2024 Richland Safe Routes to School Plan

Richland, Washington

Prepared for:

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EXCETIVE SUMMARY

The 2024 Richland Safe Route to School Plan (Plan) was prepared to improve walking and bicycling to elementary schools, but the Plan needs future updates. It included a few improvements at two middle schools but no high schools. At the request of the City of Richland's (City) staff, upgrades to "20 miles per hour (MPH) when flashing" school zone signs (school speed zone signs) are needed to improve effectiveness and meet Washington State regulations.

Recommendation: Review the spacing and communication with school speed zone sign assembly at each school.

Recommendation: Update the Plan in the future and expand its focus to include all schools beyond elementary schools.

The Safe Route to School (SRTS) maps prepared for each elementary school were reviewed for completeness and possible improvements. The Benton Franklin Council of Government (BFCOG) staff prepared maps for schools within the Tri-Cities school districts including Richland School District (RSD).

Recommendation: The latest City and RSD maps should be updated to include the revisions proposed in the BFCOG maps and consider community comments.

Readily available transportation information was collected, including traffic volume, speed, crash data, and roadway information, such as walking and bicycling conditions, number of traffic lanes, and roadway classification. Pedestrian and bicyclist activities around schools in the morning commute to school was collected by Replica, a cell phone data management firm.

Recommendation: Use the traffic data and information to evaluate possible improvements to the SRTS projects in the Plan.

The Plan includes outreach to stakeholders and the community for their input. BFCOG conducted a survey and PBS Engineering and Environmental LLC (PBS) prepared project fliers that were sent home with the students. Over 70 community members submitted feedback through the fliers. Sidewalks, crosswalks, and safety improvements were requested on over 20 roadways and 10 intersections.

Recommendation: Evaluate City staff and community requests for upgrades to streets to make Richland streets safer and to promote walking and bicycling to and from schools.

The Plan includes school crossing analysis, with a number of proposed improvement types being determined.

Recommendation: Evaluate the studied schools for school crossing enhancements.

Sidewalk improvement projects were identified, but deemed too expensive in cost to pursue for Washington State Department of Transportation (WSDOT) SRTS Program funds. Instead, a novel approach called protected walkways should be considered if cost is a determining factor. Protected walkways are not included as proposed or suggested improvements in this Plan as it is not currently an accepted WSDOT-approved active transportation project. However, it is recommended that a demonstration protected walkway project be funded by the City as a potential basis for future consideration from WSDOT.

Recommendation: Fund a demonstration protected walkway project.

School crossing evaluation included criteria such as school zone length, roadway classification, community input, school walk routes, and crash history. In conjunction with equity and cost considerations, several school crossing improvement types were identified and proposed in the Plan. It was found that proposing these improvements as systemic to the City of Richland rather than by individual school provided the greatest safety benefit for the RSD.

Finding: Systemic school crosswalk safety improvements provide the greatest safety benefit for the RSD.

Recommendation: Submit a grant application to WSDOT for the improvements listed in Table 5 for the School Crosswalk Safety improvements.

Consultants evaluated requests with transportation information to prioritize scoping and consider work for possible grant funding. The Washington State Department of Transportation Active Transportation SRTS grant applications are due late spring every two years. The next funding opportunity is June 7, 2024. The ranking is based on the Active Transportation SRTS grant application process, which includes safety and equity as the two highest-ranking criteria. Two types of projects were evaluated: walkway projects and systemic projects. Systemic projects are small systemwide improvements that can improve pedestrian and bicyclist safety at many RSD elementary and middle schools. See Table 4 for walkway improvements. See Table 5 for systemic improvements.

Finding: With a few exceptions, Richland streets do not appear to rank high enough to receive grant funding for sidewalks.

Recommendation: For school walk routes without sidewalks, the City should consider a combination of low-cost shoulder walkway improvements and traffic-calming improvements in place of traditional sidewalks.

1 BACKGROUND

In 2024, the Active Transportation services of Washington State Department of Transportation (WSDOT) put out a call for projects for the Safe Routes to School (SRTS) grants. The City of Richland and the Richland School District entered into an interlocal agreement to jointly fund and participate in the development of an SRTS Plan. In anticipation of the call for projects, the City of Richland (City) Public Works Department contracted with PBS Engineering and Environmental LLC (PBS) and KTUA Planning and Landscape Architecture (KTUA) to prepare an SRTS Plan. The SRTS Plan included participation from Richland School District (RSD), Benton-Franklin Council of Government (BFCOG), and RSD parents and students. The SRTS Plan was prepared in close consultation with Active Transportation.

The RSD has 8 elementary schools, 2 middle schools, 2 high schools, and 2 choice schools located within the city of Richland. As required by law, all the elementary schools have an SRTS plan (maps) that shows walking conditions from home to school 1 mile around each school. These maps include locations of sidewalks, crossing guards, school zone signing, and crossing improvements such as traffic signals and rectangular rapid flashing beacons (RRFB). The intent is to show parents and students the safest route to school.

An early comment from City staff was to evaluate the school speed zone sign assemblies. The intent is to improve compliance and meet state law for spacing (RCW 46.61.440 and WAC 468-95-330). Communication upgrades were proposed to improve operation and lower maintenance costs.

Recommendation: Review spacing and communication with school speed zone sign assembly in school speed zones.

The intent of the SRTS Plan is to improve pedestrian and bicyclist safety for students to travel to and from school. This study focused on elementary schools and primarily focuses on pedestrian safety, but many improvements enhance both walking and biking routes and overlay the middle and high school walk and bike routes. For elementary students, it is assumed they ride their bikes on sidewalks and do not use bike lanes.

Early in the process, elementary schools in the older part of Richland were identified as having higher needs based on older, less pedestrian-friendly streets and lower-income and higher-risk populations of students. Schools in the new areas of the city are surrounded by streets built to modern street standards with more complete sidewalk networks. The schools in the older part of the city include:

- Jason Lee Elementary School
- Jefferson Elementary School
- Lewis & Clark Elementary School
- Sacajawea Elementary School
- Marcus Whitman Elementary School

Later in the process, schools in the new areas of the city were also considered. These schools include:

- Carmichael Middle School
- Chief Joseph Middle School
- Orchard Elementary School
- White Bluffs Elementary School

The final product of the SRTS Plan is to produce a project list to be included in the City's Transportation Improvement Program and some to be submitted for funding through the WSDOT Active Transportation's SRTS grant program.

As years pass, school improvements are complete, and new requests come in, the SRTS Plan (Plan) will need to be updated. Schools not included in the Plan can be added.

Recommendation: Update the Plan in the future and expand it to include all schools beyond elementary schools.

2 SCOPE OF STUDY

The scope of the SRTS Study included the following tasks, which are discussed in more detail in this report. The tasks are:

- Meetings
- Data collection
- Review of SRTS maps
- Collision data analysis and GIS mapping
- Big data output of walking and biking activity using Replica
- Stakeholder outreach
- Community outreach
- Data analysis
- School walk audits
- Recommendations for implementation
- SRTS Plan
- Grant applications

3 MEETINGS

For the preparation of the SRTS Plan and other outputs, a series of monthly coordination meetings were held virtually to provide updates and gather information from the principal stakeholders including the City, RSD, BFCOG, PBS, and KTUA staff. These started with a kick-off meeting and followed the scope of work listed above. Many other impromptu meetings were held with various stakeholders on various topics.

4 DATA COLLECTION

Data collection was a key task for the preparation of the SRTS Plan. It included various types of data but primarily focused on data related to pedestrian risk, walk routes, and walking activity. See Appendix A for the Richland Safe Route to School—Data Collection Contents memorandum.

4.1 Review of SRTS Map

PBS reviewed three sets of SRTS maps, which were prepared to show parents and students of elementary schools the safest walking or biking routes to school. The City has two versions of the maps, and BFCOG prepared proposed maps for schools throughout the Tri-Cities (Richland, West Richland, Kennewick, and Pasco).

The walk routes were evaluated in relationship to the WSDOT *School Walking and Biking Routes*.[1] For each elementary school, the walk route for each residential roadway was traced to the school and reviewed for possible crossing enhancements and missing sidewalks. The City's second addition of school walk routes provides a good inventory of walking conditions that allows students to decide which route to travel.

[1] WSDOT (Washington State Department of Transportation). (2015, February). *School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students*.

PBS collected comments on how parents and students bike and walk to school. Some of the comments included walk route improvements. These comments are being folded into the SRTS Plan. When the improvements are complete, the SRTS maps should be updated.

Recommendation: The latest City and RSD maps should be updated to include the revisions proposed in the BFCOG maps and consider community comments.

4.2 Crash Data

PBS mapped out 5-year pedestrian and bicyclist crash data from 2018 to 2022, the most current complete years. The data was mapped and tabulated within 1 mile of each school with the intent to be used for analysis and project section later in the process.

4.3 Transportation Data

PBS collected readily available transportation data on busy streets near each elementary school and illustrated the data on the City SRTS maps for each elementary school.

4.4 Data Analysis

PBS recommends the data be used for the following:

- Identifying high-risk roadways, intersections, or other areas
- Identifying public improvements that will facilitate school children walking to and from school
- Prioritizing improvements for future public improvement projects
- Supporting grant applications with the data requested to complete the submittal

Recommendation: Use the traffic data and information to evaluate possible improvements to the SRTS projects in the Plan.

5 STAKEHOLDER OUTREACH

The Plan originally proposed to convene meeting(s) with the City's Comprehensive Safety Action Committee (CSAC) and the RSD as principle stakeholders in the Plan development. CSAC was formed for the preparation of the City's Local Roads Safety Plan, and PBS proposed meeting with them on the SRTS Plan. The CSAC includes police department staff, and school zone enforcement is a key component in pedestrian safety. Due to time constraints, the CSAC was not engaged prior to development of the Plan.

The final stakeholders are composed of RSD, BFCOG, and City Public Works staff.

Community outreach planning was a major planning goal for the stakeholders. This planning evolved as the SRTS Study progressed but included:

- A BFCOG community survey related to SRTS
- BFCOG outreach to school principals
- Public Works staff attending a meeting of the Parent-Teacher Association (PTA) Council
- A PBS-prepared flier requesting parent and student input on SRTS, which was circulated by each school principal

6 COMMUNITY OUTREACH

Community outreach is an important component of SRTS planning. It is important to know where students walk, why they choose those routes, and where improvements should be made.

6.1 BFCOG Community Survey

In 2023, BFCOG prepared a regional survey of community interest in walking and biking to school. The survey was distributed to all school districts in the Tri-Cities area. BFCOG staff had a table at the Farmers Market during the summer to solicit comments and encourage community members to fill out the survey. The results demonstrated a strong interest families had in walking and biking to school. The survey and results are included in Appendix B.

BFCOG received the following number of responses from the elementary schools in Richland.

- Marcus Whitman Elementary School: 10
- Sacajawea Elementary School: 9
- Jason Lee Elementary School: 6
- Jefferson Elementary School: 12
- Lewis & Clark Elementary School: 9
- Orchard Elementary School: 9
- White Bluffs Elementary School: 8
- Badger Mountain Elementary School: 12

BFCOG summarized active statistics in Exhibit 1.

Benton-Franklin Regional Safe Routes to School Survey

In a typical month, how often does your youngest child use the following transportation options to get to and from school?

	Every day		Once or twice a week		Once or twice a month		A few times a year		Never		Total
Walk to school	23.03%	38	17.58%	29	3.64%	6	9.70%	16	46.06%	76	165
Bike or roll to school	12.05%	20	12.65%	21	3.01%	5	9.64%	16	62.65%	104	166
Carpool with another family	1.82%	3	7.88%	13	3.03%	5	18.18%	30	69.09%	114	165
Ride public transit bus	1.21%	2	2.42%	4	1.21%	2	4.24%	7	90.91%	150	165
Ride school bus	20.61%	34	4.24%	7	1.82%	3	1.21%	2	72.12%	119	165
Ride in family vehicle	43.45%	73	23.21%	39	13.10%	22	11.90%	20	8.33%	14	168
										Answered	**170**
										Skipped	**58**

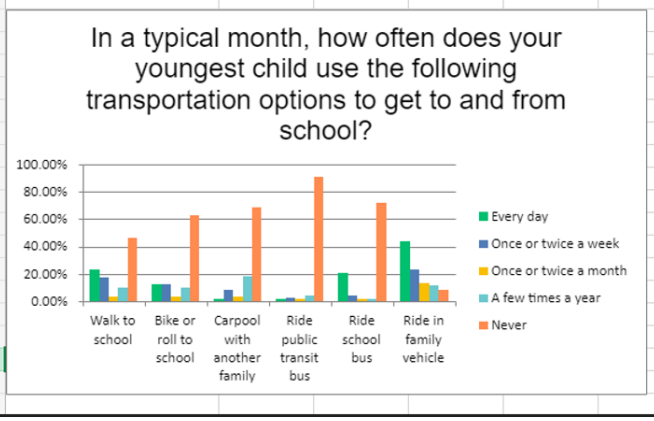


Exhibit 1. BFCOG Regional Safe Routes to School Survey

The BFCOG survey provides important information on the percentage of students that walk, bike, roll, bus, or are driven to school.

The BFCOG forwarded community comments from its survey with comments and concerns. They are summarized in Table 1.

Table 1. BFCOG Survey Comments

Location	Quote
George Washington Way and Jadwin	Traffic stress--too many CJMS students get struck or almost struck by drivers, GWW & Jadwin intersections are too complex
Crossing George Washington Way	Crossing GWW is not safe at all.
George Washington Way	They have to cross George Washington Way. Cars go crazy fast and a school flagger isn't always there.
Keene Road	Not safe way to cross Keene Rd
Northeast corner of Hunt and Van Giesen needs bike lanes	They plan on biking most days. I wish Jefferson Elementary would have bike [lanes] near the NE corner of Hunt and Van Giesen. I have messaged the superintendent for such amenities for safety and convenience reasons. Kids need to walk their bikes across multiple lanes if transit parents/kids in vehicles otherwise. Put bike racks near the bike trails for safety (like the river trail corridor) and convenience.
Pathways leading from Saint Street to Sacajawea Elementary are not accessible to bikes and need to be paved	The pathways leading from Saint street to Sacajawea Elementary are not accessible to bikes. Kids need to maneuver to a nearby driveway to get up and down. Also the pathways are not all paved and sometimes have uneven terrain
Access path that leads to Sacajawea Elementary (that runs between houses from Saint to Fuller)	The access path that leads to Sacajawea Elementary (that runs between houses from Saint to Fuller) is awful. It's more rocks, dirt, weeds, tree roots, etc than concrete. A biking accident waiting to happen.)
Bike route from West Richland on Van Geisen to Bypass	Bike route from West Richland on Van Geisen to Bypass
Crossing Swift Boulevard at Wright	Crossing Swift Blvd at Wright
Duportail crosswalk	Crossing guards on Duportail crosswalk

Richland's Traffic Engineer evaluated comments related to crossing busy roadways at signalized intersections and proposed safety improvements associated with conflicts with left-turning vehicles and pedestrians. The risk of crashes involving pedestrians and vehicles can be reduced with the application of R10-15 ("Turning Vehicles Stop for Pedestrians") signs to warn left-turning vehicles of potential conflicting pedestrians. To increase compliance, pedestrian-activated border flashing lights are also incorporated into the signs. See an example exhibit in Appendix G.

6.2 PTA Council

City staff attended the PTA Council meeting, but no feedback was received.

6.3 School Flier Survey

PBS prepared a single 8.5" x 11" double-sided flier requesting input from parents and students. The flier asked how students get to school (via car, bus, walking etc.), what routes they take, and where they would like to see improvements be made. Copies of the flier were sent to the RSD, forwarded to each school, and then forwarded to the families. The flier was prepared in Spanish, Ukrainian, and English. A total of 73 families responded, and information is provided in the following summary table. Table 2 shows findings from the survey.

Table 2. Richland Safe Routes to School Study Survey

School	Total Responses	Car or Bus	Walk	Bike or Roll (scooter, skateboard, or wheelchair)
Marcus Whitman	23	18	10	3
Jefferson	17	11	9	3
Sacajawea	6	6	6	6
Orchard	6	5	5	2
Lewis and Clark	4	5	4	2
White Bluffs	4	5	4	2
Jason Lee	3	2	2	3
Badger Mountain	10	10	7	5

The information from the flier survey used maps for each school and asked families to mark locations where they would like to see improvements made, such as addressing missing sidewalks or street crossing improvements. The information from the flier was tabulated and a list of improvements were prioritized with notes by City staff. These were included in the list of projects proposed by PBS and City staff for future funding consideration. See Appendix C for the summary of projects proposed for each school and an example of the flier.

Exhibit 2. Example of Flier Map Feedback at Jefferson Elementary School

Community-proposed sidewalk projects were reviewed, evaluated, and ranked by City staff. The following locations are the high- and medium-ranking sidewalk improvements requests. Medium-priority sidewalk improvements are shown in *italics*.

- Jason Lee Elementary School
  - *Torbett Street—Thayer Drive to Stevens Drive*
- Jefferson Elementary School
  - Symons Street—South side from Goethals Drive to Jadwin Avenue
- Lewis & Clark Elementary School
  - Comstock Street—Goethals Drive to Jadwin Avenue
  - Comstock Street—Jadwin Avenue to George Washington Way
  - *Davenport Street—Goethals Drive to George Washington Way*
  - *Benham Street—Jadwin Avenue to George Washington Way*
  - *Adams Street—Jadwin Avenue to George Washington Way*
- *Downing Street—Cullum Avenue to Jadwin Avenue* Orchard Elementary School
  - *Brantingham Road—East side of road near Orchard Elementary School*
- Marcus Whitman Elementary School
  - Humphreys Street—Winslow Avenue to Wright Avenue
  - Snow Avenue—Duportail Street to Gray Street
- Sacajawea Elementary School
  - *Newcomer Street—Coast Street to 125' north*
  - *Saint-Fuller Pathway—Saint Street to Fuller Street*

The community comments included requests for roadway crossing improvements such as crosswalks. These were reviewed, evaluated, and ranked. The following locations are the high- and medium-ranking crossing improvements requests. Medium-priority crossing improvements are shown in *italics*.

- Badger Mountain Elementary School
  - *Leslie Road and Timmerman Drive*
  - *Leslie Road and Chaparral Street*
  - *Alamosa Avenue and Oxford Avenue*
  - *Ogden Avenue and Baywood Avenue*
  - *Keene Path and Sagewood Street*
  - *Oxford Avenue north of Badger Mountain Elementary School (RRFB or Raised Crosswalk)*
- Jason Lee Elementary School
  - Van Giesen Street and Sanford Avenue
  - *Wright Avenue and Turner Street*
  - *Wright Avenue and Trippe Street*
- Jefferson Elementary School
  - *Van Giesen Street and Hunt Avenue*
- Lewis & Clark Elementary school
  - Jadwin Avenue and Comstock Street
  - Cullum Avenue and Fitch Street
  - Cullum Avenue and Downing Street
- Marcus Whitman Elementary School
  - Thayer Drive and Lee Boulevard
  - *Swift Boulevard and Elm Avenue (RRFB)*
  - *Duportail Street and Dallas Road (Consider Crosswalk)*

    - *Swift Boulevard and Smith Avenue*
- Orchard Elementary School
    - Gala Way and Melissa Street
    - Gala Way and Manchester Street
    - Melissa Street at Brantingham Road
    - Oahu Street at Brantingham Road
- Sacajawea Elementary School
    - Spengler Street between Hood Avenue and Carriage Avenue
    - Existing Crosswalk at Franklin (Parking Restrictions for Visibility)
    - *Coast Street and Rainier Avenue*

Recommendation: Evaluate City staff and community requests for upgrades to streets to make Richland streets safer and to promote walking and bicycling to and from schools.

7 DATA ANALYSIS

KTUA provided analysis for the SRTS Plan. The goals of the analysis were to identify locations of improvements, quantity risks to walkers and bicyclists, identify neighborhoods with higher equity needs, and measure pedestrian and bicyclist activity.

7.1 Equity

KTUA gathered census and other data to help identify equity needs and ranking of projects within the city. The intent is to address safety for higher risk members of the community because neighborhoods affected by societal disadvantages (race, income, and disabilities) often have a disproportionate number of crashes. The results are plotting the Safe Routes to School Corridor Ranking with School Equity Rank in Appendix D.

The equity analysis considered ranking based on the direction of the Active Transportation section of WSDOT and the SRTS grant program. The SRTS grant program uses the Sandy Williams Equity Score[2] and the Office of Superintendent of Public Instruction OSPI Ranking[3] to ensure schools serving students are prioritized higher for improvement funding. Table 3 shows the percentage of low-income students at each school.

Table 3. Washington Office of Superintendent of Public Instruction 2023 to 2024 School Year

School	Enrollment	Low-Income	English Language Learners
Marcus Whitman	466	60.7%	7.7%
Jason Lee	516	53.3%	9.3%
Jefferson	401	52.6%	6.2%
Lewis and Clark	479	47.4%	9.4%
Sacajawea	447	42.7%	12.1%
Badger Mountain	588	34%	8.5%
White Bluffs	640	24.7%	5.5%
Orchard	623	19.3%	9.8%

[2] https://www.arcgis.com/apps/mapviewer/index.html?layers=1b90d1b89b77481cb6751024423bb245
[3] https://www.arcgis.com/apps/mapviewer/index.html?layers=1b90d1b89b77481cb6751024423bb245

WSDOT Active Transportation Sandy Williams Equity Needs maps show the area within the city, color coding for five levels of needs. Four schools have boundaries that include areas with moderate to high needs. See Appendix D for Sandy Williams Equity Needs mapping near each school.

These equity criteria were used to rank projects. The schools serving the highest-scoring equity neighborhoods are as follows:

- Jefferson Elementary School
- Jason Lee Elementary School
- Marcus Whitman Elementary School
- Lewis & Clark Elementary School

Projects in the vicinity of these schools will meet the highest-needs population, are in the highest-risk location for pedestrian and bicyclist crashes, and will rank higher for SRTS grant funding.

7.2 School Pedestrian and Bicycle Volume

School walking and biking activity citywide was evaluated before the start of school on streets near schools in Richland. KTUA used Replica, a data management firm, that can track pedestrian activity from cell phones. In this case, bicyclist and pedestrian activity citywide related to schools from 6 to 9 am. The pedestrian and bicyclist data was collected during the AM peak hour to better estimate school pedestrian and bicyclist volumes. The estimates are not precise numbers but are categorized as low, median, and high. Exhibit 3 illustrates the Replica data nearby to studied elementary schools.

