DOWL

BJERREMARK NEIGHBORHOOD IMPROVEMENTS PLAN REPORT

FAIRBANKS, ALASKA

BJERREMARK
Neighborhood Improvements Plan

ENGINEERING ■ PLANNING ■ SURVEYING

BJERREMARK NEIGHBORHOOD

IMPROVEMENTS PLAN REPORT

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LIST OF ACRONYMS

ATM ..... Alaska Traffic Manual
City ..... City of Fairbanks
DOT&PF ..... Alaska Department of Transportation and Public Facilities
FMATS ..... Fairbanks Metropolitan Area Transportation System
FNSB ..... Fairbanks North Star Borough
ITE ..... Institute of Transportation Engineers'
MACS ..... Metropolitan Area Commuter System
MUTCD ..... Manual of Uniform Traffic Control Devices
NMTP ..... Non-Motorized Transportation Plan
ROW ..... Right-of-Way
VSBD ..... Variable Speed Display Board

1.0 INTRODUCTION

1.1 Overview

The Bjerremark neighborhood is a mixed residential and commercial area in south Fairbanks. The project Study Area extends from Airport Way south to the Mitchell Expressway and from Lathrop Street east to South Cushman Street. Demographic statistics and police data indicate the area has a lower-income population and higher crime rate than other portions of the City of Fairbanks. The neighborhood also has issues with speeding and cut-through traffic due to its grid-like street layout and long straightaways. There are two schools and multiple resources agencies in the project area. These facilities are primary generators of pedestrian traffic and the neighborhood has limited facilities for them. As a result, the City of Fairbanks Engineering Division (City) is seeking to construct traffic-calming, beautification, pedestrian, and defensible space measures to revitalize the neighborhood, making it more livable, safe, and vibrant through improvements to the City's right-of-way (ROW).

The Institute of Transportation Engineers' (ITE), Traffic Calming State-of-the-Practice (Ewing, 1999) defines traffic calming as follows: "Traffic calming involves changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes in the interest of street safety, livability, and other public purposes." The ITE definition does not include non-engineering measures that modify street appearance in an effort to affect vehicle speeds or other non-structural measures such as roadside tree and flower planting, increased traffic enforcement, and neighborhood traffic-safety campaigns.

Oscar Newman pioneered the defensible space concept. In his book, *Creating Defensible Space* (Newman, 1996), he defined the purpose of such programs as the physical restructuring of the "layout of communities to allow residents to control the areas around their homes." The "Defensible Space" concept calls for subdividing large portions of public spaces and assigning them to individuals and small groups to use and control as their own private areas. Through these changes, the criminal is isolated because his turf is removed (www.defensiblespace.com/book, Introduction).

Figure 1 - Project Area

To accomplish the goal of implementing traffic calming and the defensible space concept, the City is developing a Framework Plan recommending physical changes within the City's ROW. The goal of the Framework Plan is to recommend a collection of improvements that together address the main challenges identified in the neighborhood. Traffic calming and defensible space improvements are designed to function together, not as individual treatments. Therefore, it is important that all (or at least most) of the measures be implemented, even if phasing is necessary

to accommodate available funding. Partial implementation can result in unintended consequences from traffic diverting to other routes.

It is also important to recognize that some measures may result in inconveniences in some locations due to traffic pattern changes. The Framework Plan approach calls upon residents of the neighborhood to look at the overall benefit of the measures and accept some degree of change or inconvenience to achieve the goal of improved livability for the neighborhood as a whole.

1.2 Community Input

The City formed a Steering Committee consisting of individuals who work and live in the neighborhood to ensure that local knowledge was brought to bear on Plan development (see Appendix A). The Project Team, consisting of City staff, Steering Committee members, and the City's consultant (DOWL), met four (4) times over the course of developing the recommended improvements. Other stakeholders asked to participate in meetings or to provide input included:

- City Mayor's Office,
- City Police Department,
- City Fire Department,
- Alaska Department of Transportation & Public Facilities (DOT&PF),
- Fairbanks Metropolitan Area Transportation System (FMATS),
- Fairbanks North Star Borough (FNSB) School District,
- First Student Inc. (Busses),
- FNSB Community Planning Department,
- FNSB Metropolitan Area Commuter System (MACS) Transit,
- FNSB Parks & Recreation Department,
- Access Alaska,
- Interior Community Health Center,
- J.P. Jones Community Center, and

- Fairbanks Arts Association.

The intent of this report is to:

- Document the research and data collection performed to identify the existing needs and deficiencies of the neighborhood;
- Summarize the existing transportation conditions within the study area; and
- Recommend a Framework Plan with traffic-calming projects to mitigate identified deficiencies, improve the area transportation system, increase safety, and create neighborhood "defensible space."

2.0 RESEARCH AND DATA COLLECTION

Information on existing conditions was gathered from the Steering Committee; two Open House meetings; an online survey; review of a wide range of existing studies, plans, and data; and new data collection. The objective was to confirm personal reports of traffic and safety conditions through existing studies and data, or new data collection efforts.

2.1 Steering Committee Meetings and Open Houses

A wide range of comments concerning traffic, pedestrians, bicyclists, crime, and demographics were identified during Steering Committee meetings and open houses. The Project Team documented reported deficiencies on aerial photographs of the neighborhood. Approximately 40 (27 signed in) people attended Open House No. 1 and approximately 70 (54 signed in) people attended Open House No. 2. Sign-in sheets are included in Appendix A.

2.2 Online Survey

Based on information gathered from the Steering Committee, a series of questions for an online survey was developed. The online survey was distributed by URL (www.surveymonkey/s/Bjerremark) via project email and included on flyers at Open House No. 1. The online survey received sixty-four (64) respondents. Survey results helped identify challenges facing the neighborhood as well as the area's strengths. Appendix A provides the survey questions and results.

2.3 Research of Existing Data

Existing studies, plans, and data were collected and reviewed to maximize the knowledge already gained within the neighborhood. Information collected and the data source are listed below.

- Streetlight locations (City of Fairbanks),
- Sidewalk inventory and needs (City of Fairbanks, *2012 Fairbanks Area Safe Routes to School* Report, *2012 FMATS Non-Motorized Transportation Plan*),
- Bus routes and bus stops (MACS),
- MACS Bus Ridership (October, 2014),
- School Bus Stops (FNSB School District),
- Roadway Classifications (DOT&PF),
- 2007 – 2011 Crash Data (DOT&PF),
- 2012 Annual Average Daily Traffic (DOT & PF),
- 2013 Traffic and Crime Data (City Police Department),
- Zoning Land Use (FNSB, Planning Department), and
- Demographic Data (www.trulia.com, using data from http://www2.census.gov/).

Data collected from these documents was compiled into Geographic Information System (GIS)-based graphics (see Appendix B).

2.4 New Data Collection

New data was collected to confirm speeding and pedestrian activity reported by neighborhood residents. Data collected is described below and included in Appendix C.

2.4.1 Existing Intersection Control

Intersections throughout the study area are controlled with Stop and Yield signage. The location and type of intersection control was documented through site visits and Google Streetview©.

2.4.2 Turning Movements and Pedestrian Counts

Public testimony identified Gillam Way, Cowles Street, Rickert Street, Bjerremark Street, 17th Avenue and 24th Avenue as high pedestrian corridors where conflicts with vehicle traffic were

common. Vehicle turning movement and pedestrian crossing counts were performed at selected intersections along these corridors at peak traffic-volume periods. The intersections counted were:

- 17th Avenue and Gillam Way,
- 17th Avenue and Rickert Street,
- 23rd Avenue and Cowles Street,
- 23rd Avenue and Rickert Street, and
- 23rd Avenue and Cushman Street.

Pedestrian crossing count results are depicted in Appendix C graphics.

2.4.3 Traffic Speed and Volume

Individual testimony identified many streets as having high traffic speed. Multiple 24-hour speed counts were conducted on Tuesdays through Thursdays using field-mounted radar to evaluate problem streets. The radar equipment records both a 24-hour traffic volume and vehicle speed. The following locations were studied:

- 17th Avenue, near Turner Street,
- 23rd Avenue, near Barnette Street,
- 23rd Avenue, near Mercier Street,
- 27th Avenue, near Gillam Way,
- 29th Avenue, near Turner Street,
- Cowles Street, near 22nd Avenue,
- Cowles Street, near 26th Avenue, and
- Gillam Way, near 20th Avenue.

2.4.4 Criminal Activity

Individual testimonies identified the north/south corridors on the east side of the study area and around the Hunter Elementary and Lathrop High School as having more crime. Confirming public testimony regarding crime frequency and severity is difficult. The police department provided 2013 traffic violation and crime statistics for the neighborhood, but with over 6,000 events, the data was too dense to identify trends useful for the purpose of this project. Therefore, a smaller data set focused on the more severe crimes was requested, including assault, drugs, motor vehicle collisions, incapacitated person, indecency, keep the peace, prostitution, sexual assault, theft, traffic hazard, and vandalism. The graphic below (see Figure 2) illustrates the location and types of police calls. (Note: Total police calls for all of the City of Fairbanks in 2013 were approximately 32,000, making calls in the Bjerremark Neighborhood approximately 20% of all calls.) Another graphic depicting police-call quantity is included in Appendix C. These graphics both show a higher concentration of criminal activity along the eastern portion of the study area.

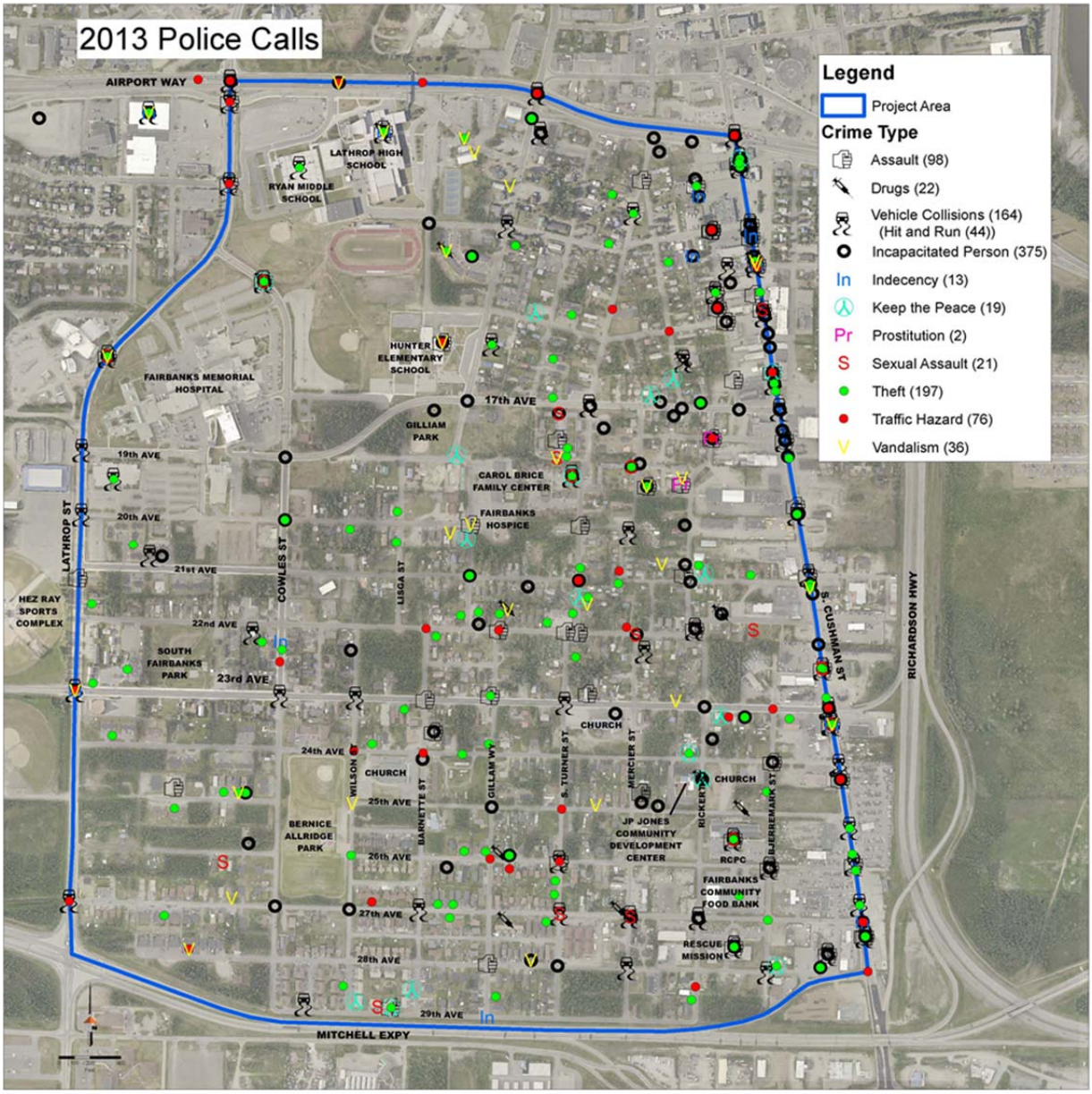


Figure 2 - Selected Police Calls

3.0 SUMMARY OF EXISTING CONDITIONS

After documenting individual testimonies of challenges in the neighborhood and collecting both existing and new data, DOWL compared the results. We compiled the confirmed traffic, pedestrian, and crime challenges in a single graphic (see Figure 3). The primary challenges for the Bjerremark neighborhood are discussed in the following sections.

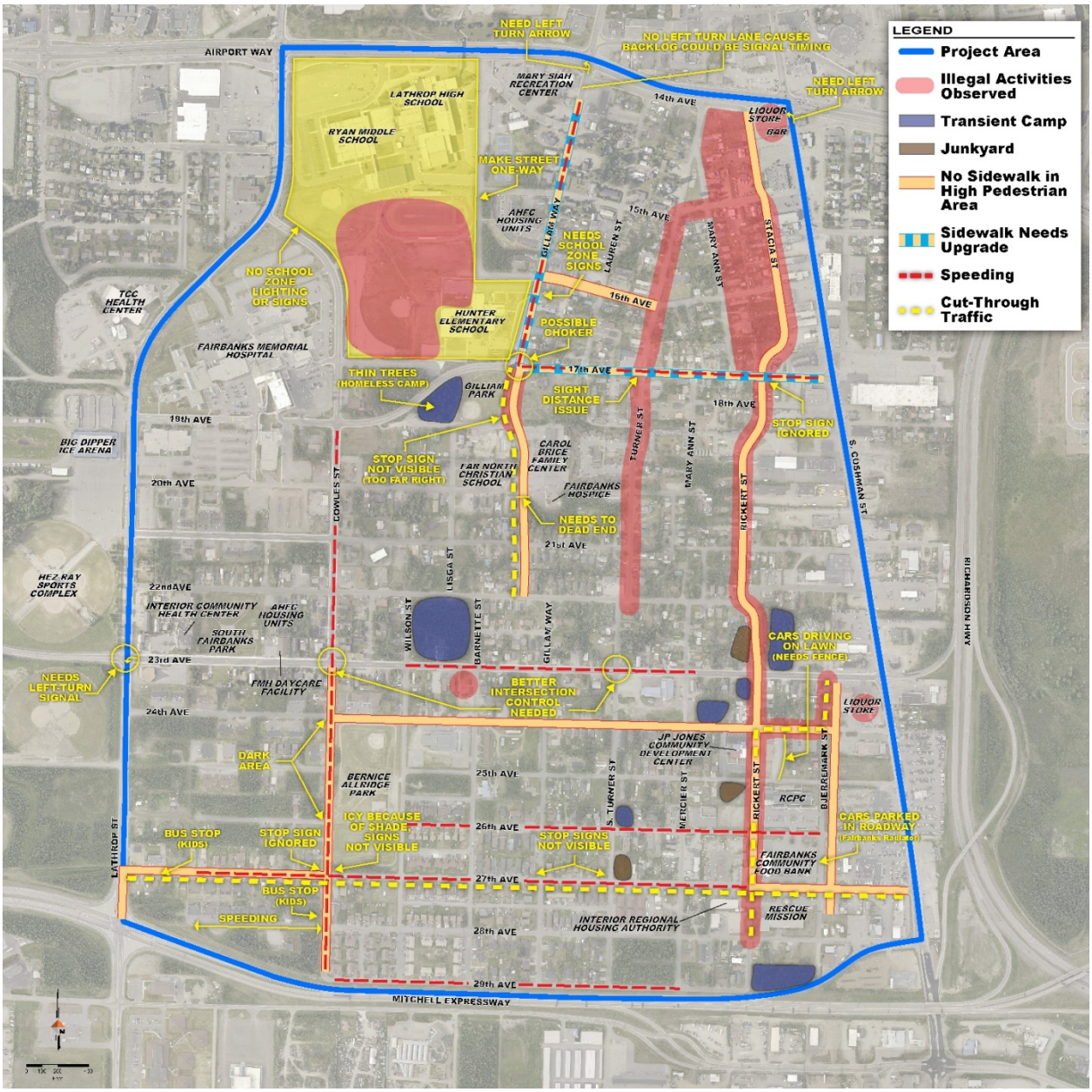


Figure 3 – Compilation of Local Observations

3.1 Speed

Traffic engineers look at the 85th percentile of vehicle speeds as a key factor in determining if a speeding problem exists on a given roadway. This means that 85% of drivers travel at or below this speed and 15% of drivers exceed this speed. Traffic engineers expect the 85th percentile to be between 0 and 5 mph above the posted speed. An 85th percentile speed 5 to 10 mph above the posted limit is a moderate concern and more than 10 mph above is a significant concern. The posted speed limit and 85th percentile speeds at the studied locations are shown in Table 1.

Table 1: Posted Speed Limits and 85th Percentile Speeds at Studied Locations

Street	***Posted Speed (mph)***	***85th Percentile Speed (mph)***	***MPH Above Posted Speed***
17th Avenue	30	51	21
23rd Avenue (West)	30	34	4
23rd Avenue (East)	30	32	2
27th Avenue	20	33	13
29th Avenue	20	35	15
Cowles Street (North)	25	32	7
Cowles Street (South)	25	31	6
Gillam Way	25 (20 @ schools)	27	2 / 7

The data confirm speeding as a significant problem on the following roadways:

- 17th Avenue,
- 27th Avenue, and
- 29th Avenue.

Speeding is a moderate problem on Cowles Street, where the 85th percentile was 6-7 mph above the posted speed. Though the data collected did not confirm reported speeding problems on some other streets, it is possible the data collection period missed a common speeding issue, or that speeding could be isolated instances that do not result in a high 85th percentile speed. Streets with high reported speeds were still taken into consideration as the overall neighborhood Framework Plan was developed. These other locations include:

- Gillam Way,
- 23rd Avenue, and
- 26th Avenue.

3.2 Cut-Through Traffic

Cut-through traffic consists of vehicles passing through a neighborhood to reach a destination on the other side (or even outside) the neighborhood. This kind of traffic is problematic in residential neighborhoods. Cut-through traffic tends to travel at high speeds because the destination is not local and driver concern for the people living in the area is lower. Since the traffic is not local, identifying vehicles that do not belong in the area is more difficult, making it easier for criminal activity to occur. Cut-through traffic is difficult to confirm with field data without extensive labor and costs. Based on multiple testimonies and observation of street layouts, the Project Team identified the following streets as having higher levels of cut-through traffic:

- 15th Avenue from Cushman to Gillam Way,
- Gillam Way from Airport Way to 23rd Avenue,

- Rickert Street, right on 24th Avenue to Bjerremark Street and north to 23rd Avenue, and
- 27th Avenue from Lathrop Street to Cushman Street.

(*Note: Initial Open House public testimony reported cut-through traffic on Turner Street from 14th Avenue to 23rd Avenue. Subsequent testimony refuted this. DOWL followed traffic during the evening peak-traffic hour and documented less than 5% cut-through traffic. Cut-through traffic does not appear to be an issue on Turner Street.)

The Framework Plan seeks to reduce cut-through traffic. The traffic features implemented will encourage drivers to use collectors (roads designed for higher traffic volumes) to move through a neighborhood, and then enter local roads when near their destination. They will also discourage non-local, or criminal related, traffic from entering the neighborhood. One large deficiency in the collector road system in the neighborhood is that Gillam Way as a collector ends at 17th Avenue. The Framework Plan is implementing several traffic features to direct traffic to Turner Street and improve Turner Street where needed.

3.3 Crashes

Crash data was collected from both the DOT&PF and the City Police Department. The crash data available from DOT&PF was for 2007 – 2011 and includes only reported accidents. For accidents to be tracked by DOT&PF, either there must be more than one accident on a route, or the single accident must be a fatality or major injury. For the noted dates, forty-five (45) accidents were recorded by DOT&PF, with a majority on 23rd and 17th Avenues. See the graphic in Appendix B for additional information. The City Police Department provided traffic call data for all of 2013. Their data included 164 motor vehicle collisions. The locations are spread across the neighborhood, with higher concentrations on the internal collector and perimeter arterial roads (see Figure 2 and Appendix B).

The traffic calming measures proposed by the Framework Plan have been shown to reduce traffic speeds and the number of accidents, in particular angle collisions at intersections. These benefits are discussed further in Section 4.

3.4 Pedestrian Corridors and Safety

As is typical in Alaska due to our relatively low population, vehicle turning movement and pedestrian crossing counts at intersections were not high enough to meet national standards that guide the construction of pedestrian crossings. Nevertheless, most streets in the study area identified as having pedestrian/vehicle safety concerns also lack designated pedestrian facilities, which results in pedestrians using the traveled way (or road lane) to reach destinations. Public comments indicated that pedestrian traffic was unpredictable to motorists and difficult to see, particularly in the darker, winter months. This suggests that despite not rising to the thresholds that require specialized pedestrian crossing facilities, there is a general need to improve pedestrian facilities and better accommodate non-motorized users within multiple corridors. The *Safe Routes to School* report, FMATS *Non-Motorized Transportation Plan*, and local testimony are the primary guides for recommending which corridors receive improved pedestrian facilities.

The high pedestrian generators are four schools (Lathrop High School, Ryan Middle School, Hunter Elementary School, and Far North Christian School) and several resource agencies (Resource Center for Parents and Children, Fairbanks Community Food Bank, Fairbanks Rescue Mission, J.P. Jones Community Development Center, and Love, INC) in the southeast portion of the project area. The *Safe Routes to School Report* identifies the Hunter Elementary walk zone (bus service is provided beyond this perimeter) and identifies routes needing pedestrian facilities or improvements. No study has been prepared for the area around the resource agencies, but significant public testimony documented the lack of pedestrian facilities between the resource buildings and various destinations to the north. The Framework Plan adopts the recommendations of the *Safe Routes to School* report and public input, as well as the NMTP.

3.5 Crime

As noted in Section 2, criminal activity data was collected from the City Police Department for 2013. With about 20% of all calls occurring in the Bjerremark Neighborhood, the police department is giving particular attention to this neighborhood. As noted in Section 7, the police department has recently initiated a Community Policing Program in the area. Based on a plot of the data, the Project Team identified a higher concentration of criminal activity along the north/south corridors on the eastern portion of the study area, with higher crime concentrations in the northeast and southeast quadrants. The objective of the Framework Plan is to increase the

defensible space of the neighborhood by implementing traffic features to reduce the amount of criminal activity that enters the residential areas.

4.0 TRAFFIC CALMING TOOLBOX

Traffic calming involves identifying the nature of traffic problems on a given street or in a given area and then selecting traffic calming measures capable of solving identified problems. The measures are selected to improve traffic or pedestrian issues and increase the defensible space within the neighborhood. Defensible space is increased when cut-through traffic is eliminated or reduced, traffic travels at posted speeds, and undesirable traffic is hindered from entering the neighborhood. The further ripple effect of improvements to the City's ROW is that residents will take pride and ownership of the area, both protecting the features installed by the City and investing in improvements to their own property. The traffic-calming measures come from a toolbox of possibilities that are adapted to the specific neighborhood issues. More than one solution or mitigation measure is usually available. Specific measures are selected based on the level of effectiveness anticipated in that location, as well as how individual measures work together to achieve the neighborhood goals.

The traffic calming measures recommended for the Bjerremark neighborhood study area are described in the following sections. They do not constitute a set of warrants or minimum requirements, but rather a set of recommendations that can be overridden, modified, and adapted in specific cases by engineering judgment and City approval.

While there are some traffic calming measures installed at various locations in Fairbanks, some of the measures being proposed are new to Fairbanks. Hence, examples from other cities and states are used to illustrate the concepts. Each measure would be modified as needed to match the specific environment in the Bjerremark neighborhood.

Traffic calming measures recommended for the Bjerremark neighborhood Study Area fall in three categories:

- Volume control measures,
- Horizontal speed control measures, and

- Narrowing.

4.1 Volume Control Measures

Volume control measures are physical modifications that reduce the quantity of vehicles that use a specific roadway. These measures are the most aggressive and will have the most marked impact on the neighborhood. The recommended volume control measures for the Bjerremark neighborhood include full or half-street closures and diverters.

4.1.1 Full or Half Street Closure

Full Street Closures require barriers placed across a street to completely close the street to through traffic, usually leaving only sidewalks open. The impact of a full or half-street closure on traffic volume is immediate and drastic. A full closure typically reduces the traffic volume to that generated by the land uses abutting the closed street. In other words, it eliminates through traffic. The most effective street closures have vertical elements such as landscaping or signage to alert drivers from a distance that the road is closed or partially closed. A full street closure is only feasible if there are one or more adjacent streets with sufficient capacity to handle displaced traffic.

Closure barriers may consist of landscaped islands, walls, gates, side-by-side bollards, or any other obstructions that leave an opening smaller than the width of a passenger car. Generally, closures are only considered where the dead ended street is less than 100 feet long or where a cul-de-sac, hammerhead, or other method of turning around is provided to accommodate emergency access, street maintenance and refuse vehicles. A street closure can also include the full vacation of a ROW, or a transfer of use and management of the ROW from the City to another agency or adjacent property owners. Figure 4 illustrates the road closure concept.

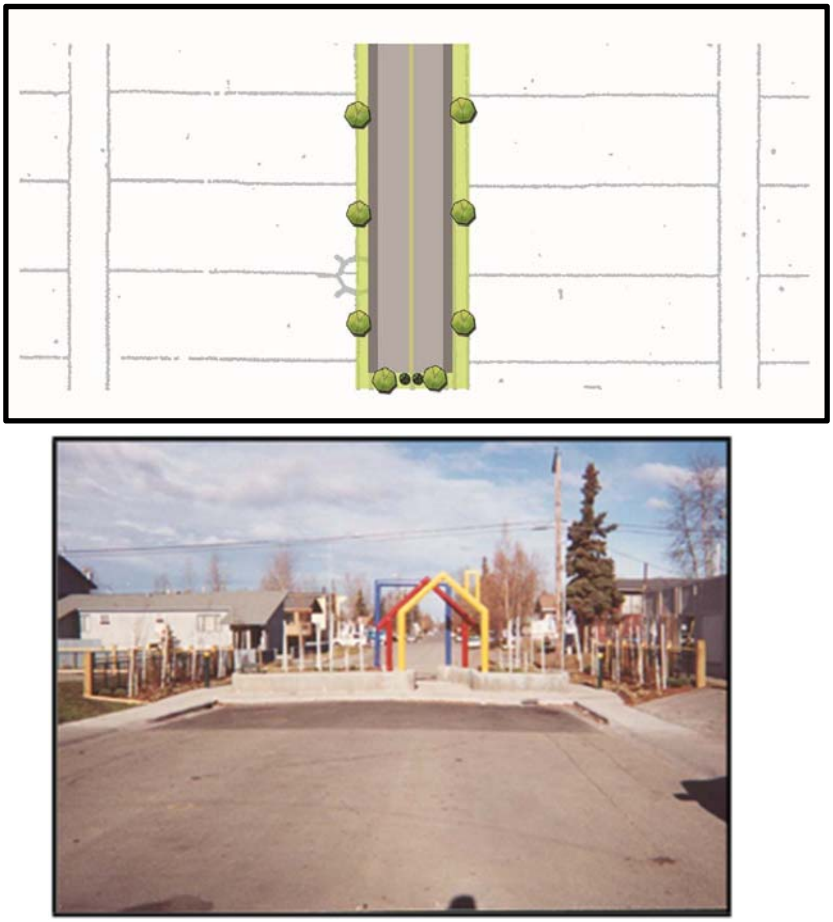


Figure 4 - Full Closure Example

4.1.2 Diverter

Diverters are barriers placed diagonally across an intersection blocking through movement. The purpose is to create a smaller neighborhood feel and reduce cut-through traffic by diverting it to nearby collectors or arterials. These are all significant steps towards achieving the project's defensible-space goals. Diverters can substantially decrease traffic volumes, depending on the percentage of cut-through traffic versus local traffic. Speeds are reduced adjacent to the diverter intersection, but there are only minimal speed reductions at the midblock. Safety benefits of diverters are achieved by diverting cut-through traffic and by reducing accidents at the diverter intersection through elimination of all conflict points. Defensible-space benefits are achieved by discouraging non-local traffic and creating sub-neighborhoods within the overall subdivision. Only dead end streets or cul-de-sacs would be more aggressive in this regard. The diverter concept is illustrated in Figure 5.

