mid-block crosswalk locations. The MUTCD W11-2 (Pedestrian) and W16-7p (Downward Diagonal Arrow) signs as shown in **Figure 18** should be installed on both sides of the road at each crosswalk, and [MUTCD](#) W11-2 (Pedestrian) and W16-9p (Ahead) signs as shown in **Figure 19** should be installed on both sides of the road approaching each crosswalk.

Figure 18: Pedestrian Crossing Sign



Figure 19: Pedestrian Crossing Ahead Sign



Street Lights

It is recommended to install street lights along the entire length of Parkland Way. This will improve motorists' visibility of any pedestrians and bicyclists in the roadway at night and days with low light, since there are currently no separated pedestrian and bicycle facilities on Parkland Way. This increased visibility is important to reduce the likelihood of severe crashes between pedestrians and automobiles and/or bicyclists and automobiles, especially because that likelihood is already elevated due to motorists driving at significantly higher speeds than the posted speed limit.

Any street lights installed should use a design that focuses the light on the roadway, not up to the sky. This will prevent contributing to light pollution, and make efficient use of financial resources by only lighting the ground. More information about mitigating light pollution and examples of dark sky friendly street light designs can be found in the 2023 CCRPC report "[Planning to Mitigate Light Pollution](#)."

Roadway Reconstruction

The study corridor does not meet the City of Champaign's roadway design standards. This corridor needs to be completely rebuilt following the City of Champaign's design standards. The Champaign Park District is currently responsible for maintenance of this corridor. The Champaign Park District should discuss with the City of Champaign Public Works Department a jurisdiction transfer to the City of Champaign once the roadway is rebuilt.

Upon roadway reconstruction, mini-roundabouts should be installed at the following four locations shown in **Figure 20**:

1. Parkland Way/Perimeter Road
2. Parkland Way/Dodds Park Softball Parking Lot West
3. Parkland Way/Dodds Park Softball Parking Lot East
4. Parkland Way/Olympic Tribute Parking Lot

Installing mini-roundabouts is a traffic calming measure to reduce motorist speeds on Parkland Way.

Additionally, it is recommended to close one of the entrances from the north side of Parkland Way to the Dodds Park Softball Parking Lot East.

Figure 20: Parkland Way Road Reconstruction Recommendations

Parkland Way Proposed Roadway Construction



Table 15 shows a high-level cost breakdown for the reconstruction of the study corridor.

Table 15: Parkland Way Roadway Reconstruction Cost Estimate

**Conceptual Estimate of Cost
Parkland Way (Perimeter Road to Mattis)**

Project Length	4400 LF	Date: 12-18-23
Number of Lanes	2	
Lane Width	12 LF	
Number of Intersections	4	Assumed to be Mini-roundabout

ITEM	QUANTITY	UNIT	UNIT PRICE	COST
Removal	12730	SY	\$30.00	\$381,900.00
Earthwork	5140	CY	\$25.00	\$128,500.00
Pavement	11730	SY	\$120.00	\$1,407,600.00
Curb and Gutter	8800	LF	\$50.00	\$440,000.00
Aggregate Base	15420	SY	\$20.00	\$308,400.00
12' Shared-Use Path	5870	SY	\$75.00	\$440,250.00
Inlets/Manholes	44	EA	\$5,000.00	\$220,000.00
Storm Sewer Pipe	5060	LF	\$150.00	\$759,000.00
Splitter Islands	196	SY	\$120.00	\$23,520.00
Center Island	400	SY	\$140.00	\$56,000.00
Lightpole and Foundation	44	EA	\$6,000.00	\$264,000.00
Pull Box	8	EA	\$500.00	\$4,000.00
Conduit and Wire	4400	LF	\$20.00	\$88,000.00
Lighting Service/Controller	1	EA	\$25,000.00	\$25,000.00
Mobilization	1	LS	\$200,000.00	\$200,000.00
Traffic Control	1	LS	\$50,000.00	\$50,000.00
				\$4,796,170.00
Miscellaneous Items	15%			\$719,430.00

Subtotal \$5,515,600.00

Inflation (5%x 2 years) \$551,560.00

Construction Total \$6,067,160.00

Survey and Engineering (10%) \$606,720.00

Project Total \$6,673,880.00

Note: Engineering cost assumes local funding. Federal or State funding would increase engineering cost

Implementation Plan

Timeline

It would be preferable to implement all Parkland Way recommendations at the same time in order to avoid the frequency of traffic disruptions due to roadway improvements, and also in order to maximize any materials and labor efficiencies. Concurrency would minimize redundant work, such as repainting road surfaces that are resurfaced shortly thereafter, or resurfacing the roadway only for it to be torn up to install new infrastructure. However, the timeline for implementing individual components of the corridor improvement will be dependent on the availability of funding.