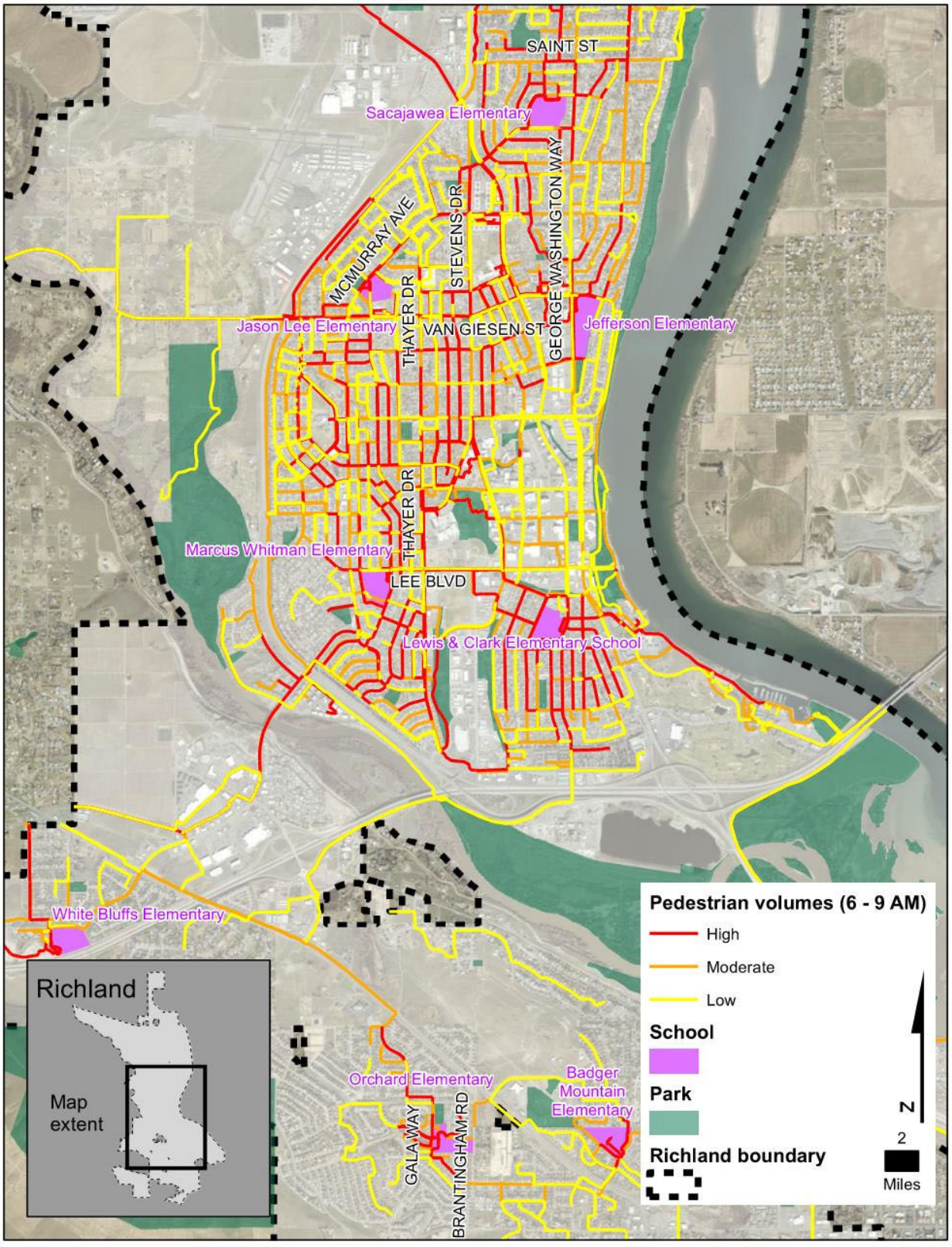


Exhibit 3. AM Pedestrian and Bike Activity Near Schools

The pedestrian and bicyclist activity is used to compare project alternatives to assure funding is used on roadways with a high need or high number of users. The schools with the highest pedestrian and bicyclist activity are:

- Jefferson Elementary School
- Jason Lee Elementary School
- Marcus Whitman Elementary School
- Lewis & Clark Elementary School
- Sacajawea Elementary School

7.3 Pedestrian and Bicycle Crash Analysis

The *City of Richland Comprehensive Safety Action Plan 2023*[4] (CSAP) provides citywide pedestrian and bicyclist safety analysis. This report does not provide any significant new information. The CSAP evaluated bicyclist- and pedestrian-involved crashes from 2016 to 2020 in low- and moderate-income census tracts/blocks. Exhibit 4 shows a clear correlation between crashes and low- and moderate-income census data.

[4] DKS Associates. (2023). *City of Richland Comprehensive Safety Action Plan 2023*.

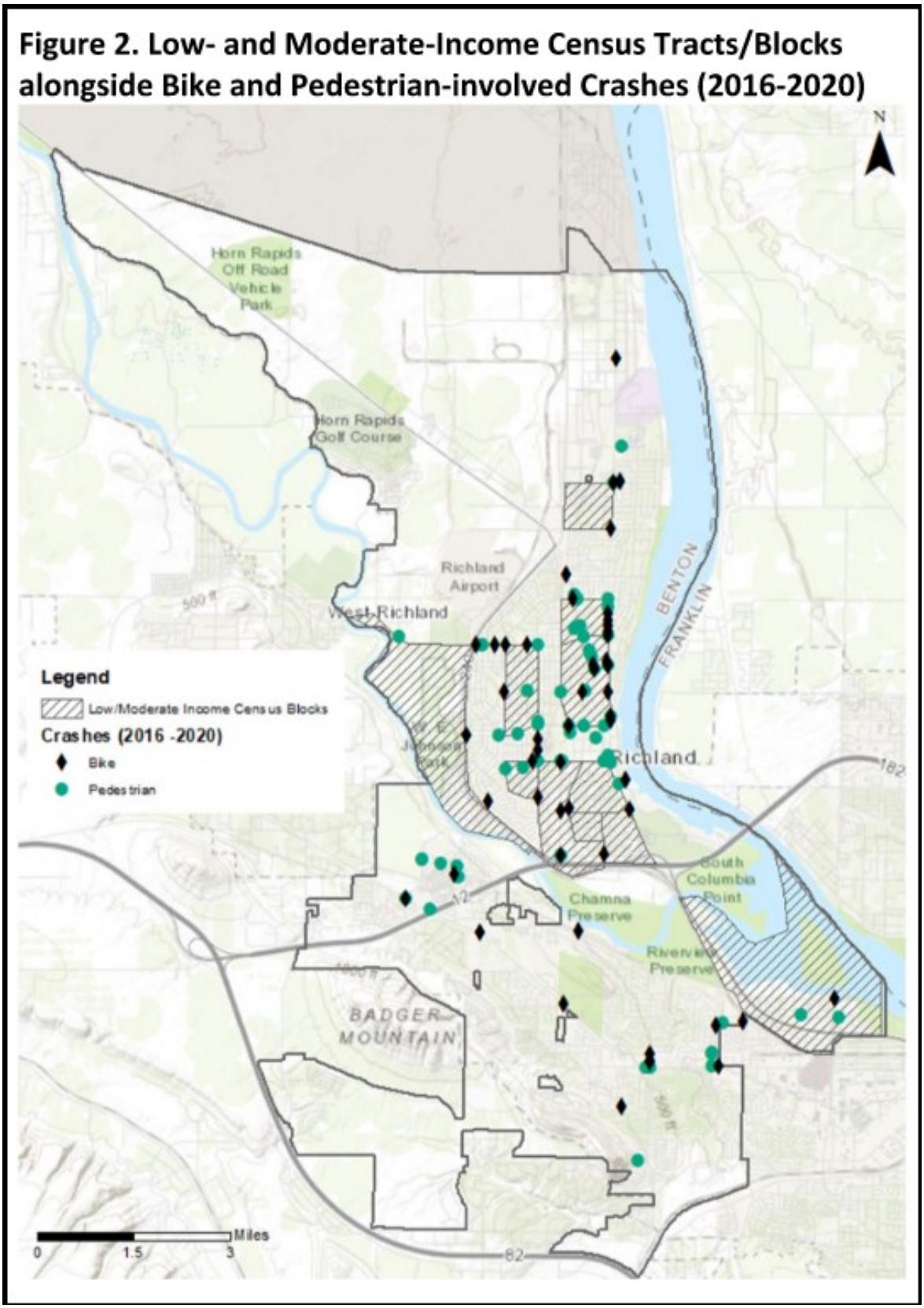


Exhibit 4. Comprehensive Safety Action Plan Equity Data Analysis

PBS prepared crash dot maps areas within 1 mile of each school between 2018 to 2022. The maps are included in Appendix A.

The areas with the highest pedestrian and bicyclist activity and high equity score have significantly higher pedestrian and bicyclist crashes. This was expected based on the *Active Transportation Programs Design Guide*,[5] in which low to moderate neighborhoods have higher numbers of crashes.

The schools with the highest equity needs, pedestrian and bicyclist activity, and crash data are:

- Jefferson Elementary School
- Jason Lee Elementary School
- Marcus Whitman Elementary School
- Lewis & Clark Elementary School

7.4 Pedestrian and Bicycle Level of Traffic Stress

Active Transportation uses level of traffic stress (LTS), a matrix of Complete Streets, as a measure of safety and comfort to walk and bike on city streets. LTS higher than 3 or 4 pose a risk for pedestrians and bicyclists. The goal is to lower the LTS to 2 or below. Multi-lane roadways with a high volume of high-speed traffic and poor sidewalk or biking conditions have high levels of stress. For example, George Washington Way is rated at Pedestrian and Bicycle LTS 4 with no buffer between traffic and sidewalks, and no bike lanes. More information can be found in Chapter 1510, section 1510.02(5) of the WSDOT *Design Manual*. See an example of the Pedestrian LTS estimate below based on the WSDOT *Design Manual*.

The goal of the grant program is to lower LTS for SRTS to encourage students to walk and bike to school. This can be done by improving the sidewalk and bicycle roadway conditions on the edge of the roadway. Lowering Pedestrian LTS is typically done by adding and widening sidewalks or adding a buffer between traffic lanes and pedestrians. It can also be improved by reducing the speed of the roadway. This can be done by the use of traffic calming methods such as speed humps or many other methods as listed in the *Active Transportation Programs Design Guide*.

7.4.1 Pedestrian Level of Traffic Stress

PBS and City engineering analysis identified various arterial roadways in the vicinity of schools to test pedestrian LTS.

KTUA calculated the pedestrian LTS for select arterials as illustrated on the map provided in Exhibit 5. The pedestrian LTS was reported for the side of the street with the worst case. In most cases, with pedestrian LTS 3 or higher, it was due to one side of the street with narrow sidewalks. George Washington Way is an example of how pedestrian LTS varied depending on the width of sidewalk on each side of street.

Finding: For arterials with narrow sidewalks, pedestrian LTS supports grant funding of widening of sidewalks to 5 feet or wider.

PBS estimated the pedestrian LTS for high-priority walk routes on local streets. This work can be found in Appendix E. The pedestrian LTS was estimated for before and after if sidewalks were installed on low-volume posted 25-mph roadways near schools. The pedestrian LTS is not above 3 in the before condition unless the target speed is at or above 30 mph. The posted speed limit was used for the target speed.

[5] WSDOT (Washington State Department of Transportation). (2024, February). *Active Transportation Programs Design Guide*.

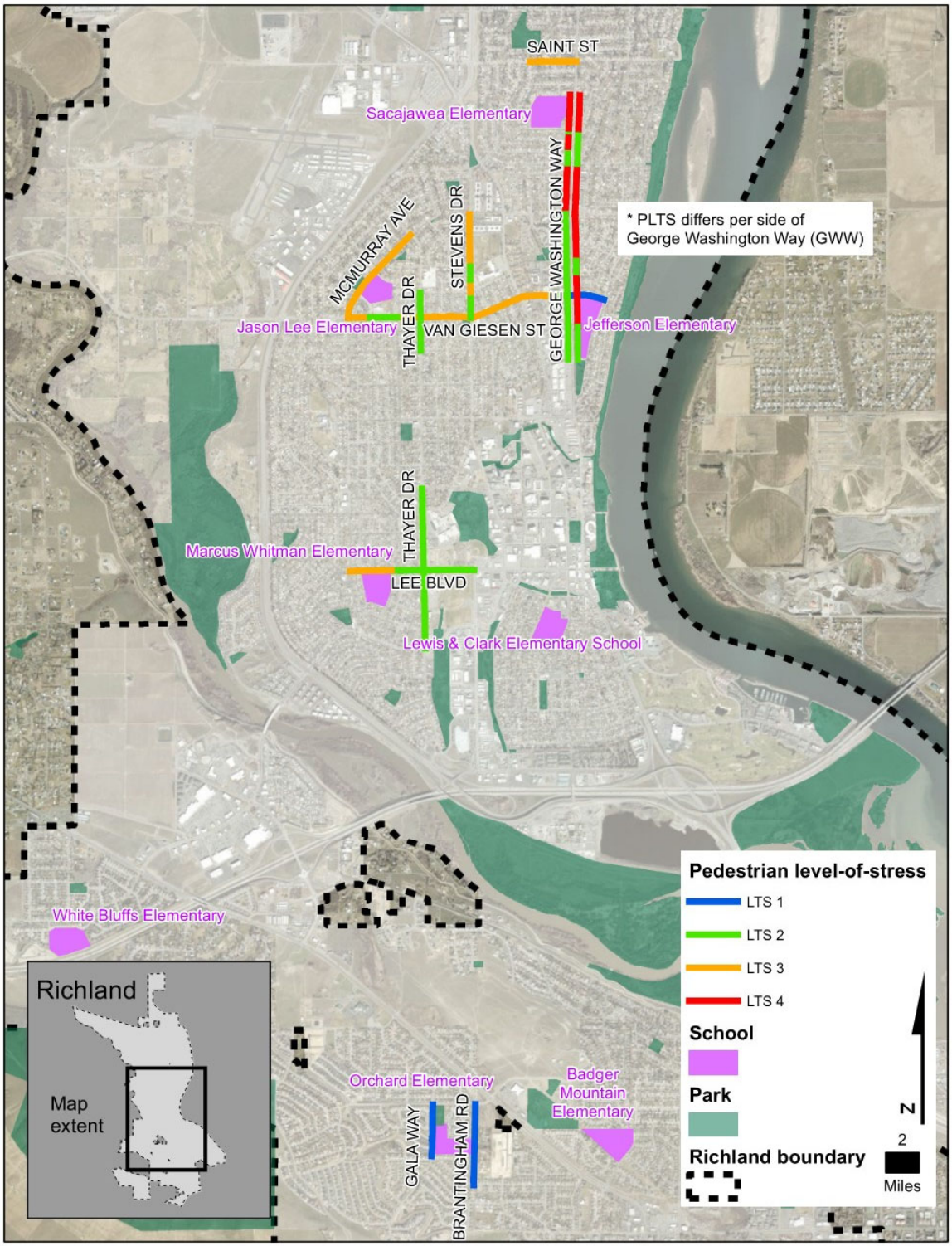


Exhibit 5. Pedestrian Level of Traffic Stress on High-Priority Walk Routes

Finding: The Pedestrian LTS estimates do not support grant funding for the installation of sidewalks on local streets.

Other criteria were used to evaluate the need and funding criteria for sidewalk improvement projects such as: crossing enhancements at intersections, if there is a speeding problem and if the project includes any speed management treatments, if there is a crash history at the roadway, if the project is on the City's Local Roads Safety Plan, as well as a high-equity need.

The evaluation in section 8, Project Evaluation, concerns these criteria in the context of the Active Transportion scoring criteria (Ruberic).

7.4.2 Bicycle Level of Traffic Stress

KTUA evaluated the city of Richland for Bicycle LTS. The results are illustrated in Exhibit 6.

Following review of the Bicycle LTS figures, three roadways stand out as candidates for bicycle improvements:

- George Washinton Way
- Jadwin Avenue
- Van Giesen Street

Roadway improvements to lower the Bicycle LTS will require major changes that are beyond the scope of this study. The CSAP proposes improvements along these corridors at signalized intersections. The proposed engineering improvement included signage that reduces the risk of bicycle and pedestrian crashes involving a left-turning vehicle by installation of "Turning Vehicles Stop for Pedestrians" (R10-15) for left-turning vehicles that can turn concurrently with pedestrians and bicyclists. These signs are proposed as part of safety improvements outside the SRTS improvements. They are shown in the school improvement figures but are not included in the proposed SRTS systemic improvements.

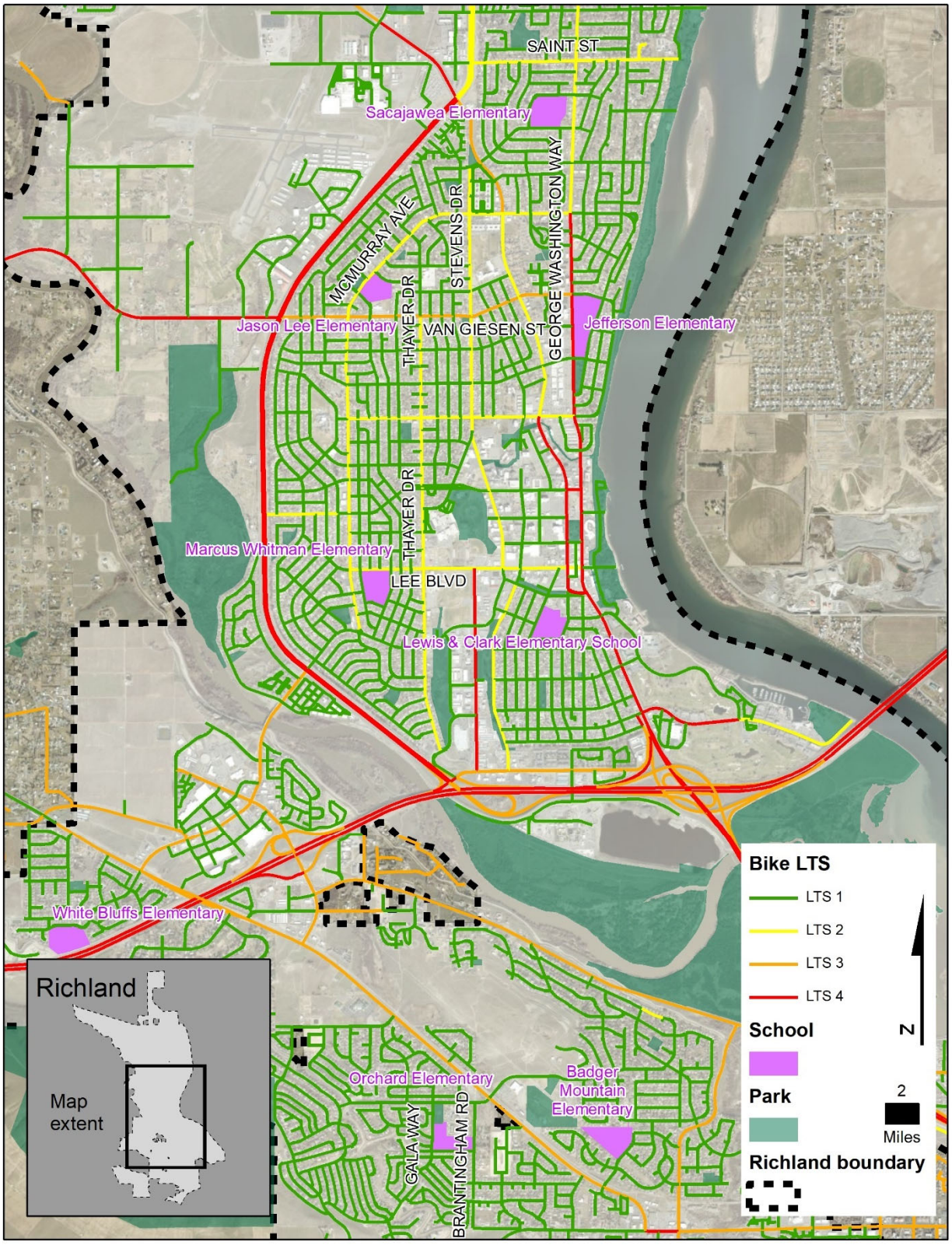


Exhibit 6. Bicyclist Level of Traffic Stress in Richland

7.5 School Crossing Analysis

Pedestrian crossing of a roadway can be a high-risk maneuver. Analysis and evaluation of crosswalks included the following variables:

- The number of lanes
- The speed of vehicles on the roadway
- The volume of vehicles on the roadway

The analysis followed the *Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations*.[6] No traffic counts or speed survey data were collected because the crossings were on a roadway with 2 lanes (1 lane in each direction), less than 9,000 vehicles per day, and speed limits posted less than 35 mph.

Roadway classification was an important consideration. Reducing vehicle speeds via traffic calming measures, such as raised crosswalks or speed humps, was limited to local streets.

The Plan lowers risk to pedestrians through improving crosswalk compliance and yielding right-of-way to the pedestrian. This is typically done through reducing the speed of approaching vehicles or heightening awareness of pedestrians entering the roadway.

The Plan proposes using a combination of school speed zone signs or raised crosswalks to reduce speeds at school crosswalks.

The Plan proposes to heighten awareness of pedestrians with high-visibility crosswalk markings, parking restrictions on crosswalk approaches, and modified R10-15 signs for left turns at signalized intersections. On high-volume roadways classified as collectors, RRFB systems are proposed.

The Plan analyzed systemwide (systemic) improvements to address safety concerns crossing roadways and the effectiveness of school speed zones. The Plan reviewed systemic improvement in the area around each of the studied schools.

School speed zone effectiveness improvement can be improved with the following:

1. The school speed zones effectiveness can be compromised by increasing the length beyond the legal limit (RCW 46.61.440, WAC 468-95-330). Professional operations note that vehicle speeds drop at the first encounter of a school speed zone sign but increase the longer the zone is. The school speed zones signs are directed to be 300 feet on each side of a crosswalk or school boundary. In many cases, these signs were found significantly farther away. Having the signs too far apart can result in vehicles entering in the middle of the school speed zone unaware of the reduced speed.
2. Add flashing lights on the back of the sign to remind motorists they are still in a school zone.
3. For school speed zones that bracket more than one crosswalk, intermediate school speed zone signs are proposed.
4. Include radar speed signs that includes the message of "Your Speed Is" with variable message with the approaching vehicles speed.

Crosswalk enhancements to improve compliance with school crosswalks include the following:

[6] https://safety.fhwa.dot.gov/ped_bike/step/docs/pocket_version.pdf

1. At low vehicle volume roadways, low-priority crossing upgrades with high-visibility crosswalk markings and high-visibility signs are recommended. This enhancement is intended for the lowest risk locations on low-volume roadways.
2. At moderate vehicle volume roadways with higher priority crossing, add a raised crosswalk to the high-visibility crosswalk markings and signs on local streets. The addition of a raised crosswalk is recommended for important crosswalks at schools with higher volumes of student pedestrians. It is important to use these on local roadway that will have minimal impact on emergency vehicle response time.
3. At moderate vehicle volume roadways with a high-priority crossing, add an RRFB to the high-visibility crosswalk markings and signs on arterial roadways. The addition of a RRFB is recommended for roadways with speeds greater than 25 MPH.
4. At signalized intersections, add modified R10-15 ("Turning Vehicles Stop for Pedestrians") signs. The addition of modified R10-15 signs improves turning movement conflicts with crossing pedestrians at signalized intersections.

Recommendation: Evaluate the studied schools for school crossing enhancements.

8 PROJECT EVALUATIONS

8.1 Sidewalk Location Analysis

For this report, sidewalk location analysis is based on standalone sidewalk projects.

Some new sidewalk improvement projects rank high based on high pedestrian LTS, but other criteria should be considered such as pedestrian trip generators, attractions, barriers, equity, and other criteria. KTUA prepared a technical memorandum for project prioritization and can be found in Appendix E.

PBS prepared a prioritization Rubric based on the Active Transportation SRTS grant program. All sidewalk projects from engineering evaluation and community suggestions were prioritized on the rubric. See Appendix E for prioritization of sidewalk improvements.

Sidewalks are the typical walkway improvements, but due to the high cost of improvement, cities are starting to look at low-cost alternatives. An example is combining a striped shoulder with some type of barrier to keep vehicles from parking on the shoulder so that walking conditions can be significantly enhanced. For example, the City of Seattle has implemented "protected walkways," as illustrated in Exhibit 7 below.[7]

Protected walkways will require creative designs to meet the needs of the students and parking needs of the adjacent property owners, but the reduction in cost of providing safe walkways is substantial.

Recommendation: Fund a demonstration protected walkway project.

[7] For more information, visit: https://usa.streetsblog.org/2018/02/01/a-quick-and-dirty-fix-for-sidewalkless-streets

Seattle DOT Director Dongho Chang calls this cheap-and-easy sidewalk trick a "protected walking lane." Photo: Dongho Chang

Exhibit 7. Example of Protected Walkway

8.2 School Crossing Evaluation

School crossing improvements were evaluated as low-cost improvements at many locations throughout the city (systemic). Systemic improvements have the highest potential for safety improvements with the widest area of impact. Traditionally, systemic improvements can be implemented relatively quickly. The majority of the improvements will be within the city that ranks high for equity and the highest pedestrian and bicyclist activity.