Figure 5 - Diagonal Diverter Example

4.2 Horizontal Speed Control Measures

Horizontal speed control measures alter the typical straight-line traveled way of a specific roadway in an effort to reduce speed. The recommended horizontal speed control measures for the Bjerremark neighborhood are traffic circles and chicanes.

4.2.1 Traffic Circles

Traffic circles are raised islands placed in intersections around which traffic circulates. They are usually circular in shape and landscaped in their center islands, though not always. They often have outer rings (truck aprons) or mountable curbs so large and emergency response vehicles with larger turning radii can circumnavigate their small curb radii.

Traffic circles will likely have minimal impact on traffic volumes. Sometimes they can increase traffic volumes by attracting motorists seeking reduced delay compared to stop-controlled intersections. On the other hand, some vehicles may be diverted to adjacent roadways to avoid the central islands. Speed near the intersection is reduced unless there was previously a stop sign in that direction; in which case, the speed near the intersection will increase. Traffic circles convert left turns to right turns, which can lead to a decrease in the severity of crashes by reducing the likelihood of angle accidents. Snow plowing is slowed because maintenance personnel must circumnavigate the central island. Figure 6 illustrates a traffic circle.

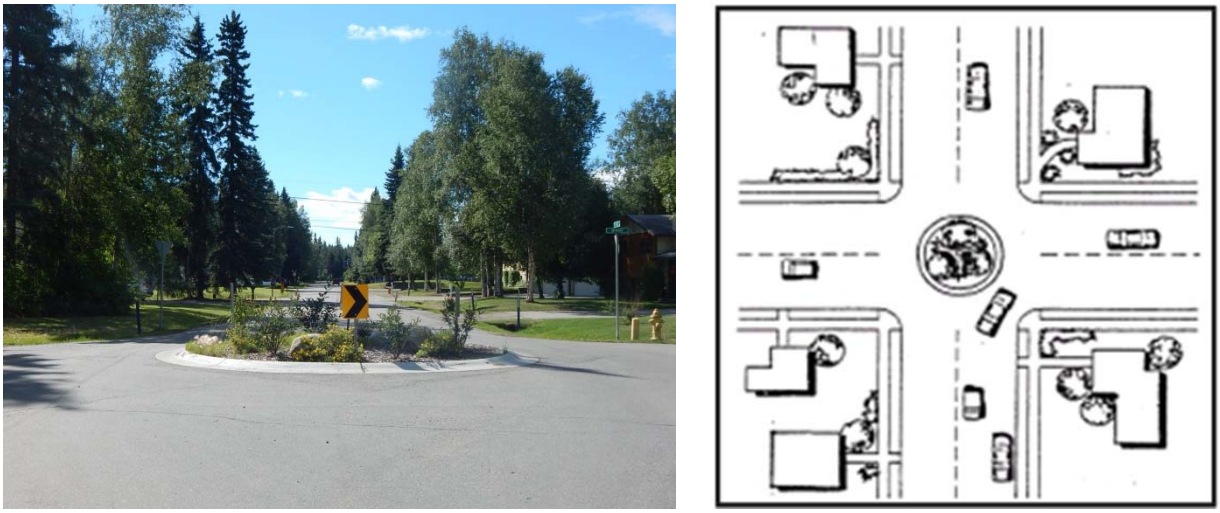


Figure 6: Traffic Circle Example

4.2.2 Chicanes

Chicanes employ curb extensions or edge islands with vertical elements to draw attention to them. The intent is to alternate the traveled lanes from one side of the street to the other forming S-shaped travel paths. The purpose of a chicane is to reduce the drag-strip feel of a long, straight roadway and thereby discourage higher vehicle speeds. Chicanes also provide opportunities to increase pedestrian safety at specific locations or create space along one side of the ROW at locations near parks where other improvements may be desired. Lateral shift locations provide opportunities for landscaping to enhance aesthetics. Figure 7 illustrates the chicane concept.

Figure 7: Chicane Example

4.3 Narrowing

A Narrowing, as the name implies, is a short roadway segments that are narrower than the typical roadway section. The recommended narrowing measures for this project are chokers, medians, and gateways.

4.3.1 Chokers

Chokers are curb extensions or other vertical elements (such as bollards) at intersections that reduce roadway width. Chokers help reduce vehicle speeds by reducing the shy distance at intersections and introducing vertical elements closer to the traveled way. When an intersection has stop control signage, the sign location is typically more visible which helps to increase safety. When coupled with crosswalks, they increase pedestrian safety by reducing the pedestrian crossing distance and improving pedestrian visibility. Chokers create space for landscaping which enhance neighborhood aesthetics. An example of a choker is shown in Figure 8.

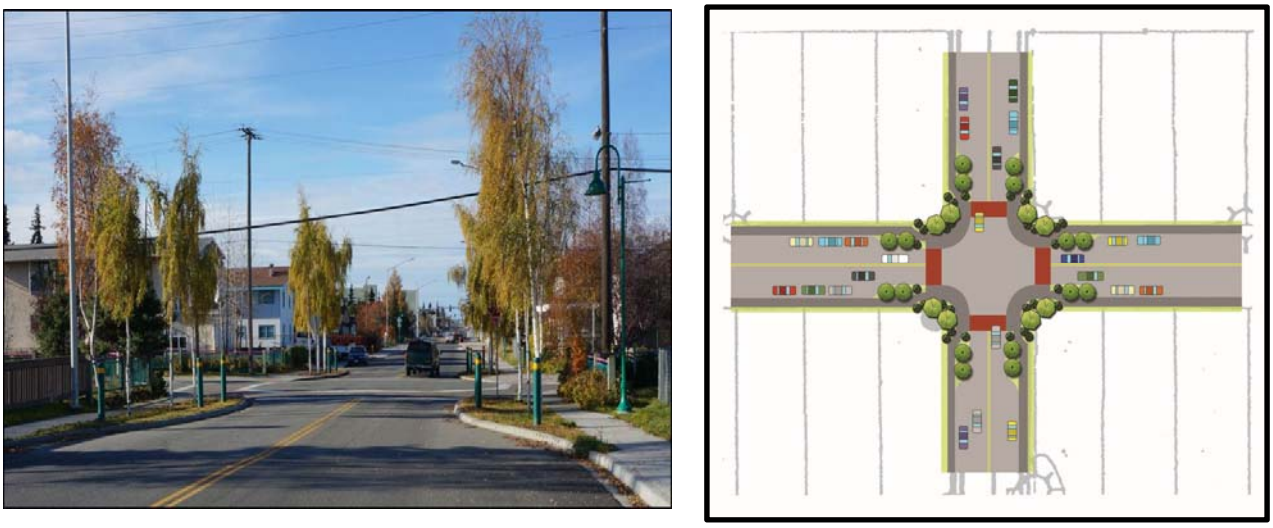


Figure 8: Choker Example

4.3.2 Medians

Medians are raised islands located along the centerline of a street that narrow the street at that location. The medians add friction (features along the edge of a roadway that require a driver's attention), which reduces the comfort for motorists who are traveling above the speed limit.

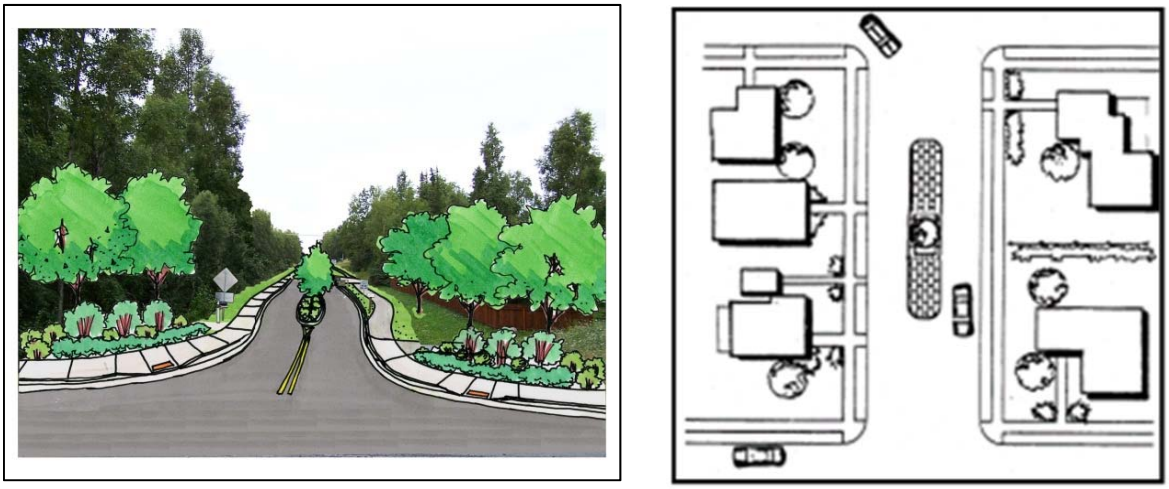


Figure 9: Median Example

They are typically landscaped to increase vertical visibility, and to provide visual amenity and neighborhood identification. Since they are typically installed in the center of the road, they are usually very cost effective measures with minimal right-of-way and utility impacts. Care must

be taken in locating the islands to maintain desired sight distance and to avoid undesired turning movement restrictions. Figure 9 illustrates this concept.

4.3.3 Gateways

Gateways involve vertical elements at the entrance to a neighborhood. They may be combined with choker or median concepts. The goal of a gateway is to alert drivers of entry into a designated space, in this case a residential neighborhood. Gateways for a given neighborhood can be constructed thematically and may be a combination of landscaping, hardscape, and curbing or barriers. Their design can help reduce speeds, increase pedestrian crossing safety, and create a sense of pride and ownership for those within the neighborhood. Figure 10 illustrates the gateway concept.

Figure 10: Gateway Examples

4.4 Non-Engineering Measures

Other non-engineering measures that fall outside the ITE definition of traffic calming may nevertheless be employed to reduce traffic speeds or volumes where more costly physical improvements are not deemed appropriate.

4.4.1 Increased Enforcement

Increased enforcement can result in appreciable speed reduction and reduced accidents as long as enforcement is sustained. Studies have generally shown that many people speeding in neighborhoods are local residents. The same studies show residents support and encourage enforcement on “their” street, but negatively react when enforcement results in citations to local residents. Generally, this results in reduced police interest in enforcement. Use of personnel for

speed enforcement is typically not a high priority for police departments. Work force time and wages can be costly for this type of speed reduction technique.

4.4.2 Variable Speed Display

A variable speed display board (VSDB) typically consists of a display board wired to a radar unit that is aimed at passing motorists. It dynamically displays the driver's travel speed as well as the speed limit to alert motorists of their speed compared to the posted speed limit. It is typically used to target times of the day when enforcement is needed as well as to educate the public as to whether there is a speeding problem or not.

5.0 RECOMMENDED FRAMEWORK PLAN ELEMENTS

The Framework Plan represents the baseline recommendations for the Bjerremark neighborhood Study Area improvements and the location for the various traffic calming measures. The Framework Plan represents the combined knowledge of the challenges facing the neighborhood from those who live and work there, existing studies and data already performed, new data collected, and traffic calming and defensible space design experience. Proposed improvements were evaluated in four (4) meetings with the Steering Committee and City Staff, resulting in the Project Team agreeing upon a Framework Plan that collectively addresses the neighborhood challenges (see Figure 11). Graphical rendering of a diverter, intersection choker, and chicane are included in Appendix D.

The following traffic calming and defensible space measures are recommended.

5.1 Full or Half Street Closures

One or two full or half-street closures are recommended in the southeast portion of the study area. The street closures may be combined with a diverter, or replace it, as noted below.

5.1.1 Social Service Facilities Campus

The streets between the Rescue Mission, Fairbanks Community Food Bank, and the Resource Center for Parents and Children (26th and 27th Avenues), from Rickert Street to Bjerremark Street, may be closed as part of an overall campus plan. The intent is to create a community campus that includes the street ROW areas and reduces vehicle through traffic. The street

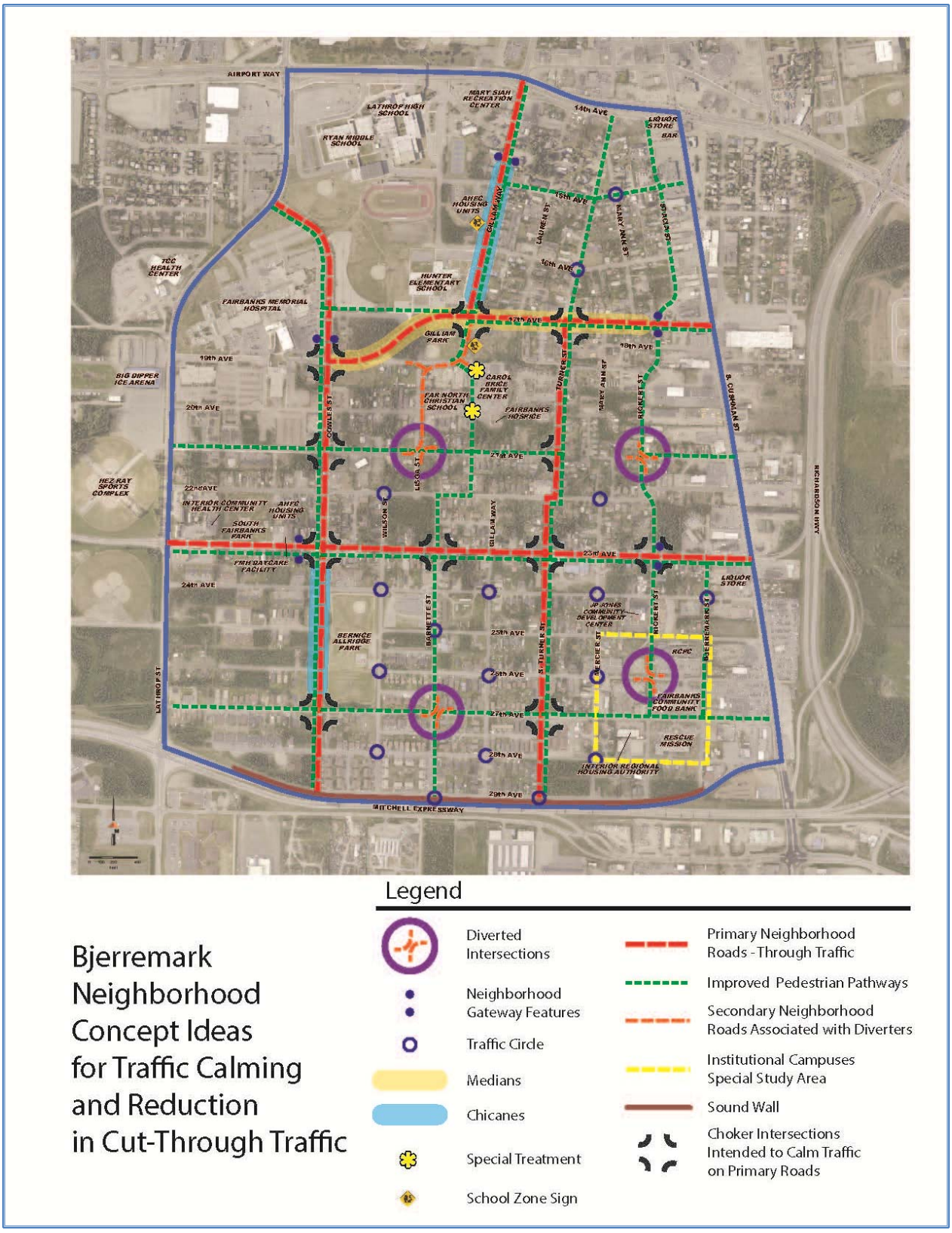
closures depend upon these three agencies agreeing to a single-campus plan and obtaining the funding necessary to complete improvements outside of the City ROW. An engineered transportation and campus area plan will be a valuable asset to the agencies as they apply for grant funding.

5.2 Diverters

The Project Team is proposing diverters at four (4) or five (5) locations.

5.2.1 15th Avenue and Turner Street

Higher levels of illegal activity were documented to the east of this intersection by the police data and public testimony. Some public testimony reported cut-through traffic on Turner Street, but this was refuted by other testimony. DOWL observed traffic during the evening peak-traffic hour and documented one (1) vehicle as cut-through traffic. Therefore, from a cut-through perspective a diverter is likely not warranted. However, a diverter will help reduce illegal activity from entering the neighborhood. When the design for this intersection occurs, the project team recommends holding a public meeting to obtain additional public input regarding the implementation of a diverter or traffic circle at this intersection.



Bjerremark Neighborhood Concept Ideas for Traffic Calming and Reduction in Cut-Through Traffic

Legend

- Diverted Intersections
- Neighborhood Gateway Features
- Traffic Circle
- Medians
- Chicanes
- Special Treatment
- School Zone Sign
- Primary Neighborhood Roads - Through Traffic
- Improved Pedestrian Pathways
- Secondary Neighborhood Roads Associated with Diverters
- Institutional Campuses Special Study Area
- Sound Wall
- Choker Intersections Intended to Calm Traffic on Primary Roads

Figure 11: Framework Plan

5.2.2 21st Avenue and Lisga Street

Gillam Way is a main entry collector road into the neighborhood. However, at 19th Avenue, the road system changes to local roads that are not directly aligned and have land uses with high pedestrian activity. High-speed traffic currently travels along Gillam between the Carol Brice Center and the Far North Christian School. This area will be given a Special Treatment status (discussed further below). The goal is to encourage through traffic to travel on collector roads. A diverter at this location and the Special Treatment on Gillam Way will increase the out-of-direction travel for drivers traveling further south. This will discourage cut-through drivers from continuing south on Gillam Way beyond 17th Avenue, and to instead travel either west to Cowles Street or east to Turner Street to access the southern portions of the neighborhood. Some concern has been expressed that a diverter here will push more traffic into the Special Treatment area on Gillam Way. Careful design of the Gillam Way Special Treatment Area will be needed to prevent this.

5.2.3 Rickert Street and 22nd Avenue

A diverter at this location interrupts the north/south criminal-activity corridor and helps separate the commercial activity along Cushman Street from the neighborhood.

5.2.4 27th Avenue and Barnette Street

27th Avenue is a high cut-through traffic corridor. This diverter discourages cut-through traffic and helps create smaller neighborhoods in the southwest portion of the Study Area.

5.2.5 Rickert Street and 26th Avenue

This diverter may not be necessary depending upon how the Social Services Campus is developed. It may also become an integral part of the redesigned campus. If used, the diverter helps separate the facilities in this location and the commercial businesses along Cushman Street from the neighborhood.

5.3 Traffic Circles

Stop and Yield intersection control exists throughout the neighborhood. Traffic studies have shown this type of signage to be ineffective in controlling speeds – except in the immediate vicinity of the stop sign. The City of Fairbanks has installed traffic circles in other

neighborhoods with good success. They have had minimal impacts to maintenance activities and have been acceptable to emergency services. A dominant use of traffic circles spaced regularly and strategically throughout the neighborhood in place of signage will have a significant and positive effect on the flow of traffic, safety at the intersections, and speed control. A preliminary layout is shown on the Framework Plan graphic (Figure 11). During the design phase, a closer evaluation of placement will be made.

5.4 Chicanes

The Project Team proposes chicanes for a portion of Gillam Way and a portion of Cowles Street.

5.4.1 Gillam Way

A chicane on Gillam Way will help reduce speeds on this entry collector road as it approaches Hunter Elementary School. The chicane should be designed such that the travelled lanes are shifted away from the school south of 16th Avenue to increase the buffer between vehicles and school activities.

5.4.2 Cowles Street

Elevated 85th percentile speeds were observed on Cowles Street. In addition, sporting events at Bernice Allridge Park result in cars parking along the road edge immediately north of 27th Avenue. A chicane between 23rd and 27th Avenues should be designed to slow traffic in this corridor and create space for designated parking stalls adjacent to the recreation areas. The use of this area for on-street parallel or angle parking will further reinforce the need for motorists to slow down on this segment of Cowles Street.

5.5 Chokers

Collector roads typically have fewer traffic calming measures that are appropriate due to the need for collector roads to provide greater mobility than local streets. Measures that discourage traffic on collectors can have the undesired effect of pushing traffic onto the local street network. The desire is to accommodate collector traffic volumes at speeds appropriate to neighborhood conditions. Chokers are one common method to send this message to motorists on collector roads. Chokers maintain through capacity, but use vertical elements and a narrower road to encourage slower speeds. Chokers need to be spaced closely (typically at least every 300 feet) or

their effectiveness will diminish. Eleven (11) chokers are recommended, primarily along the 17th, 21st, 23rd, and 27th Avenue corridors (see Figure 11).

5.6 Medians

17th Avenue has an 85th percentile speed that is 21 mph above the posted speed limit. In addition, top speeds above 60 mph were recorded throughout the day and several vehicles were recorded traveling above 80 mph. To help address this, medians should be placed regularly along 17th Avenue. Multiple, short-length medians are recommended to minimize blocking driveways. Median islands may also be incorporated into the chokers on 17th Avenue.

5.7 Gateways

The collector roads are the primary entrance points to the neighborhood. Neighborhood themed gateways are recommended on Gillam Way, Cowles Street, 17th Avenue, and two on 23rd Avenue. This collection of gateways can be used to define the neighborhood boundaries and create a strong sense of neighborhood identity.

5.8 Special Treatment Areas

The team identified two Special Treatment areas due to their unique setting and uses.

5.8.1 Social Services Campus

The Fairbanks Rescue Mission, Fairbanks Community Food Bank, and Resource Center for Parents and Children have expressed an interest in creating a single joint-use campus. Due to the services they provide, the area has high pedestrian activity and high vehicle speeds at times. A campus that closes the streets between them would allow them to increase security and safety. In the next phase of this project, the City will initiate a design effort with this group to develop a plan for the campus. Other entities such as Love Inc and the JP Jones Community Center have expressed interest in the campus; however, physical proximity to one another may be a limiting factor.

5.8.2 Carol Brice / Far North Christian School / Fairbanks Hospice

Gillam Way is a collector road with a high volume of traffic, at reportedly high speeds. Property owners report numerous incidents of vehicles leaving the roadway and hitting features on private

property. The goal in this area is to create a campus feel more compatible with the high-use pedestrian corridor along Gillam Way. Proposed measures include modifying the northern entrance at 19th to function more as a driveway and revising the Gillam Way to Lisga Street route alignment to direct local southbound traffic over to Lisga Street. As noted previously, this traffic-calming feature will function in coordination with the diverter proposed at Lisga Street and 21st Avenue to encourage cut-through traffic to travel east or west on 17th Avenue instead of into the campus area. The DOT&PF has a project on Gillam Way that extends through this area. Coordination with DOT&PF is needed to determine what kind of improvements their project funding will allow.

5.9 Upgrade Turner Street to a Collector

Gillam Way is a collector road that currently changes to a local road at 17th Avenue. For efficient traffic flow, the neighborhood needs a collector road serving the eastern and southern portions of the study area. Evaluating if upgrades to Turner Street are needed to serve this role is recommended.

5.10 School Zone Flashing Lights

Hunter Elementary School is the only elementary school in Fairbanks without a flashing school zone light. The Far North Christian School (FNCS) is located two blocks to the south at the intersection with 20th Avenue. Public comment expressed concerns regarding speeds in front of the school and suggested a flashing school zone and improved signage be considered. School-zone signage and flashing light design is governed by Part 7 of the Manual of Uniform Traffic Control Devices (MUTCD), as modified by Part 7 of the Alaska Traffic Manual (ATM). The MUTCD recommends an engineering study for each application to determine the frequency and adequacy of gaps in traffic, and prescribes standardized signage. The ATM, Table 7A-101, calls for a flasher and gives options for the type of signage included. An engineering evaluation of the traffic in the school zone is needed for selection and placement of the signage and flasher. The FNCS should be included in the analysis. A maintenance agreement between FNCS and the City may be needed. Coordination with DOT&PF's Gillam Way project should be included. Reconstruction of Gillam Way is scheduled for 2018, so interim signage is recommended.

5.11 Pedestrian Facilities

Most of the local streets in the neighborhood have no pedestrian facilities, including many of the streets included in the *Safe Routes to School* report. Portions of the collector roads are also missing sidewalks, or they need to be upgraded to current standards. The Framework Plan (see the green dashed line in Figure 11) includes a general layout of the streets recommended for pedestrian path or sidewalk improvements. The layout designates a pedestrian corridor with a walkway within one block of nearly every parcel in the neighborhood. Some corridors identified in the Framework Plan already have sidewalks. They will be reviewed during the design phase for deficiencies. Not all sidewalks identified in the *Safe Routes to School* and other planning documents are included in the Framework Plan because they are beyond the scope of the traffic calming and defensible space objectives of this project. The type of facility, location, and determination of whether one or both sides of a roadway receive a pedestrian facility will be determined during the design phase.

5.12 Mitchell Expressway Sound Wall

Public input suggested a sound wall could be constructed south of 29th Avenue between Lathrop and Cushman Streets to create a sound barrier to road noise from the Mitchell Expressway. Though not considered traffic calming, the sound wall is included in the report to document the concern. It is related to the project as part of the defensible space concept, which seeks to bring pride and ownership to the neighborhood as a valued place to live. The sound wall would also act as a barrier to off-road vehicles entering the neighborhood from the expressway, except at the intersections with Lathrop and Cushman Streets.

6.0 RECOMMENDED PRIORITIZATION OF PROJECTS

As described previously, the Framework Plan consists of numerous individual improvements, many of which are physically separated from other improvements within the Study Area. For the purposes of maximizing positive change and developing projects to capture the economy of scale, the improvements have been grouped into specific projects. Depending on funding, the projects could be split or grouped together. The following sections describe the methodology and reasoning implemented in developing a final recommended prioritization of projects.

6.1 Prioritization Methodology

At the final steering committee meeting, quantitative and qualitative approaches to prioritizing projects were used. In the quantitative approach, team members assigned a numerical value to each project in multiple categories. In this manner, each team member ranked the projects. Individual scores were then compiled to create a final ranking. In the qualitative approach, team members cast five (5) votes for the project(s) they believed were most important to achieving the traffic calming and defensible space goals. This approach also resulted in a final ranking of the projects. Table 2 below lists the identified projects, the rankings from each approach, and the final recommended ranking. The following comments provide additional information or provide reasons why the final prioritization deviates from the outcomes identified through the ranking evaluations:

A: Improving the safety of the school zone was a repeated comment at Steering Committee and Open House meetings. The No. 1 ranking for this project reflects the high priority communicated for this improvement.

B: The social services campus project will require separate funding. A key element usually needed to obtain a grant is the development of engineering plans. It is recommended a Campus Transportation & Use Master Plan be developed now for use by the social service agencies in their applications for grant funding. The Bjerremark and Rickert Street pedestrian improvements south of 23rd Avenue would be part of this plan.

C: The DOT&PF Gillam Way Rehabilitation project is scheduled for construction in 2018. The project passes through the Carol Brice / FNCS “campus” area. A Transportation Master Plan for this area should be completed now to help guide the nature of improvements pursued by DOT&PF. The chicane on Gillam Way will be incorporated into the DOT&PF project, though City funds will be required for items not permitted by the federal funding guidelines.

Table 2: Framework Plan Project Prioritization

Project	*Quantitative Ranking**	*Qualitative Ranking*	*Recommended Ranking*	*Comment*
All Gateways	10	8	8	H
All Diverters	5	4	4	D
Chokers & Medians on 17th Ave	7	7	5	E
Chokers – 23rd Ave.	8	9	8	H
Chokers – Cowles/27th	5	9	8	H
Chicane – Gillam Way	4	9	3	C
Chicane – Cowles St.	9	9	9	--
Traffic Circles (**)	--	--	6	F
Upgrade Turner	11	9	10	--
Pedestrian Facilities – Bjerremark & Rickert Streets South of 23rd.	11	2	2	B
Other Pedestrian Facilities	13	4	7	G
School Zone Flashing Lights	2	1	1	A
Social Services Campus	1	2	2	B
Carol Brice/FNCS Campus	3	6	3	C
Mitchell Expy Sound wall	14	9	11	--

*Some projects, such as the pedestrian paths, did not score high in this ranking because there were more categories focused on traffic calming than pedestrian enhancements. This is considered in the final recommendation.

**Traffic circles were added during the final Steering Committee meeting based on new testimony from City staff on the effectiveness of the measure and that they have been well received in other neighborhoods. As such, they were not part of the rankings completed by the project team.

E: 17th Avenue has significant speeding concerns. The high speeds coupled with intersecting the primary pedestrian corridors on Rickert Street and Gillam Way supports the need to prioritize this corridor. Upgrading the sidewalks on 17th Avenue is included in this project.