The top safety priority along Parkland Way is to enforce the speed limit considering that measured speeds were significantly higher than the posted speed limit. Although traffic levels and crash frequency are not currently an issue along Parkland Way, this could be a potential problem due to the lack of bicycle and pedestrian infrastructure along the whole roadway segment and the presence of recreational facilities that attract bicyclists and pedestrians and potentially increase roadway traffic volumes. This is why improving existing roadway infrastructure should also be a priority along Parkland Way and making concurrent implementation of the proposed improvements preferable even though current safety and traffic conditions may not present the same level of urgency along the roadway section.

Depending on funding availability, the six separate recommendations are organized in general order of priority below:

Short Term (0-3 Years)

1. Speed limit enforcement along Parkland Way on both weekdays and weekends.
2. Installation of Dynamic Speed Monitoring Displays (DSMD) for speed management along Parkland Way.
3. Restriping existing crosswalks at Parkland Way/Mattis Avenue.
4. Installation of fluorescent yellow-green pedestrian warning signs (W11-2) at existing mid-block crosswalks along Parkland Way.

Medium Term (4-6 Years)

1. Construct an off-street shared-use path on the south side of Parkland Way between Mattis Avenue and Perimeter Road.
2. Refresh mid-block crosswalk striping on Parkland Way.
3. Extend sidewalk from Parkland College parking lots across Perimeter Road to Dodds Park soccer fields.

Long Term (7+ Years)

1. Reconstruct roadway pavement including curb and gutters, mini-roundabouts, and sidewalks.
2. Install street lighting throughout the corridor.

Below is an approximate timeline for a pavement reconstruction project using federal funding. Reconstructing a roadway can take up to five years, or more, once funding is available. The process will involve reviews by various agencies (federal, state, and local), as well as public participation.

A Two-Lane Roadway Reconstruction Example (From Funding to Completion)

MAJOR PHASES / YEAR	0	1	2	3	4	5
Preliminary Engineering						
Engineering Phase 1						
Engineering Phase 2						
Engineering Phase 3 (Construction)						
Environmental Mitigation (if needed)						
Utility Relocations						
Grading and Paving						
Lighting and Signing						

Preliminary Engineering: Includes scoping survey and estimating the project's initial cost.

Engineering Phase 1: It may take 1 to 2 years for completion. Includes engineering study, environmental study, and public coordination.

Engineering Phase 2: It may take 1 year to 18 months. Includes development of final plan.

Engineering Phase 3: It may take 2 years to 30 months. Includes conducting bid letting, contract award, completing utility relocations, and roadway reconstruction.

Potential Funding Options

Illinois Transportation Enhancement Program (ITEP)

IDOT administers the [Illinois Transportation Enhancement Program \(ITEP\)](#) with a call for projects every other year, providing funding for community-based projects that expand travel choices and enhance the transportation experience. ITEP is a reimbursable grant program that requires joint funding, with the preliminary engineering costs paid up-front and reimbursed over the implementation process. Federal funding reimburses up to 50% for any costs related to acquisition and installing street lights only along a new shared-use path; and up to 80% for costs related to preliminary engineering, utility relocations, construction engineering, and construction. The remaining 20 or 50 percent is the responsibility of the project sponsor, unless the ITEP project's Community Score determines that the State will assist with local matching funds. The maximum grant award in the most recent 2022 Cycle was \$3 million.

Project categories include pedestrian/bicycle facilities, making this a feasible option to fund the off-street shared-use path recommended on the south side of Parkland Way between Mattis Avenue and Perimeter Road. The next application submittal cycle for ITEP projects will open in August 2024.

Illinois Bicycle Path Program

The [Illinois Bicycle Path Grant Program](#) was created to financially assist eligible units of government acquire, construct, and rehabilitate public, non-motorized bicycle paths and directly related support infrastructure. Grants are available to any local government agency having statutory authority to acquire and develop land for public bicycle path purposes. Financial assistance up to 50% of approved project costs is available through the program.

The Illinois Bicycle Path Grant Program, also known as the "Illinois Bike Path Grant Program," is administered by the Illinois Department of Natural Resources (IDNR). Grant applications are typically due in March. The maximum grant award is \$200,000 for development projects.

Illinois Department of Commerce and Economic Opportunity (DCEO) Federal Match Grant

One of [DCEO's Grant Opportunities](#) is the [Federal Grant Support Program](#). The DCEO Federal Grant Support Program will make up to \$25 million available to Illinois-based businesses and organizations seeking competitive federal grants. DCEO may provide a grant up to \$2 million that entails up to a 1:1 match of the applicant's cash contribution towards the project. This matching grant program is intended to encourage more Illinois-based applicants to apply for federal grant opportunities, provide critical assistance to meet the minimum match eligibility requirements, increase the competitiveness of applications, and provide the State of Illinois with an opportunity to make a firm commitment and demonstration of support for projects that are well aligned with the State's economic development goals and priorities.

This program is open for a period of time with no specific due dates for applications. An application for the DCEO Federal Match Grant program can be coupled with the U.S. EDA Public Infrastructure Grant program described below.

Illinois Catalog of State Financial Assistance (CSFA)

A comprehensive list of current State of Illinois grant opportunities can be found online at the [Catalog of State Financial Assistance \(CSFA\) website](#). This includes programs like ITEP and the Illinois Bike Path Program, among others.