School crossing evaluation is based on engineering judgement after close review of each of the elementary schools studied for the SRTS Plan. The criteria used to evaluate proposed improvements included:

- School zone length
- Roadway classification
- Community requests and past history working with the school district
- School walk routes
- Crash history

The crossing enhancements evaluated at SRTS roadway crossings include:

- Enhanced "20 MPH when flashing" sign assembly (school speed zones)
- Radar Speed Signs
- High-visibility crosswalk markings and signs

- Raised crosswalks
- RRFB
- Traffic signal enhancement
- Modified R10-15 signs
- Combinations of more than one crossing enhancements

The analysis started by first evaluating the school speed zone length. Many do not meet state law or best practices. The need for additional flashers for longer school speed zones is proposed. Additional flashing lights on the back side are proposed to remind drivers they are still in the school zone.

Radar speed signs provide the driver with feedback on their speed. The radar speed signs are proposed to be installed in combination with the school speed zone signs.

Communication from the office to the school speed zone signs is proposed to improve operation and flexibility for programming.

A raised crosswalk is a 22-foot-wide speed hump combined with crosswalk signs and markings. Raised crosswalks recommendations were limited to local streets (non-arterials) where traffic volume is low and not likely on a bus or primary emergency response route.

RRFB crossing enhancements are proposed for uncontrolled crosswalks on arterial roadways.

R10-15 ("Turning Vehicles Stop for Pedestrians") signs, modified to have flashing elements controlled via the use of pedestrian push buttons, are proposed at select signalized intersections.

A combination of school speed zone improvement and crossing enhancements are proposed as one larger systemic project. The analysis concluded with evaluation of which improvements should be included in the systemic project.

Finding: Systemic school crosswalk safety improvements provide the greatest safety benefit for the RSD.

Recommendation: Submit a grant for the improvements listed in Table 5 for the School Crosswalk Safety improvements.

8.3 Recommendations for Implementation

The goal of the SRTS Plan is to provide a list of improvements. These improvements are based on community, stakeholder, and engineering input. The suggested and recommended roadway improvements were analyzed for the following list of projects. The projects are broken down to submit to the SRTS grant program, included in the unfunded City transportation improvement program and others to be implemented with City forces within the operation budget. Cost estimates were prepared for the systemic improvements but not for the spot improvements.

Table 4. Sidewalk Location Transportation Improvement Program

School	Location/ Limits	Priority	Scope of Work
Jason Lee	Torbett Street Thayer Drive to Stevens Drive	Medium	Install sidewalk on both sides

School	Location/ Limits	Priority	Scope of Work
Jefferson	Symons Street Goethals Drive to Jadwin Avenue	High	Install sidewalk on south side
	Wordrop Street Wordrop Street & Hoxie Avenue	Low	Complete sidewalks on Wordrop Street and Hoxie Avenue
	Hains Avenue Park Access Street to Hunt Avenue	Low	Install sidewalk on north side
	Symons Street Goethals Drive to Steven Drive	Low	Install missing sidewalk segments on south side
Lewis & Clark	Comstock Street Goethals Drive to Jadwin Avenue	High	Install sidewalk curb and gutter on south side
	Comstock Street Jadwin Avenue to George Washington Way	High	Install sidewalk on both sides
	Davenport Street Goethals Drive to George Washington Way	Medium	Install sidewalk on both sides
	Downing Cullum Avenue to Jadwin Avenue	Medium	Install sidewalk curb and gutter on south side
	Benham Street Goethals Drive to George Washington Way	Medium	Install sidewalk on both sides
	Adams Street Jadwin Avenue to George Washington Way	Medium	Install sidewalk on both sides
Marcus Whitman	Humphreys Street Wright Avenue to Winslow Avenue	High	Install sidewalk on both sides
	Snow Avenue Duportail Street to Grey Street	High	Install sidewalk on both sides
	Winslow Avenue Snow Avenue and Fries Street	Low	Install sidewalk on both sides
Orchard	Brantingham Road Oahu Street to school driveway	Medium	Install sidewalk on east side for passenger loading zone
Sacajawea	Saint-Fuller Pathway Saint Street to Fuller Street	Medium	Infill concrete walkway, parking restrictions, and crosswalk signs
	Newcomer Street Coast Street to 125 feet north	Medium	Install sidewalk on both sides
	Coast Street Jadwin Avenue to Rainier Avenue	Low	Install sidewalk curb and gutter on south side

The City has applied for SRTS grants for sidewalk projects in the past without success. In any case, it will take many years to fund sidewalk projects based on the high cost to upgrade existing streets with sidewalks. From the length of the list and the robust input from the community, PBS can conclude there is a strong desire for walkway improvements, and cost-effective alternatives to sidewalks are needed.

Table 5 below details proposed systemic improvements that will be part of a grant application for SRTS funds this biennium cycle, and underlined community-suggested improvements that will not be part of a grant application for SRTS funds this biennium cycle but may be applied for in future cycles or considered for alternative funding routes in the future.

Table 5. School Crosswalk Safety Improvements

School	Location/ Cross Street	Priority	Improvement
Badger Mountain	Leslie Road Timmerman Drive	Medium	Install Crosswalk
Badger Mountain	Leslie Road Chaparral Street	Medium	Install Crosswalk
Badger Mountain	Baywood Avenue Ogden Street	Medium	Crosswalks (2)
Badger Mountain	Sagewood Street Keene Path	Medium	Raised Crosswalk
Badger Mountain	Oxford Avenue Alamosa Avenue	Medium	Crosswalks (2)
Badger Mountain	Oxford Avenue Crossing 150′ west of Baywood Avenue	Medium	RRFB or Raised Crosswalk
Carmichael	Thayer Drive Iry Street and Lee Boulevard	High	Upgrade Existing School Zone Beacon Sign Assembly
Carmichael	Thayer Drive Iry Street	High	School Zone Sign Enhancement
Carmichael	Thayer Drive Hoffman Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Carmichael	Thayer Drive School Entrance	High	Install an RRFB
Carmichael	Thayer Drive Swift Boulevard	High	Flashing R10-15
Carmichael	Swift Boulevard Long Avenue	High	Flashing R10-15
Carmichael	Thayer Drive Lee Boulevard	High	Flashing R10-15
Carmichael	Thayer Drive Wellsian Way	High	Flashing R10-15
Chief Joseph	Stevens Drive Wilson Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Chief Joseph	Stevens Drive Woodbury Street	High	Install Intermediate School Zone Flashers Only
Chief Joseph	Stevens Drive Sunset Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Chief Joseph	Jadwin Avenue North of Van Giesen Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Chief Joseph	Jadwin Avenue School Entrance	High	Install Intermediate School Zone Flashers Only
Chief Joseph	Jadwin Avenue South of McMurray St	High	Upgrade Existing School Zone Beacon Sign Assembly
Chief Joseph	Van Giesen Street Stevens Drive	High	Flashing R10-15

School	Location/ Cross Street	Priority	Improvement
Chief Joseph	Jadwin Avenue McMurray Avenue	High	Flashing R10-15
Chief Joseph	George Washington Way McMurray Avenue	High	Flashing R10-15
Jason Lee	Van Giesen Street Wright Avenue	High	Relocate School Zone Beacon Sign Assembly
Jason Lee	Van Giesen Street McPherson Avenue / Perkins Avenue	High	Relocate School Zone Beacon Sign Assembly
Jason Lee	Van Giesen Street Thayer Drive	High	School Zone Sign Enhancement
Jason Lee	Van Giesen Street Perkins Avenue	High	Remove Crosswalk
Jason Lee	McMurray Avenue Sunset Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Jason Lee	McMurray Avenue Woodbury Street	High	Install an RRFB
Jason Lee	McMurray Avenue April Loop	High	Install Intermediate School Zone Flashers Only
Jason Lee	McMurray Avenue Austin Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Jason Lee	Van Giesen Street Wright Avenue	High	Flashing R10-15
Jason Lee	Van Giesen Street Sanford Avenue	High	Move School Beacon Positions
Jason Lee	Wright Avenue Turner Street	Medium	Crosswalks (2)
Jason Lee	Wright Avenue Trippe Street	Medium	Crosswalks (2)
Jefferson	Van Giesen Street School Access / Pathway	High	Raised Crosswalk
Jefferson	George Washington Way Davison Avenue / Van Giesen Street	High	Upgrade Existing School Zone Beacon Sign Assembly
Jefferson	Van Giesen Street Jadwin Avenue	High	Flashing R10-15
Jefferson	Van Giesen Street George Washington Way	High	Flashing R10-15
Jefferson	George Washington Way Symons Street	High	Flashing R10-15
Jefferson	Jadwin Avenue Symons Street	High	Flashing R10-15
Jefferson	Van Giesen Street Hunt Avenue	Medium	Crosswalk
Lewis & Clark	Cullum Avenue Fitch Street	High	Intermediate School Zone Sign Enhancement

School	Location/ Cross Street	Priority	Improvement
Lewis & Clark	Cullum Avenue Downing Street	High	Raised Crosswalk
Lewis & Clark	Cullum Avenue Fitch Street	High	Raised Crosswalk
Lewis & Clark	Comstock Street Jadwin Avenue	High	Crosswalk (East Side)
Lewis & Clark	Comstock Street Jadwin Avenue	High	Remove Crosswalk (South Side)
Lewis & Clark	Comstock Street Jadwin Avenue	High	RRFB (North Side)
Marcus Whitman	Wright Avenue Frankfort Street	High	Relocate School Zone Beacon Sign Assembly
Marcus Whitman	Wright Avenue Humphreys Street	High	Install an RRFB
Marcus Whitman	Wright Avenue Dallas Street	High	Raised Crosswalk
Marcus Whitman	Wright Avenue Lee Boulevard	High	Relocate School Zone Beacon Sign Assembly
Marcus Whitman	Wright Avenue Lee Boulevard	High	Remove Crosswalk (South Side)
Marcus Whitman	Lee Boulevard Wright Avenue	High	Relocate School Zone Beacon Sign Assembly
Marcus Whitman	Wright Avenue Lee Boulevard	High	Install an RRFB
Marcus Whitman	Lee Boulevard Wright Avenue	High	Install an RRFB
Marcus Whitman	Lee Boulevard Willard Avenue	High	Install Intermediate School Zone Flashers Only
Marcus Whitman	Lee Boulevard Snow Avenue	High	Install an RRFB
Marcus Whitman	Lee Boulevard Smith Avenue	High	Relocate School Zone Beacon Sign Assembly
Marcus Whitman	Snow Avenue Jewett Street	High	Raised Crosswalk
Marcus Whitman	Snow Avenue Hoffman Street	High	Raised Crosswalk
Marcus Whitman	Lee Boulevard Thayer Drive	High	Crosswalk (East Side)
Marcus Whitman	Swift Boulevard Cottonwood Drive	Medium	Install RRFB
Marcus Whitman	Swift Boulevard Smith Avenue	Medium	Crosswalk
Marcus Whitman	Wright Ave Dallas Street	Medium	Raised Crosswalk

School	Location/ Cross Street	Priority	Improvement
Orchard	Gala Way Manchester Street	High	Crosswalks (2)
Orchard	Gala Way Manchester Street	High	Install School Zone Beacon Sign Assembly
Orchard	Gala Way Jordan Lane	High	Raised Crosswalk or RRFB
Orchard	Gala Way Purple Sage Street	High	Install School Zone Beacon Sign Assembly
Orchard	Gala Way Purple Sage Street	High	Remove Crosswalk
Orchard	Brantingham Road School Access	High	Install School Zone Beacon Sign Assembly
Orchard	Brantingham Road School Access	High	Raised Crosswalk
Orchard	Brantingham Road School Access / Oahu Street	High	Install School Zone Beacon Sign Assembly
Orchard	Brantingham Road Oahu Street	High	Remove Crosswalk
Orchard	Gala Way Purple Sage St	High	Remove Crosswalk
Orchard	Brantingham Road Melissa Street	High	Crosswalk
Orchard	Gala Way Manchester Street	High	Crosswalks (2)
Orchard	Gala Way Melissa Street	High	Crosswalks (2)
Orchard	Brantingham Road Oahu Street	High	Crosswalks (2) Consider Raised Crosswalks
Orchard	Brantingham Road Melissa Street	High	Crosswalk
Sacajawea	Catskill Street Rainer Avenue	High	Relocate School Zone Beacon Sign Assembly
Sacajawea	Catskill Street Rainer Avenue	High	School Zone Sign Enhancement
Sacajawea	Catskill Street Everest Avenue	High	Raised Crosswalk
Sacajawea	Catskill Street George Washington Way	High	Upgrade Existing School Zone Beacon Sign Assembly
Sacajawea	Fuller Street George Washington Way	High	Remove Existing School Zone Beacon Sign Assembly
Sacajawea	Fuller Street Baker Street	High	School Zone Sign Enhancement
Sacajawea	Fuller Street Baker Street / Pathway	High	Raised Crosswalk

School	Location/ Cross Street	Priority	Improvement
Sacajawea	Saint Street Lynwood Court	High	Install School Zone Beacon Sign Assembly
Sacajawea	Saint Street Lynwood Court	High	Raised Crosswalk
Sacajawea	Rainier Avenue Coast Street	High	School Zone Sign Enhancement
Sacajawea	George Washington Way Saint Street	High	Flashing R10-15
Sacajawea	Spengler Street Hood Avenue and Carriage Avenue	High	RRFB
Sacajawea	Franklin Street Pathway	High	Parking Restriction Signs
Sacajawea	Holly Street Pathway	High	Parking Restriction Signs
Sacajawea	Rainier Street Coast Street	Medium	Intermediate School Zone Sign Enhancement

9 COST ESTIMATE—SYSTEMIC IMPROVEMENTS

A cost estimate was prepared for the School Crosswalk Safety Improvements surrounding the elementary and middle schools identified as high risk in the study. This estimate encompasses the items detailed in Table 5, in addition to crosswalk striping and signing, which are not explicitly listed in these tables but are depicted in the corresponding figures for each school. Estimate details can be found in Appendix F.

Table 7. SRTS Systemic Improvements Cost Estimate by School

School	Subtotal ($)
Sacajawea Elementary School	$389,000
Jefferson Elementary School	$265,000
Marcus Whitman Elementary School	$648,000
Jason Lee Elementary School	$521,000
Lewis and Clark Elementary School	$176,000
Orchard Elementary School	$448,000
Carmichael Middle School	$367,000
Chief Joseph Middle School	$466,000
Total	$3,279,000