F: Installing traffic circles in place of the current intersection signage control will be another significant change to the neighborhood. As such, despite being added to the Framework Plan late in the process, the value to the neighborhood moves this improvement higher on the project list.

G: Providing pedestrian facilities on the remaining designated corridors was given a high rank by the team, which needs to be maintained. Pedestrian facility corridors not addressed by higher priority projects include: 15th Avenue, 21st Avenue, 27th Avenue, Cowles Street (south of 23rd Avenue), Barnette Street, Turner Street, Rickert Street (north of 23rd Avenue), and Stacia Street.

H: The chokers and gateways are listed as a single project, but they can be split up and reprioritized as the overall Framework Plan is implemented.

6.2 Monitoring Program

This project is a bit of a departure from the typical subdivision improvement project for the City of Fairbanks. However, the benefits of this approach have been proven positive and effective in many neighborhoods in Anchorage, the Matsu Valley, and numerous other parts of the country.

Implementation of the Framework Plan will be a multi-year process completed in phases, subject to available funding. It is appropriate that a multi-year monitoring program be established as part of the implementation of this Framework Plan. Information gathered may allow fine-tuning of future phases of the project and provide opportunities to modify the plan as it moves forward.

7.0 OTHER ISSUES, IDEAS, AND RECOMMENDATIONS

As noted in the introduction to this report, the residents, other stakeholders, and other political bodies were given opportunities to provide input. In this process, many suggestions were made that are beyond the scope of this project, but warrant further review. The suggestions are listed

below so that they can be considered in more detail by the appropriate entities. Implementation of some of these suggestions would act as additional incentive to private property owners to participate in the revitalization. Local ownership and pride in the neighborhood will be a significant step towards a significant change to the Bjerremark and surrounding neighborhoods.

7.1 New MACS Bus Stop

To help with pedestrian / vehicle conflicts on Bjerremark Street, a new MACS bus stop was recommended near the Fairbanks Community Food Bank and Rescue Mission. This will require modifying a bus route (likely the Purple Line). Interaction between the City and MACS is needed to discuss the benefit and viability of this change.

7.2 Property Tax Freeze

The belief is that improvements implemented by this project to the ROW will instigate further revitalization of the neighborhood as property owners make improvements to their property. An incentive for improvements would be to freeze property tax increases for a set number of years. This would encourage property owners to improve their property without the additional immediate expense of more property taxes.

7.3 Landfill Fee Waivers

Many properties in the neighborhood have garbage that needs to be cleaned up. To assist with revitalization efforts, Landfill fees could be waived.

7.4 Ordinance Enforcement

Many properties are in violation of existing ordinances. Enforcement against the worst violations could act as a catalyst for other property owners to clean up their land as well.

7.5 Community Policing Efforts

The City of Fairbanks Police Department has recently implemented a community policing effort in South Fairbanks. Community Policing Officers have already been assigned to the area to help reduce crime and solve problems.

7.6 Lighting

Lighting is critical element that influences public safety and criminal activity. Additional consideration should be given to primary pedestrian routes. In general, the existing lighting within the ROW appears to have good coverage based on overall system maps. However, as time is spent in the neighborhood or public comment is given that identifies a lighting deficiency, additional lighting should be considered. With the overall coverage of lighting in the neighborhood, the addition of new lights is a simple option and can be done on a case-by-case basis.

7.7 Ongoing Landscape Maintenance

The cost of on-going landscape maintenance is a consideration. However, it may also be an opportunity. In other communities where these types of improvements were made, a Youth Employment Program was successfully implemented that employed youth from the neighborhood to maintain the landscaped areas. The program would allow youth to learn, have a job, and develop ownership interest in the landscaping making them more likely to protect it than vandalize it. The program could possibly be managed by the FNSB Parks and Recreation Department.

7.8 Removing Areas Hidden From View

There are several wooded lots within the neighborhood where transients camp or illegal activity occurs. These undesirable activities can be reduced by thinning or clearing the trees and brush on the lots, which reduces locations where unwanted activities can be hidden from view. This will assist with policing efforts and assist residents in making the neighborhood into a more defensible space.

APPENDIX A

Public Input Documentation

APPENDIX B

Existing Data Collected

APPENDIX C

New Data Collected

APPENDIX D

Traffic Calming Measure Graphics

APPENDIX A

Public Input Documentation

Steering Committee

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BJERREMARK
Neighborhood Improvements Plan

Open House
Sign In
November 6, 2014

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Lives on 28th

Steering Committee 378-7815

— 23rd + Turner (Beach House)

Open House
Sign In
November 6, 2014

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Steering Committee? – 23rd ↑ Lives on

BJERREMARK
Neighborhood Improvements Plan

Neighborhood Meeting #2
Please Sign In
January 20, 2015

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BJERREMARK
Neighborhood Improvements Plan

Neighborhood Meeting #2
Please Sign In
January 20, 2015

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BJERREMARK
Neighborhood Improvements Plan

Neighborhood Meeting #2
Please Sign In
January 20, 2015

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Jerome Byrd	937 24th
Darry Edwards	1033 23rd Avenue

Bjerremark Neighborhood Improvements

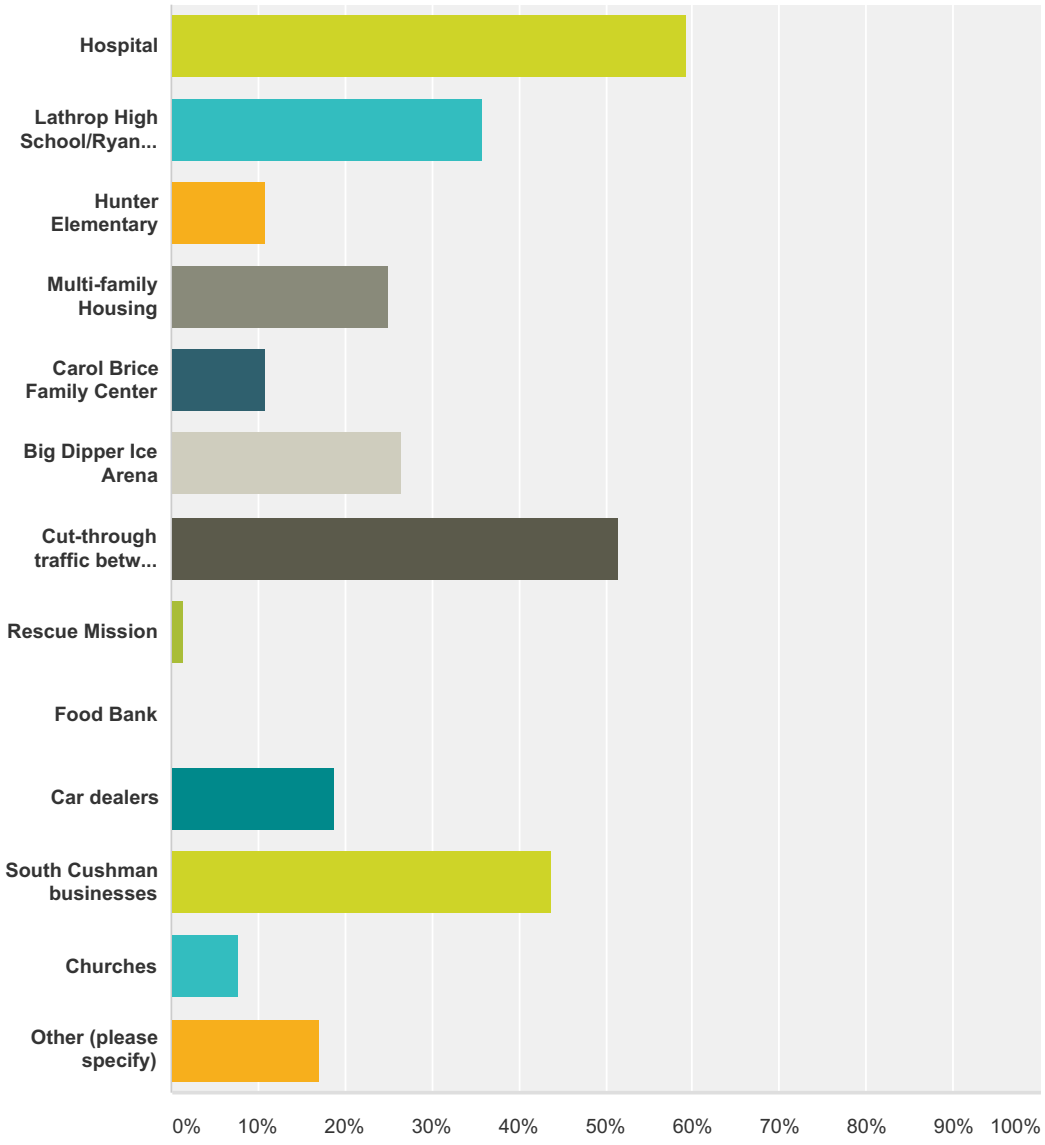
Online Survey Questions

1. Would you like to receive updates and notices about this project? If so, please enter your email address below. ;
2. What are the top three vehicular traffic generators and/or traffic attractors in the area? (Pick 3);
3. What are the top three pedestrian traffic attractors/generators in the area? (Pick 3);
4. What are the least safe places within the study area? (Pick 3);
5. What are the worst sidewalk/walkway areas within the study area? (Pick 3);
6. What types of crime activities occur within the project area? (Pick 3);
7. What are the crime problem areas within the project area? (Pick 3);
8. What do you like best about the Bjerremark neighborhood? (Pick 3);
9. What are the snow removal problems in the area? (Pick 3);
10. What are three things that keep you from walking in the area?;
11. What are the top three places to walk to, within, or adjacent to the area? (Pick 3);
12. What are the three most common places for cut-through traffic in the neighborhood? (Pick 3);
13. Is on-street parking necessary in the neighborhood?;
14. Is bus service adequate in this area?; and

Additional comments:

Q2 What are the top three vehicular traffic generators and/or traffic attractors in the area? (Pick 3)

Answered: 64 Skipped: 1

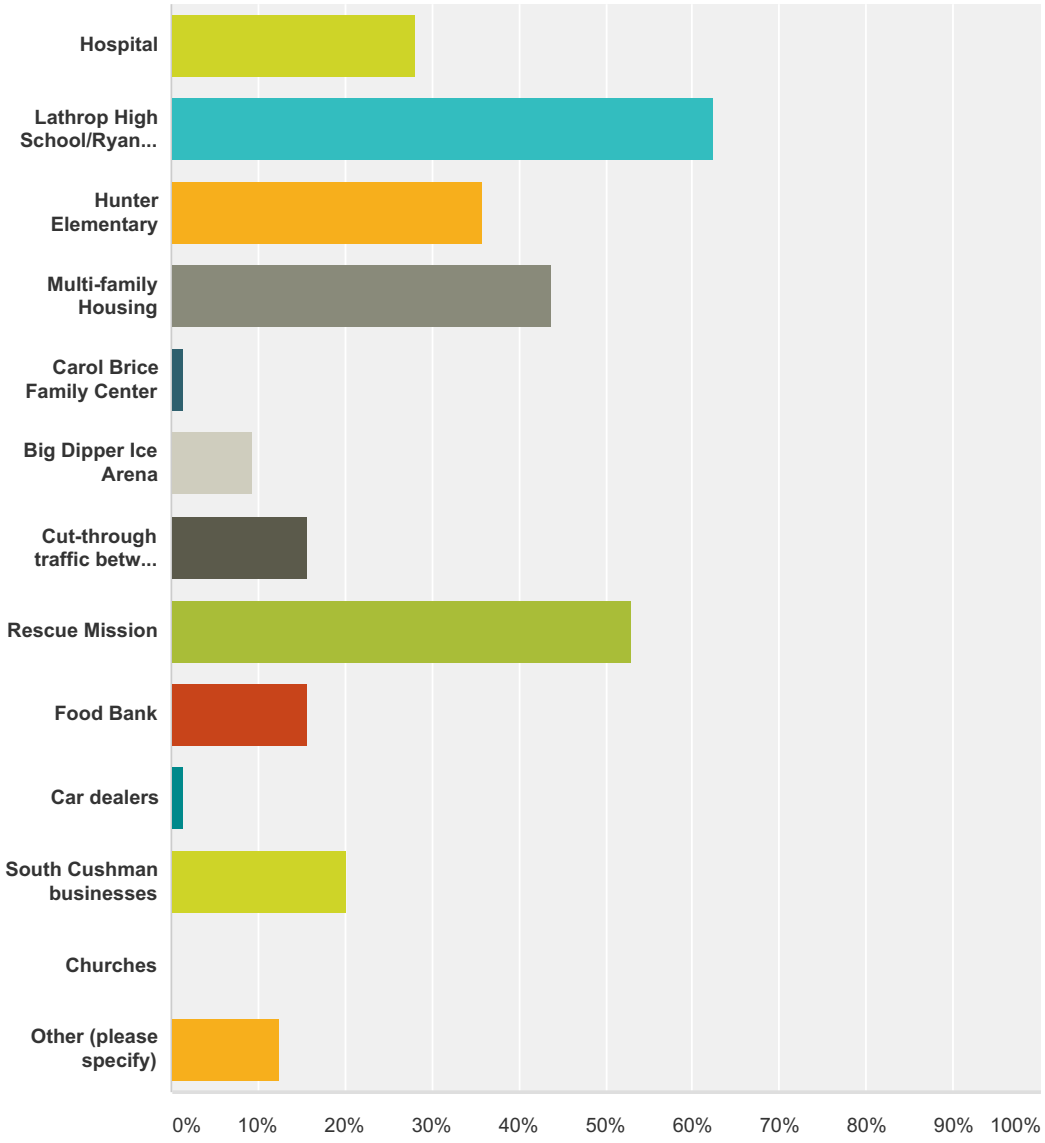


Answer Choices	Responses	
Hospital	**59.38%**	38
Lathrop High School/Ryan Middle School	**35.94%**	23
Hunter Elementary	**10.94%**	7
Multi-family Housing	**25.00%**	16
Carol Brice Family Center	**10.94%**	7
Big Dipper Ice Arena	**26.56%**	17

Cut-through traffic between Cushman, Lathrop & Davis Road	**51.56%**	33
Rescue Mission	**1.56%**	1
Food Bank	**0.00%**	0
Car dealers	**18.75%**	12
South Cushman businesses	**43.75%**	28
Churches	**7.81%**	5
Other (please specify)	**17.19%**	11
Total Respondents: 64		

Q3 What are the top three pedestrian traffic attractors/generators in the area? (Pick 3)

Answered: 64 Skipped: 1

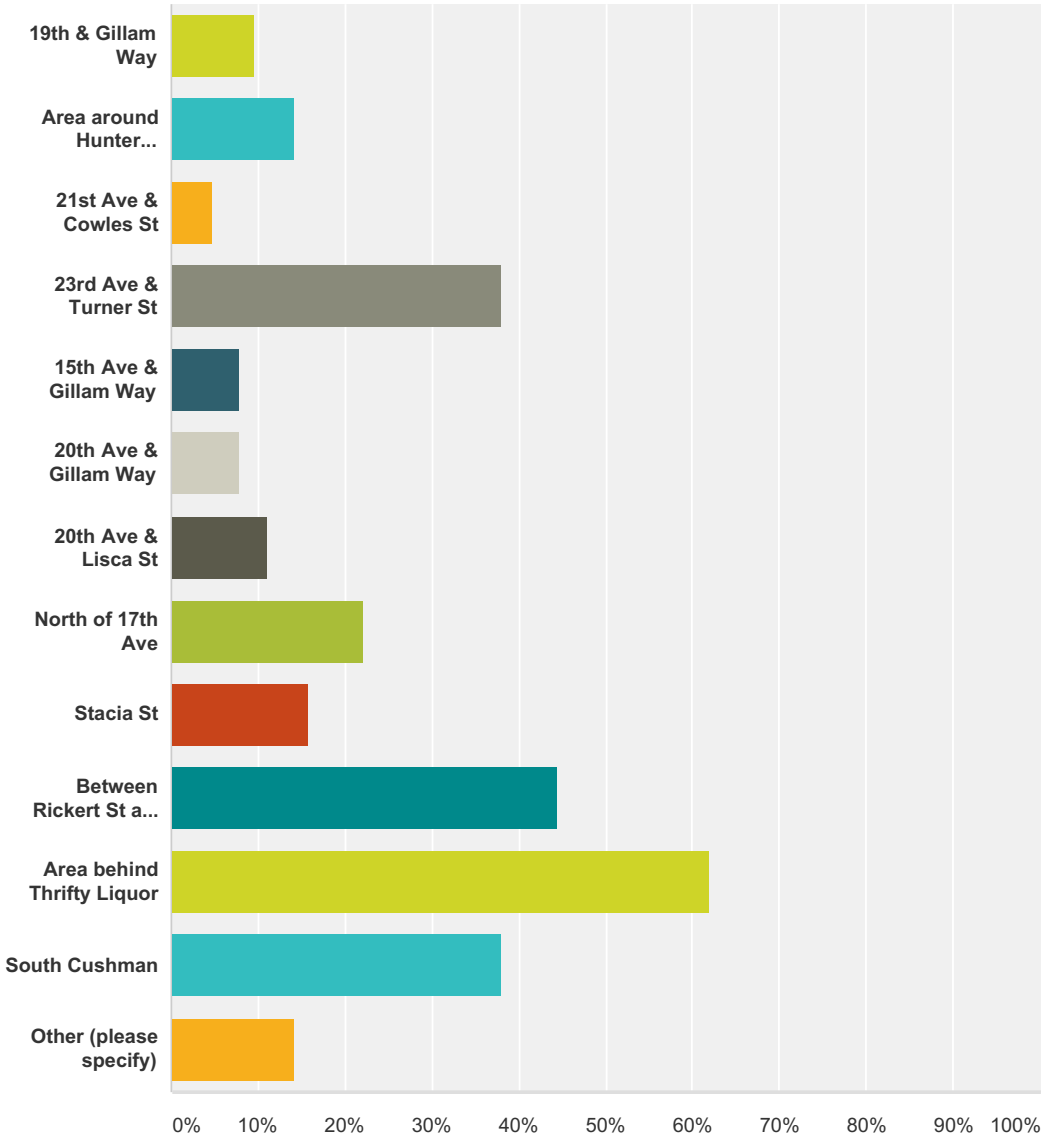


Answer Choices	Responses	
Hospital	**28.13%**	18
Lathrop High School/Ryan Middle School	**62.50%**	40
Hunter Elementary	**35.94%**	23
Multi-family Housing	**43.75%**	28
Carol Brice Family Center	**1.56%**	1
Big Dipper Ice Arena	**9.38%**	6

Cut-through traffic between Cushman, Lathrop & Davis Road	**15.63%**	10
Rescue Mission	**53.13%**	34
Food Bank	**15.63%**	10
Car dealers	**1.56%**	1
South Cushman businesses	**20.31%**	13
Churches	**0.00%**	0
Other (please specify)	**12.50%**	8
Total Respondents: 64		

Q4 What are the least safe places within the study area? (Pick 3)

Answered: 63 Skipped: 2

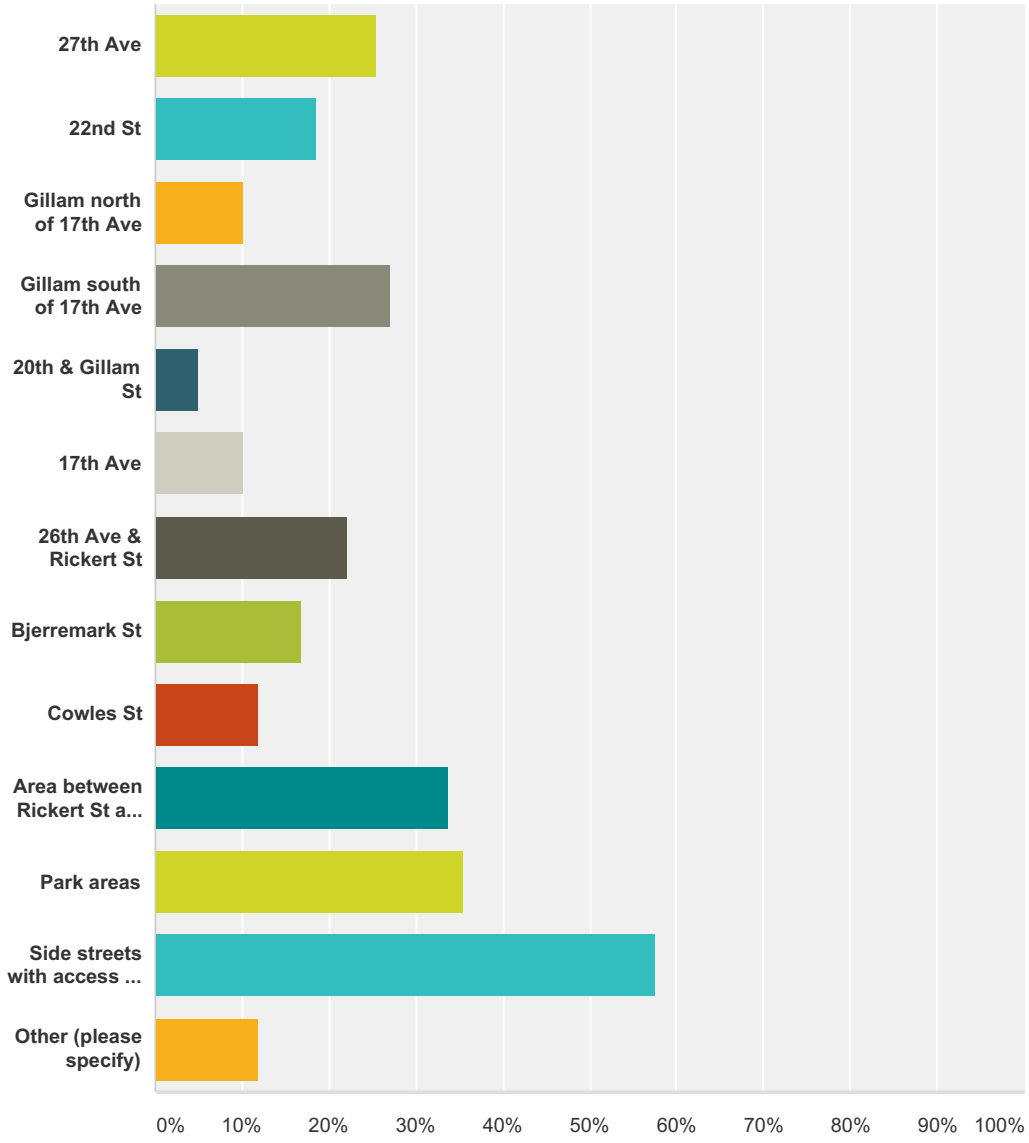


Answer Choices	Responses	
19th & Gillam Way	**9.52%**	6
Area around Hunter Elementary	**14.29%**	9
21st Ave & Cowles St	**4.76%**	3
23rd Ave & Turner St	**38.10%**	24
15th Ave & Gillam Way	**7.94%**	5
20th Ave & Gillam Way	**7.94%**	5

20th Ave & Lisca St	**11.11%**	7
North of 17th Ave	**22.22%**	14
Stacia St	**15.87%**	10
Between Rickert St and Bjerremark St	**44.44%**	28
Area behind Thrifty Liquor	**61.90%**	39
South Cushman	**38.10%**	24
Other (please specify)	**14.29%**	9
Total Respondents: 63		

Q5 What are the worst sidewalk/walkway areas within the study area? (Pick 3)

Answered: 59 Skipped: 6

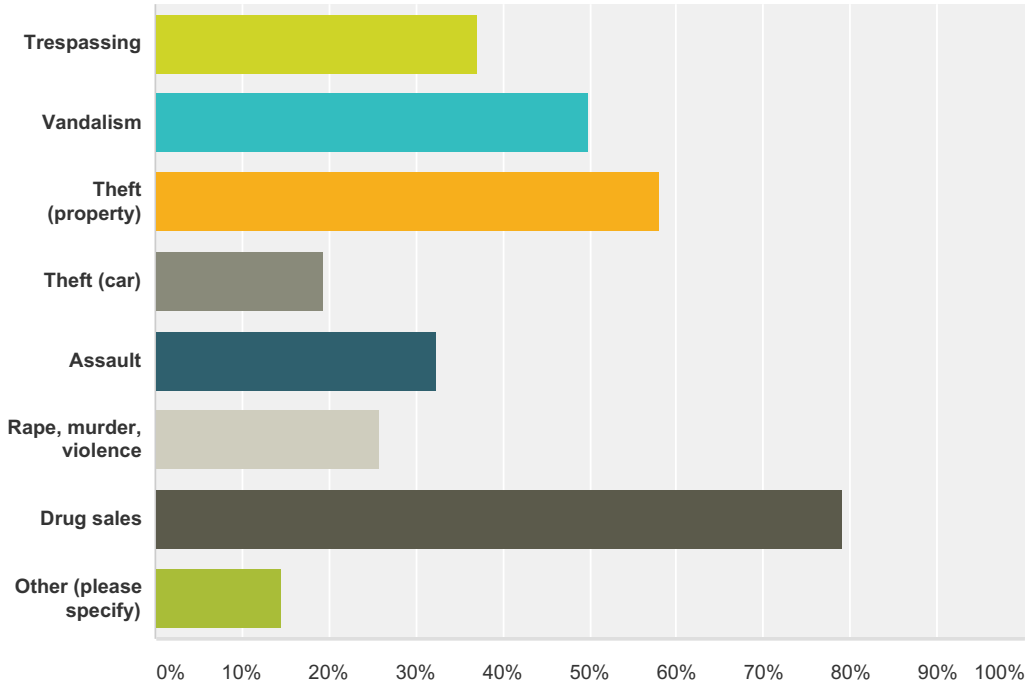


Answer Choices	Responses	
27th Ave	**25.42%**	15
22nd St	**18.64%**	11
Gillam north of 17th Ave	**10.17%**	6
Gillam south of 17th Ave	**27.12%**	16
20th & Gillam St	**5.08%**	3
17th Ave	**10.17%**	6

26th Ave & Rickert St	**22.03%**	13
Bjerremark St	**16.95%**	10
Cowles St	**11.86%**	7
Area between Rickert St and Bjerremark St	**33.90%**	20
Park areas	**35.59%**	21
Side streets with access to major arterials	**57.63%**	34
Other (please specify)	**11.86%**	7
Total Respondents: 59		

Q6 What types of crime activities occur within the project area? (Pick 3)

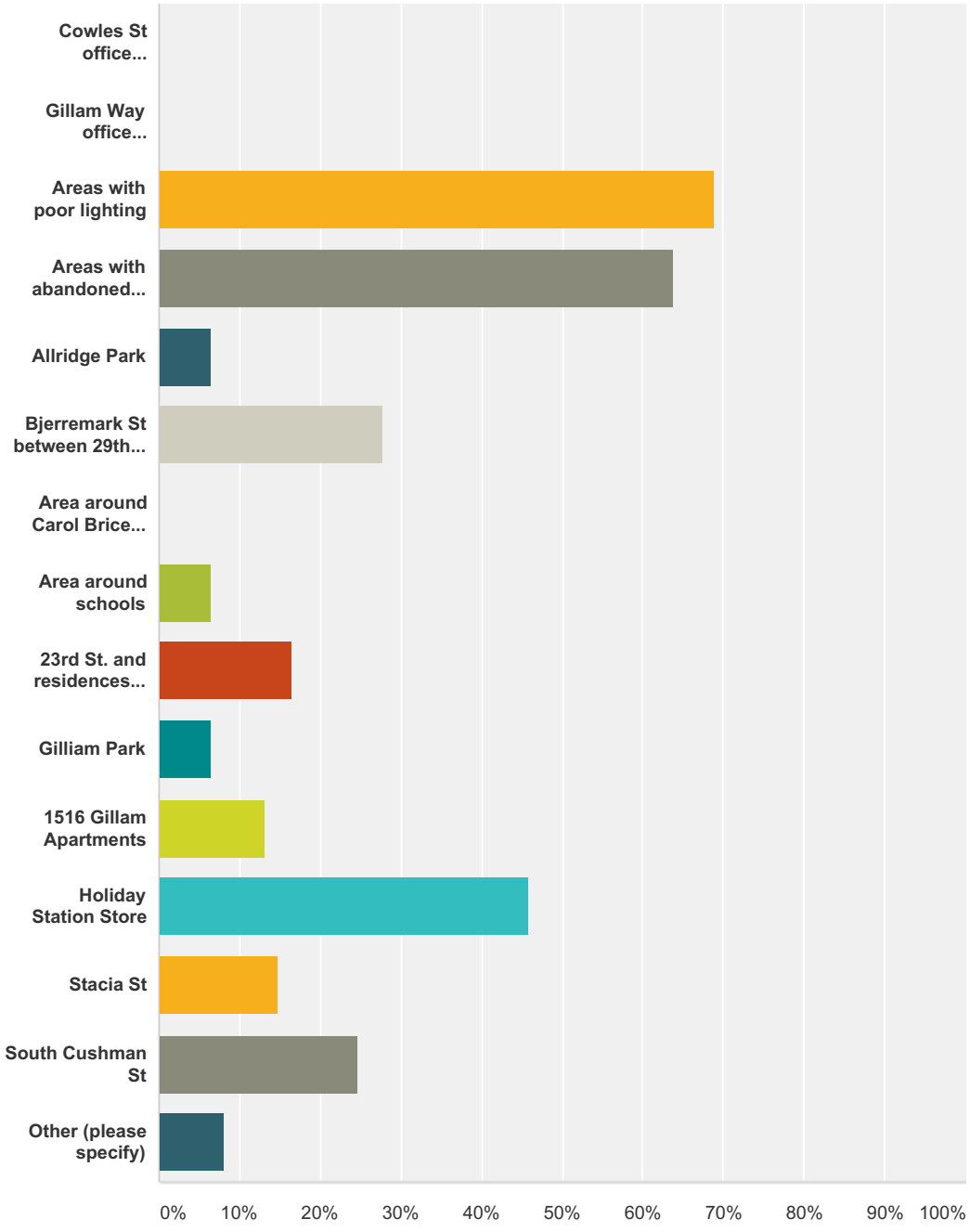
Answered: 62 Skipped: 3



Answer Choices	Responses	
Trespassing	**37.10%**	23
Vandalism	**50.00%**	31
Theft (property)	**58.06%**	36
Theft (car)	**19.35%**	12
Assault	**32.26%**	20
Rape, murder, violence	**25.81%**	16
Drug sales	**79.03%**	49
Other (please specify)	**14.52%**	9
Total Respondents: 62		