USDOT Reconnecting Communities and Neighborhoods (RCN) Program

The United States Department of Transportation (USDOT) combined the Reconnecting Communities Pilot (RCP) and Neighborhood Access Equity (NAE) discretionary programs into the [Reconnecting Communities and Neighborhoods \(RCN\) Program](#). While they remain separate programs for the purposes of award, the programs share many common characteristics, including but not limited to:

- Prioritizing disadvantaged communities
- Aiming to improve access to daily needs such as jobs, education, and recreation
- Reconnecting communities by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development

The RCP program was established by the Bipartisan Infrastructure Law (BIL), and the NAE program was established by the Inflation Reduction Act (IRA). Under the combined RCN Program, USDOT offers three grant types: Capital Construction, Community Planning, and Regional Partnerships Challenge. The Capital Construction category has \$1.15 billion available in total funding. Projects may address improving access and building or improving Complete Streets.

The maximum RCP program award is \$2 million for planning grants, and \$5 million for construction grants. Federal funding reimburses up to 80% for planning grants, 50% for construction grants, and 80% for construction grants with other federal sources. The most recent call for applications were due in September 2023.

FHWA Active Transportation Infrastructure Investment Program (ATIIP)

The Federal Highway Administration (FHWA) is a division of USDOT, and it is opening a new competitive grant program titled the [Active Transportation Infrastructure Investment Program \(ATIIP\)](#) that will be available in Winter 2023-24. The program will fund projects that create or expand active transportation networks or spines. FHWA will provide at least 30% of ATIIP funding to projects that construct networks, and at least 30% of funding to projects that construct spines. Active transportation networks are active transportation facilities that connect between destinations within a community or metropolitan region, including schools, workplaces, businesses, recreation areas, and other community areas. The program also seeks to integrate active transportation facilities with transit services, where available, to improve access to public transportation. The ATIIP will award two types of grants: (1) Planning and Design grants, and (2) Construction grants. Approximately \$45 million in funding has been appropriated for the program for FY23.

U.S. Economic Development Administration (EDA) Public Infrastructure Grant

The United States Economic Development Administration (EDA) offers a number of [grant programs](#), including the [EDA Public Infrastructure Grant](#). EDA's Public Works program helps distressed communities revitalize, expand, or upgrade their physical infrastructure. An application for the EDA Public Infrastructure Grant can be coupled with the Illinois DCEO Federal Match Grant program described above.

Other USDOT Grants

Information on additional grants can be found at the [United States Department of Transportation \(USDOT\) Grants website](#).

References

1. Transportation Research Board - Highway Capacity Manual Application Guidebook, Transportation Research Board, TRB, Washington, DC, 2000.

Appendix A: Speed Statistics by Hour

Site: Parkland Way east of Perimeter Road

Description: Parkland Way Speed Study

Filter time: 7:00 Tuesday, October 24, 2023 => 19:00 Tuesday, October 24, 2023

Vehicles = 1,786

Posted speed limit = 20 mph, **Exceeding** = 1,761 (98.60%), **Mean Exceeding** = 32.21 mph

Maximum = 58.2 mph, **Minimum** = 10.7 mph, **Mean** = 32.0 mph

85% Speed = 37.1 mph, **95% Speed** = 39.8 mph, **Median** = 32.0 mph

10 mph Pace = 27 - 37, **Number in Pace** = 1,240 (69.43%)

Variance = 27.02, **Standard Deviation** = 5.20 mph

Hour Bins (Partial Days)

Time	Bin		Min	Max	Mean	Median	85%	95%	>PSL 20 mph	
0700	164	9.2%	15.6	43.8	32.1	32.0	37.1	39.6	162	98.8%
0800	150	8.4%	14.1	56.3	32.6	32.9	37.4	39.6	147	98.0%
0900	174	9.7%	20.7	55.2	33.3	33.1	38.5	41.8	174	100.0%
1000	160	9.0%	21.0	44.6	32.2	32.0	37.1	40.3	160	100.0%
1100	198	11.1%	15.0	43.6	31.8	31.5	37.4	39.8	197	99.5%
1200	204	11.4%	12.6	47.7	32.4	32.2	36.2	39.4	202	99.0%
1300	120	6.7%	10.7	45.8	31.8	32.2	36.9	38.7	116	96.7%
1400	130	7.3%	10.7	47.2	32.2	32.0	37.4	40.7	127	97.7%
1500	121	6.8%	18.8	58.2	31.7	32.0	36.9	38.9	117	96.7%
1600	110	6.2%	13.7	49.4	30.8	30.4	35.6	39.6	107	97.3%
1700	177	9.9%	19.1	41.3	31.5	31.8	36.2	38.5	175	98.9%
1800	78	4.4%	20.0	43.0	30.3	30.6	35.8	38.9	77	98.7%
-----	1,786	100.0%	10.7	58.2	32.0	32.0	37.1	39.8	1,761	98.6%