Vicinity Map and Project Figures

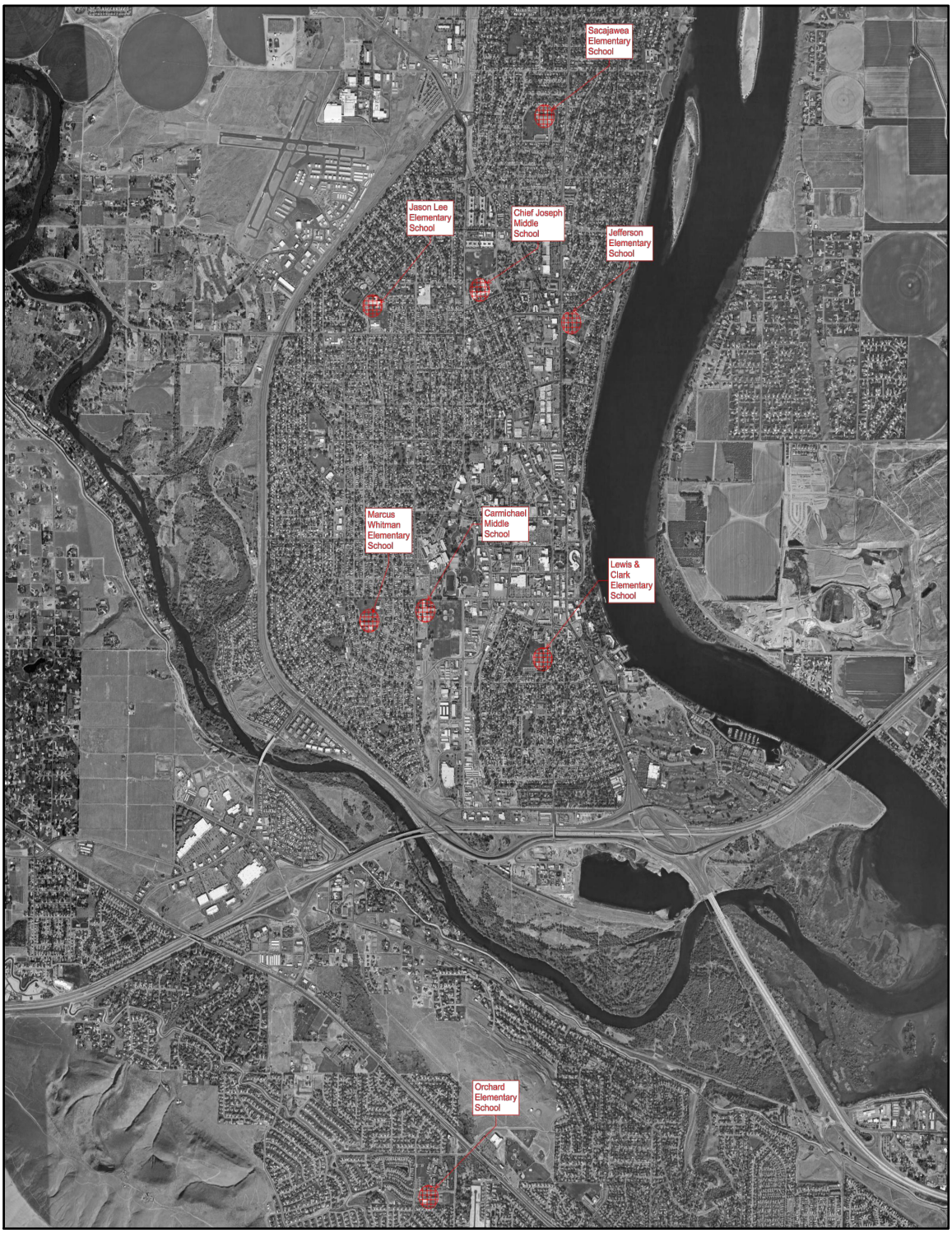


FIGURE 1

Vicinity Map

Richland Safe Routes to School

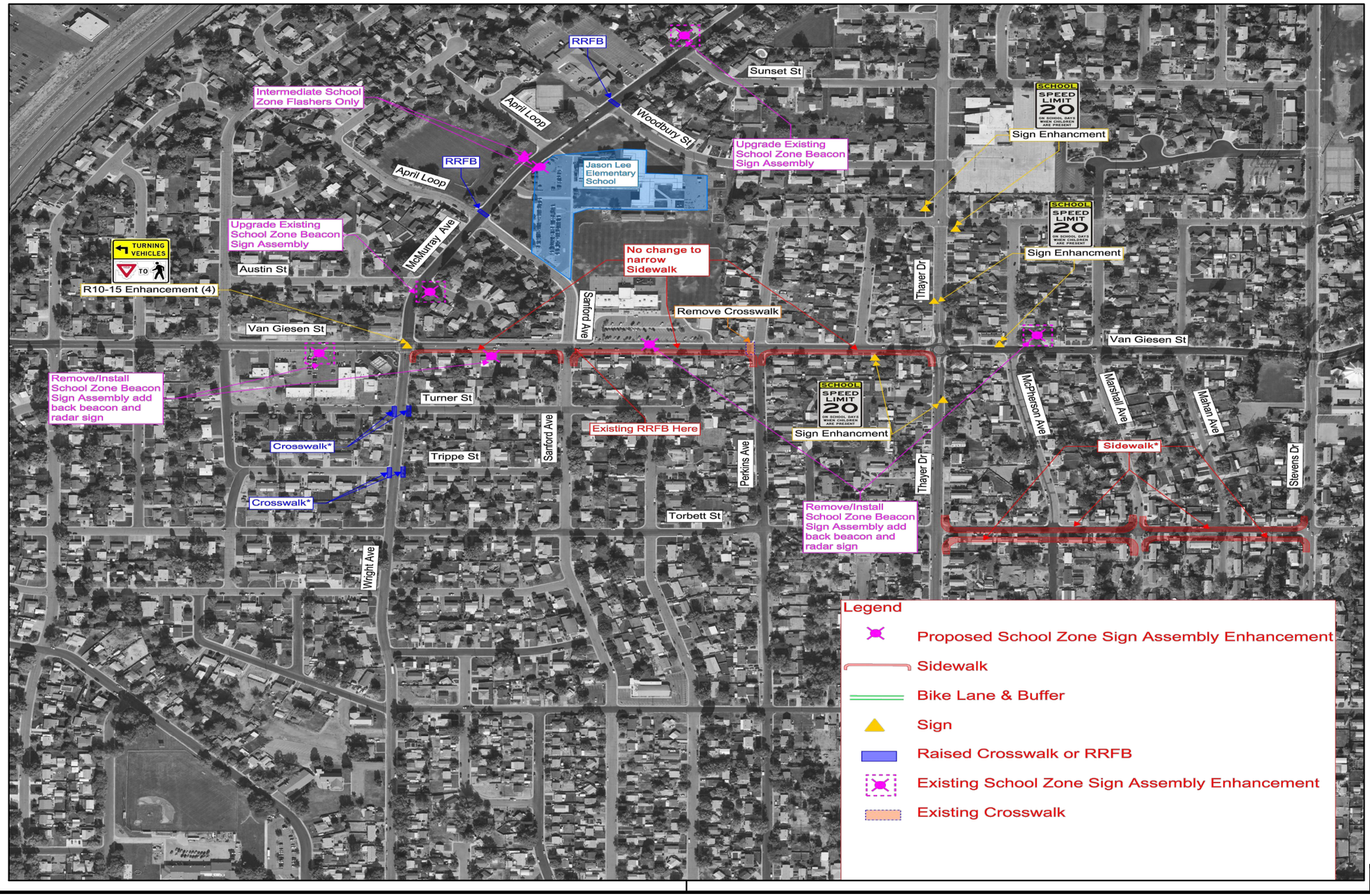


FIGURE 2

Jason Lee Elementary School
Richland Schools

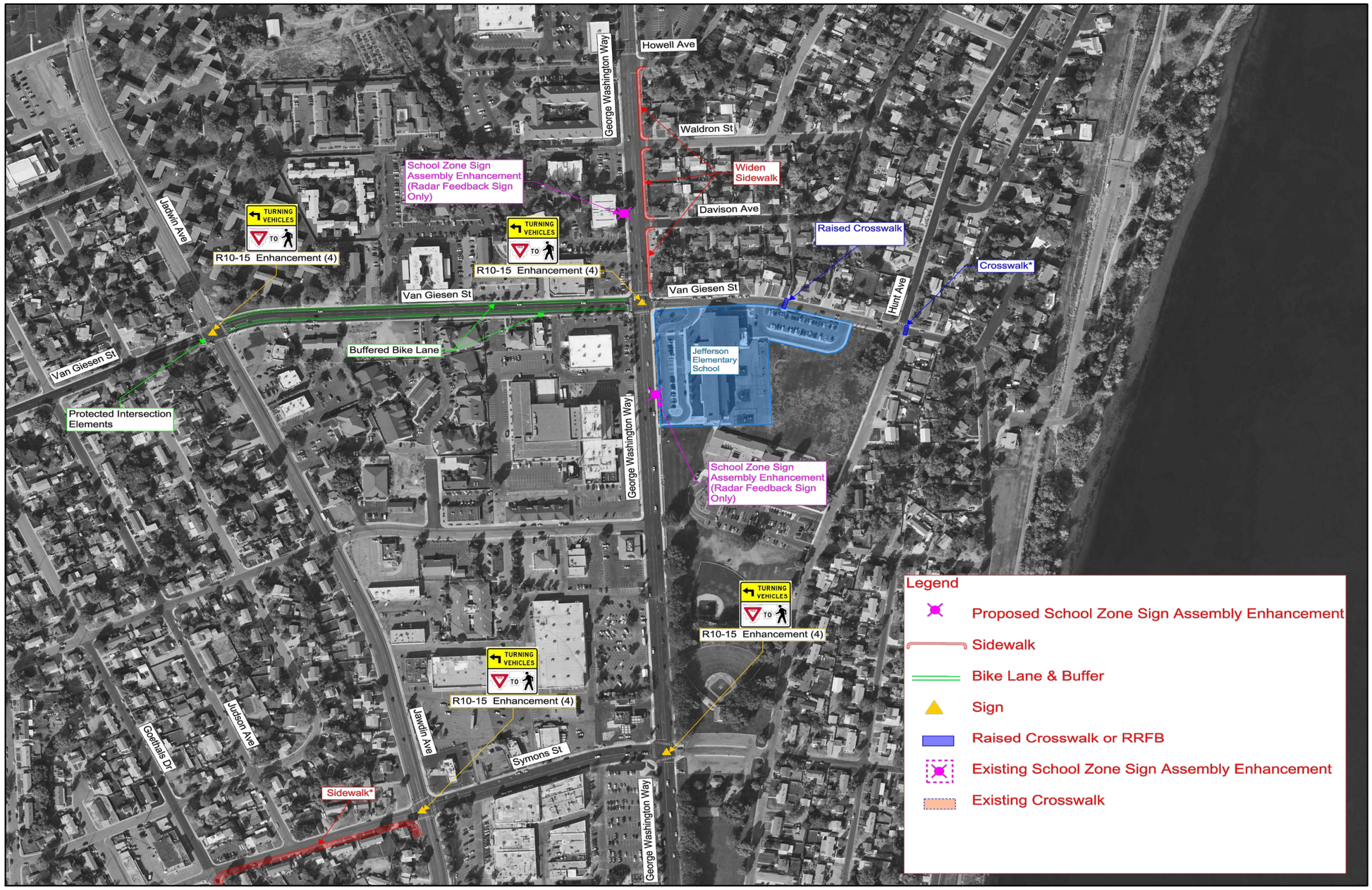


FIGURE 3

Jefferson Elementary School

Richland Schools

FIGURE 4

Lewis and Clark Elementary School

Richland Schools

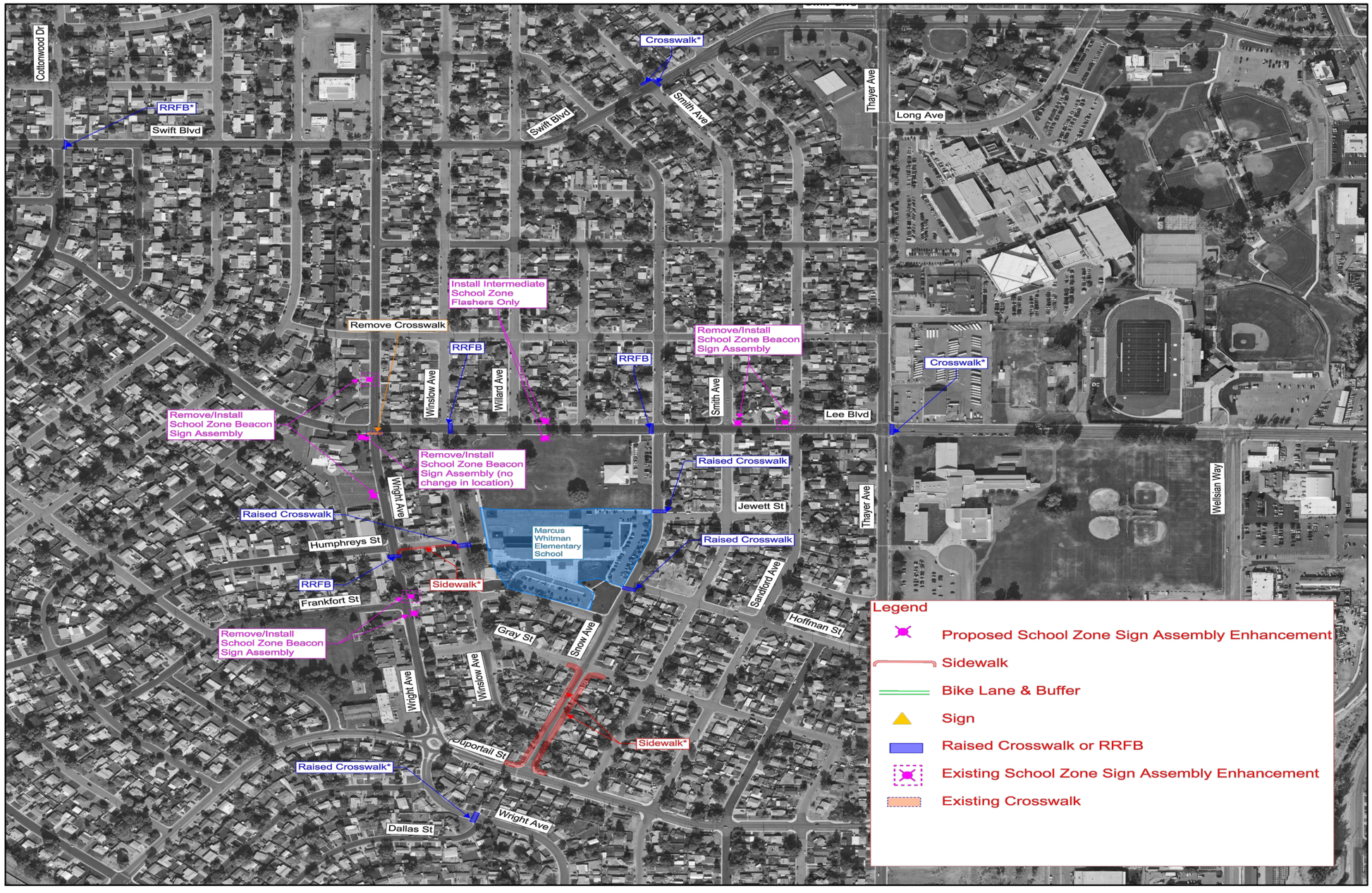


FIGURE 5

Marcus Whitman Elementary School

Richland Schools

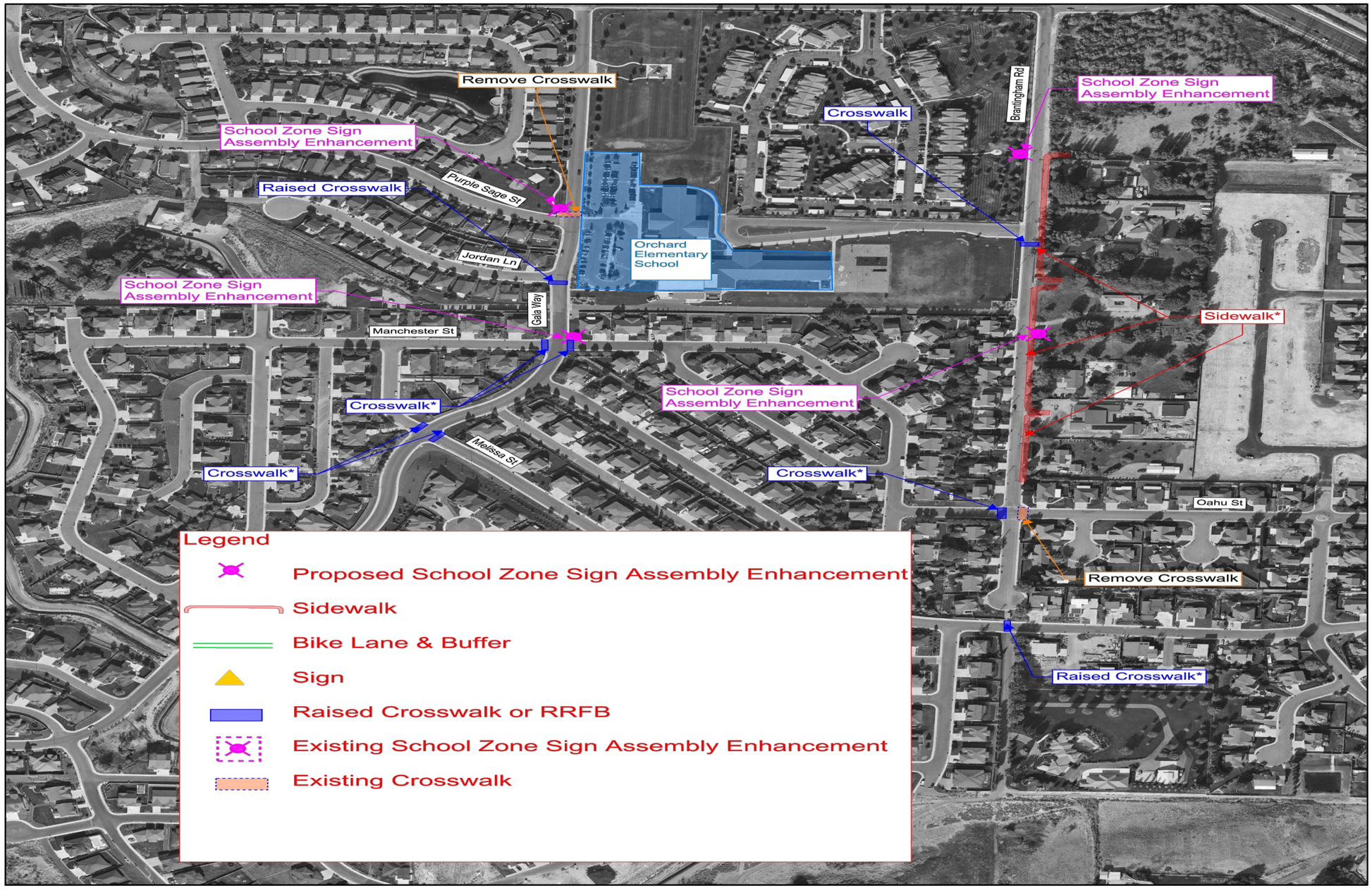


FIGURE 6

Orchard Elementary School

Richland Schools

FIGURE 7

Sacajawea Elementary School

Richland Schools

FIGURE 7

Carmichael Middle School

Richland Schools

FIGURE 8

Chief-Joseph Middle School

Richland Schools

Appendix A

Richland Safe Route to School—Data Collection Contents

Technical Memorandum

Memorandum

DATE: February 1, 2024

TO: The City of Richland

FROM: John A. Manix, PBS Engineering and Environmental Inc.

PROJECT: 78148.000, Phase 0002, Task 004

REGARDING: Richland Safe Routes to School – Data Collection

DESCRIPTION

This memorandum provides an overview of the data compiled in PBS Engineering and Environmental Inc.'s (PBS) assessment of Safe Routes to School (SRTS) plans and the subsequent selection of safety enhancements for these routes in Richland, Washington. The datasets utilized for this evaluation include City of Richland (City) Traffic Crash Location System (TLCS) and DKS Associates' Analytical Safety Heat Maps (DASH) database systems as well as traffic volumes, speed limits and speed surveys, and travel lanes with proposed and existing SRTS plans.

Proposed SRTS Maps Review

PBS reviewed the eight proposed elementary school Benton-Franklin Council of Government's (BFCOG) SRTS maps prior to their circulation to the schools. These maps were compared to the City's elementary school SRTS maps, Washington State Department of Transportation's (WSDOT) *School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students*[1], and existing conditions as displayed in Google Earth. An updated *School Walk and Bike Routes* guide is expected to be released soon and should be used as a best practice guide.

Reviewing the maps allowed PBS to become familiar with the transportation networks surrounding each City elementary school within a 1-mile radius. Upon review, PBS provided suggestions for crossing enhancements on certain BFCOG SRTS maps as discussed during a December 13, 2023, meeting with PBS, BFCOG, and the City. See Attachment 1 for existing City SRTS maps and Attachment 2 for suggestions to BFCOG SRTS maps.

PBS recommends final SRTS maps should include more details on the walk routes to better match best practices. The SRTS maps should include any comments from principals, parents, or other stakeholders.

Crash Data

PBS collected and mapped pedestrian and bicycle crash data near each elementary school from 2018 to 2022. PBS recommends this data be used in the SRTS analysis (see Attachment 3). Crash data was review from the following sources:

- Richland Traffic Crash Location System (TLCS)

[1] Washington State Department of Transportation, Washington Traffic Safety Commission, Washington State Department of Health, and the Office of Superintendent of Public Instruction. (2015). *School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students*. https://wtsc.wa.gov/wp-content/uploads/dlm_uploads/2014/09/SchoolWalkBikeGuide_TechnicalUpdate.pdf

  - The TLCS provides a detailed overview of crash locations that specify description, injuries, and trends about crashes that occurred in Richland. Pedestrian and bicycle data were found incomplete.

- Richland DASH Map
  - Richland DASH Map provides information similar to the TLCS, but with more analytical features for trends for corridors and detailed descriptions for each crash. Pedestrian and bicycle data were found incomplete.
- Washington State DASH Map
  - The data from the Richland DASH Map was compared to Washington State DASH Map. After comparison, the WSDOT DASH Map was found to have a more complete set of pedestrian and bicycle crash data.
- City ArcGIS Data
  - The City provided PBS with ArcGIS data containing roadway characteristics and traffic count data. The data was used to generate maps displaying information pertinent to SRTS and local pedestrian crossing facilities. Two example maps for Marcus Whitman Elementary School are attached (see attachment 8).

After reviewing the provided resources and thoroughly studying the data in both DASH maps and Richland TCLS, PBS concluded that the Washington State DASH Map contains the most up-to-date and accurate information compared to current WSDOT crash data. Notably, the Richland DASH Map had incomplete data. The data illustrates crashes within a 1-mile radius zone for each school, generating pedestrian and bicycle crash data from 2018 to 2022. Each map is supported with detailed information on each incident.

PBS recommends using the Washington State DASH Maps for optimal crash data analysis.

Transportation Data
PBS collected traffic and transportation information on busy streets near each elementary school and illustrated the data on SRTS maps for each school. The maps can be found in Attachment 4, with the following information added:

- Traffic volumes on arterials near schools
- Posted speed limits via City records
- Number of travel lanes
- Roadway functional classification

Citations for information can be found on Attachment 4.

Data Analysis
PBS recommends the data be used for the following:

- Identifying high-risk roadways, intersections, or other areas
- Identifying public improvements that will facilitate school children walking to and from school
- Prioritizing improvements for future public improvement projects
- Supporting grant applications with the data requested to complete the submittal

Next Steps

The data will be forwarded to KTUA for analysis. KTUA will also add to the data set pedestrian activity information based on output from Replica. Replica can show both the number and location of pedestrians.

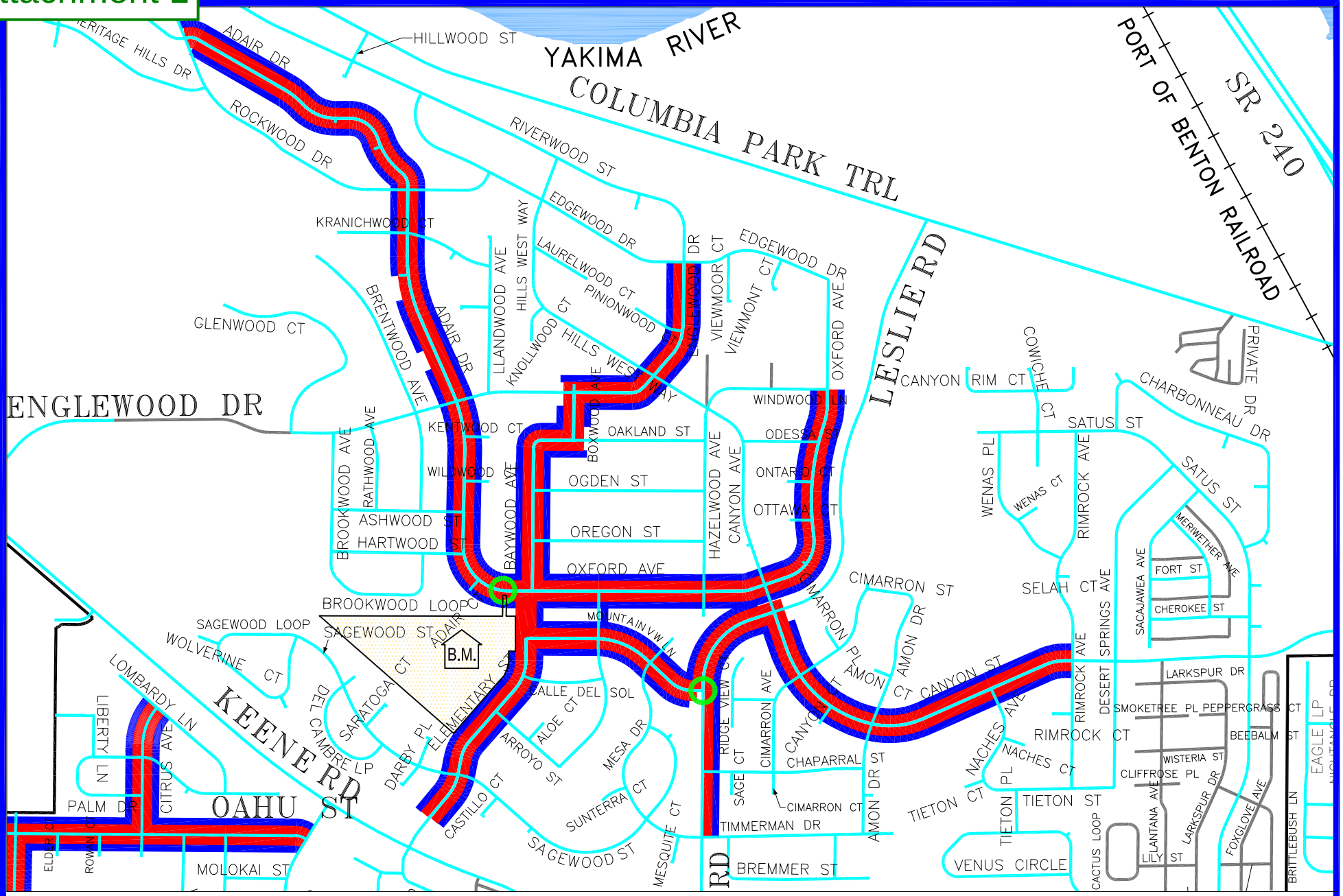
Attachments:

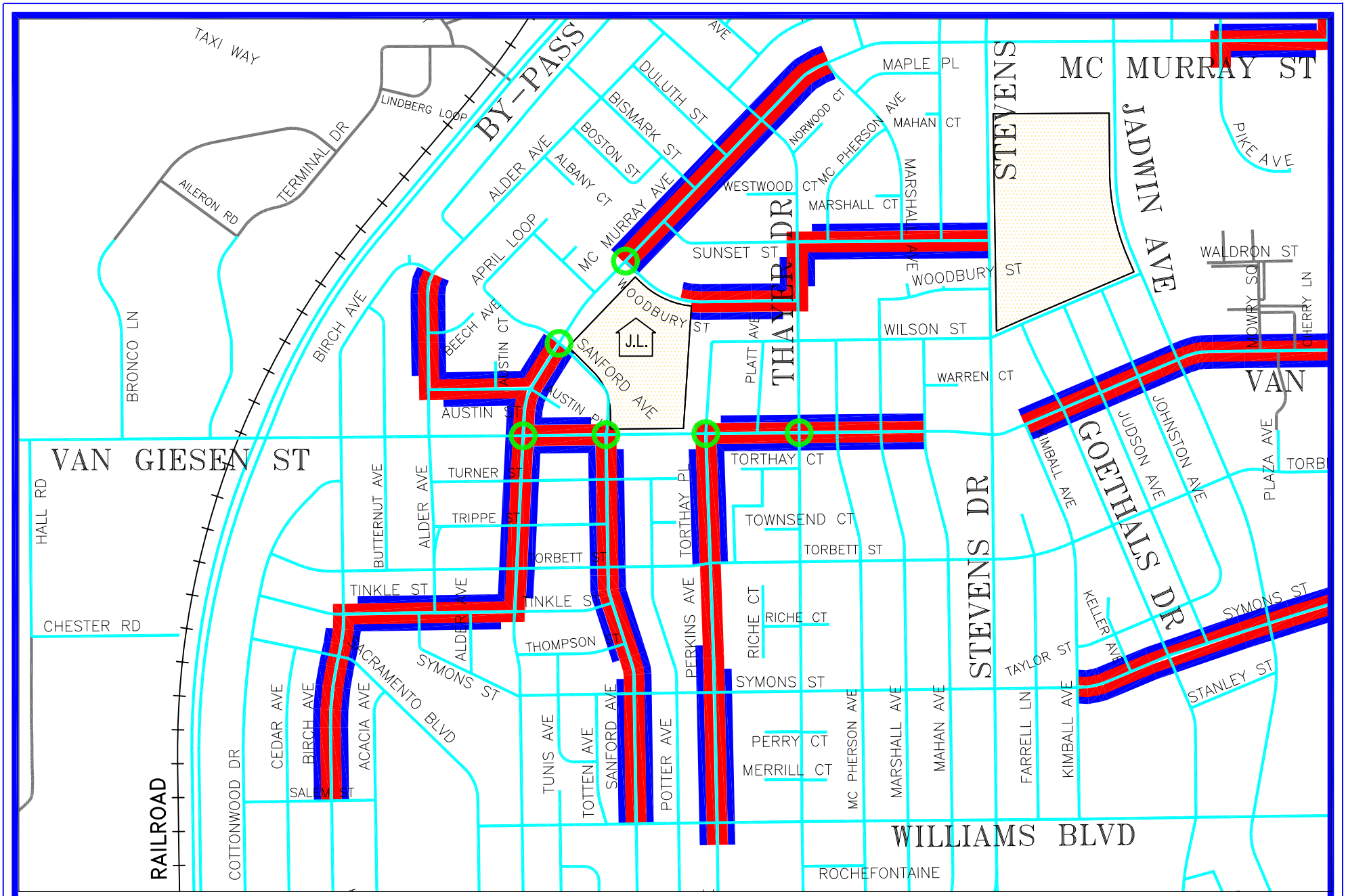
1. Past Richland SRTS Maps
2. Existing Richland SRTS Maps
3. Proposed BFCOG SRTS Maps
4. Proposed BFCOG SRTS Maps with Comments
5. Major Roadways Characteristics near Each Elementary School
6. DASH Pedestrians/Bikes 1-mile Radius Crash Maps
7. DASH Pedestrians/Bikes 1-mile Radius Crash Data
8. Example ArcGIS Maps for Marcus Whitman Elementary School

cc: Tom Bertulis (KTUA), Moe Taha (PBS), PJ McKelvey (PBS)

JAM:MET:tl

Attachment 1





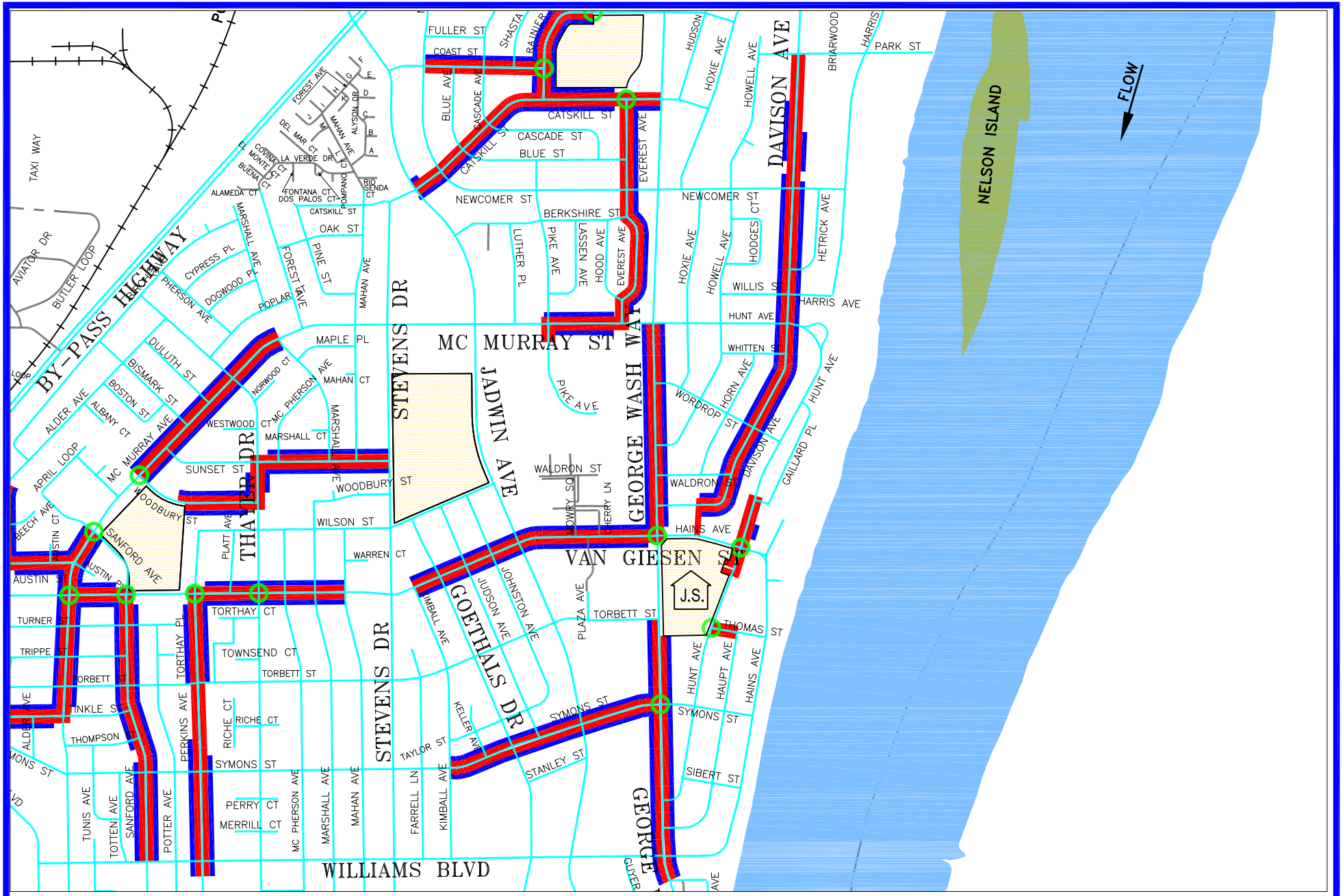
N.T.S.