Q7 What are the crime problem areas within the project area? (Pick 3)

Answered: 61 Skipped: 4

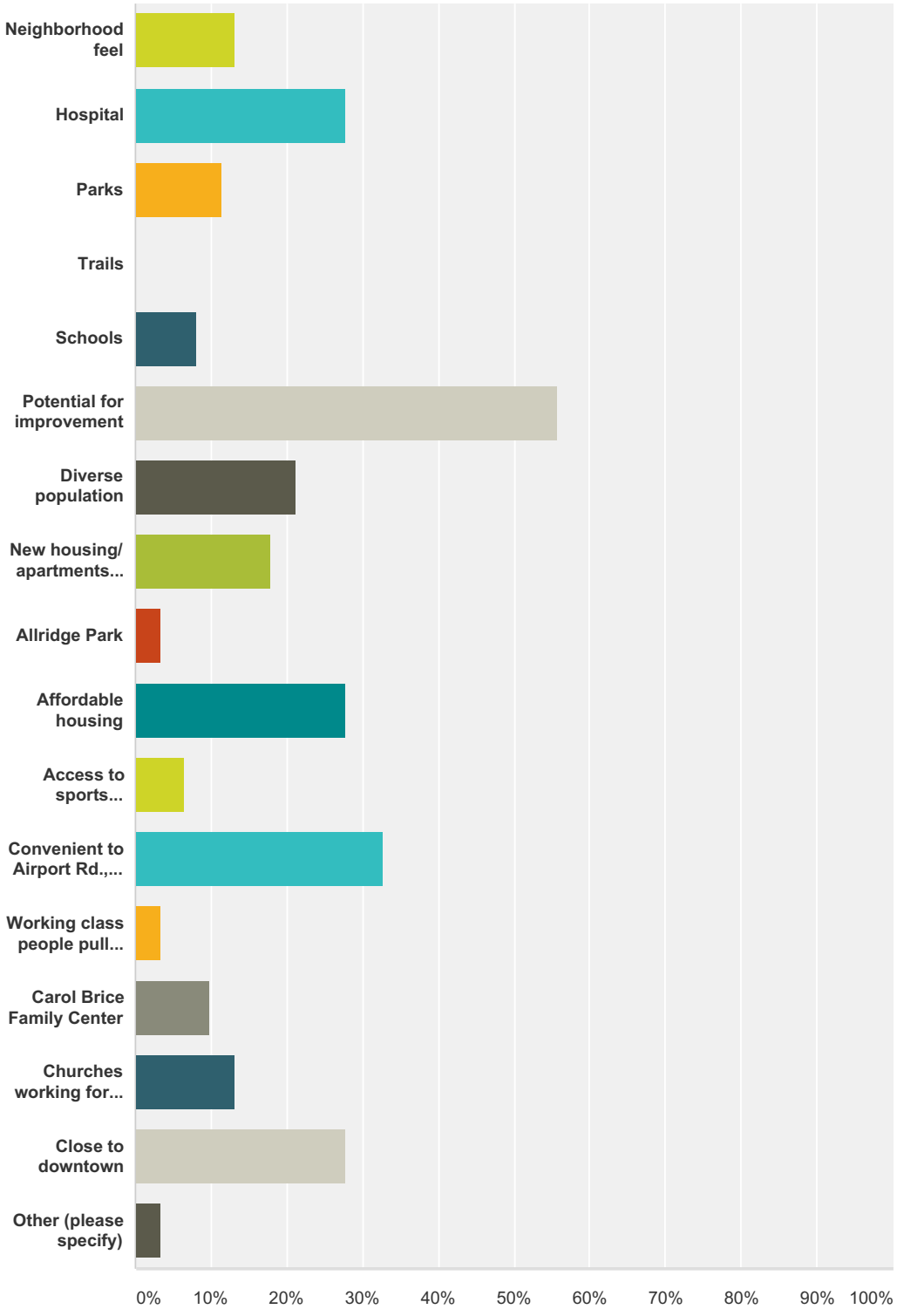


Answer Choices	Responses	
Cowles St office buildings	0.00%	0
Gillam Way office buildings	0.00%	0
Areas with poor lighting	68.85%	42

Areas with abandoned houses	**63.93%**	39
Allridge Park	**6.56%**	4
Bjerremark St between 29th Ave and 23rd Ave	**27.87%**	17
Area around Carol Brice Family Center	**0.00%**	0
Area around schools	**6.56%**	4
23rd St. and residences around it	**16.39%**	10
Gilliam Park	**6.56%**	4
1516 Gillam Apartments	**13.11%**	8
Holiday Station Store	**45.90%**	28
Stacia St	**14.75%**	9
South Cushman St	**24.59%**	15
Other (please specify)	**8.20%**	5
Total Respondents: 61		

Q8 What do you like best about the Bjerremark neighborhood? (Pick 3)

Answered: 61 Skipped: 4

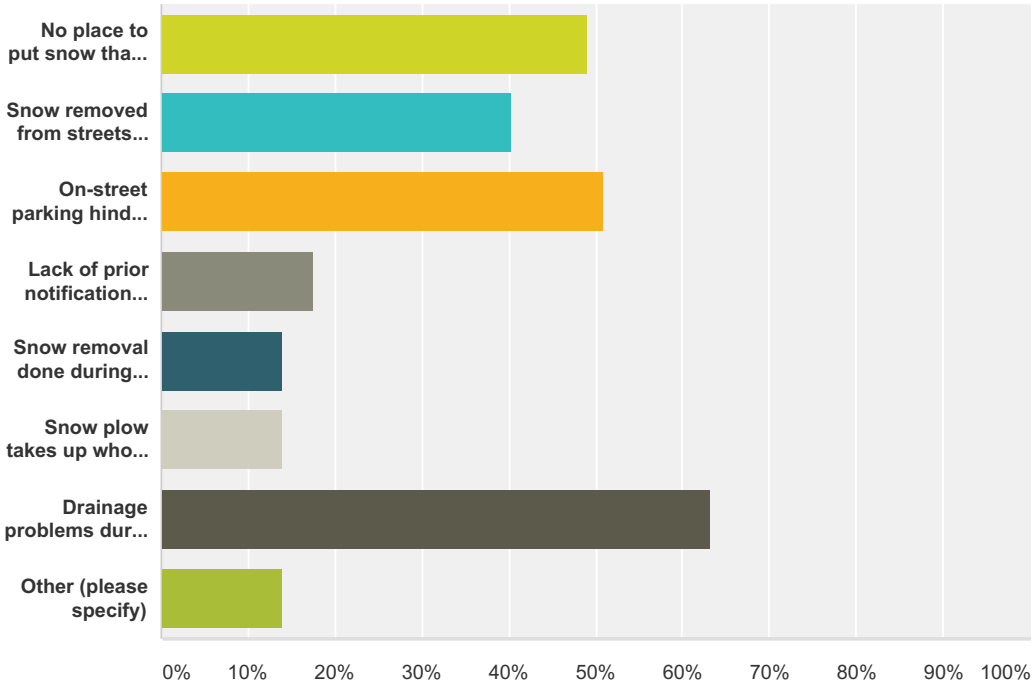


Answer Choices	Responses

Neighborhood feel	**13.11%**	8
Hospital	**27.87%**	17
Parks	**11.48%**	7
Trails	**0.00%**	0
Schools	**8.20%**	5
Potential for improvement	**55.74%**	34
Diverse population	**21.31%**	13
New housing/ apartments recently constructed	**18.03%**	11
Allridge Park	**3.28%**	2
Affordable housing	**27.87%**	17
Access to sports complexes	**6.56%**	4
Convenient to Airport Rd., S. Cushman, and Mitchell Expressway	**32.79%**	20
Working class people pull together	**3.28%**	2
Carol Brice Family Center	**9.84%**	6
Churches working for community benefit	**13.11%**	8
Close to downtown	**27.87%**	17
Other (please specify)	**3.28%**	2
Total Respondents: 61		

Q9 What are the snow removal problems in the area? (Pick 3)

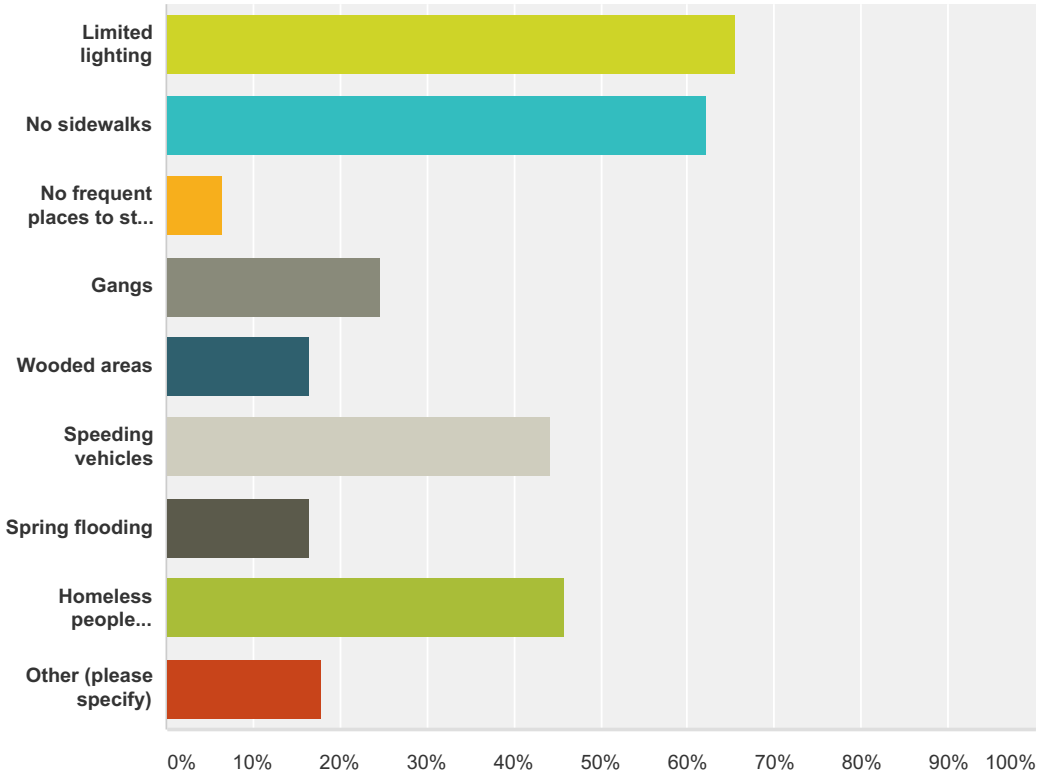
Answered: 57 Skipped: 8



Answer Choices	Responses	
No place to put snow that is removed	**49.12%**	28
Snow removed from streets ends up on sidewalks	**40.35%**	23
On-street parking hinders snow removal	**50.88%**	29
Lack of prior notification of snow removal to residents	**17.54%**	10
Snow removal done during business hours	**14.04%**	8
Snow plow takes up whole roadway	**14.04%**	8
Drainage problems during breakup	**63.16%**	36
Other (please specify)	**14.04%**	8
Total Respondents: 57		

Q10 What are three things that keep you from walking in the area?

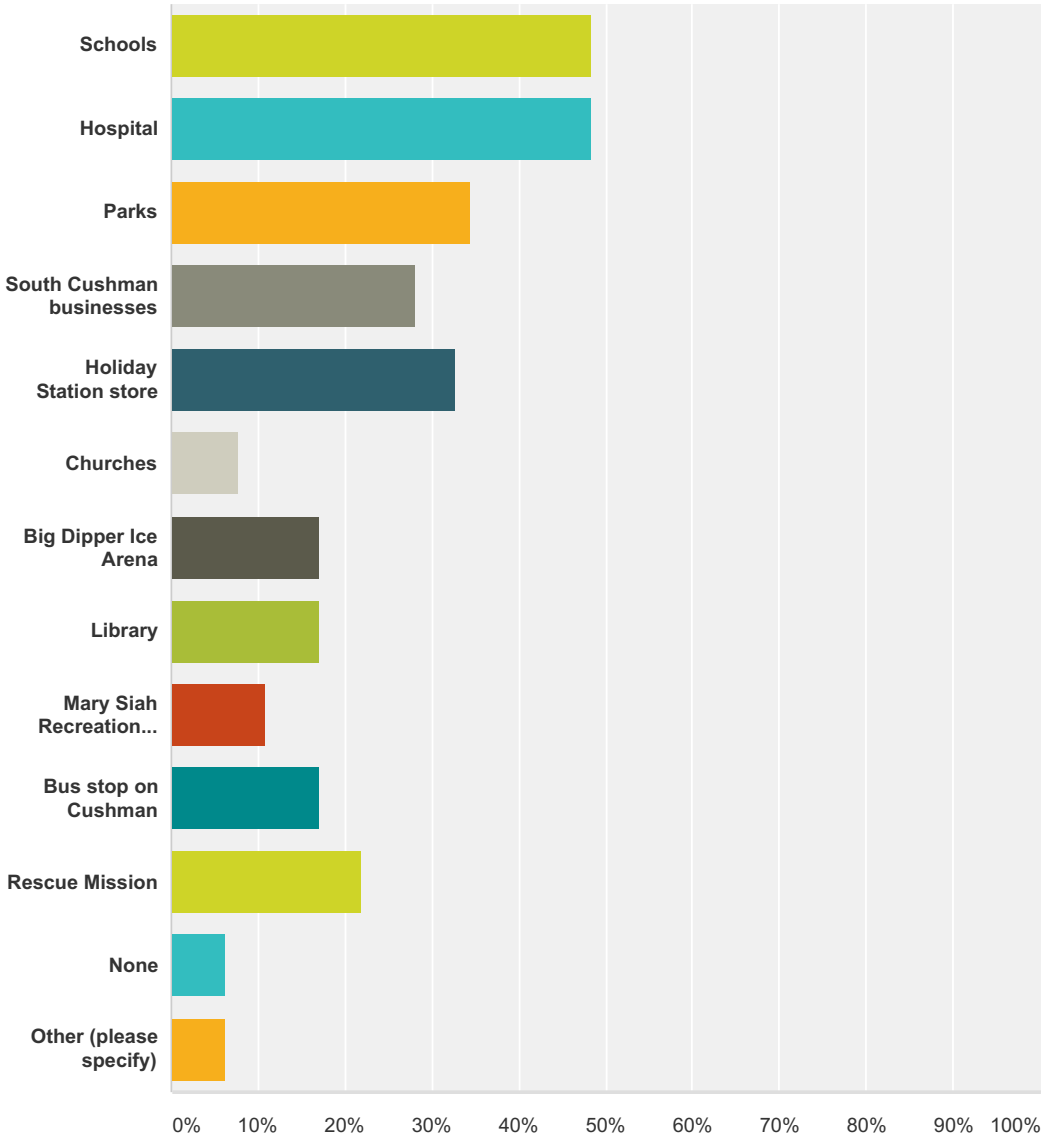
Answered: 61 Skipped: 4



Answer Choices	Responses	
Limited lighting	**65.57%**	40
No sidewalks	**62.30%**	38
No frequent places to stop and sit	**6.56%**	4
Gangs	**24.59%**	15
Wooded areas	**16.39%**	10
Speeding vehicles	**44.26%**	27
Spring flooding	**16.39%**	10
Homeless people congregating	**45.90%**	28
Other (please specify)	**18.03%**	11
Total Respondents: 61		

Q11 What are the top three places to walk to, within, or adjacent to the area? (Pick 3)

Answered: 64 Skipped: 1

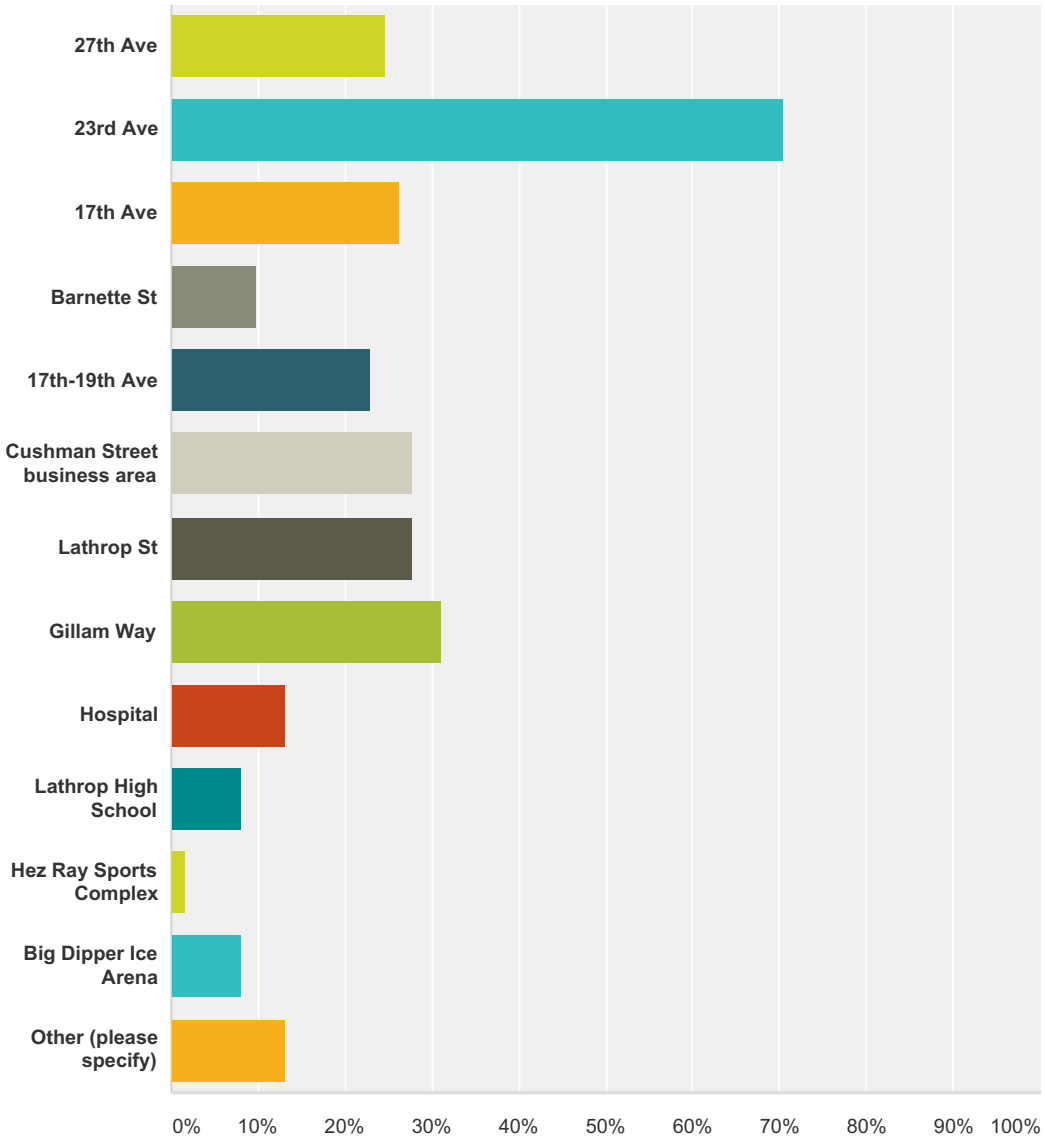


Answer Choices	Responses	
Schools	48.44%	31
Hospital	48.44%	31
Parks	34.38%	22
South Cushman businesses	28.13%	18
Holiday Station store	32.81%	21
Churches	7.81%	5

Big Dipper Ice Arena	**17.19%**	11
Library	**17.19%**	11
Mary Siah Recreation Center	**10.94%**	7
Bus stop on Cushman	**17.19%**	11
Rescue Mission	**21.88%**	14
None	**6.25%**	4
Other (please specify)	**6.25%**	4
Total Respondents: 64		

Q12 What are the three most common places for cut-through traffic in the neighborhood? (Pick 3)

Answered: 61 Skipped: 4

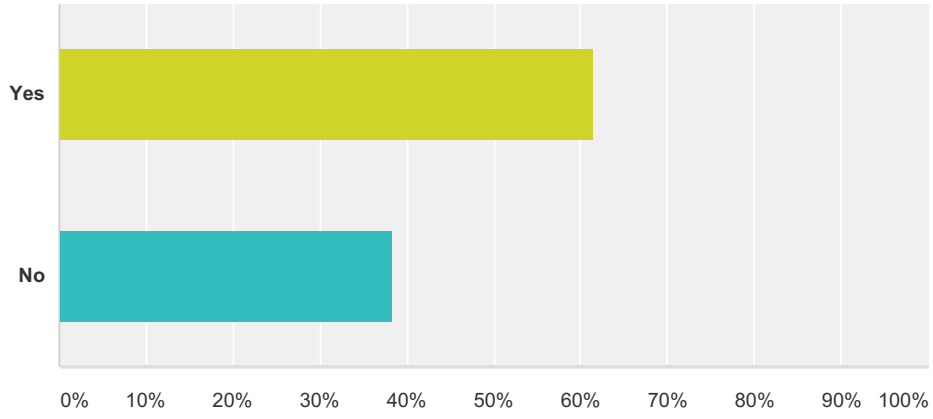


Answer Choices	Responses	
27th Ave	**24.59%**	15
23rd Ave	**70.49%**	43
17th Ave	**26.23%**	16
Barnette St	**9.84%**	6
17th-19th Ave	**22.95%**	14
Cushman Street business area	**27.87%**	17

Lathrop St	**27.87%**	17
Gillam Way	**31.15%**	19
Hospital	**13.11%**	8
Lathrop High School	**8.20%**	5
Hez Ray Sports Complex	**1.64%**	1
Big Dipper Ice Arena	**8.20%**	5
Other (please specify)	**13.11%**	8
Total Respondents: 61		

Q13 Is on-street parking necessary in the neighborhood?

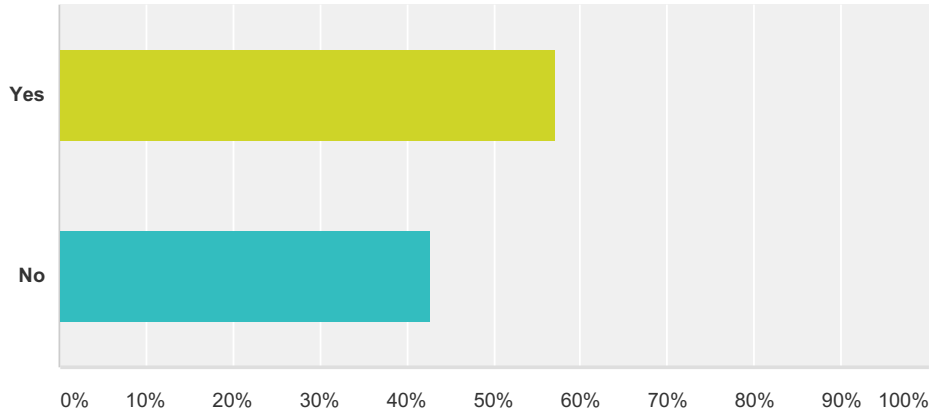
Answered: 60 Skipped: 5



Answer Choices	Responses	
Yes	**61.67%**	37
No	**38.33%**	23
Total		**60**

Q14 Is bus service adequate in this area?