JASON LEE ELEMENTARY

Walking Paths
Sidewalks
Crossing Guard

Richland

CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS



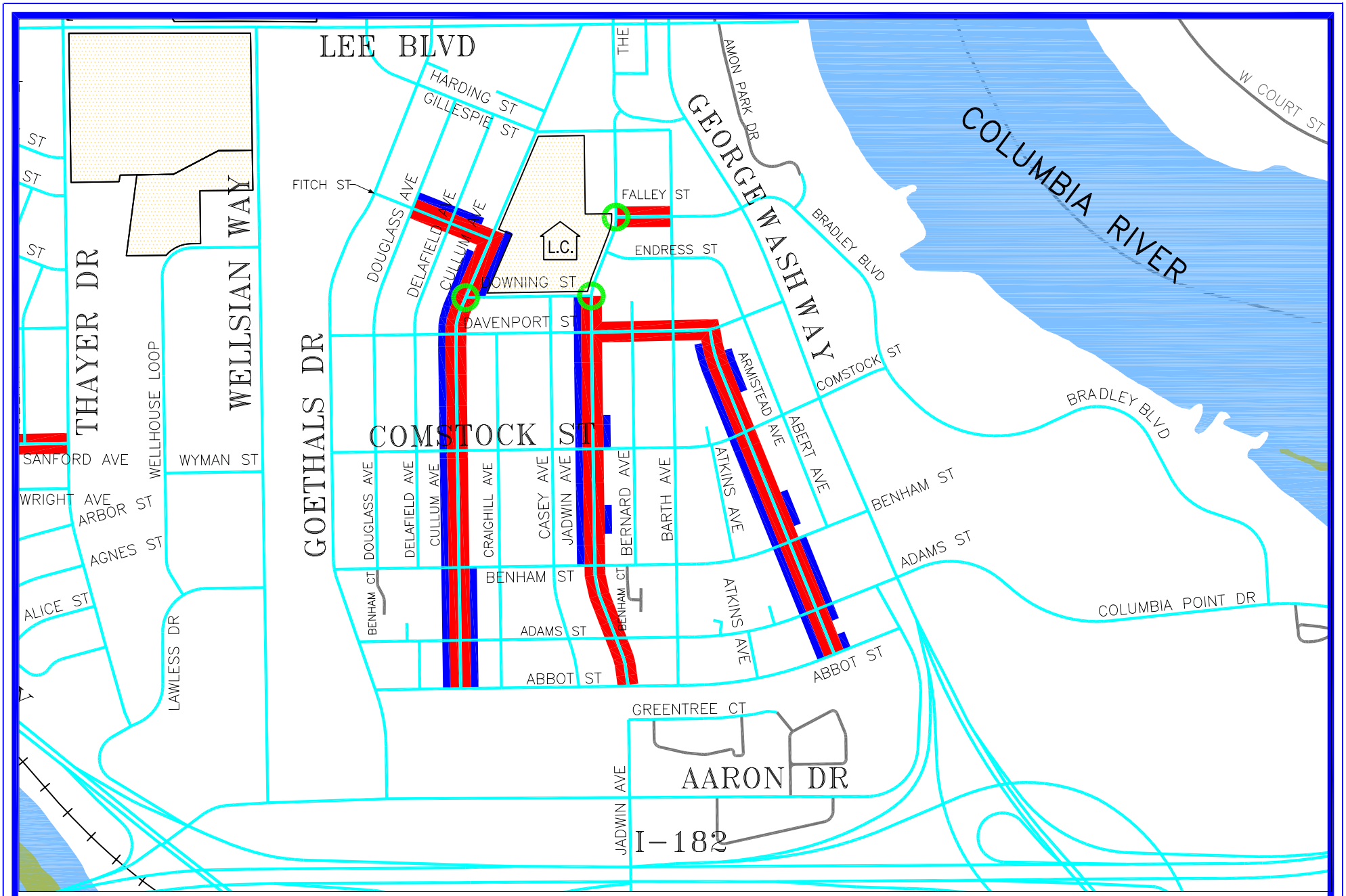
N.T.S.

JEFFERSON ELEMENTARY

Walking Paths
Sidewalks
Crossing Guard

Richland

CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS



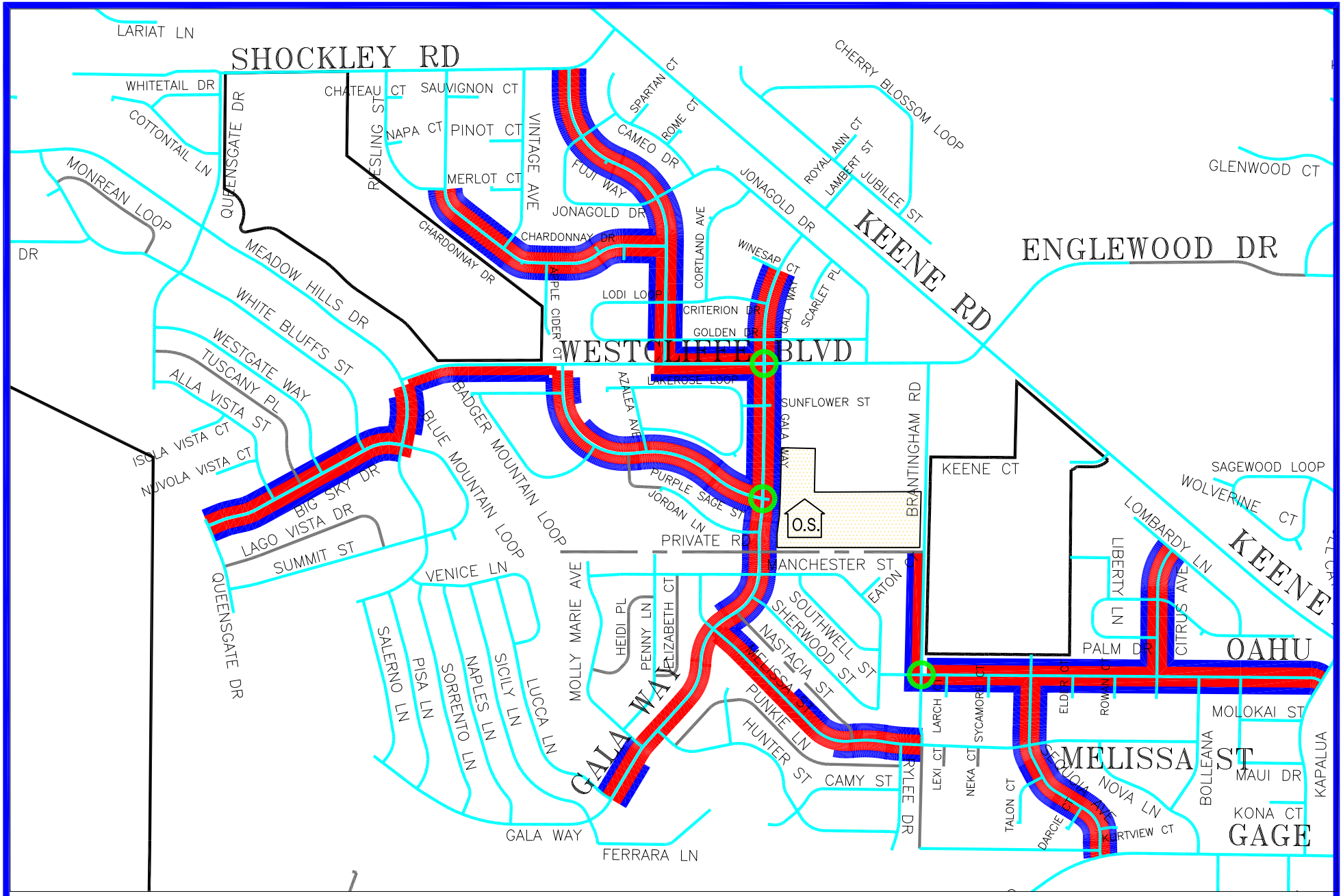
N.T.S.

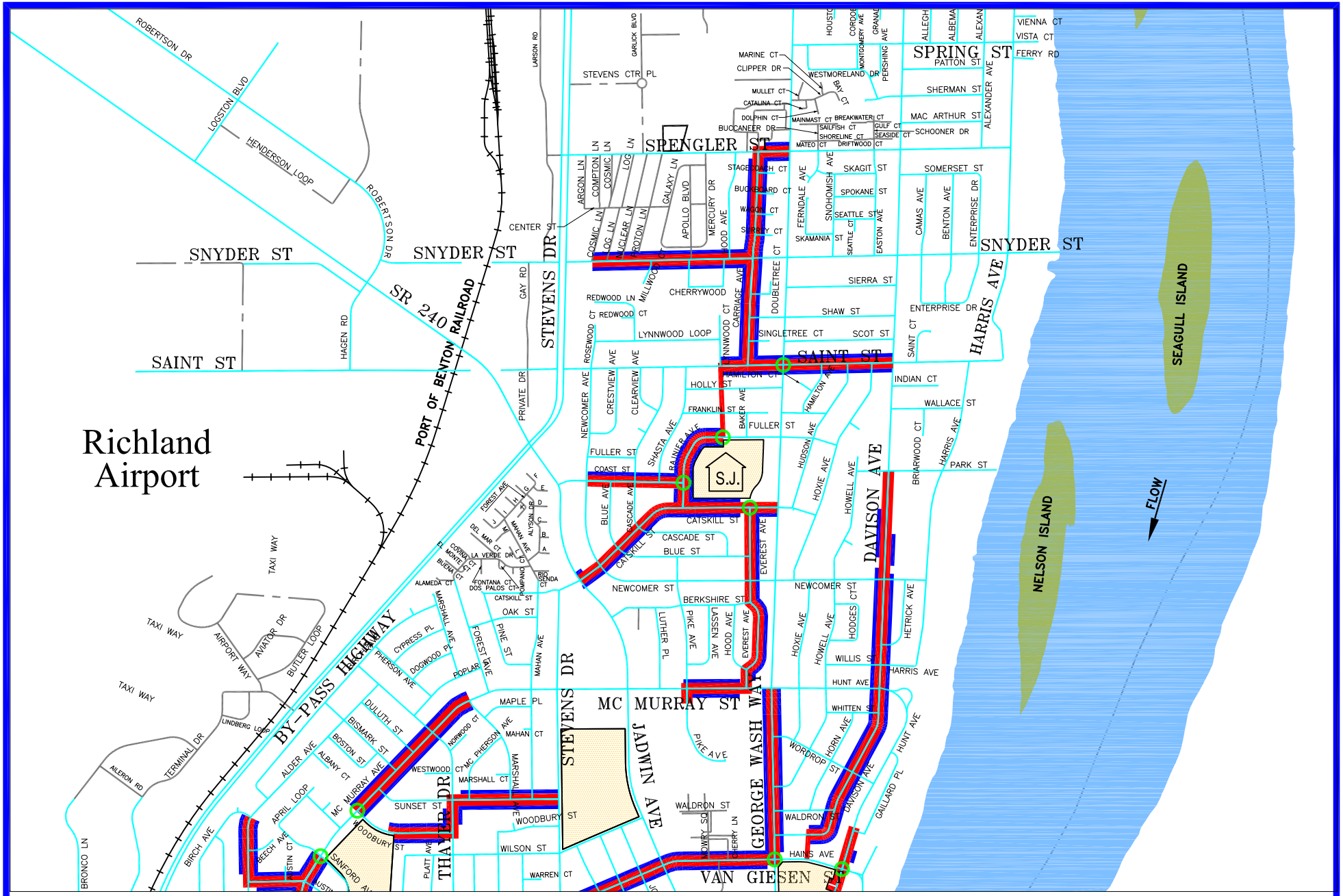
LEWIS AND CLARK ELEMENTARY

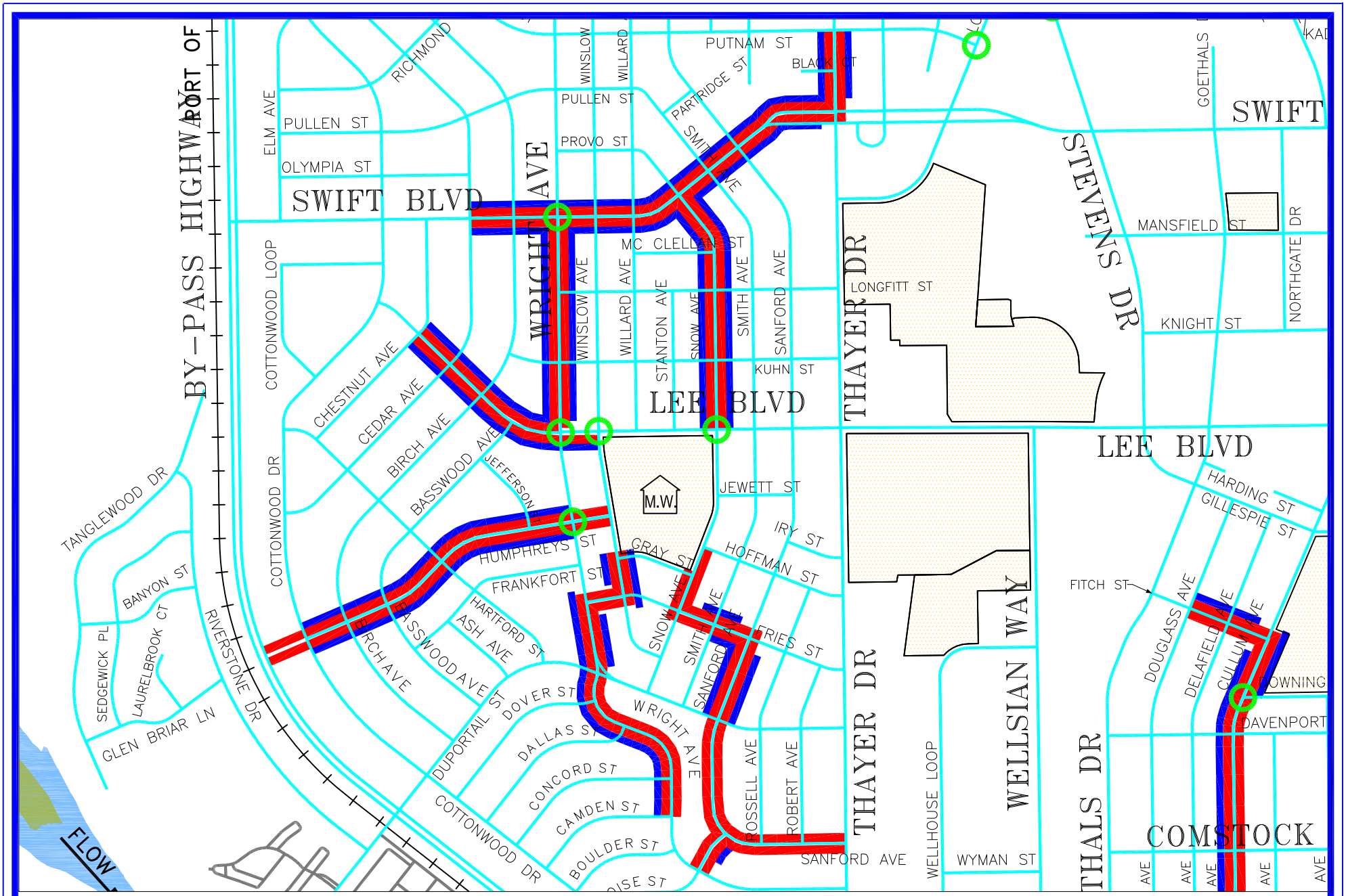
Walking Paths
Sidewalks
Crossing Guard

Richland

CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS


LARIAT LN
SHOCKLEY RD
WHITETAIL DR
COTTONTAIL LN
QUEENSGATE DR
CHATEAU CT
SAUVIGNON CT
RIESLING ST
NAPA CT
PINOT CT
MERLOT CT
VINTAGE AVE
SPARTAN CT
ROME CT
CAMEO DR
FUJI WAY
JONAGOLD DR
CHARDONNAY DR
CHERRY BLOSSOM LOOP
ROYAL ANN CT
LAMBERT ST
JUBILEE ST
GLENWOOD CT
MONREAN LOOP
DR
MEADOW HILLS DR
WHITE BLUFFS ST
WESTGATE WAY
TUSCANY PL
ALLA VISTA ST
ISOLA VISTA CT
NUVOLA VISTA CT
BIG SKY DR
LAGO VISTA DR
SUMMIT ST
QUEENSGATE DR
BLUE MOUNTAIN LOOP
BADGER MOUNTAIN LOOP
VENICE LN
SALERNO LN
PISA LN
SORRENTO LN
NAPLES LN
SICILY LN
LUCCA LN
GALA WAY
FERRARA LN
CORTLAND AVE
WINESAP CT
GALA WAY
SCARLET PL
KEENE RD
ENGLEWOOD DR
LODI LOOP
CRITERION DR
GOLDEN DR
WESTCLIFFE BLVD
LAKEROSE LOOP
AZALEA AVE
SUNFLOWER ST
PURPLE SAGE ST
JORDAN LN
PRIVATE RD
MANCHESTER ST
O.S.
BRANTINGHAM RD
KEENE CT
SAGEWOOD LOOP
WOLVERINE CT
LOMBARDY LN
KEENE
LIBERTY LN
CITRUS AVE
OAHU
PALM DR
MOLOKAI ST
MELISSA ST
MAUI DR
BOLLEANA
KAPALUA
KONA CT
GAGE
SEQUOIA AVE
KERTVIEW CT
NOVA LN
DARCIE CT
TALON CT
LEXI CT
LARCH CT
NEKA CT
SYCAMORE CT
ELDER CT
ROWAN CT
EATON CT
SOUTHWELL ST
SHERWOOD ST
NASTACIA ST
MELISSA ST
PUNKIE LN
HUNTER ST
CAMY ST
DYLEE DR
MOLLY MARIE AVE
HEIDI PL
PENNY LN
ELIZABETH CT
N.T.S.
THE ORCHARDS ELEMENTARY
Walking Paths
Sidewalks
Crossing Guard
Richland
CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS


SACAJAWEA ELEMENTARY
N.T.S.
Walking Paths
Sidewalks
Crossing Guard
Richland
Richland Airport
SPRENGLER ST
SPRING ST
SNYDER ST
SAINT ST
MC MURRAY ST
VAN GIESEN ST
STEVENS DR
JADWIN AVE
GEORGE WASH WAY
DAVISON AVE
HARRIS AVE
THAYER DR
BY-PASS HIGHWAY
PORT OF BENTON RAILROAD
SR 240
SEAGULL ISLAND
NELSON ISLAND
FLOW
S.J.
CENTER ST
GAY RD
HAGEN RD
LOGSTON BLVD
HENDERSON LOOP
ROBERTSON DR
STEVENS CTR PL
LARSON RD
GARLICK BLVD
PRIVATE DR
TAXI WAY
AIRPORT WAY
AVIATOR DR
BUTLER LOOP
TERMINAL DR
LINDBERG LOOP
ALERON RD
BRONCO LN
BIRCH AVE
ALDER AVE
BEECH AVE
APRIL LOOP
SUNSET ST
WOODBURY ST
WILSON ST
WARREN CT
MAPLE PL
OAK ST
PINE ST
FOREST AVE
MAHAN AVE
MARSHALL AVE
CYPRESS PL
DOGWOOD PL
POPLAR AVE
PHERSON AVE
DULUTH ST
BISMARK ST
BOSTON ST
ALBANY CT
NORWOOD CT
WESTWOOD CT
MARSHALL CT
MAHAN CT
MARSHALL AVE
PLATT AVE
AUSTIN CT
SANFORD AVE
CATSKILL ST
CASCADE ST
BLUE ST
NEWCOMER ST
BERKSHIRE ST
COAST ST
FULLER ST
HOLLY ST
FRANKLIN ST
LYNNWOOD LOOP
REDWOOD CT
REDWOOD LN
CHERRYWOOD
SINGLETREE CT
SCOT ST
SHAW ST
SIERRA ST
SOMERSET ST
SKAGIT ST
SPOKANE ST
SEATTLE ST
SKAMANIA ST
STAGECOACH CT
BUCKBOARD CT
WAGON CT
SURREY CT
MARINE CT
CLIPPER DR
WESTMORELAND DR
MULLET CT
CATALINA CT
DOLPHIN CT
BUCCANEER DR
MAINMAST CT
BREAKWATER CT
SAILFISH CT
SHORELINE CT
SEASIDE CT
GULF CT
SCHOONER DR
MATEO CT
DRIFTWOOD CT
MAC ARTHUR ST
SHERMAN ST
PATTON ST
FERRY RD
VIENNA CT
VISTA CT
INDIAN CT
WALLACE ST
PARK ST
BRIARWOOD CT
HAMILTON CT
HUDSON AVE
HOWELL AVE
HOXIE AVE
EVEREST AVE
HODGES CT
HETRICK AVE
WILLIS ST
HUNT AVE
WHITTEN ST
WORDROP ST
HORN AVE
GALLARD PL
WALDRON ST
HAINS AVE
LUTHER PL
PIKE AVE
LASSEN AVE
HOOD AVE
MERCURY DR
APOLLO BLVD
GALAXY LN
ARGON LN
COMPTON LN
COSMIC LN
LOG LN
NUCLEAR LN
PROTON LN
MILLWOOD CT
CARRIAGE AVE
DOUBLETREE
ENTERPRISE DR
CAMAS AVE
BENTON AVE
FERNDALE AVE
SNOHOMISH AVE
EASTON AVE
SEATTLE CT
SAINT CT
ROSEWOOD CT
NEWCOMER AVE
CRESTVIEW AVE
CLEARVIEW AVE
BLUE AVE
CASCADE AVE
SHASTA AVE
RAINIER AVE
BAKER AVE
FOREST AVE
ALYSON DR
DEL MAR CT
LA VERDE DR
COVINA CT
MONTE CT
BUENA CT
ALAMEDA CT
FONTANA CT
DOS PALOS CT
RIO VISTA CT
RIO LINDA CT
RIO LENDA CT
TAXI WAY
TAXI WAY
TAXI WAY
CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-26-15
DRAWN BY: SC NYBY
SCALE: NTS



N.T.S.

MARCUS WHITMAN ELEMENTARY

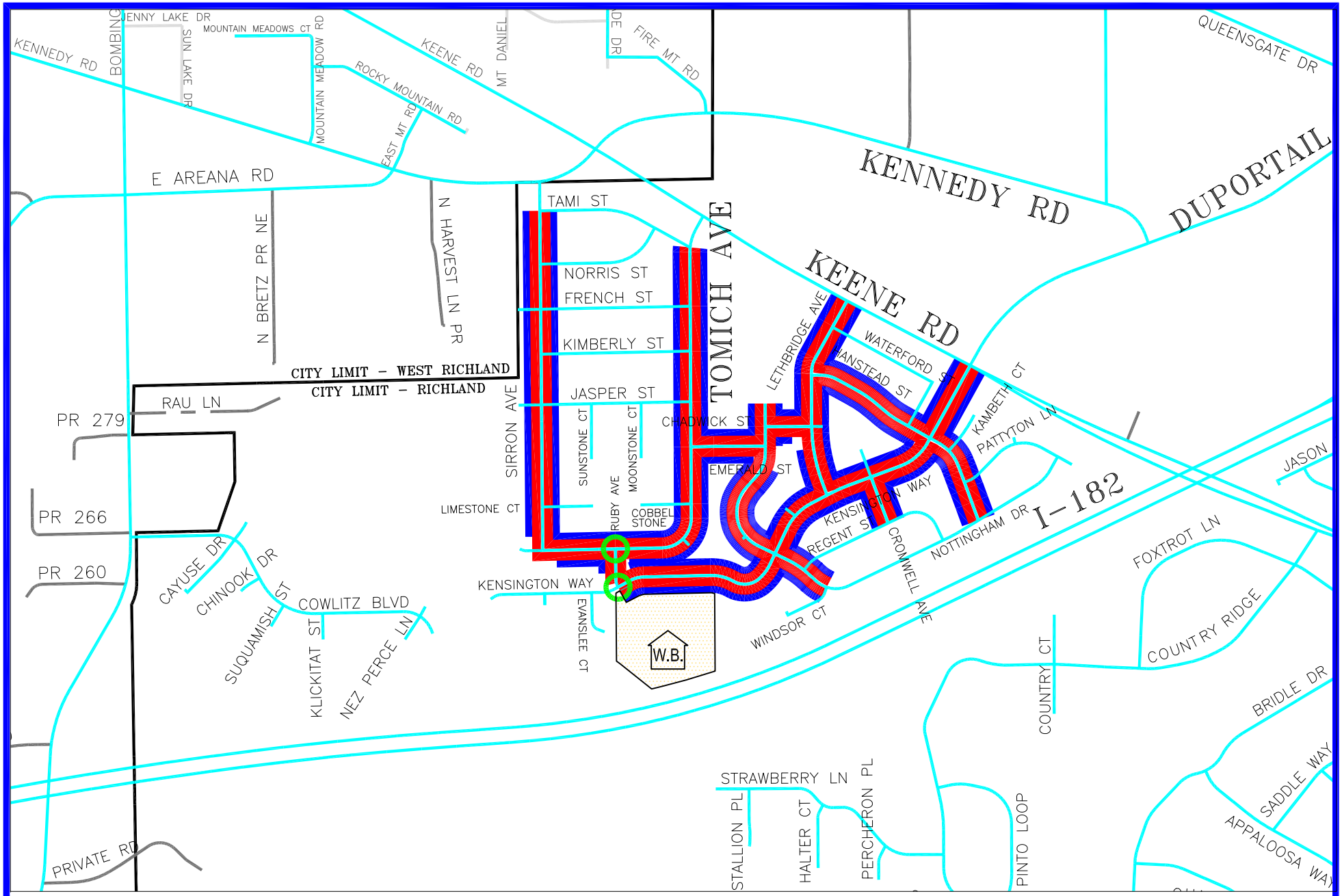
Walking Paths

Sidewalks

Crossing Guard

Richland

CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS



N.T.S.

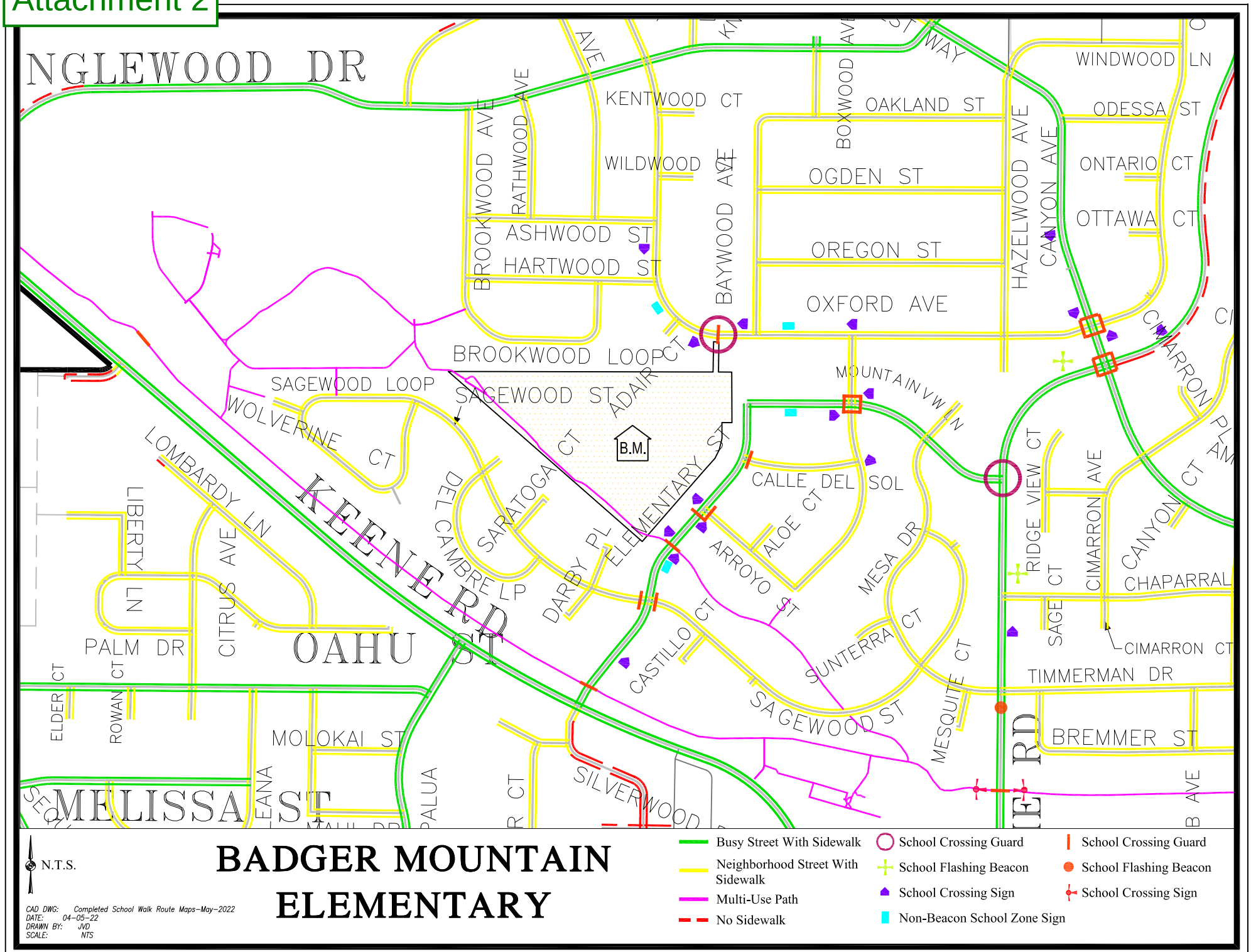
WHITE BLUFFS ELEMENTARY

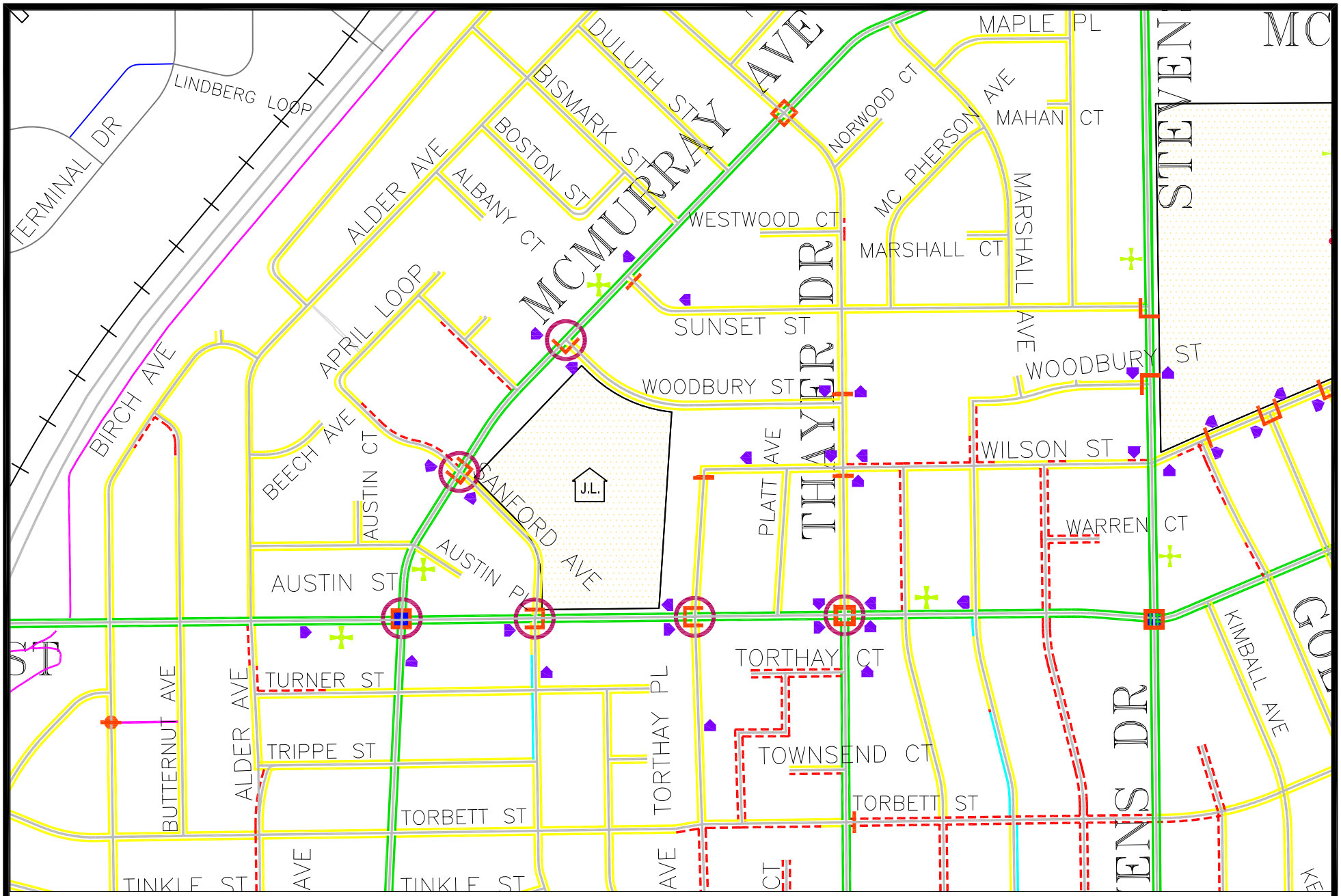
Walking Paths
Sidewalks
Crossing Guard

Richland

CAD DWG: SIDEWALKS STREET MAP-Aug-2015.DWG
DATE: 08-25-15
DRAWN BY: SC NYBY
SCALE: NTS

Attachment 2





JASON LEE ELEMENTARY

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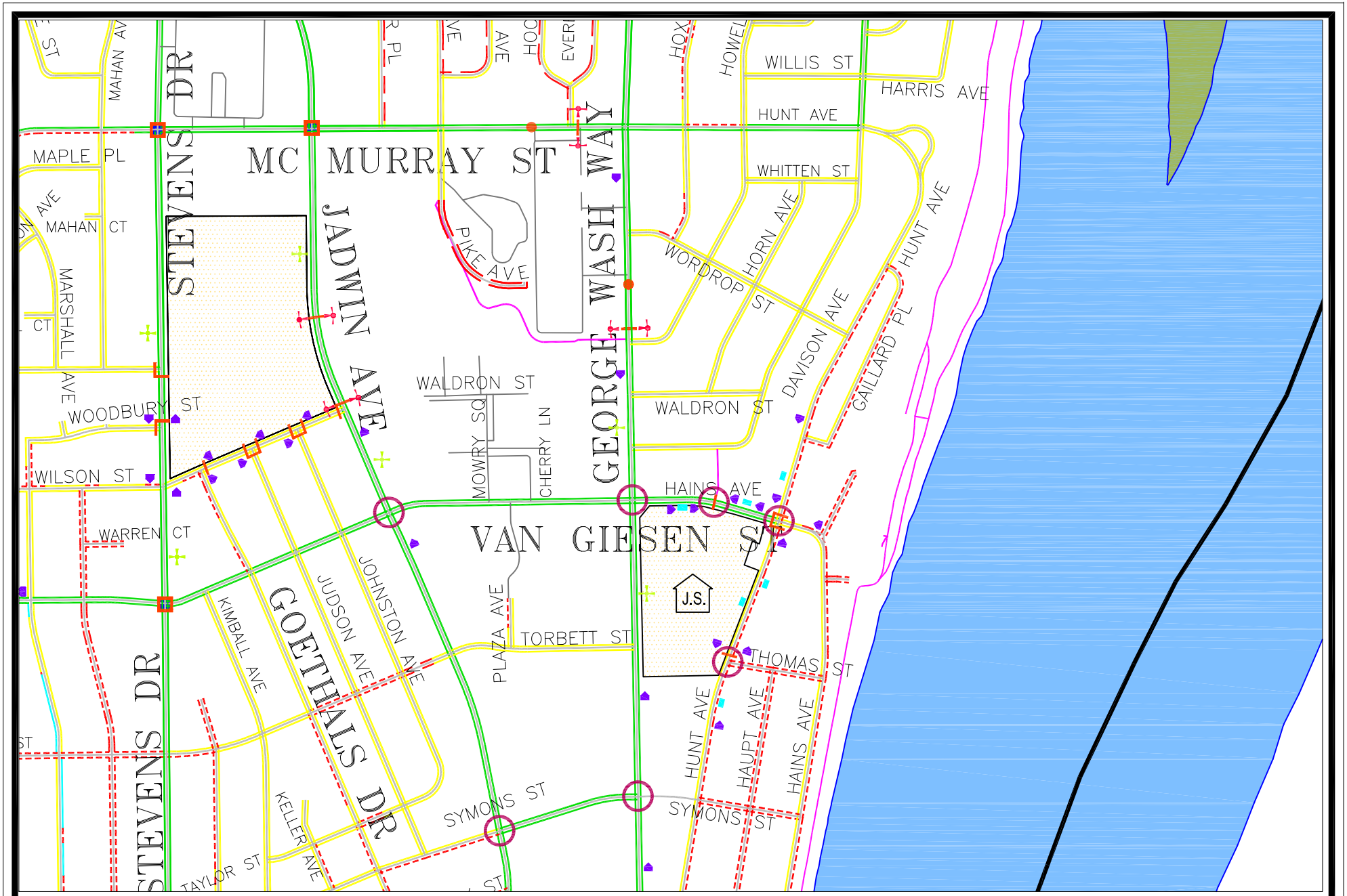
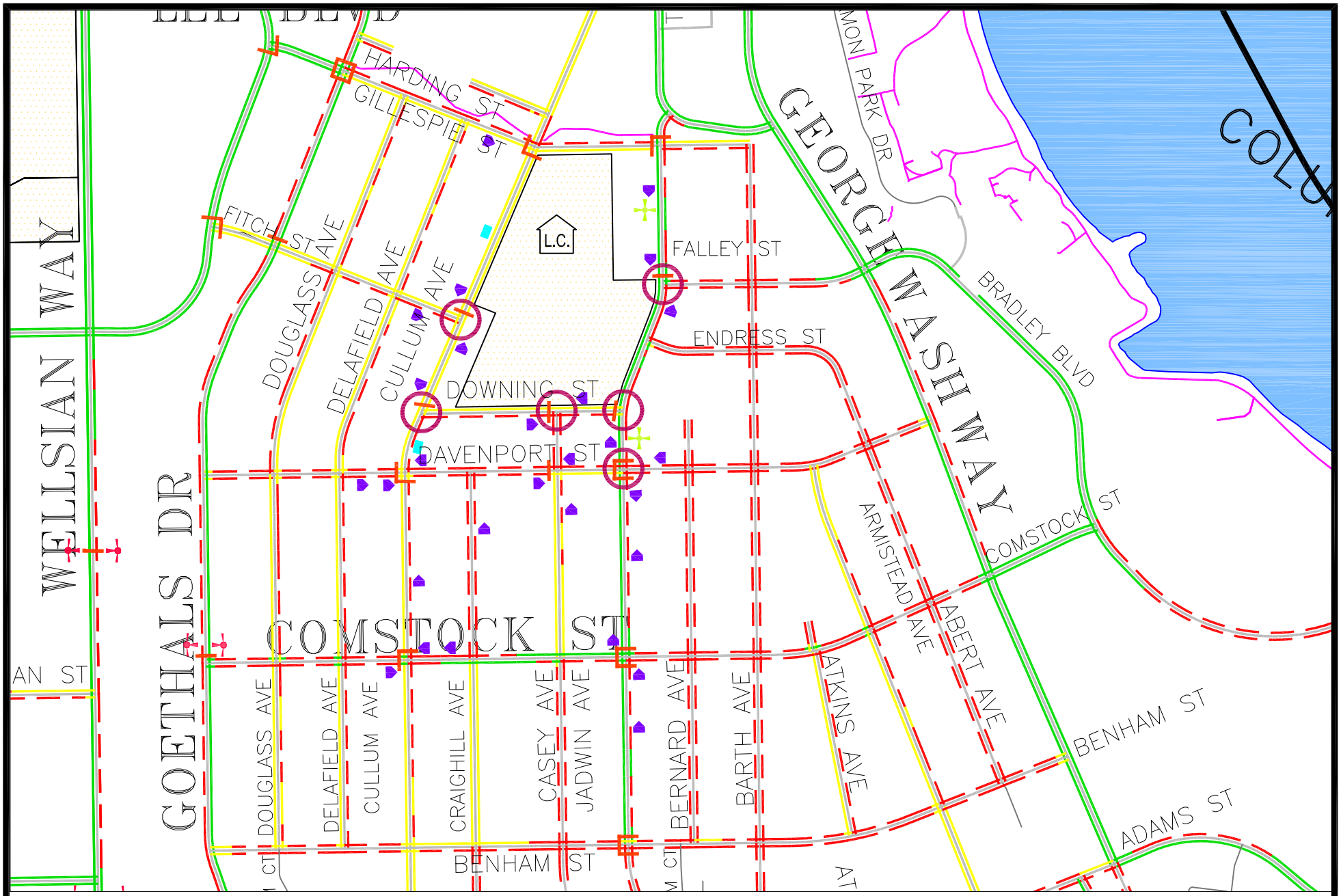
DATE: 04–05–22
DRAWN BY: JVD
SCALE: NTS



JEFFERSON ELEMENTARY

CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS

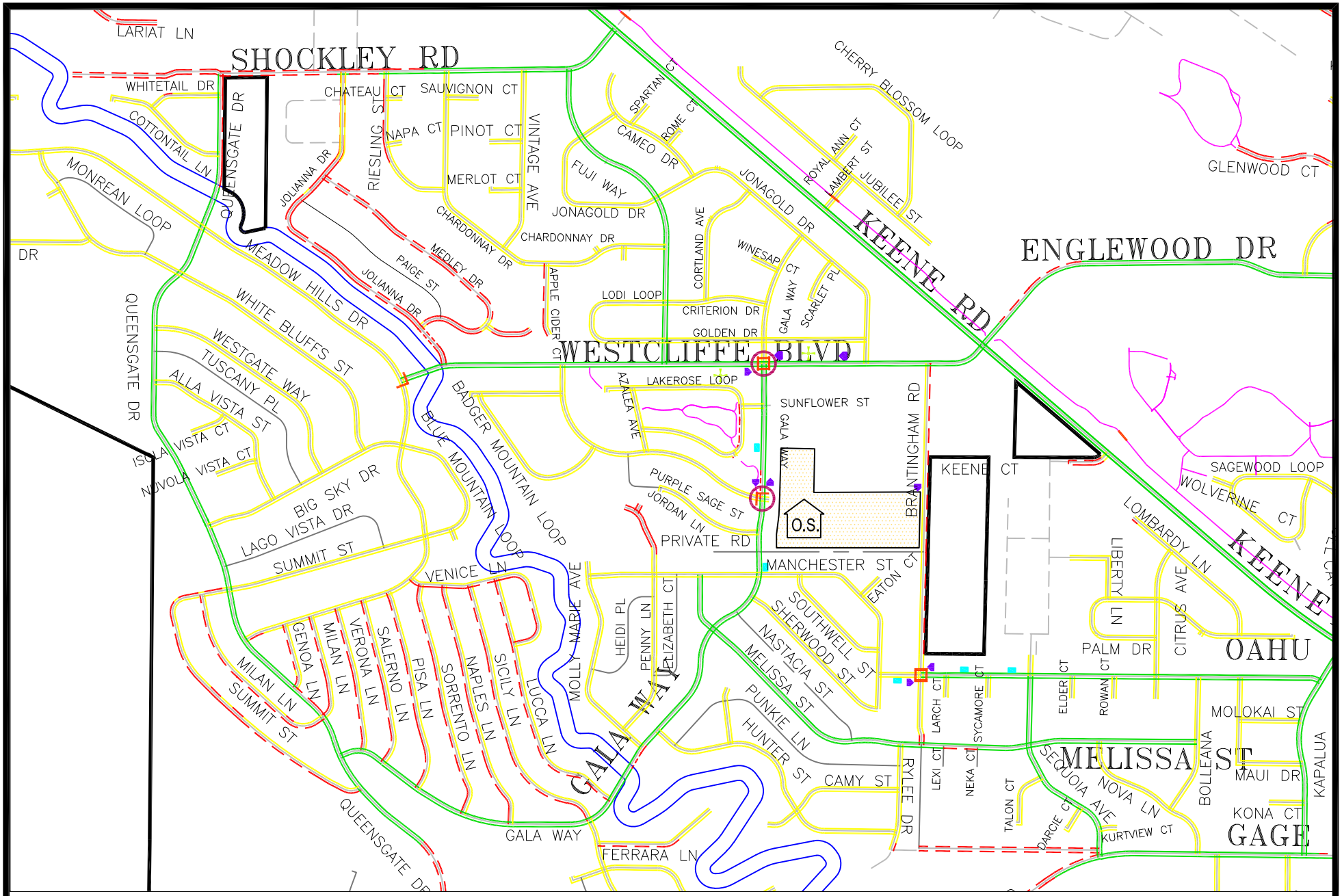


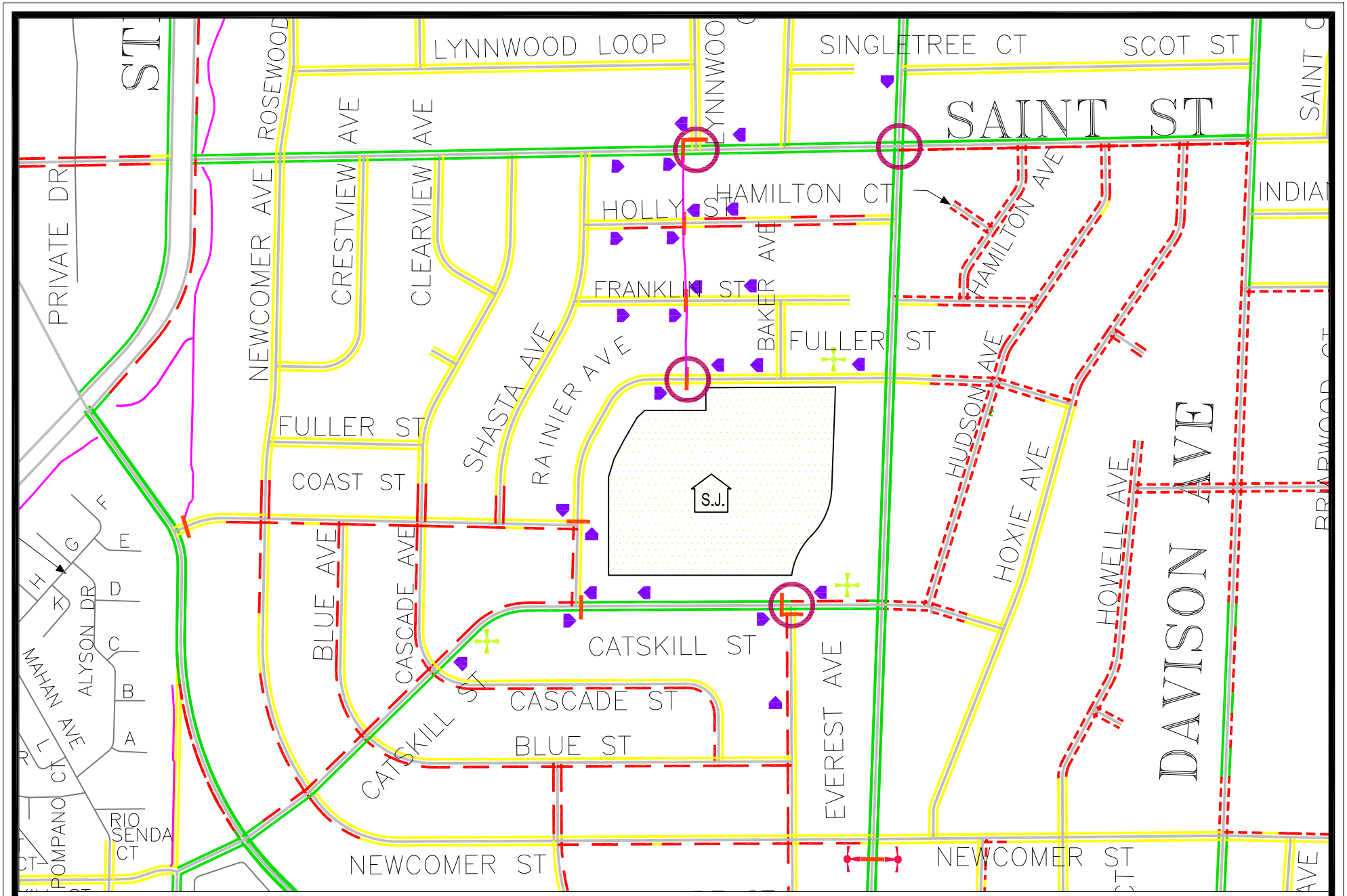
N.T.S.