Answered: 56 Skipped: 9



Answer Choices	Responses	
Yes	**57.14%**	32
No	**42.86%**	24
Total		**56**

Q15 Additional comments:

Answered: 15 Skipped: 50

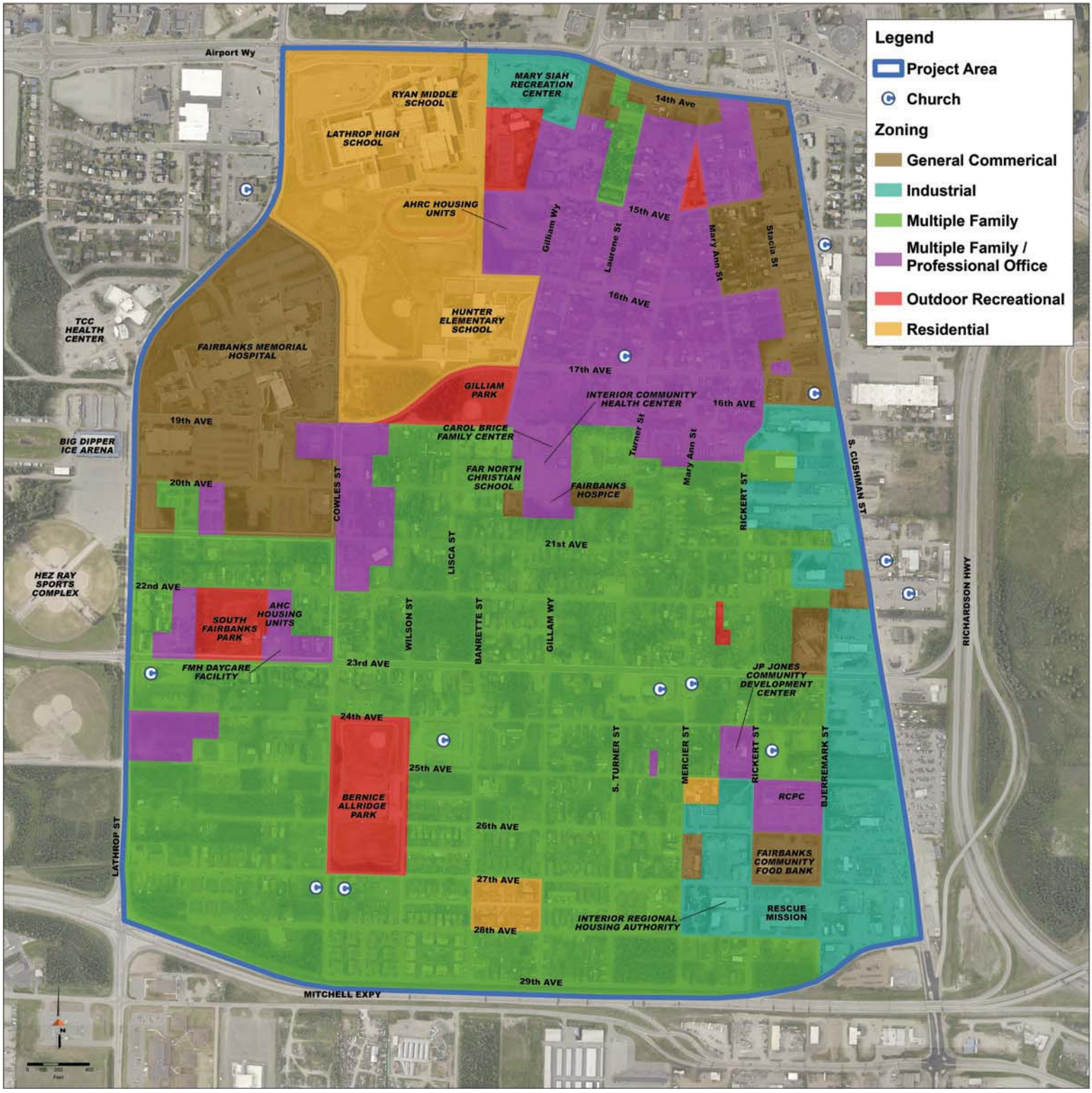
#	Responses	Date
1	We just moved into a new house on Rickert and 23rd...due to the people that walk through to get to the liquor store, strip club, and the weird junk yard across the street, my kids are not allowed to play outside. Please close off Rickert at 22nd Ave to make a cul de sac	11/30/2014 10:58 PM
2	Please, no sidewalks on 27th. I don't want to loose part of my property for that. There really is not that much pedestrian traffic. The four way stop at 23rd and Cowles works well. I have traveled through that intersection daily for many years and always get through fairly quick, I have never witnessed anyone run the stop so please don't change that.	11/30/2014 2:29 PM
3	broken down vechicles needs to be removed, brush needs to be removed, vechicles that park in streets makes it difficult for snow removal, and elimates two way street	11/30/2014 10:40 AM
4	The thought of speed bumps should be incorporated in the areas of high traffic. On 24th, vehicles comming from the Holiday Gas Station or from South Cushman reach high rates of speed 40mph + before reaching the stop sign on Rickert and accelerate from there to the next stop sign. 24th is a heavely populated street and seem to have been left out according to the above questions. Traffic was especially heavy during the 23rd Ave and South Cushman street projects.	11/30/2014 10:30 AM
5	THE BAD: I don't feel comfortable walking more than a block away from my home. When I have gone people try to give you to get a ride and won't leave you alone, this has happened multiple times (even when my kids are with me). My husband has also been propositioned by a prostitute at our home, the lot next door's house caught on fire (no one lived there or was home), I saw someone shooting up at the Holiday Gas station two weeks ago (behind the dumpster)....Traffic related: people don't stop at stop signs and speed a lot. THE GOOD! Very diverse neighborhood, quick police and fire response, more single family homes than you would imagine with nice people, many churches, close to major roads and it is easy to get across town (in a car). I don't mind the homeless population, everyone needs help sometimes and I am glad I live in a neighborhood with such great social services!	11/30/2014 10:30 AM
6	i'm pleased to hear that you are trying to improve this project area	11/30/2014 10:19 AM
7	This is a case of the police philosophy of the "broken window". If the wooded lots are not dozed (like behind safeway east) and the condemned buildings not razed nothing you do will make it better. No matter how much bug spray you use, if you do not rake your yard you will never get rid of mosquitoes. You have to start condemning and cleaning up the junk yards and homeless camps first.	11/30/2014 9:59 AM
8	Need a sound barrier wall for 29th ave much like the one on peger rd. sound emissions exceed federal standards for decibels.	11/30/2014 7:59 AM
9	Cul-de-sacs: kind of crazy. Sidewalks & lighting: essential, very long overdue. Repave 27th, Gilliam, Rickert.	11/30/2014 5:36 AM
10	Need public restrooms for homeless people during the day	11/24/2014 7:54 PM
11	Have lived in area for over 50 years and love it	11/21/2014 9:47 PM
12	Rickety st is terrible shape potholes	11/16/2014 2:37 PM
13	If roads are going to be turned into dead ends, I would prefer the major roadways (Gilliam Way, 23rd Ave., & 17th St.) to remain open and more of the neighborhood, minor & local roadways to be changed.	11/10/2014 4:29 PM
14	I think this planning effort at some point should include a discussion about infill potential; ie, where either vacant, developable or underutilized land is available. Also, where are known land use incompatibilities occurring? if any.	11/10/2014 10:16 AM
15	Increase shrub and tree obstructions from intersections desperately needed! Increase community lighting. Add community seating area's.	11/10/2014 7:44 AM

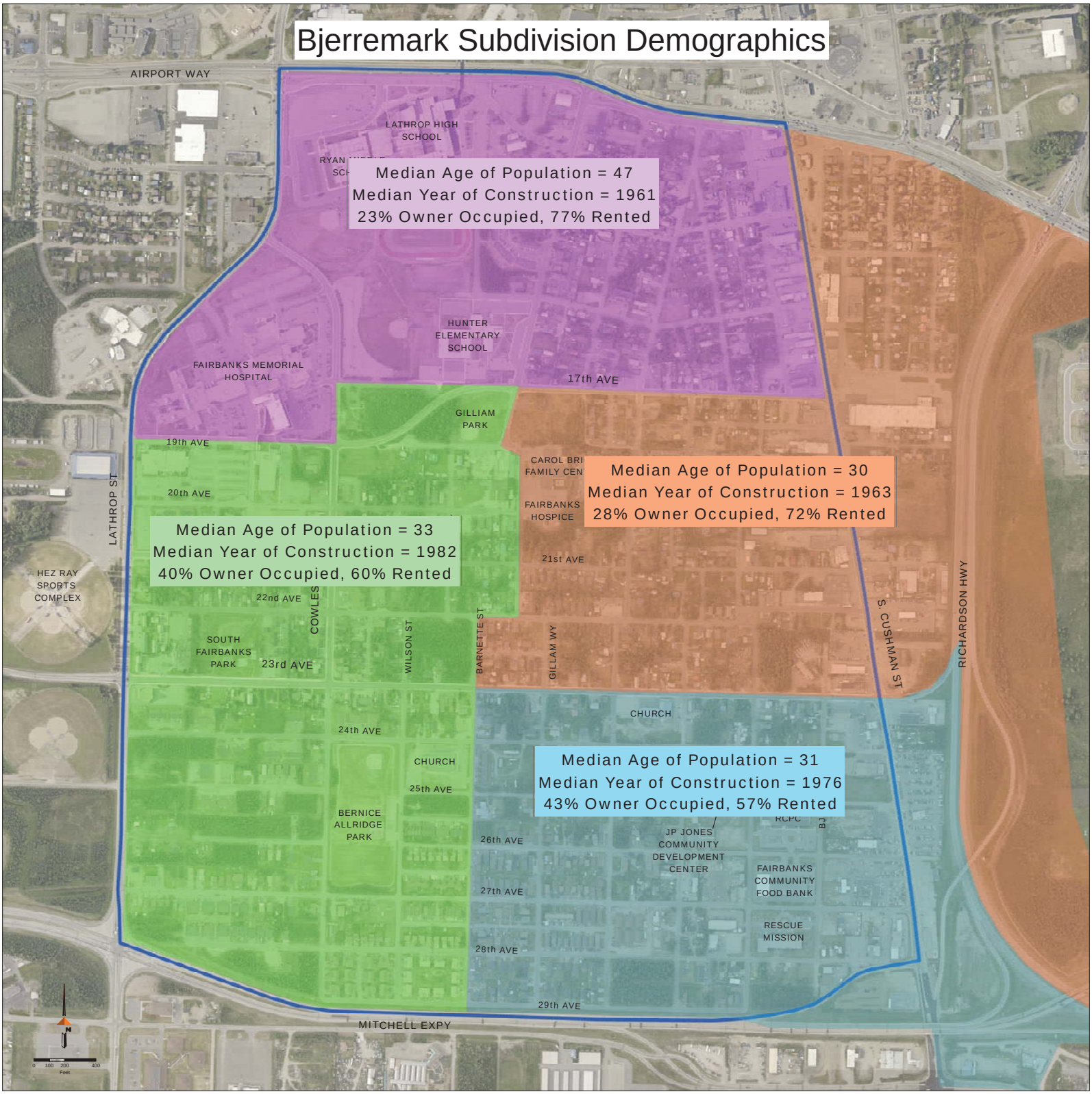
APPENDIX B

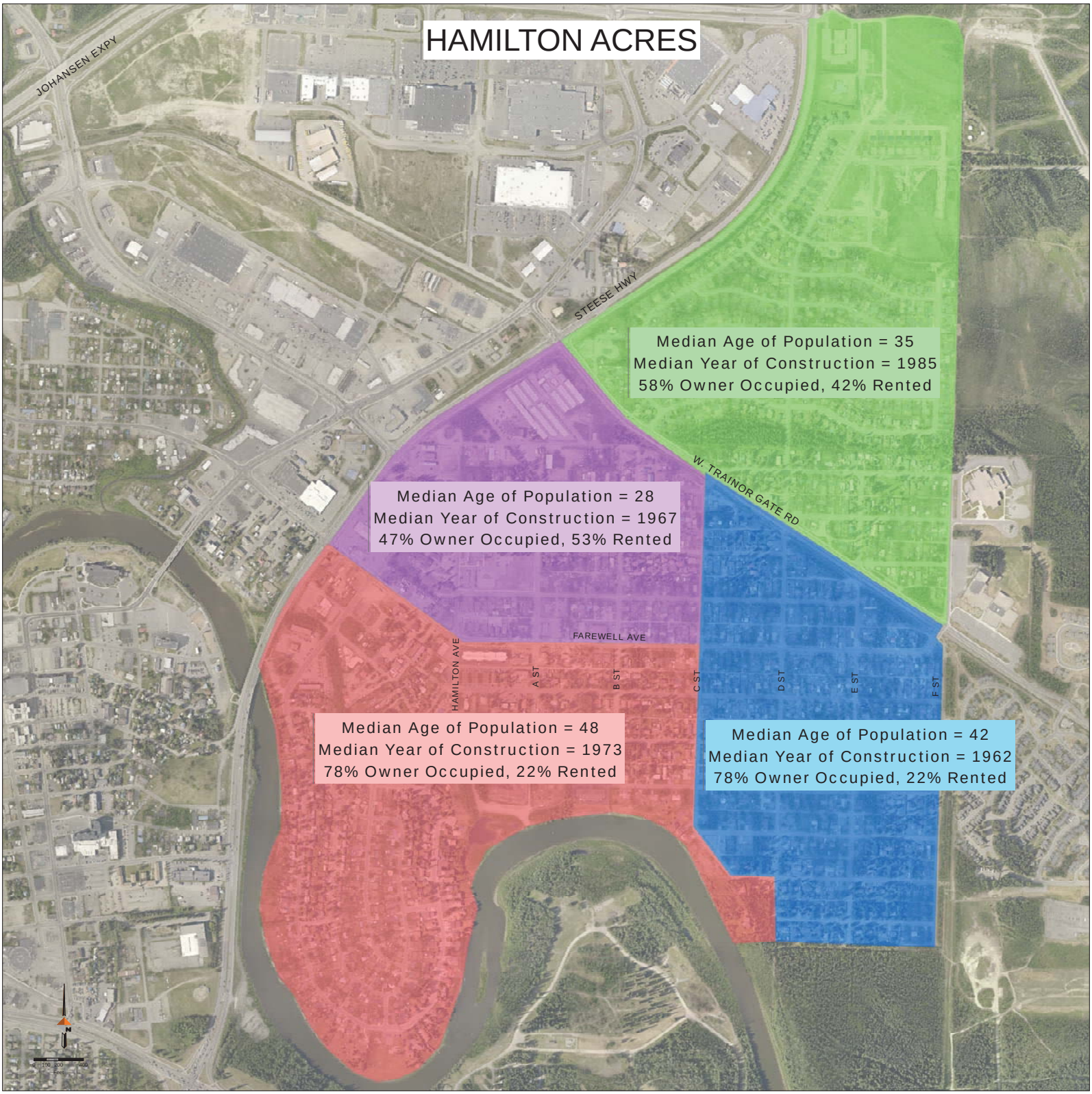
Existing Data Collected

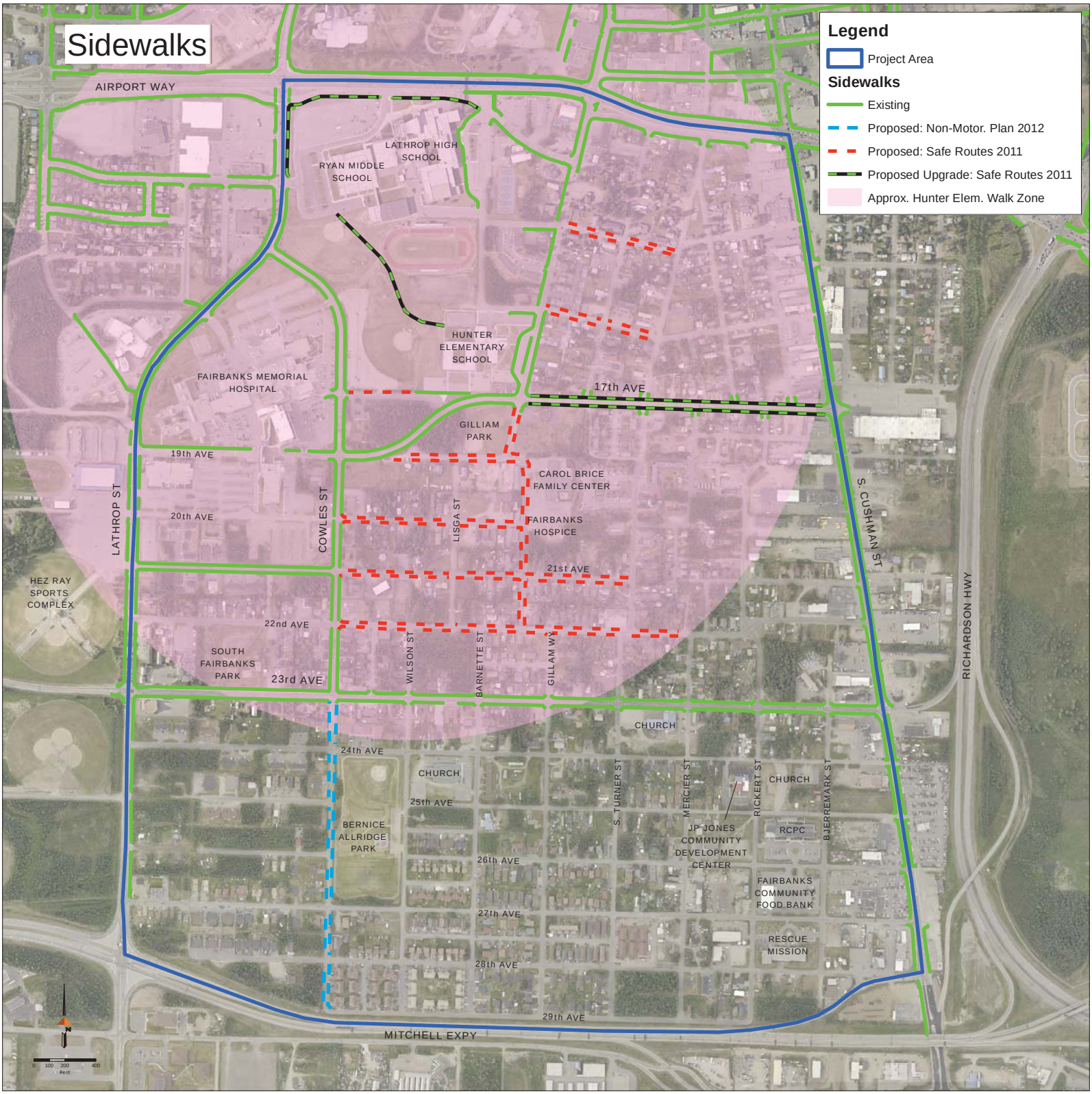

Lighting
Legend
Project Area
School Bus Stop
MACS Bus Stop
Street lights
AIRPORT WAY
LATHROP HIGH SCHOOL
RYAN MIDDLE SCHOOL
HUNTER ELEMENTARY SCHOOL
FAIRBANKS MEMORIAL HOSPITAL
17th AVE
GILLIAM PARK
19th AVE
CAROL BRICE FAMILY CENTER
20th AVE
FAIRBANKS HOSPICE
LATHROP ST
LISGA ST
21st AVE
HEZ RAY SPORTS COMPLEX
22nd AVE
COWLES ST
WILSON ST
BARNETTE ST
GILLAM WY
S. CUSHMAN ST
RICHARDSON HWY
SOUTH FAIRBANKS PARK
23rd AVE
CHURCH
24th AVE
CHURCH
25th AVE
S. TURNER ST
MERCIER ST
RICKERT ST
CHURCH
BJERREMARK ST
BERNICE ALLRIDGE PARK
RCPC
26th AVE
JP JONES COMMUNITY DEVELOPMENT CENTER
FAIRBANKS COMMUNITY FOOD BANK
27th AVE
RESCUE MISSION
28th AVE
29th AVE
MITCHELL EXPY
N
0 100 200 400
Feet

Land Use/Zoning



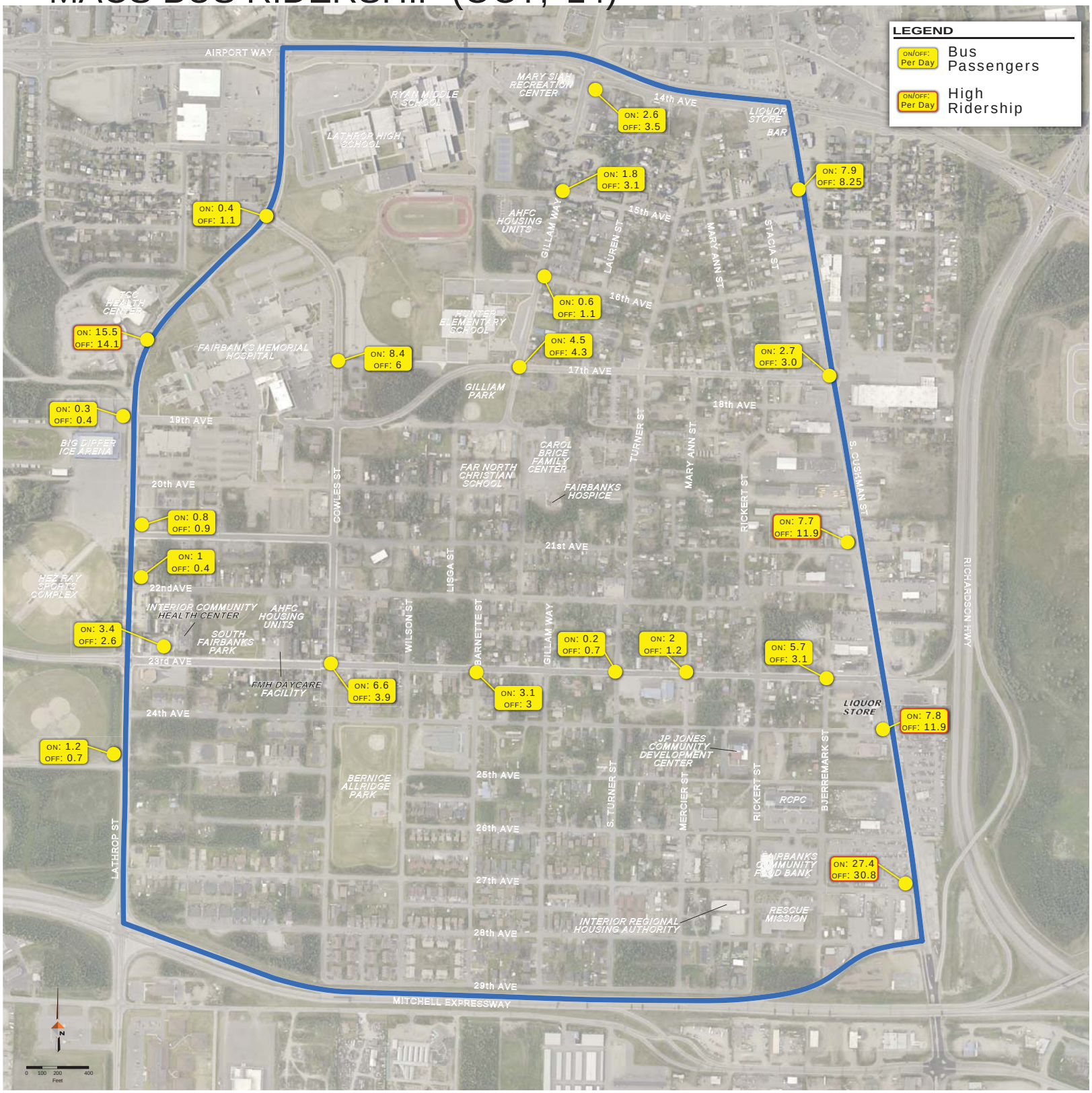

Bjerremark Subdivision Demographics
Median Age of Population = 47
Median Year of Construction = 1961
23% Owner Occupied, 77% Rented
Median Age of Population = 30
Median Year of Construction = 1963
28% Owner Occupied, 72% Rented
Median Age of Population = 33
Median Year of Construction = 1982
40% Owner Occupied, 60% Rented
Median Age of Population = 31
Median Year of Construction = 1976
43% Owner Occupied, 57% Rented
AIRPORT WAY
LATHROP HIGH SCHOOL
HUNTER ELEMENTARY SCHOOL
FAIRBANKS MEMORIAL HOSPITAL
17th AVE
GILLIAM PARK
19th AVE
20th AVE
LATHROP ST
HEZ RAY SPORTS COMPLEX
FAIRBANKS HOSPICE
21st AVE
22nd AVE
COWLES
SOUTH FAIRBANKS PARK
23rd AVE
WILSON ST
BARNETTE ST
GILLAM WY
S. CUSHMAN ST
RICHARDSON HWY
CHURCH
24th AVE
CHURCH
25th AVE
BERNICE ALLRIDGE PARK
26th AVE
JP JONES COMMUNITY DEVELOPMENT CENTER
FAIRBANKS COMMUNITY FOOD BANK
27th AVE
RESCUE MISSION
28th AVE
29th AVE
MITCHELL EXPY
N
0 100 200 400
Feet


HAMILTON ACRES
JOHANSEN EXPY
STEESE HWY
W. TRAINOR GATE RD
FAREWELL AVE
HAMILTON AVE
A ST
B ST
C ST
D ST
E ST
F ST
Median Age of Population = 35
Median Year of Construction = 1985
58% Owner Occupied, 42% Rented
Median Age of Population = 28
Median Year of Construction = 1967
47% Owner Occupied, 53% Rented
Median Age of Population = 48
Median Year of Construction = 1973
78% Owner Occupied, 22% Rented
Median Age of Population = 42
Median Year of Construction = 1962
78% Owner Occupied, 22% Rented
N
0 100 200 400
Feet

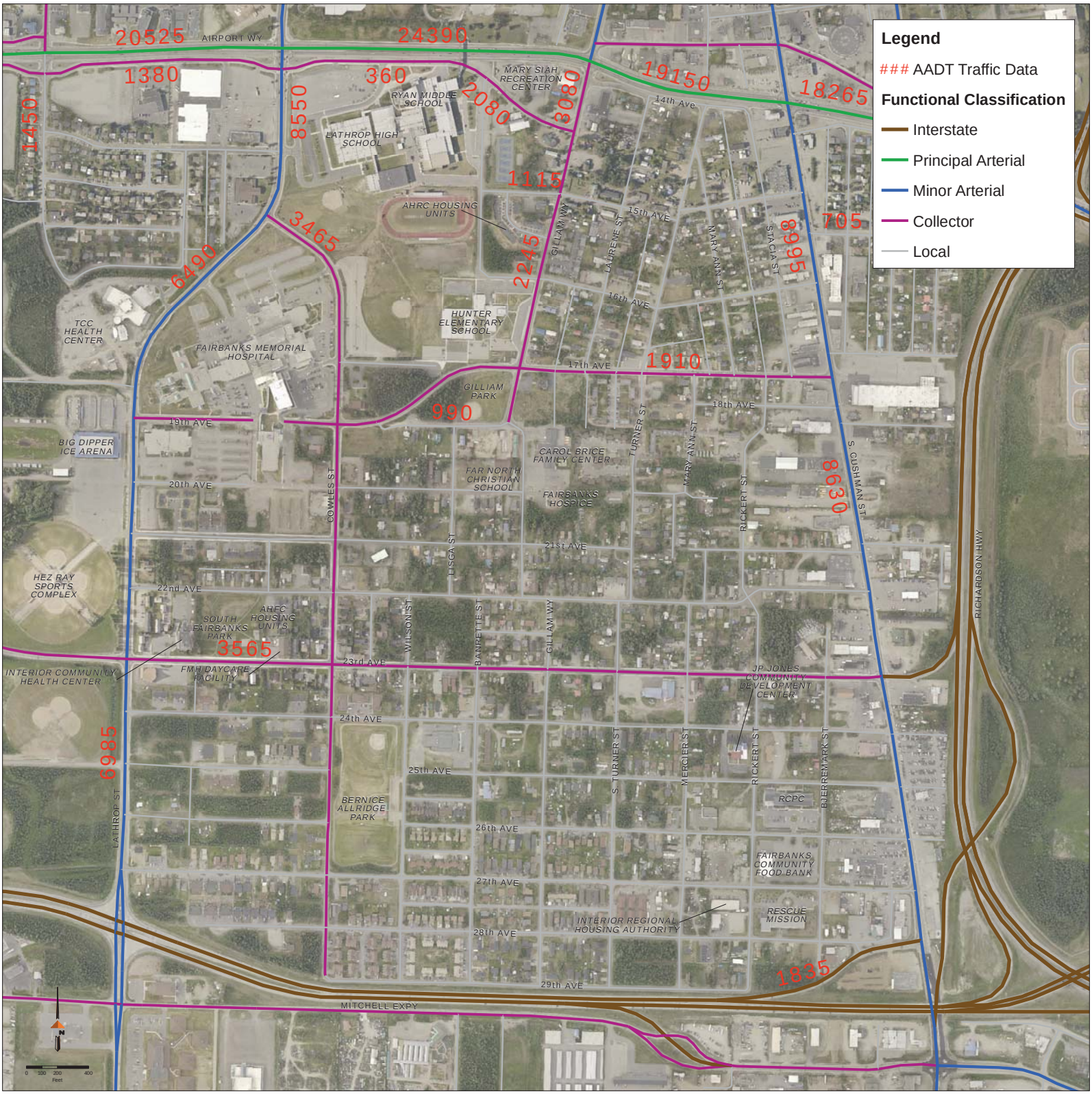

Sidewalks
Legend
Project Area
Sidewalks
Existing
Proposed: Non-Motor. Plan 2012
Proposed: Safe Routes 2011
Proposed Upgrade: Safe Routes 2011
Approx. Hunter Elem. Walk Zone
AIRPORT WAY
LATHROP HIGH SCHOOL
RYAN MIDDLE SCHOOL
HUNTER ELEMENTARY SCHOOL
FAIRBANKS MEMORIAL HOSPITAL
17th AVE
GILLIAM PARK
19th AVE
CAROL BRICE FAMILY CENTER
LATHROP ST
20th AVE
COWLES ST
LISGA ST
FAIRBANKS HOSPICE
S. CUSHMAN ST
21st AVE
HEZ RAY SPORTS COMPLEX
22nd AVE
SOUTH FAIRBANKS PARK
23rd AVE
WILSON ST
BARNETTE ST
GILLAM WY
RICHARDSON HWY
CHURCH
24th AVE
CHURCH
25th AVE
S. TURNER ST
MERCIER ST
RICKERT ST
CHURCH
BJERREMARK ST
BERNICE ALLRIDGE PARK
JP JONES COMMUNITY DEVELOPMENT CENTER
RCPC
26th AVE
FAIRBANKS COMMUNITY FOOD BANK
27th AVE
RESCUE MISSION
28th AVE
29th AVE
MITCHELL EXPY
N
0 100 200 400
Feet

MACS BUS ROUTES

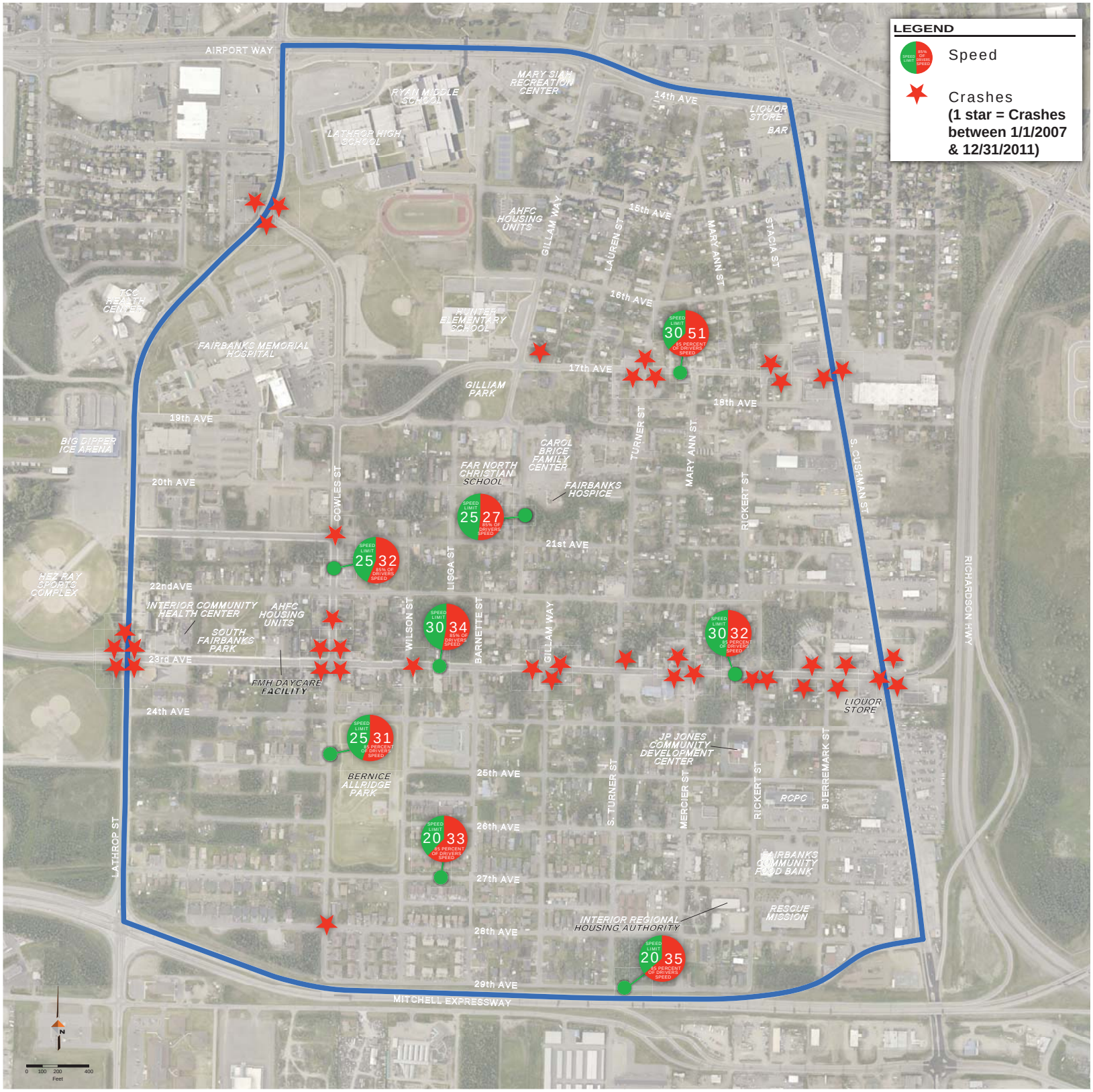
MACS BUS RIDERSHIP (OCT, '14)



AADT & ROADWAY CLASSIFICATIONS

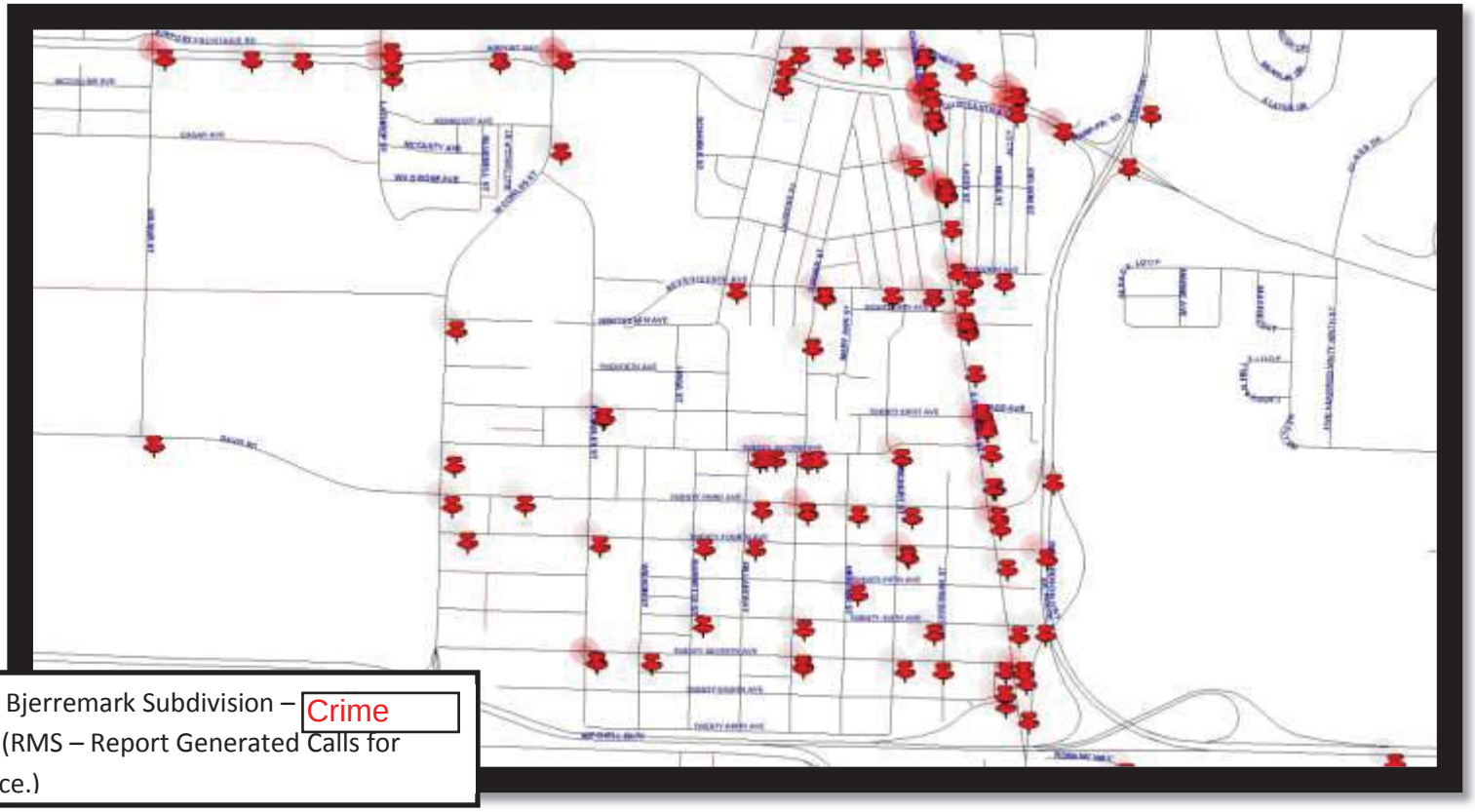


SPEED STUDY AND CRASH DATA



2013 Calls for Service – Bjerremark Subdivision (~~Traffic Stops~~ Crime Calls Only)

(Maps are from the Record Management System and include only those calls for which a report was generated)

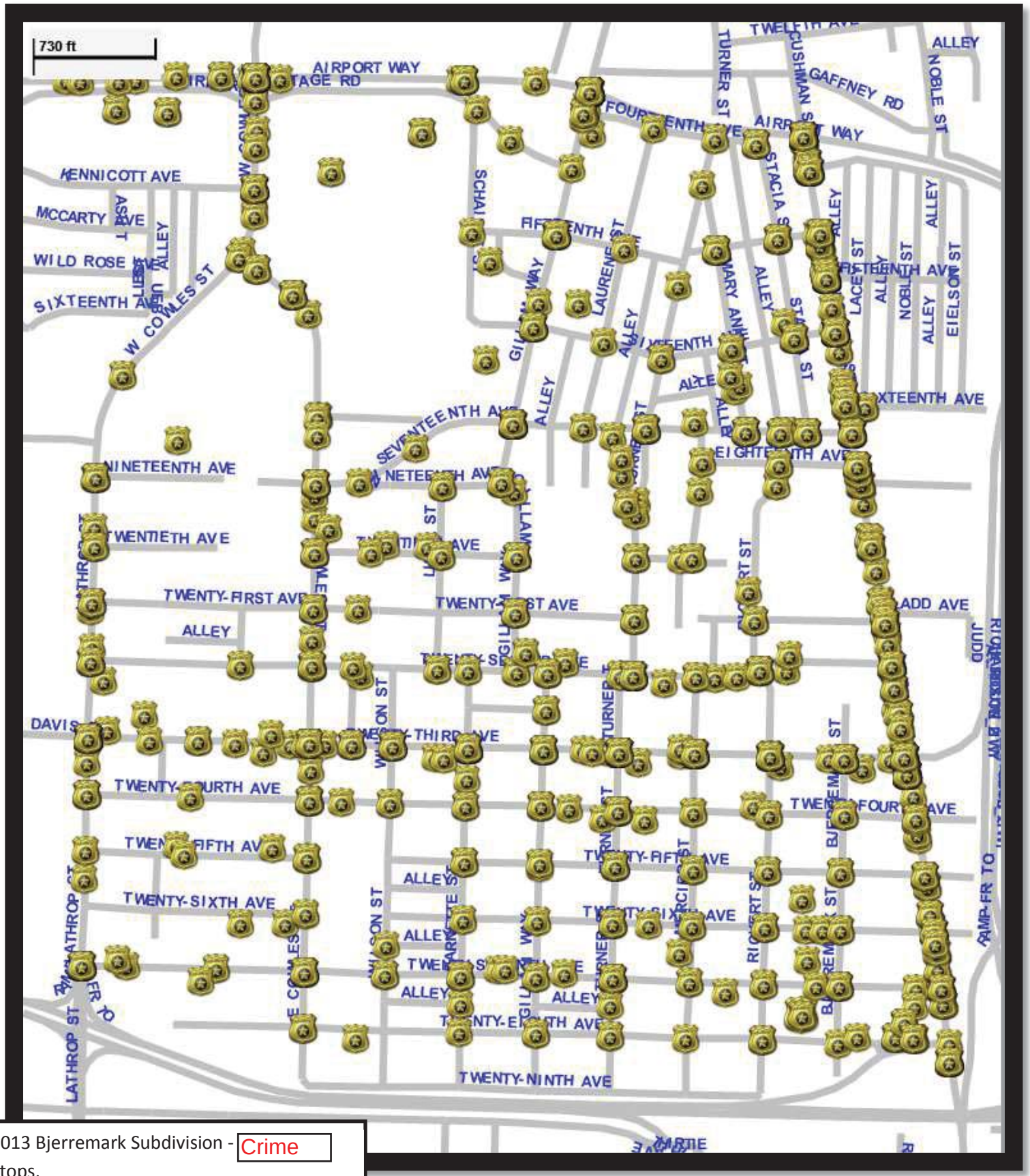


2013 Bjerremark Subdivision – Crime Only (RMS – Report Generated Calls for Service.)

2013 Bjerremark Subdivision – Crime Only (RMS – Report Generated Calls for Service.)

2013 Calls for Service – Bjerremark Subdivision (Crime Only)

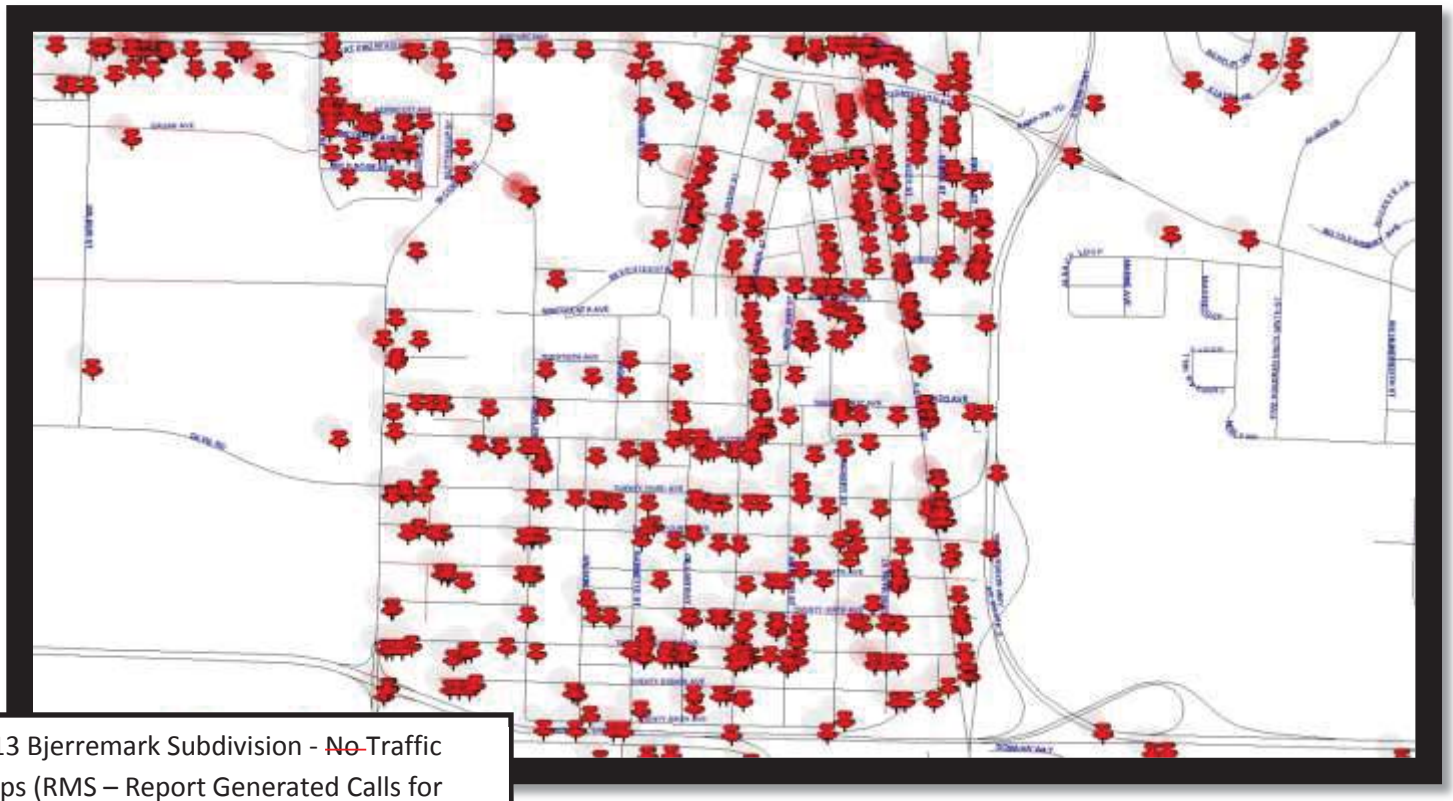
(Map generated from CAD – all Traffic Stops in 2013)



2013 Bjerremark Subdivision - Crime Stops.

2013 Calls for Service – Bjerremark Subdivision (~~excluding~~ Traffic Stops)

(Maps are from the Record Management System and include only those calls for which a report was generated)

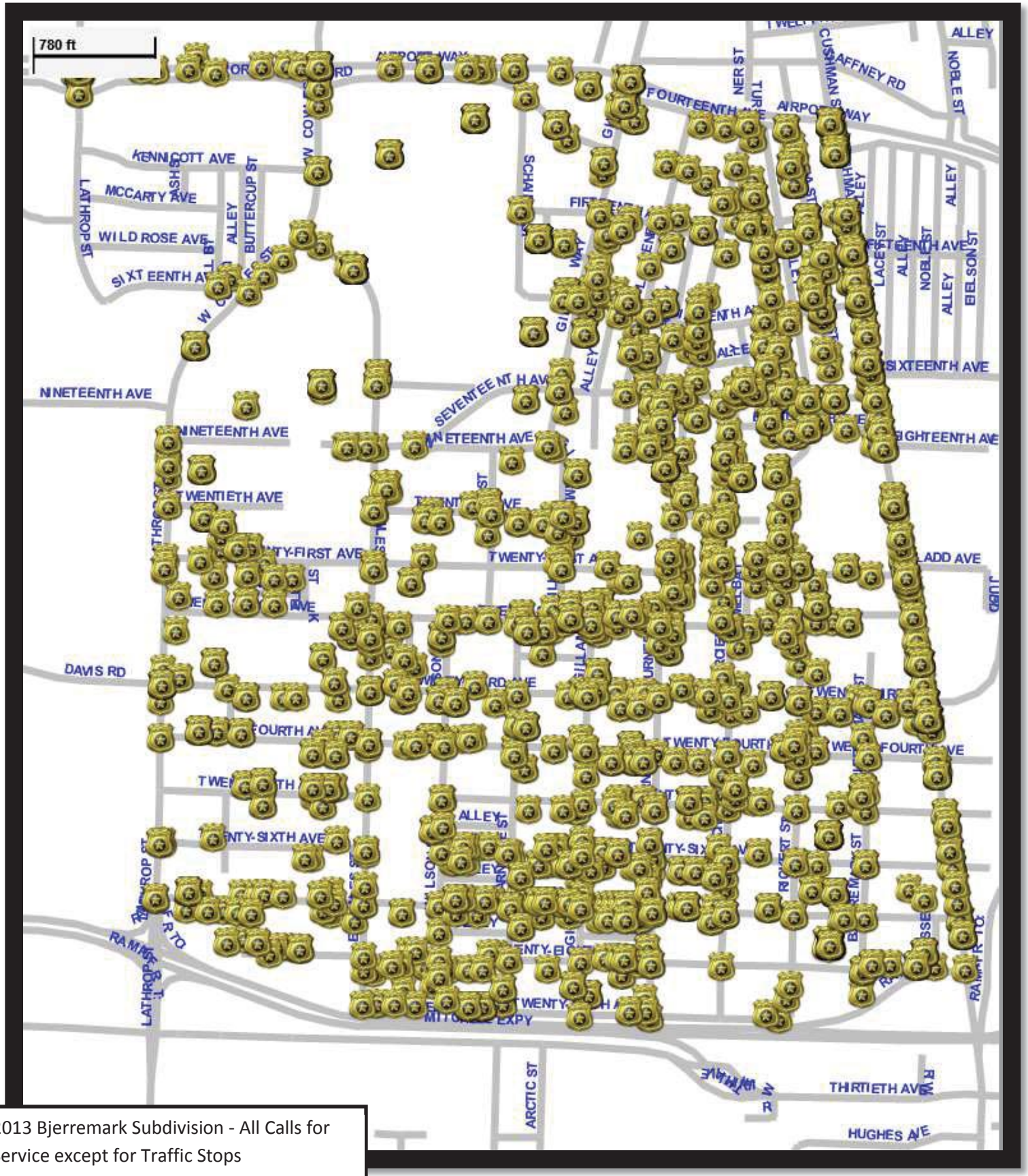


2013 Bjerremark Subdivision - ~~No~~ Traffic Stops (RMS – Report Generated Calls for Service.)

2013 Bjerremark Subdivision - ~~No~~ Traffic Stops (RMS – Report Generated Calls for Service.)

2013 Calls for Service – Bjerremark Subdivision (~~Excluding~~ Traffic Stops)

(Map generated from CAD – all calls for service in 2013)



2013 Bjerremark Subdivision - All Calls for Service except for Traffic Stops

CITY OF FAIRBANKS BJERREMARK SUBDIVISION CALLS FOR SERVICE

COUNT	NATURE TYPE
578	SELF INITIATED
353	INCAPACITATED PERSON
317	DISTURBANCE
278	SUSPICIOUS CIRCUMSTANCES
276	DOMESTIC VIOLENCE RELATED
260	TRESPASS
202	WELFARE CHECK
171	THEFT
126	ALARMS
107	TRANSPORT
91	ASSAULT
75	MVC - NO INJURY
71	DRIVING UNDER INFLUENCE
53	ASSIST OTHER AGENCY
39	NOISE COMPLAINT
34	STALKING/HARRASSMENT
34	SUICIDAL
33	HIT & RUN
32	CRIMINAL MISCHIEF
30	BURGLARY
25	FRAUD
25	SHOTS FIRED
25	WANTED PERSON
24	CIVIL PROBLEM
24	MISSING PERSON
23	THREAT
22	911 HANG-UP
22	ADDITIONAL INFORMATION FOR PREVIOUS CALL FOR SERVICE
21	DRUG RELATED
21	MISCELLANEOUS
21	SEXUAL ASSAULT
20	FOUND PROPERTY
20	KEEP THE PEACE
18	SEND PROTOCOL POLICE
16	RUNAWAY
14	LOST PROPERTY

COUNT	NATURE TYPE
2408	TRAFFIC STOP
88	TRAFFIC HAZARD
64	TRAFFIC COMPLAINT
13	PARKING COMPLAINT
4	TRAFFIC COMPLAINT
3	ABANDONDED VEHICLE
1	ROAD RAGE

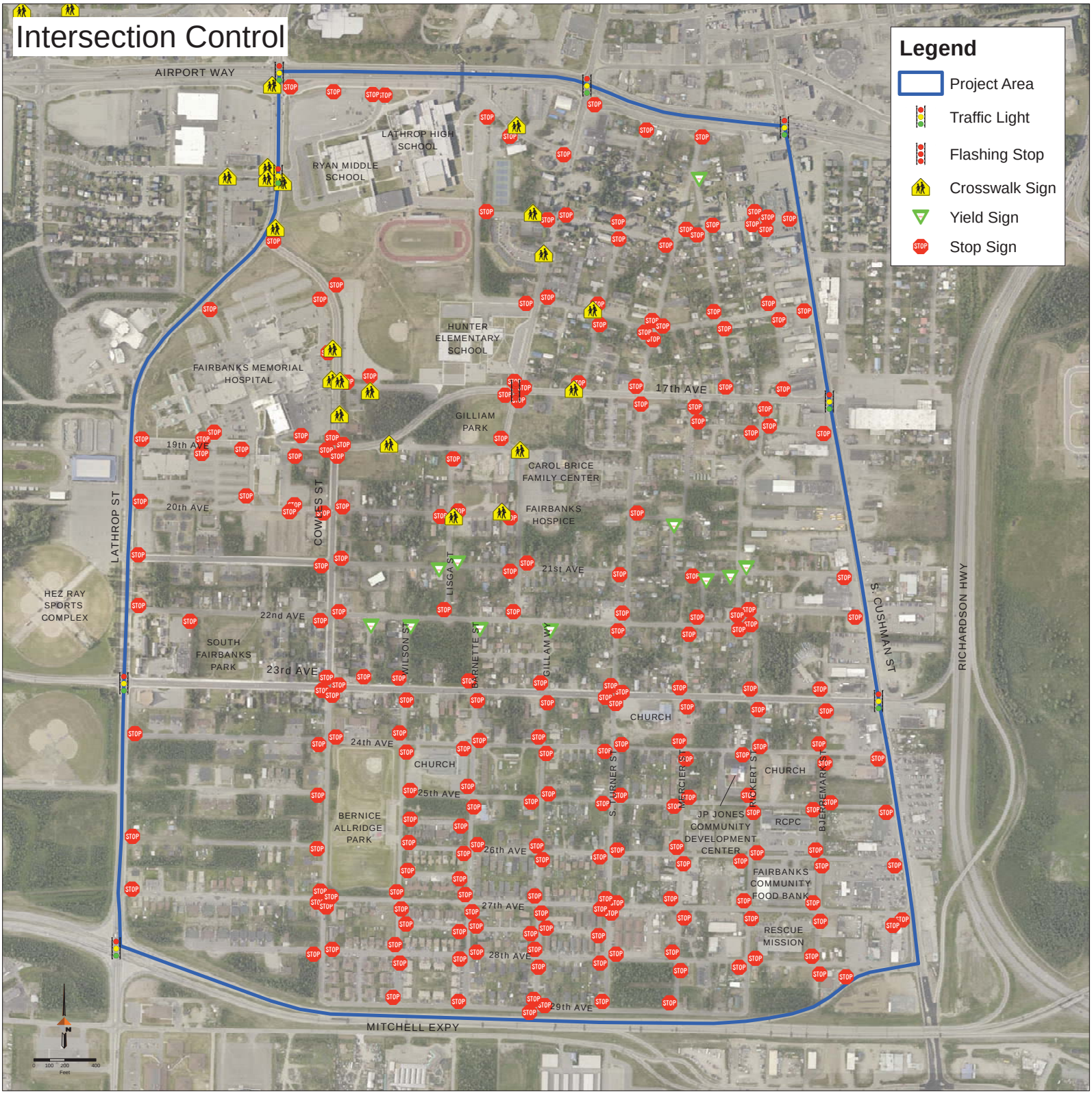
CITY OF FAIRBANKS BJERREMARK SUBDIVISION CALLS FOR SERVICE

COUNT	NATURE TYPE
13	ADMIN RELATED
12	ATTEMPTED SUICIDE
11	INDECENCY
10	NUISCANCE
9	ANIMAL RELATED
9	SERVE COURT ORDER
8	WEAPONS OFFENSE
7	DEATH
7	FOUND PERSON
7	MENTAL DISORDER
6	MVC - NO INURY
6	ROBBERY
6	UNKNOWN SITUATION
5	OFFICER ADVICE
5	PREMISE WATCH
4	VEHICLE IMPOUND
3	ABDUCTION
3	ADMIN
3	MVC - INJURY
3	TRANSFER FROM POLICE TO FIRE OR EMS EMERGENCY
3	URINATING/DEFICATING IN PUBLIC
2	ABUSE/NEGLECT
2	MESSAGE DELIVERY
2	PROSTITUTION
2	PROTECTIVE SERVICES REPORT
1	LOCATE
1	POLICE DEPARTMENT DISPATCH PROTOCOL PROCESSED
1	PUBLIC SERVICE

COUNT	NATURE TYPE

APPENDIX C

New Data Collected


Intersection Control
Legend
Project Area
Traffic Light
Flashing Stop
Crosswalk Sign
Yield Sign
Stop Sign
AIRPORT WAY
LATHROP HIGH SCHOOL
RYAN MIDDLE SCHOOL
HUNTER ELEMENTARY SCHOOL
FAIRBANKS MEMORIAL HOSPITAL
GILLIAM PARK
CAROL BRICE FAMILY CENTER
FAIRBANKS HOSPICE
17th AVE
19th AVE
20th AVE
21st AVE
22nd AVE
23rd AVE
24th AVE
25th AVE
26th AVE
27th AVE
28th AVE
29th AVE
LATHROP ST
COWLES ST
LISGA ST
WILSON ST
BARNETTE ST
GILLAM WY
S. TURNER ST
MERCIER ST
RICKERT ST
BJERREMARK CT
S. CUSHMAN ST
RICHARDSON HWY
HEZ RAY SPORTS COMPLEX
SOUTH FAIRBANKS PARK
BERNICE ALLRIDGE PARK
CHURCH
JP JONES COMMUNITY DEVELOPMENT CENTER
RCPC
FAIRBANKS COMMUNITY FOOD BANK
RESCUE MISSION
MITCHELL EXPY
N
0 100 200 400
Feet