LEWIS & CLARK ELEMENTARY

CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS

- Busy Street With Sidewalk
- Neighborhood Street With Sidewalk
- Multi-Use Path
- No Sidewalk
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign
- Non-Beacon School Zone Sign
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign


LARIAT LN
SHOCKLEY RD
WHITETAIL DR
CHATEAU CT
SAUVIGNON CT
COTTONTAIL LN
QUEENSGATE DR
JOLIANNA DR
RIESLING ST
NAPA CT
PINOT CT
VINTAGE AVE
MERLOT CT
CHARDONNAY DR
MONREAN LOOP
DR
MEADOW HILLS DR
MEDLEY DR
PAIGE ST
JOLIANNA DR
APPLE CIDER CT
SPARTAN CT
ROME CT
CAMEO DR
FUJI WAY
JONAGOLD DR
CHERRY BLOSSOM LOOP
ROYAL ANN CT
LAMBERT ST
JUBILEE ST
GLENWOOD CT
KEENE RD
ENGLEWOOD DR
CORTLAND AVE
WINESAP CT
GALA WAY
SCARLET PL
LODI LOOP
CRITERION DR
GOLDEN DR
WESTCLIFFE BLVD
QUEENSGATE DR
WHITE BLUFFS ST
WESTGATE WAY
TUSCANY PL
ALLA VISTA ST
ISOLA VISTA CT
NUVOLA VISTA CT
BIG SKY DR
LAGO VISTA DR
SUMMIT ST
BLUE MOUNTAIN LOOP
BADGER MOUNTAIN LOOP
AZALEA AVE
LAKEROSE LOOP
SUNFLOWER ST
GALA WAY
PURPLE SAGE ST
JORDAN LN
PRIVATE RD
O.S.
BRANTINGHAM RD
KEENE CT
SAGEWOOD LOOP
WOLVERINE CT
LOMBARDY LN
KEENE
MANCHESTER ST
EATON CT
VENICE LN
MOLLY MARIE AVE
HEIDI PL
PENNY LN
ELIZABETH CT
SOUTHWELL ST
SHERWOOD ST
NASTACIA ST
MELISSA ST
LIBERTY LN
CITRUS AVE
PALM DR
OAHU
MILAN LN
SUMMIT ST
GENOA LN
MILAN LN
VERONA LN
SALERNO LN
PISA LN
SORRENTO LN
NAPLES LN
SICILY LN
LUCCA LN
GALA WAY
PUNKIE LN
HUNTER ST
CAMY ST
RILEE DR
LARCH CT
SYCAMORE CT
ELDER CT
ROWAN CT
MOLOKAI ST
MELISSA ST
BOLLEANA
MAUI DR
KAPALUA
LEXI CT
NEKA CT
TALON CT
SEQUOIA AVE
NOVA LN
DARCIE CT
KURTVIEW CT
KONA CT
GAGE
QUEENSGATE DR
GALA WAY
FERRARA LN
N.T.S.
ORCHARD ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign

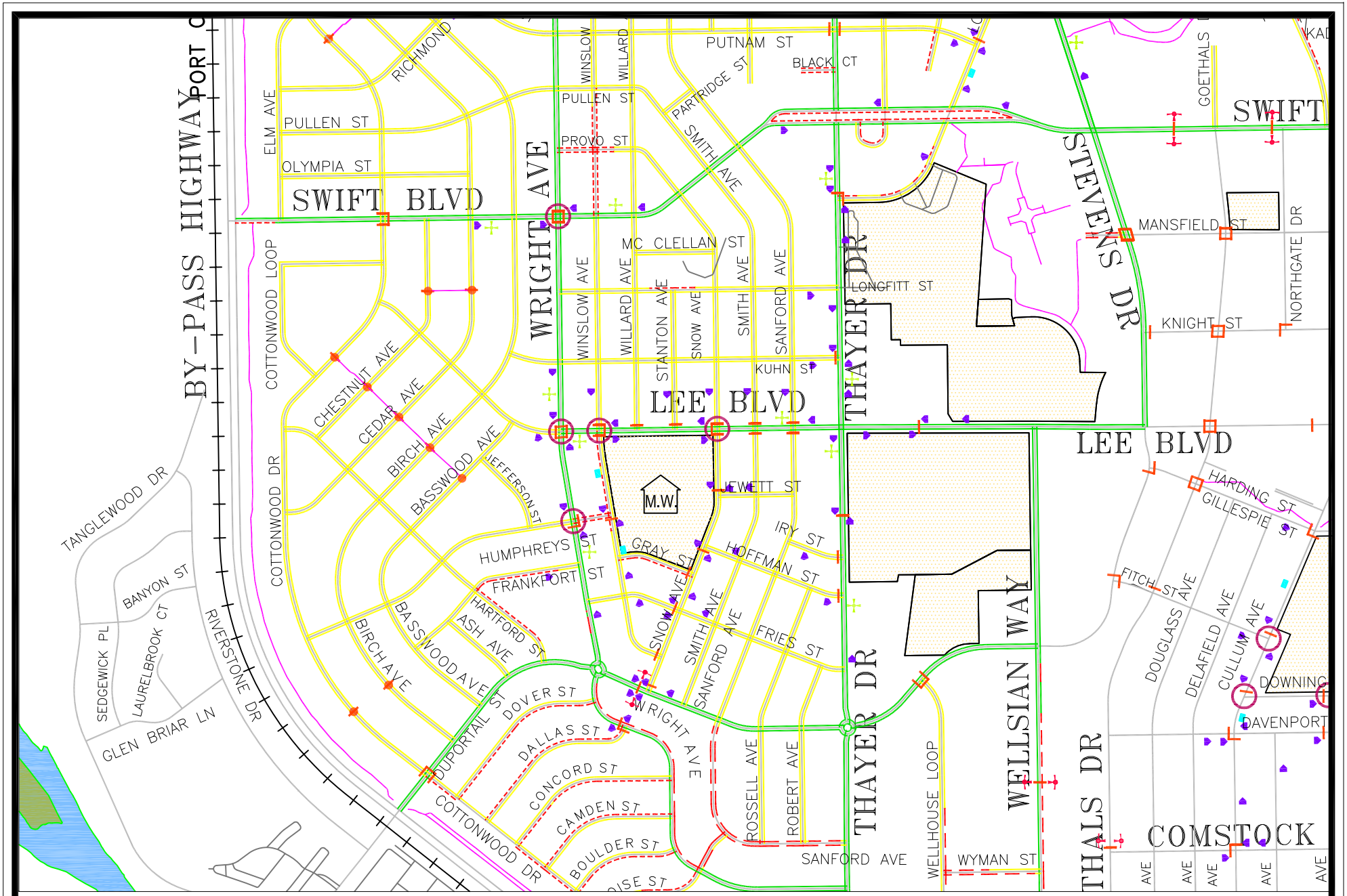


N.T.S.

SACAJAWEA ELEMENTARY

CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS

- Busy Street With Sidewalk
- Neighborhood Street With Sidewalk
- Multi-Use Path
- No Sidewalk
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign
- Non-Beacon School Zone Sign
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign

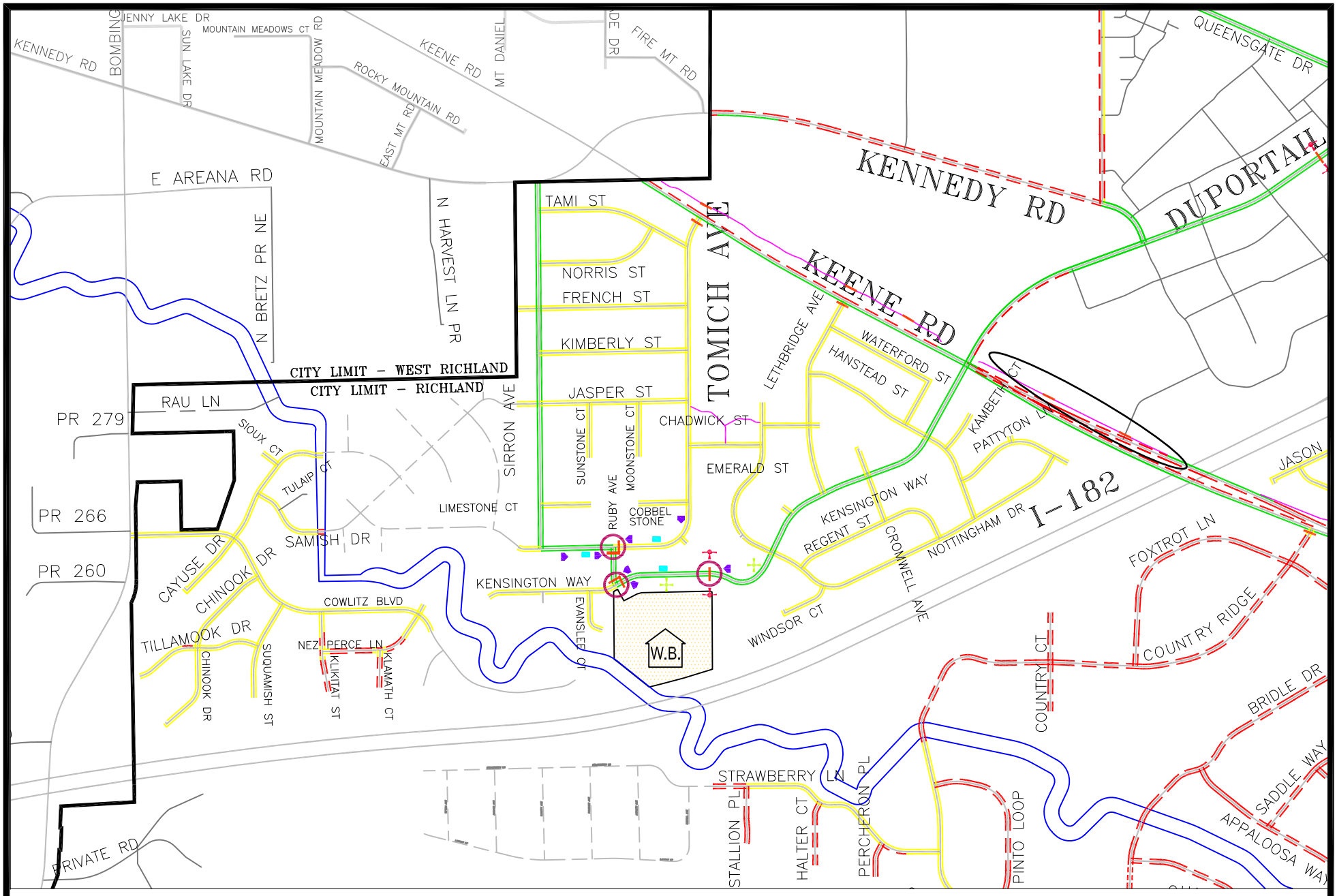


N.T.S.

MARCUS WHITMAN ELEMENTARY

CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS

- Busy Street With Sidewalk
- Neighborhood Street With Sidewalk
- Multi-Use Path
- No Sidewalk
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign
- Non-Beacon School Zone Sign
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign


KENNEDY RD
BOMBING
JENNY LAKE DR
SUN LAKE DR
MOUNTAIN MEADOWS CT
MOUNTAIN MEADOW RD
ROCKY MOUNTAIN RD
EAST MT RD
KEENE RD
MT DANIEL
FIRE MT RD
QUEENSGATE DR
DUPORTAIL
E AREANA RD
N BRETZ PR NE
N HARVEST LN PR
CITY LIMIT – WEST RICHLAND
CITY LIMIT – RICHLAND
TAMI ST
NORRIS ST
FRENCH ST
KIMBERLY ST
JASPER ST
TOMICH AVE
SIRRON AVE
SUNSTONE CT
MOONSTONE CT
RUBY AVE
CHADWICK ST
EMERALD ST
LIMESTONE CT
COBBEL STONE
LETHBRIDGE AVE
WATERFORD ST
HANSTEAD ST
KAMBETH CT
PATTYTON LN
JASON
KENSINGTON WAY
REGENT ST
CROMWELL AVE
NOTTINGHAM DR
I-182
RAU LN
PR 279
PR 266
PR 260
SIOUX CT
TULAIP CT
SAMISH DR
CAYUSE DR
CHINOOK DR
TILLAMOOK DR
COWLITZ BLVD
NEZ PERCE LN
KLICKITAT ST
KLAMATH CT
SUQUAMISH ST
CHINOOK DR
EVANSTEEL CT
W.B.
WINDSOR CT
FOXTROT LN
COUNTRY RIDGE
COUNTRY CT
BRIDLE DR
SADDLE WAY
APPALOOSA WAY
STRAWBERRY LN
STALLION PL
HALTER CT
PERCHERON PL
PINTO LOOP
PRIVATE RD
N.T.S.
WHITE BLUFFS ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign

Attachment 3

BADGER MOUNTAIN ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

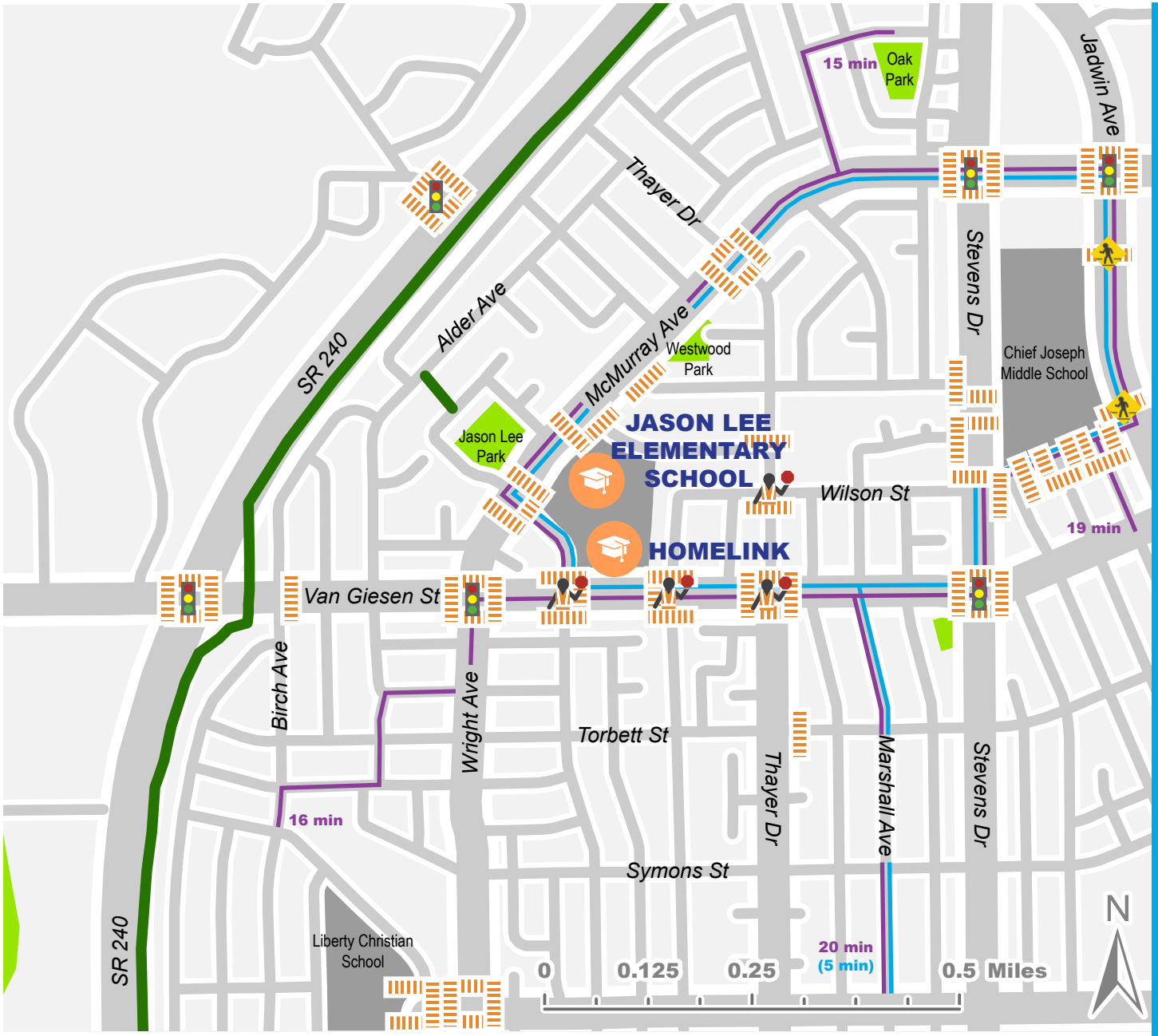
LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

This map is intended for informational purposes only. The Benton-Franklin Council of Governments (BFCOG), City of Richland, or the Richland School District cannot and does not guarantee the safety of these routes or the persons utilizing them, and assumes no responsibility or liability therefore. The Benton-Franklin Council of Governments encourages parents and student to use this map to explore options for commuting between home and school, but parents and students are responsible for their own safety and for choosing the most appropriate commuting option based upon their knowledge of route conditions and the specific needs and/or experience level of their child.

RICHLAND School District

Richland



JASON LEE ELEMENTARY & HOMELINK SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min / (X min) — Estimated Walking Time (Biking Time)

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RICHLAND School District

Richland

JEFFERSON ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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RICHLAND School District

Richland

LEWIS & CLARK ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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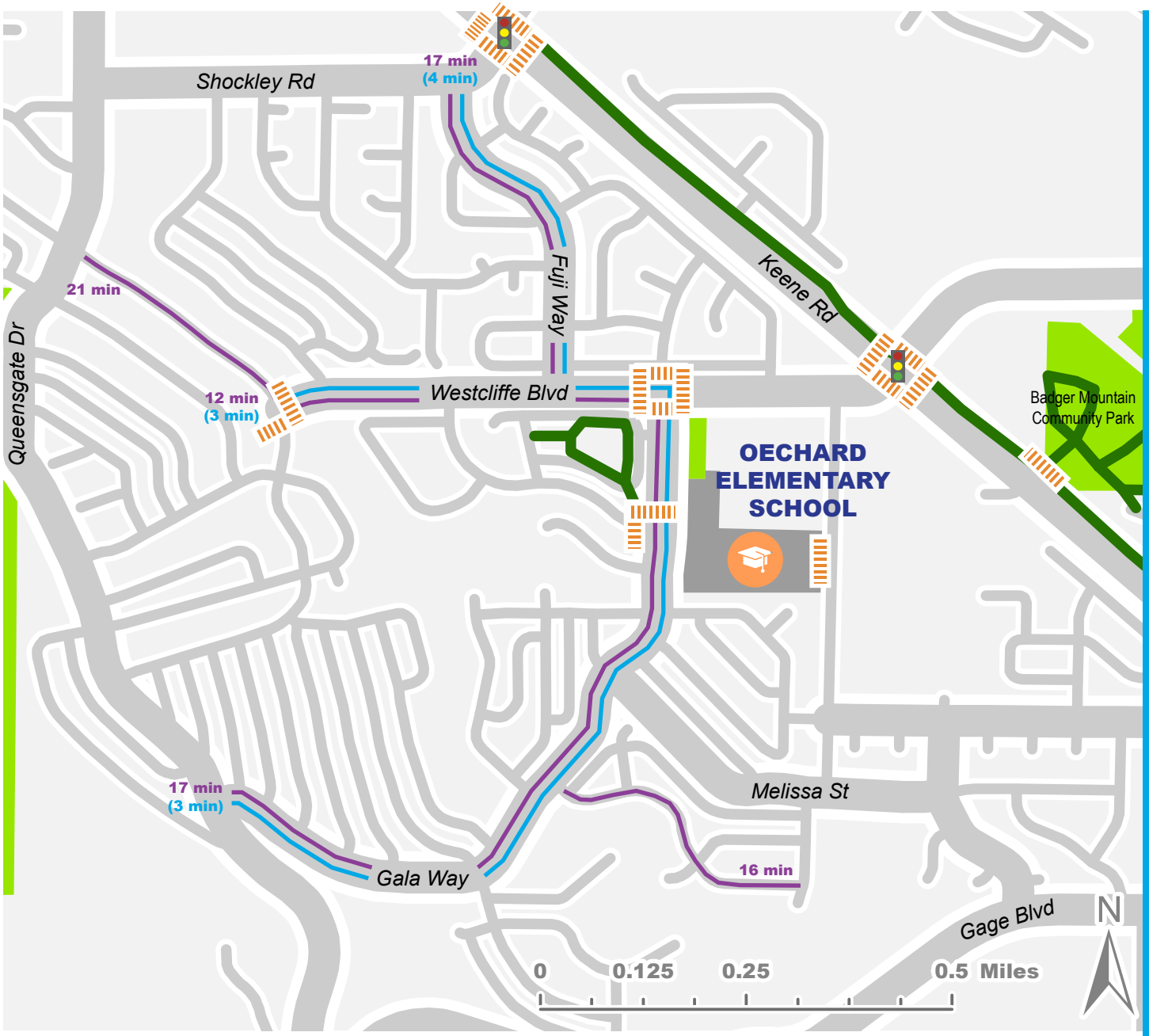
RICHLAND School District