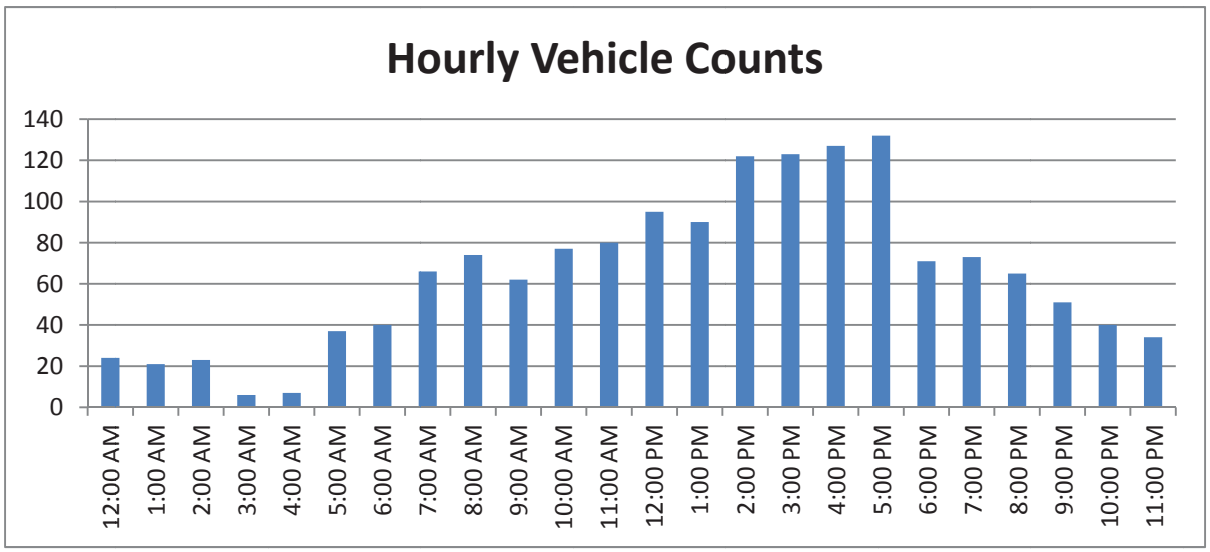
PEDESTRIAN CROSSING COUNTS

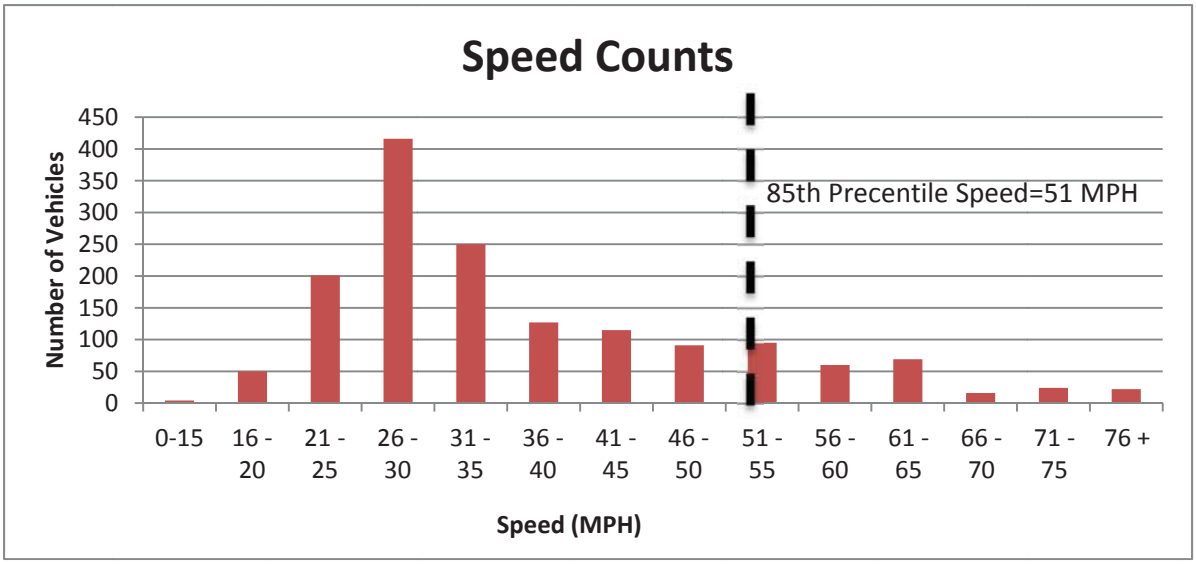
24 Hour Radar

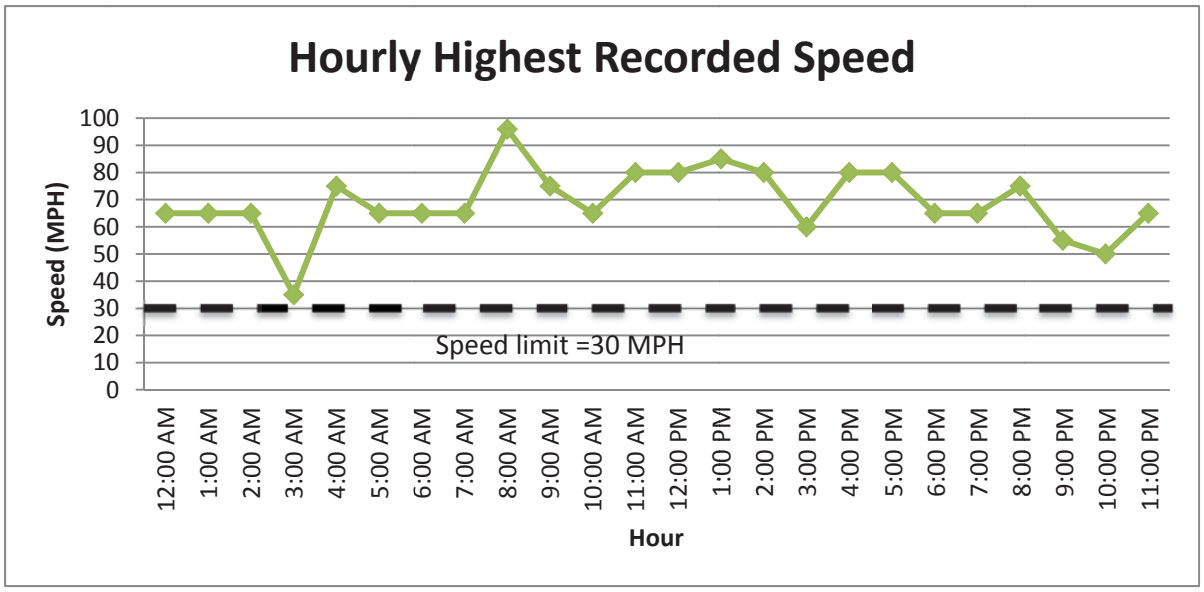
Speed Count Data (Collection Date):

- 17th Avenue (10/27/14)
- 23rd Avenue – East (10/30/14)
- 23rd Avenue – West (10/30/14)
- Cowles Street – North (10/28/14)
- Cowles Street – South (10/28/14)
- Gillam Way (10/27/14)

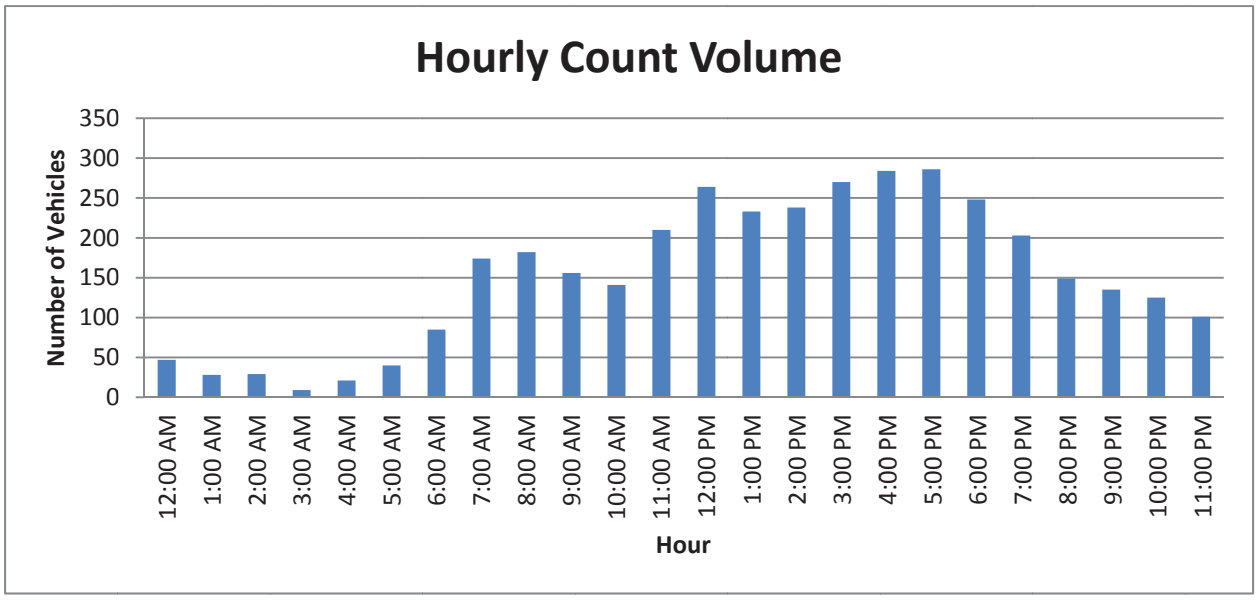
17th Avenue-24 Hour Radar Counts

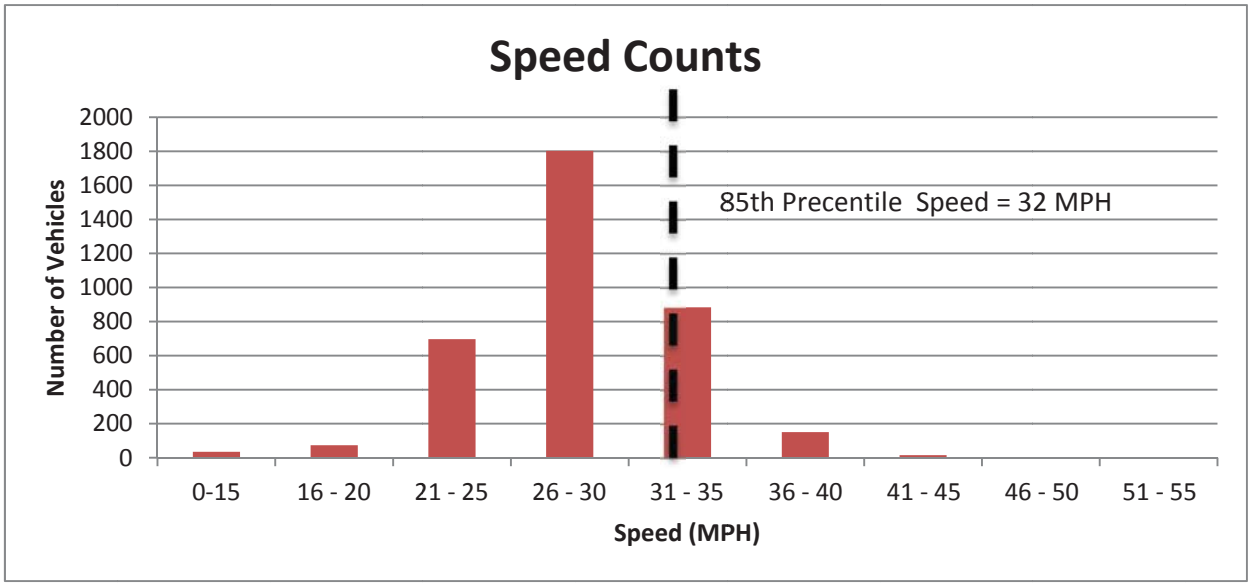


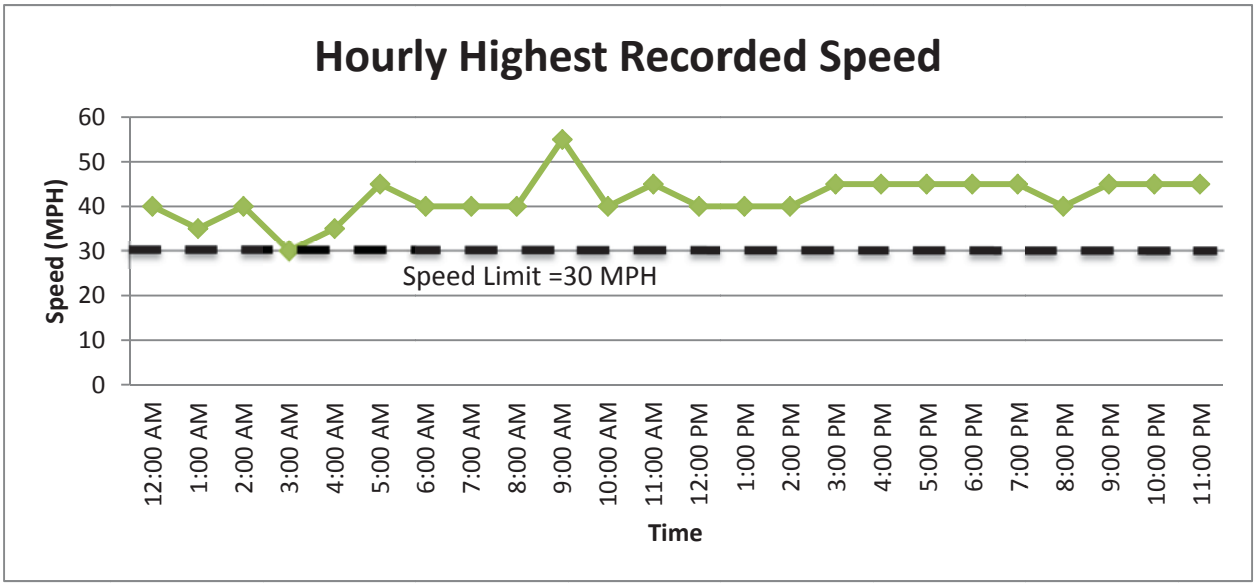




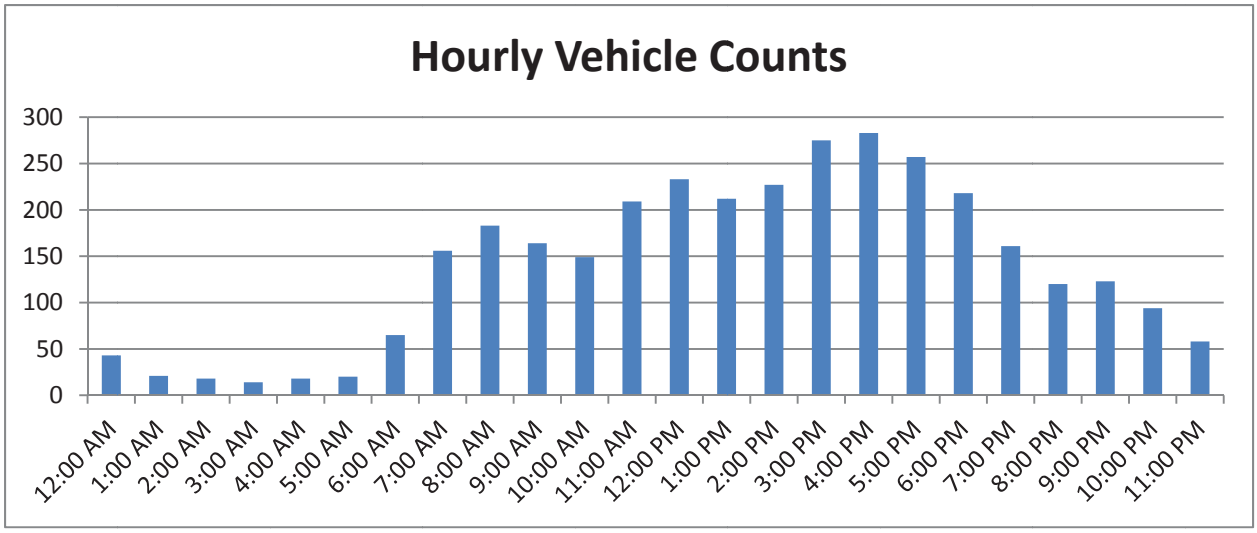
23rd Avenue East Site-24 Hour Radar Counts

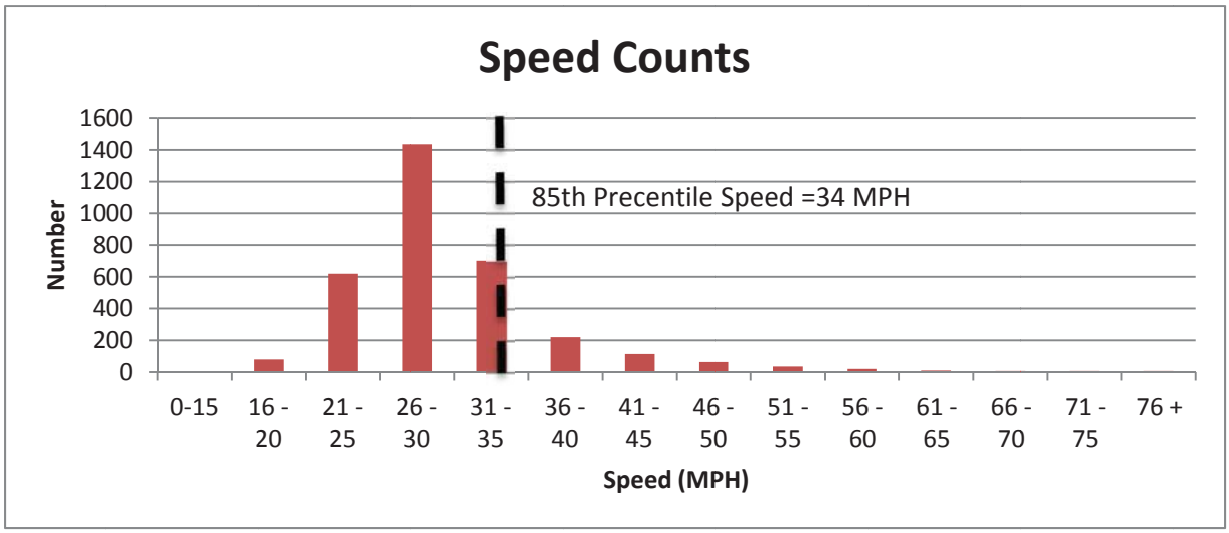


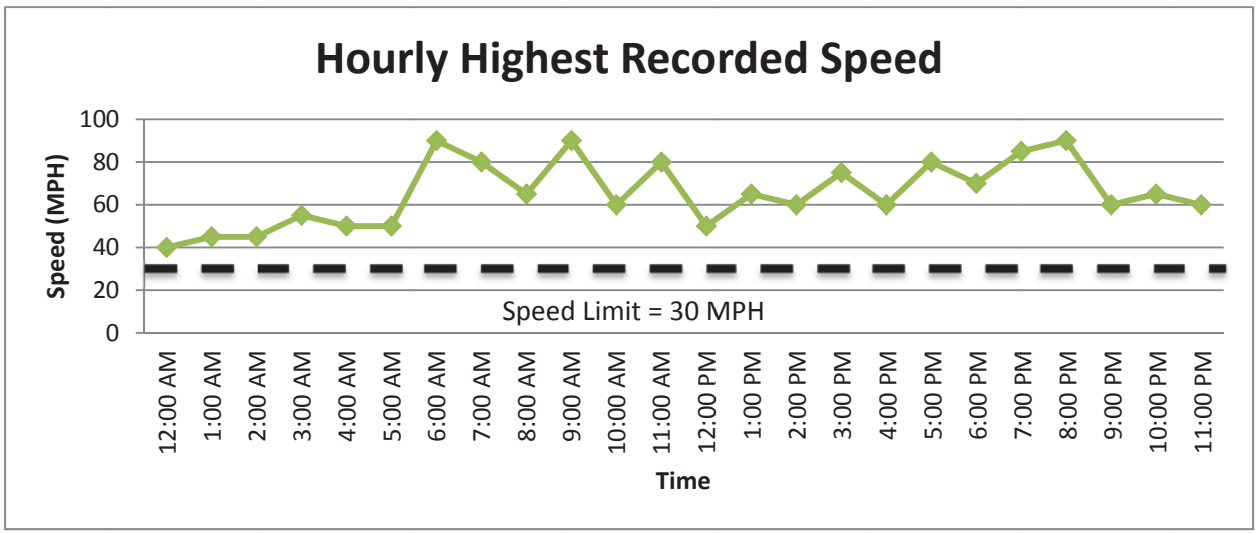




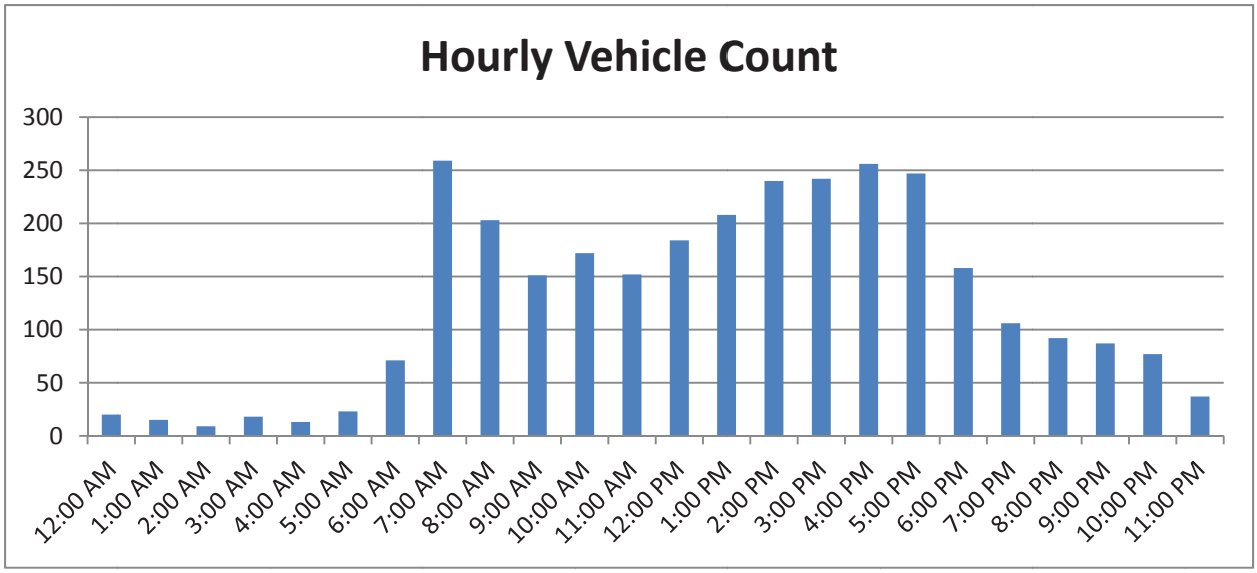
23rd Avenue West-24 hour Radar Counts

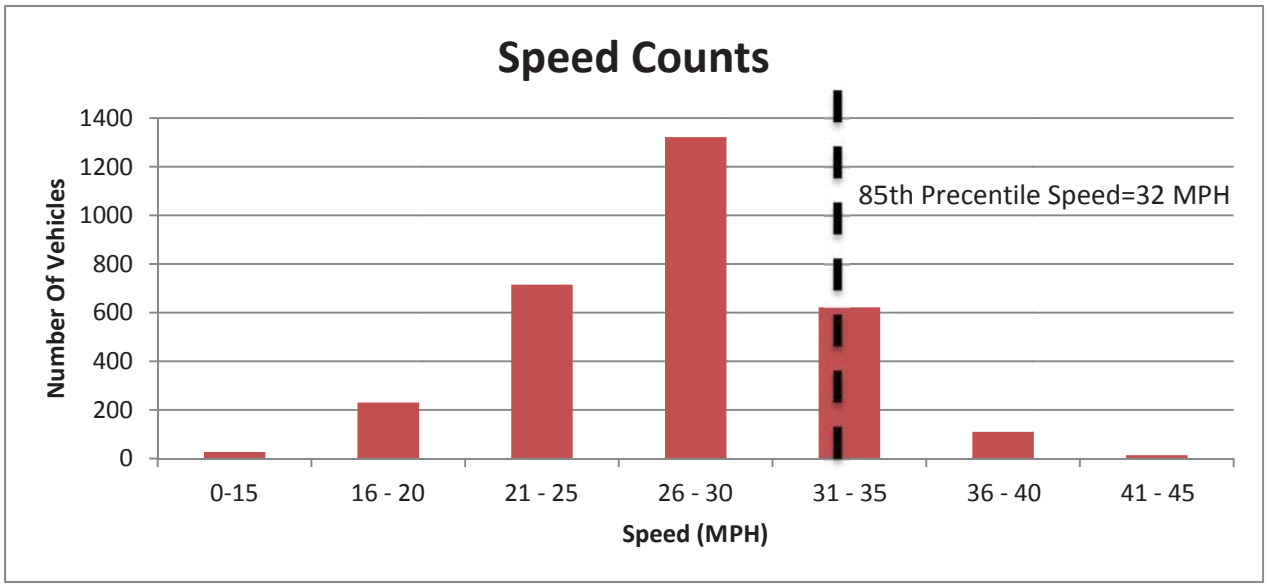


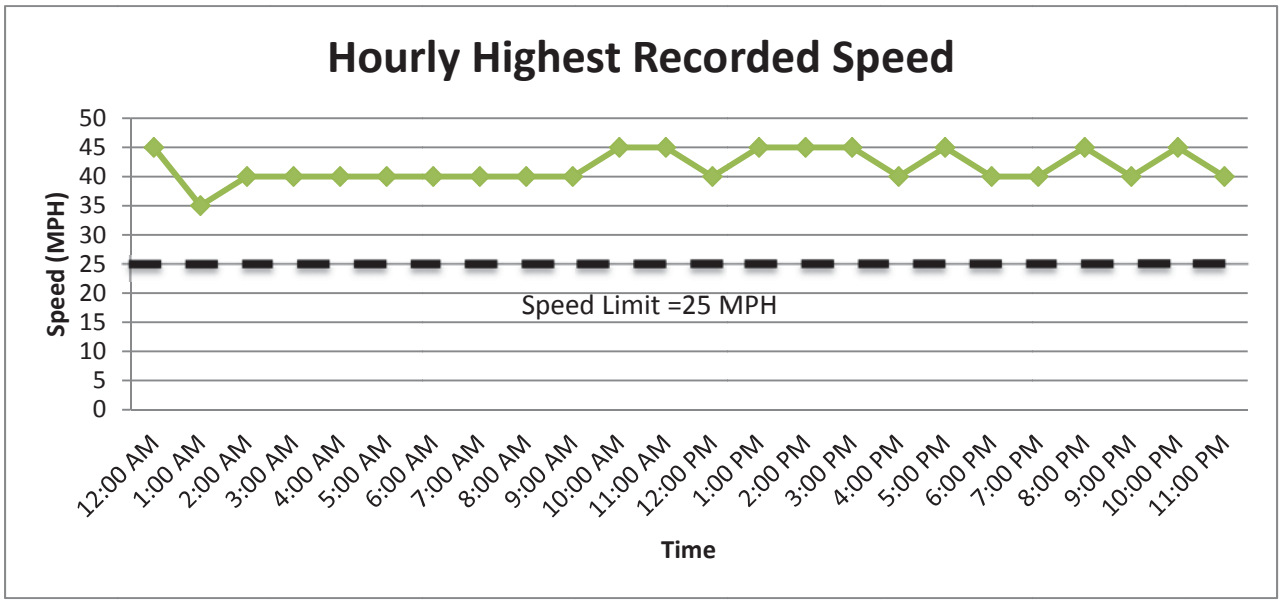




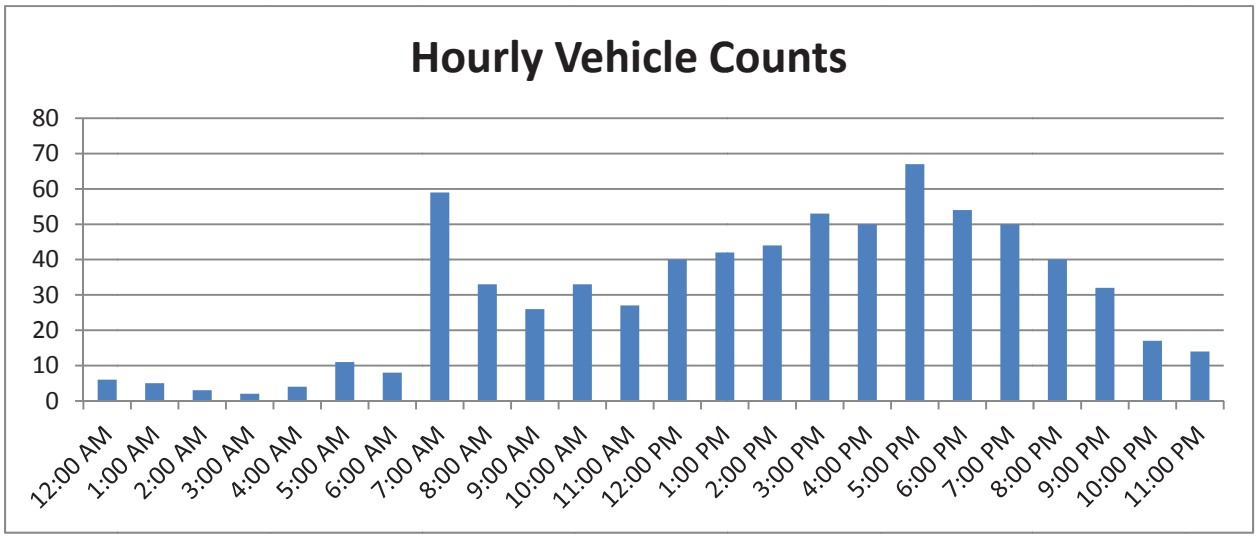
Cowles North-24 hour Radar Counts

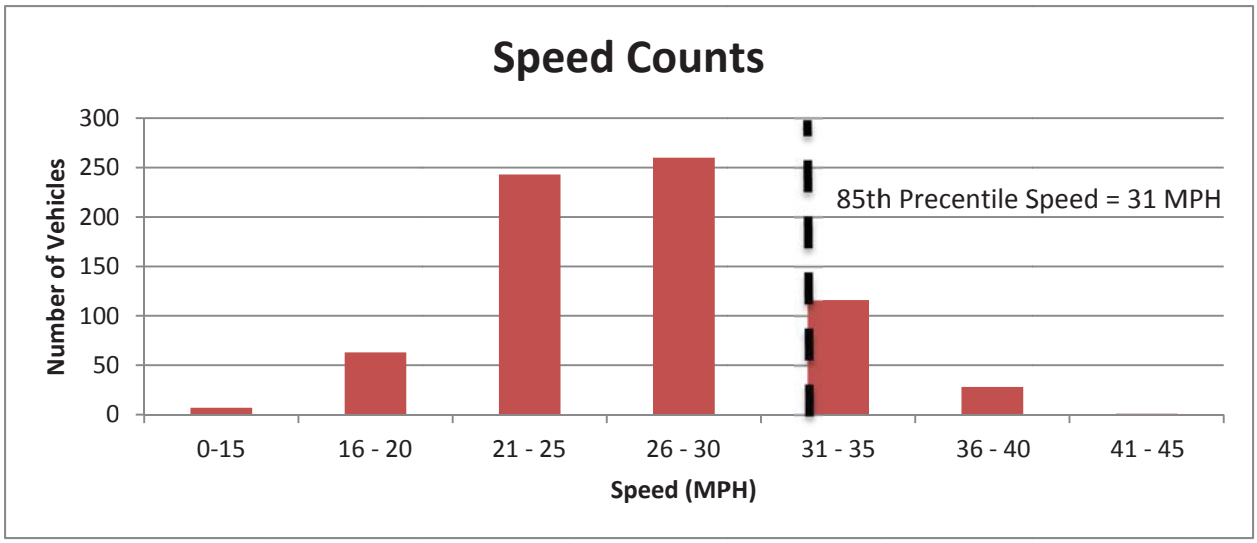


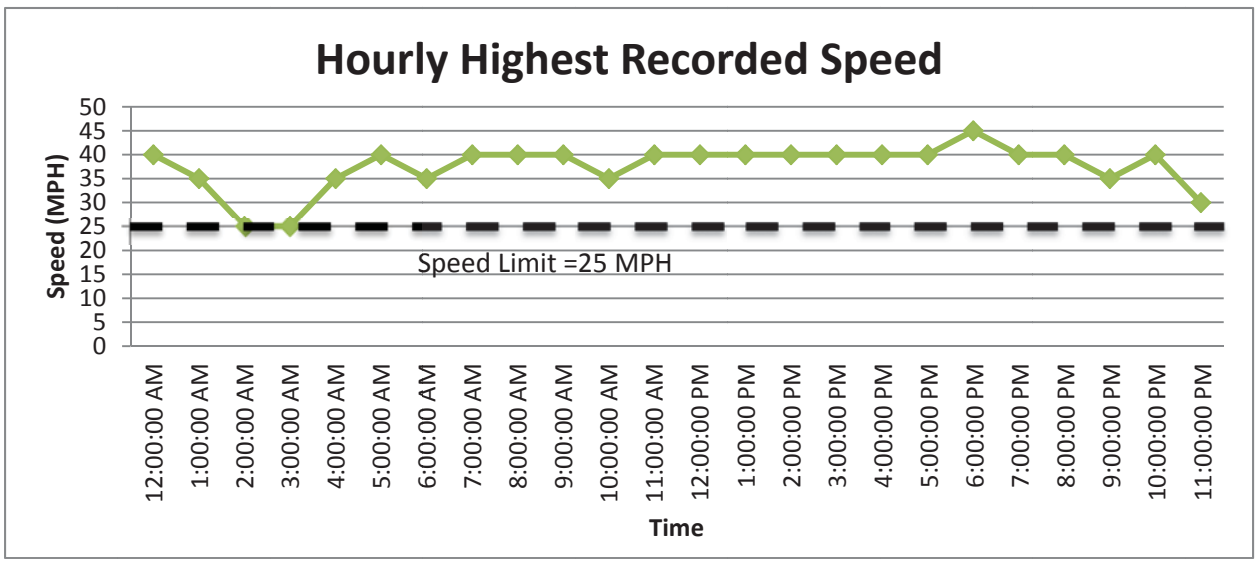




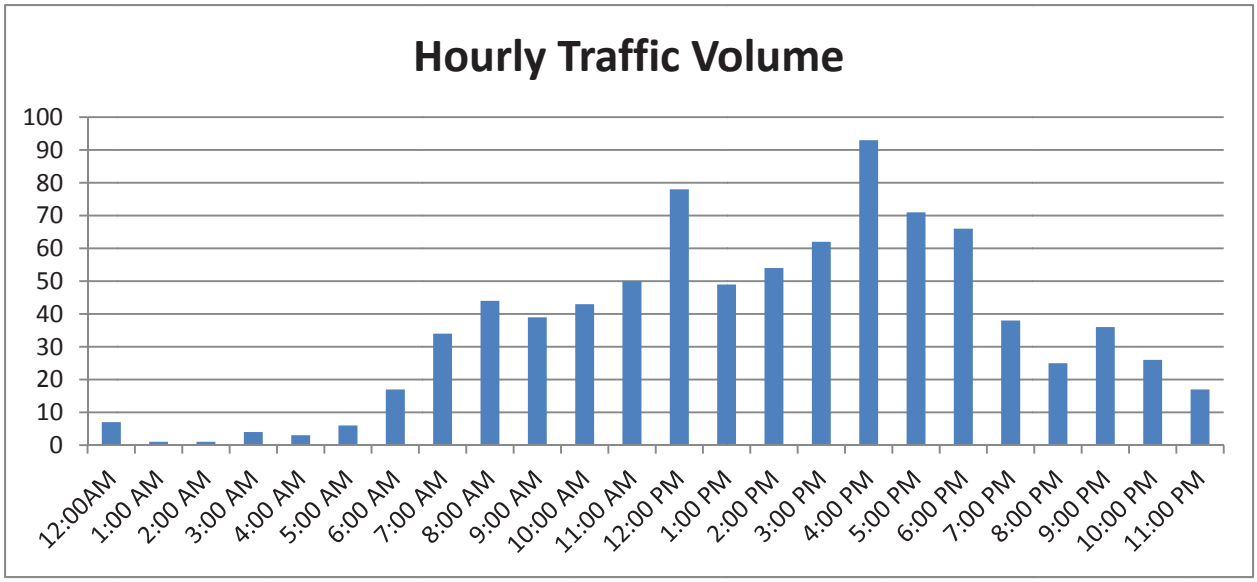
Cowles South-24 Hour Radar Count

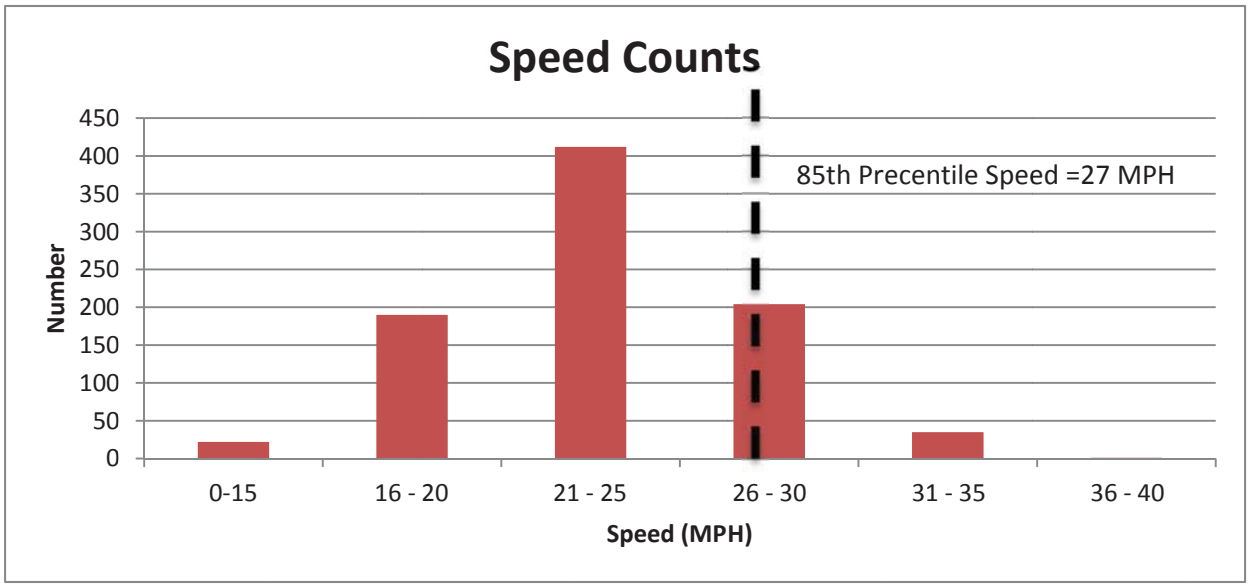


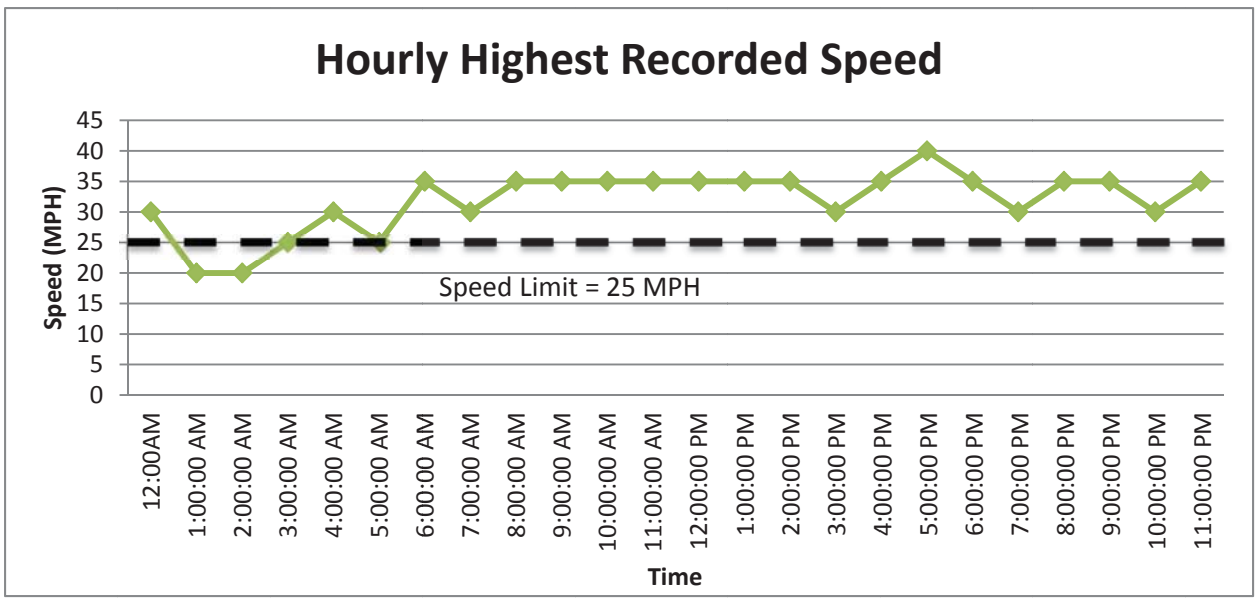


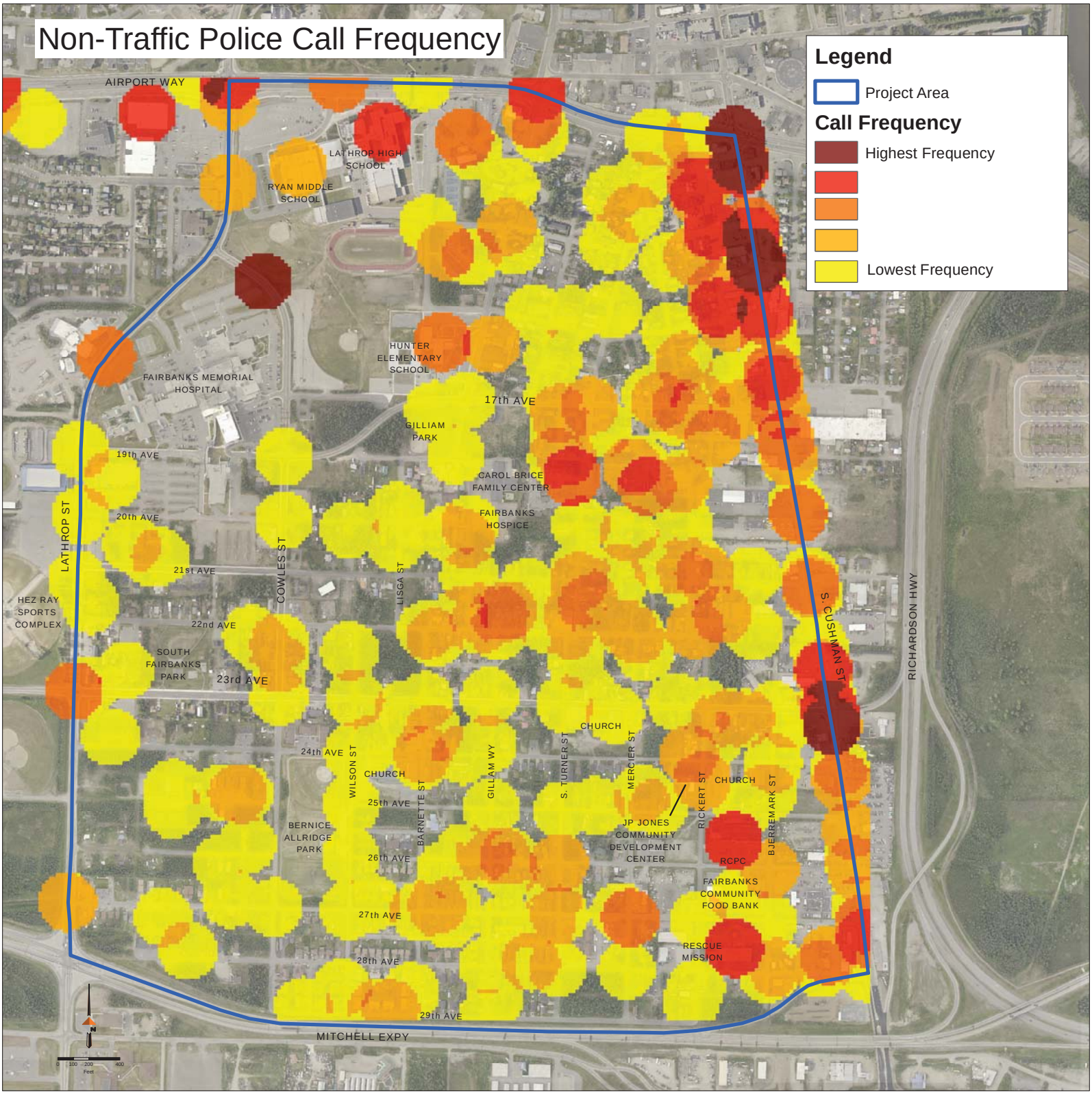


Gillam Way-24 hour Radar Counts







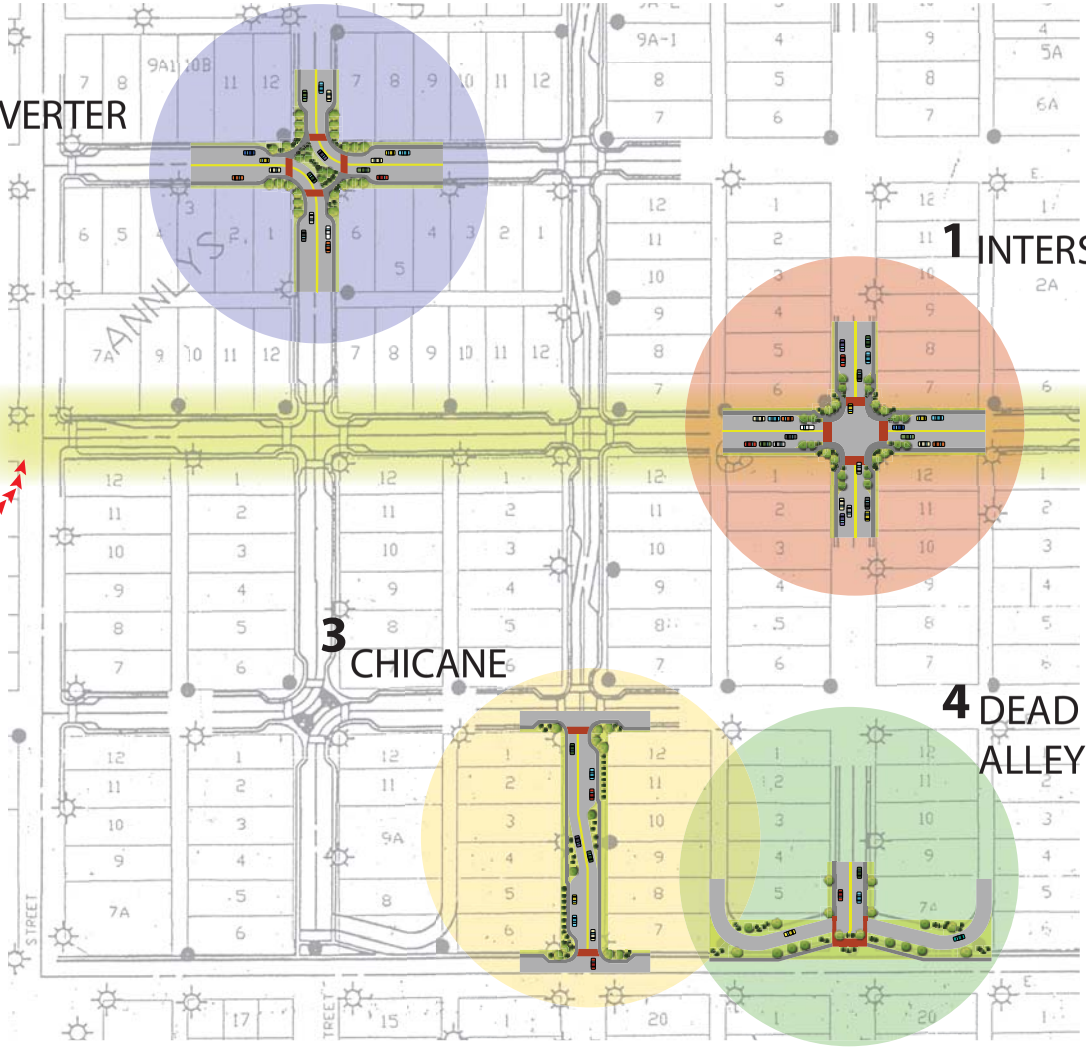

Non-Traffic Police Call Frequency
Legend
Project Area
Call Frequency
Highest Frequency
Lowest Frequency
AIRPORT WAY
LATHROP HIGH SCHOOL
RYAN MIDDLE SCHOOL
HUNTER ELEMENTARY SCHOOL
FAIRBANKS MEMORIAL HOSPITAL
17th AVE
GILLIAM PARK
19th AVE
CAROL BRICE FAMILY CENTER
FAIRBANKS HOSPICE
20th AVE
LATHROP ST
COWLES ST
LISGA ST
21st AVE
HEZ RAY SPORTS COMPLEX
22nd AVE
SOUTH FAIRBANKS PARK
23rd AVE
RICHARDSON HWY
S. CUSHMAN ST
CHURCH
24th AVE
WILSON ST
CHURCH
GILLAM WY
S. TURNER ST
MERCIER ST
RICKERT ST
CHURCH
BJERREMARK ST
25th AVE
BARNETTE ST
BERNICE ALLRIDGE PARK
JP JONES COMMUNITY DEVELOPMENT CENTER
26th AVE
RCPC
FAIRBANKS COMMUNITY FOOD BANK
27th AVE
RESCUE MISSION
28th AVE
29th AVE
MITCHELL EXPY
N
0 100 200 400
Feet

APPENDIX D

Traffic Calming Measure Graphics

NEIGHBORHOOD SAFETY IMPROVEMENTS

2 INTERSECTION DIVERTER



1 INTERSECTION CHOKER

PEDESTRIAN ENHANCEMENT CORRIDOR, TO EMPHASIZE NEIGHBORHOOD CONNECTIONS

3 CHICANE

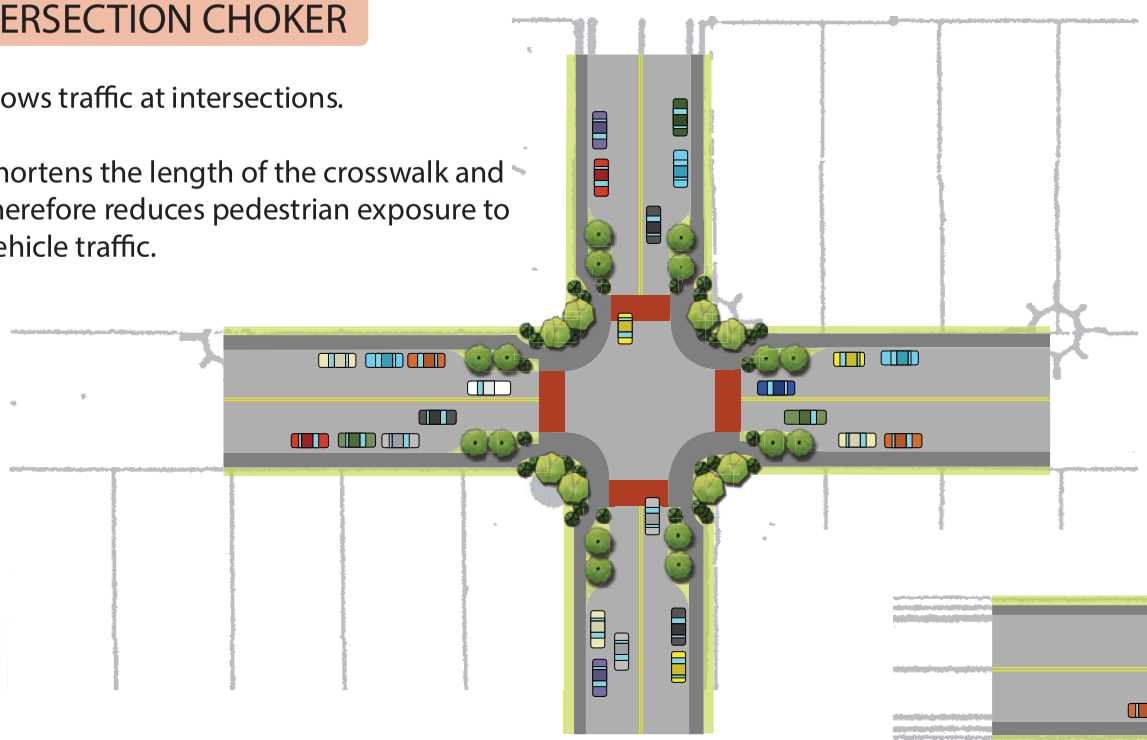
4 DEAD END STREET WITH ALLEY CONNECTORS

BJERREMARK
Neighborhood Improvements Plan

TRAFFIC CALMING / DEFENSIBLE SPACES TOOL KIT

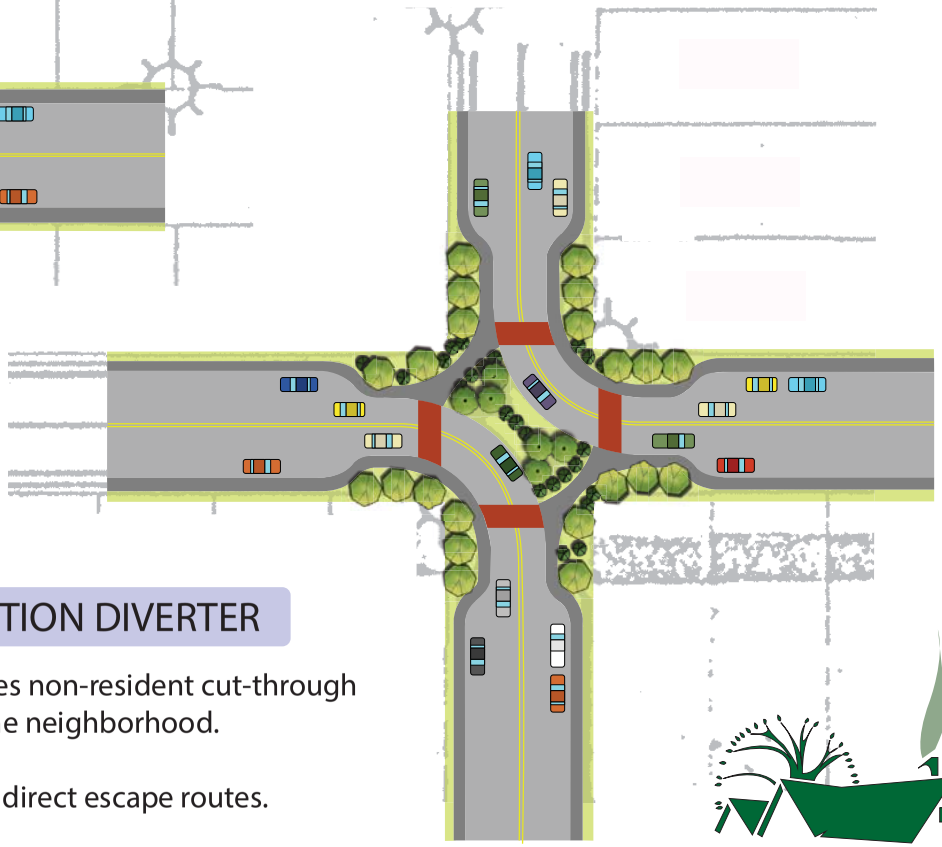
1 INTERSECTION CHOKER

- Slows traffic at intersections.
- Shortens the length of the crosswalk and therefore reduces pedestrian exposure to vehicle traffic.



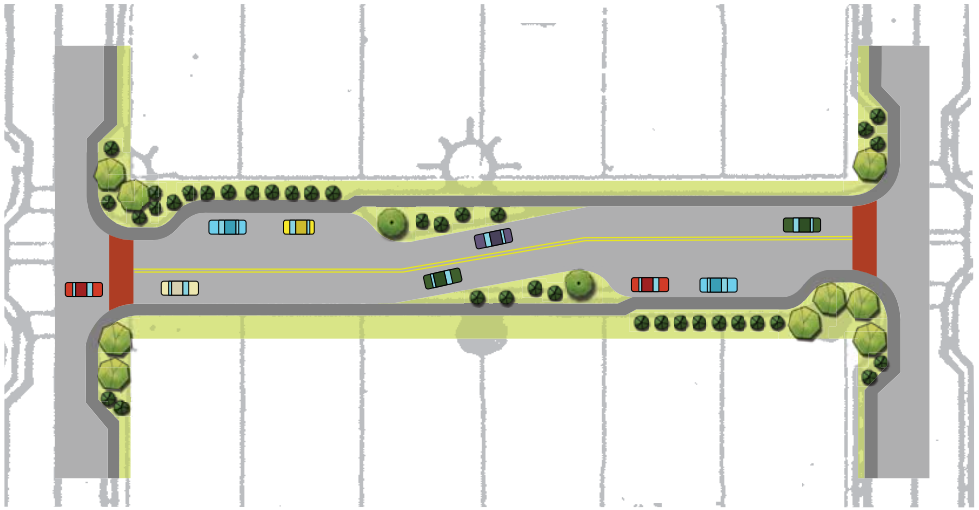
2 INTERSECTION DIVERTER

- Discourages non-resident cut-through traffic in the neighborhood.
- Eliminates direct escape routes.



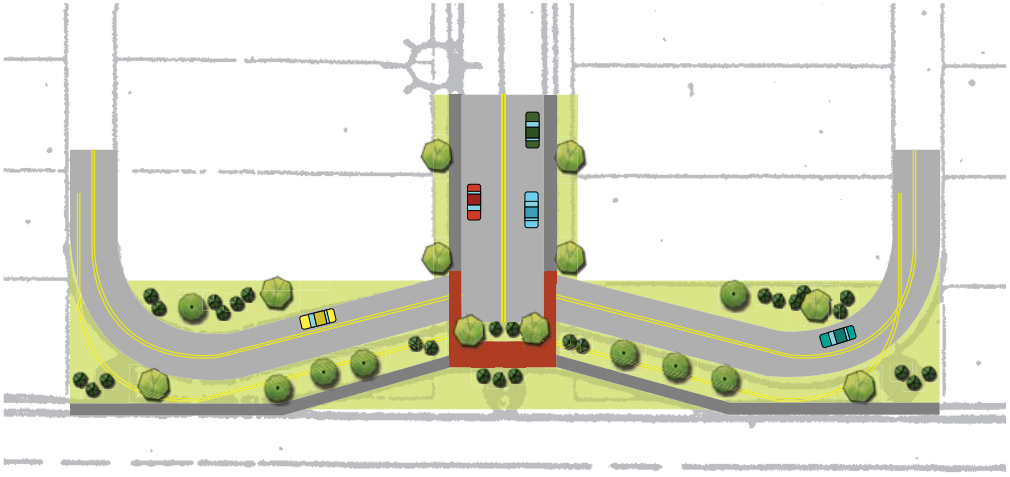
BJERREMARK
Neighborhood Improvements Plan

TRAFFIC CALMING / DEFENSIBLE SPACES TOOL KIT



3 CHICANE - a modified road section for a through street

- Reduces vehicle speed.
- Discourage non-resident cut-through traffic.
- Allows for the inclusion of a major pedestrian route.



4 DEAD END STREET WITH ALLEY CONNECTORS

- Limits the number of entries into the neighborhood, while allowing for residential emergency, and street maintenance access.
- Decreases vehicular and pedestrian conflicts.
- Enhances the defensible space within the neighborhood.

BJERREMARK
Neighborhood Improvements Plan

TRAFFIC CALMING / DEFENSIBLE SPACES TOOL KIT