Richland



ORCHARD ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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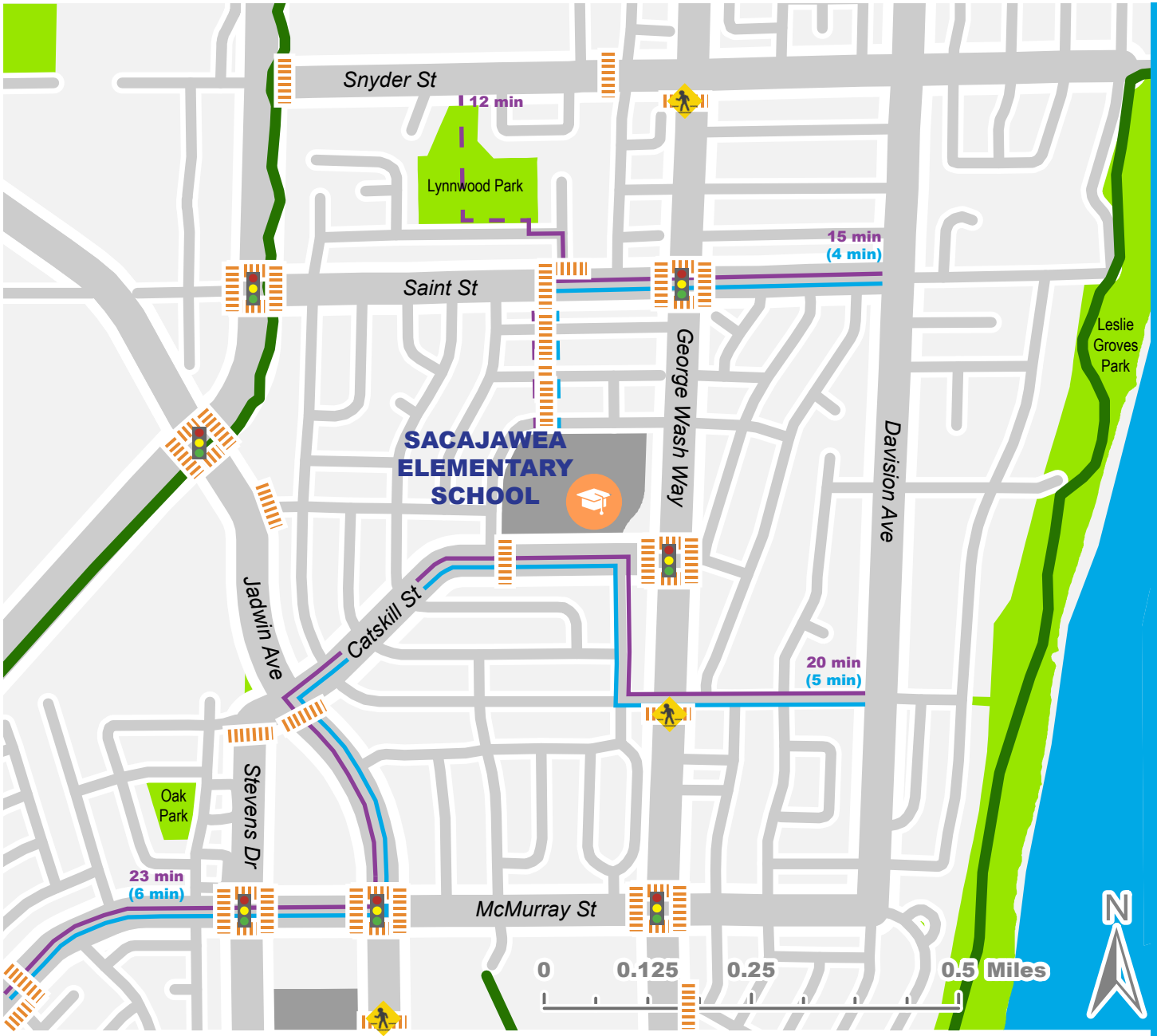
RICHLAND School District

Richland



SACAJAWEA ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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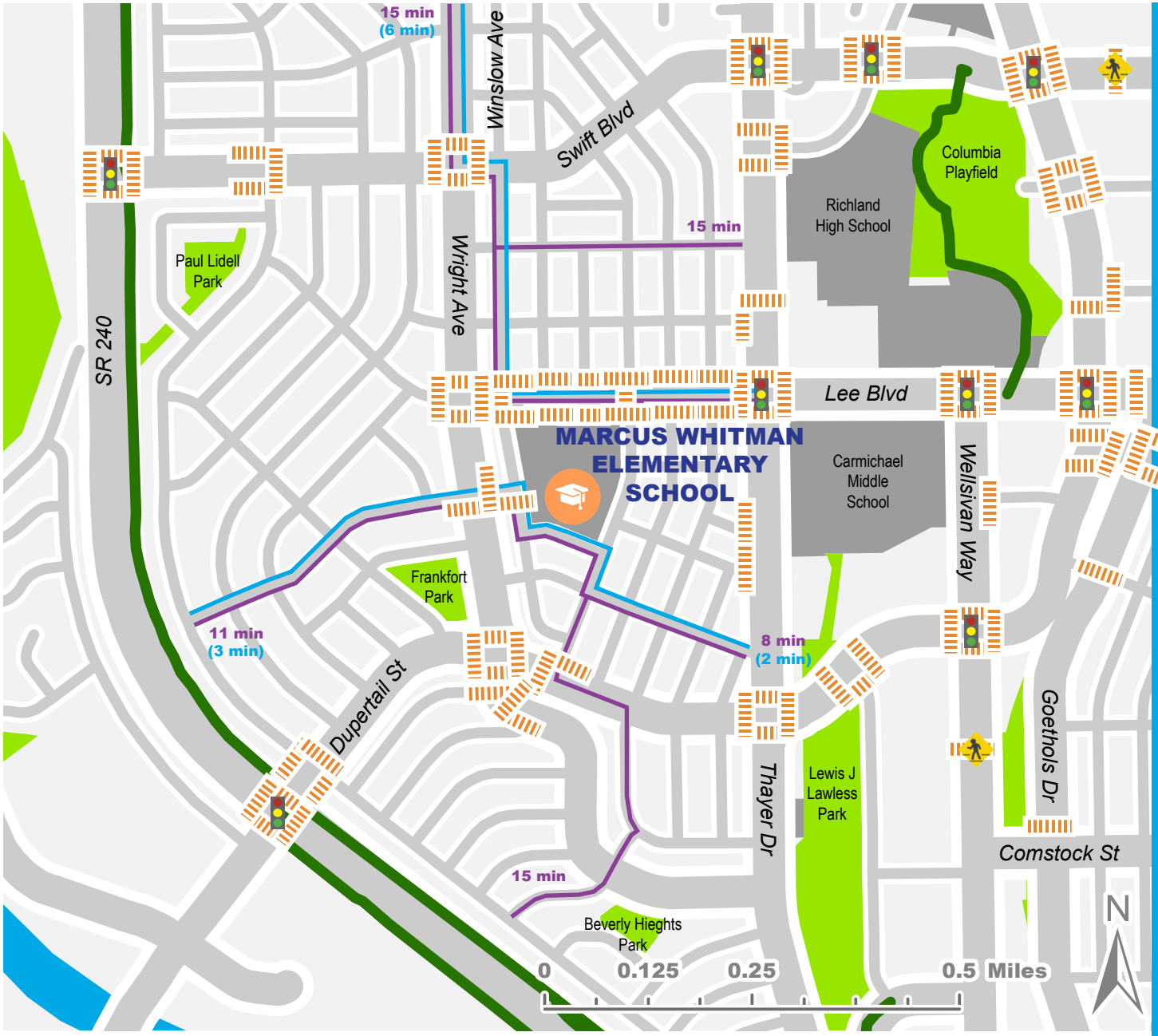
RICHLAND School District

Richland



MARCUS WHITMAN ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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RICHLAND School District

Richland

WHITE BLUFFS ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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RICHLAND School District

Richland

Attachment 4

BADGER MOUNTAIN ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min / (X min) — Estimated Walking Time (Biking Time)

CG : Crossing Guard

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RICHLAND School District

Richland

JASON LEE ELEMENTARY & HOMELINK SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

CG: School Crossing Guard

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RICHLAND School District

Richland

JEFFERSON ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

CG: Crossing Guard

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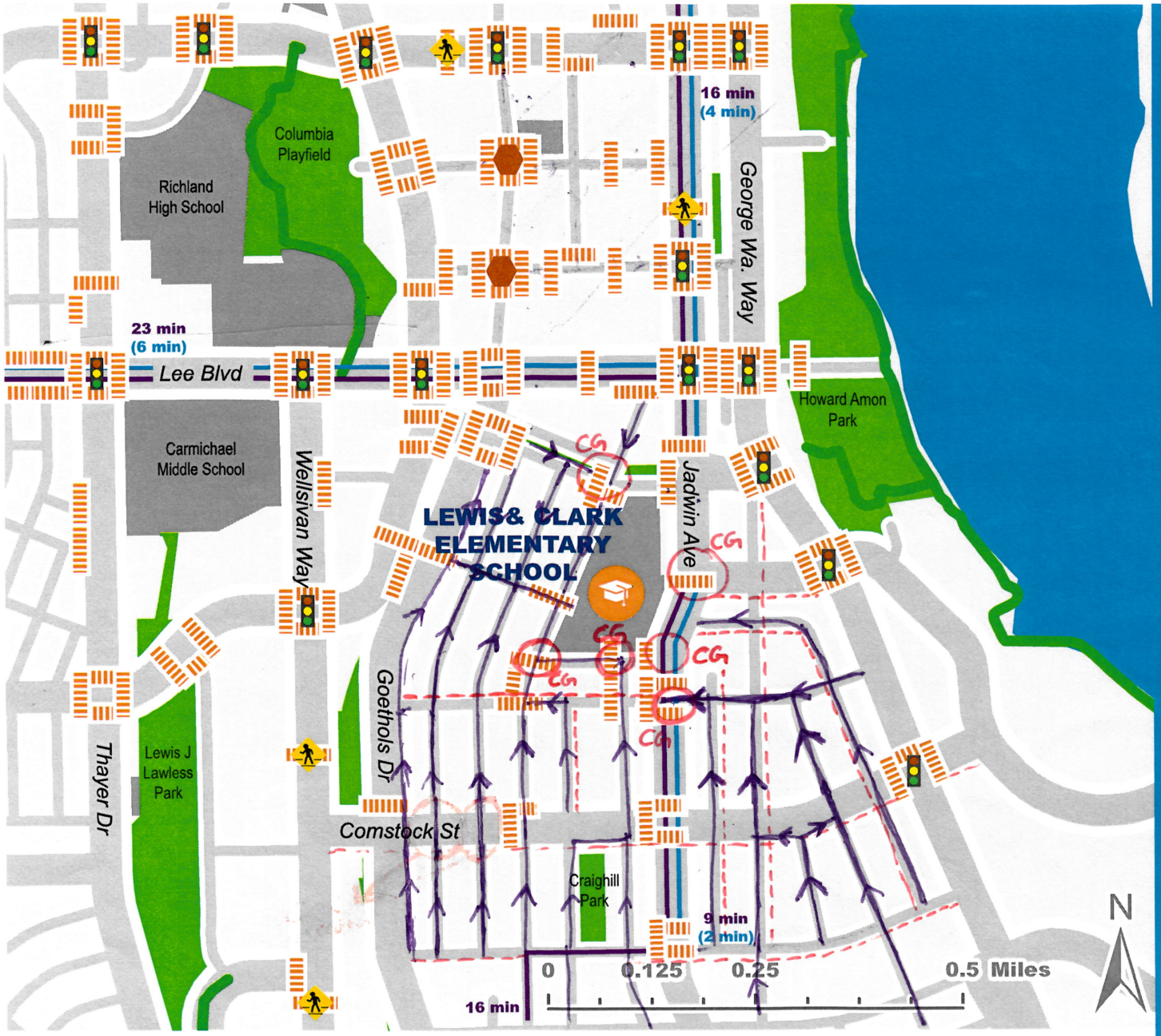
RICHLAND School District

Richland



LEWIS & CLARK ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

CG: Crossing Guard

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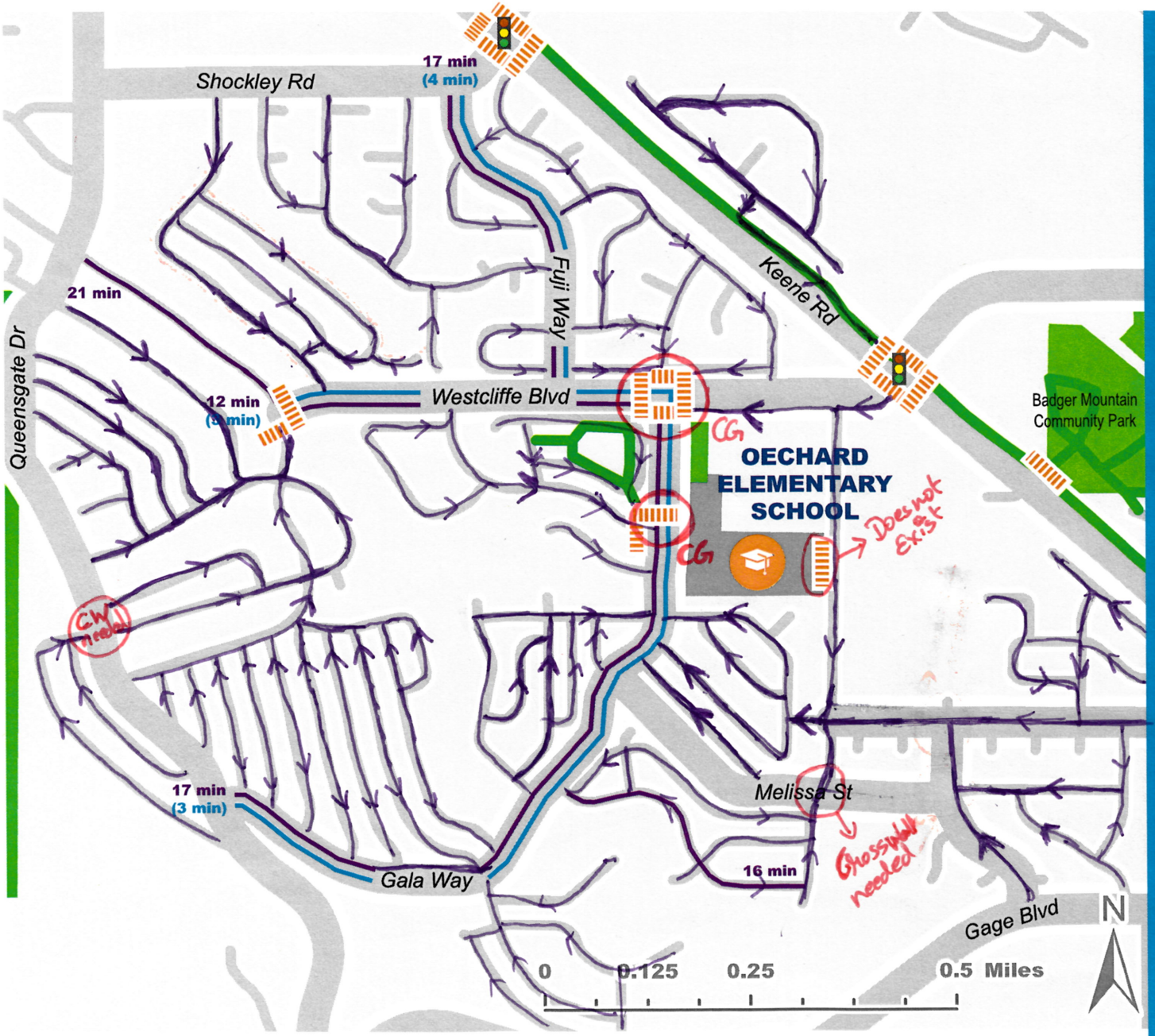
RICHLAND School District

Richland



ORCHARD ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

CG: Crossing Guard

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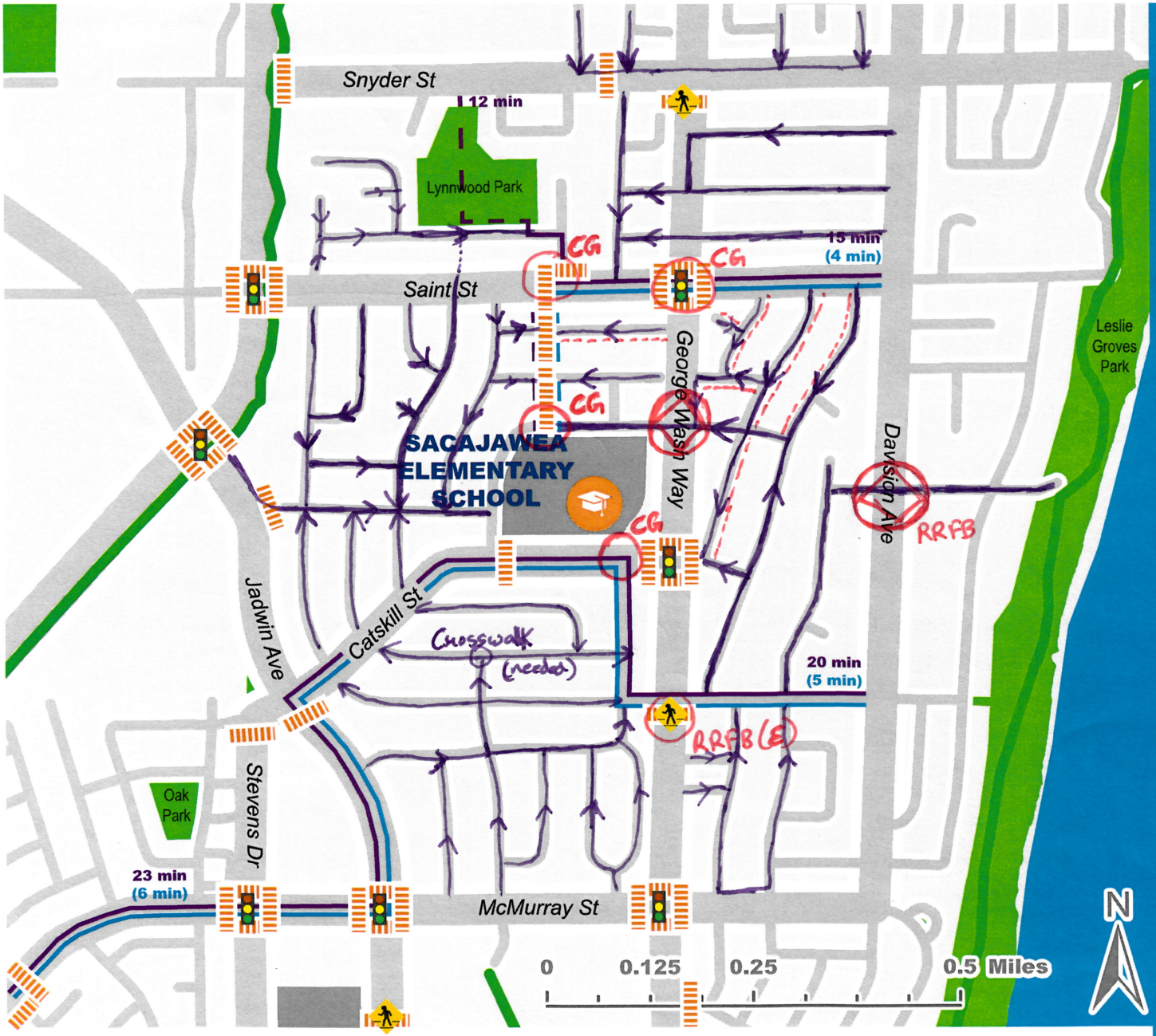
RICHLAND School District

Richland



SACAJAWEA ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal — RRFB
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails — CG: Crossing Guard
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

(E) → Existing

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RICHLAND School District

Richland

MARCUS WHITMAN ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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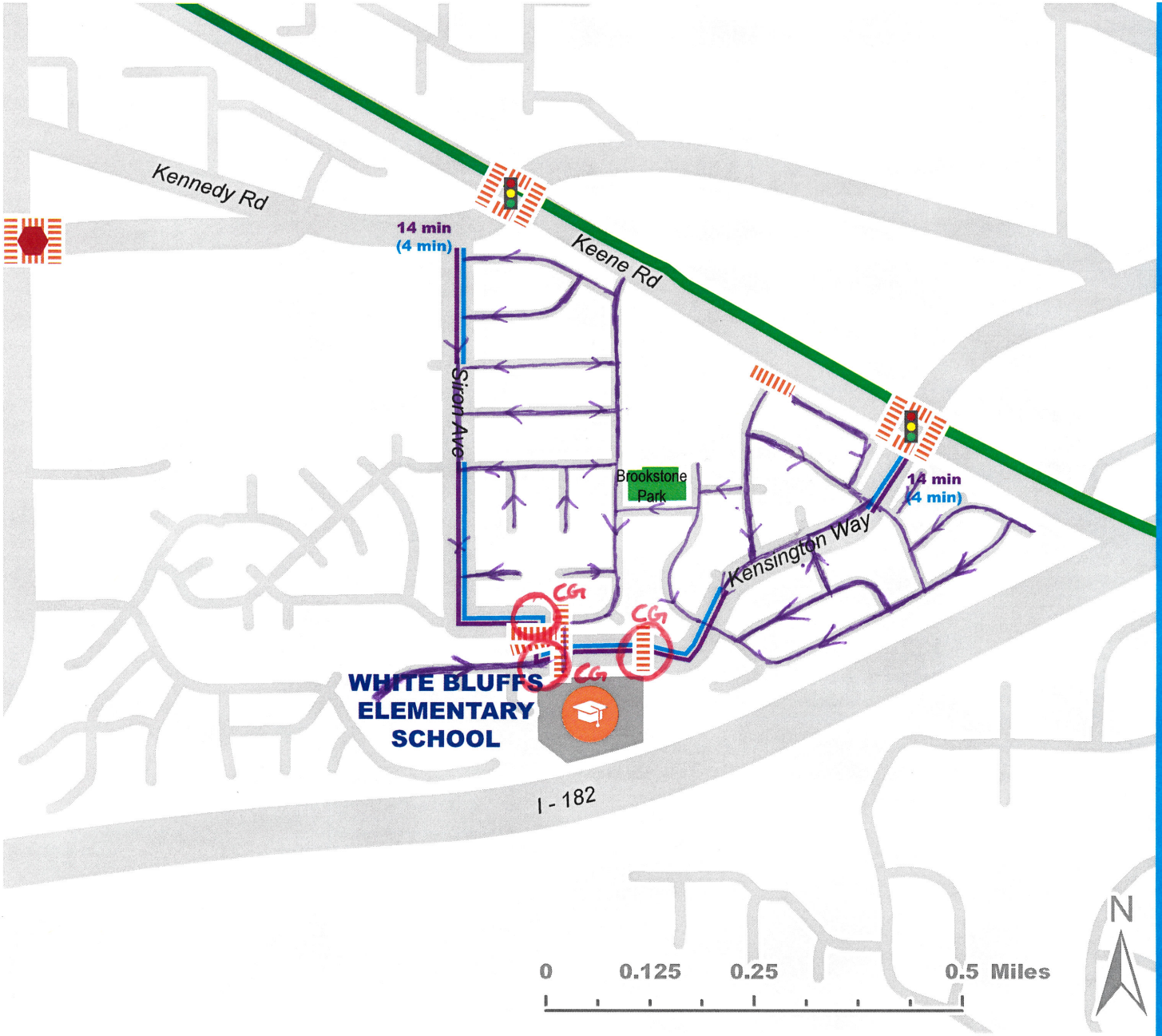
RICHLAND School District

Richland



WHITE BLUFFS ELEMENTARY SCHOOL

SUGGESTED WALKING & BIKING ROUTES TO SCHOOL

BENTON-FRANKLIN REGIONAL SAFE ROUTES TO SCHOOL

LEGEND

- Suggested Walking Route
- Missing or Partial Sidewalk
- Suggested Biking Route
- Crossing Guard
- Traffic Signal
- Pedestrian Crossing Signal
- Marked Crosswalk
- Bicycle Parking
- Trails
- 4-Way Stop
- X min (X min) — Estimated Walking Time (Biking Time)

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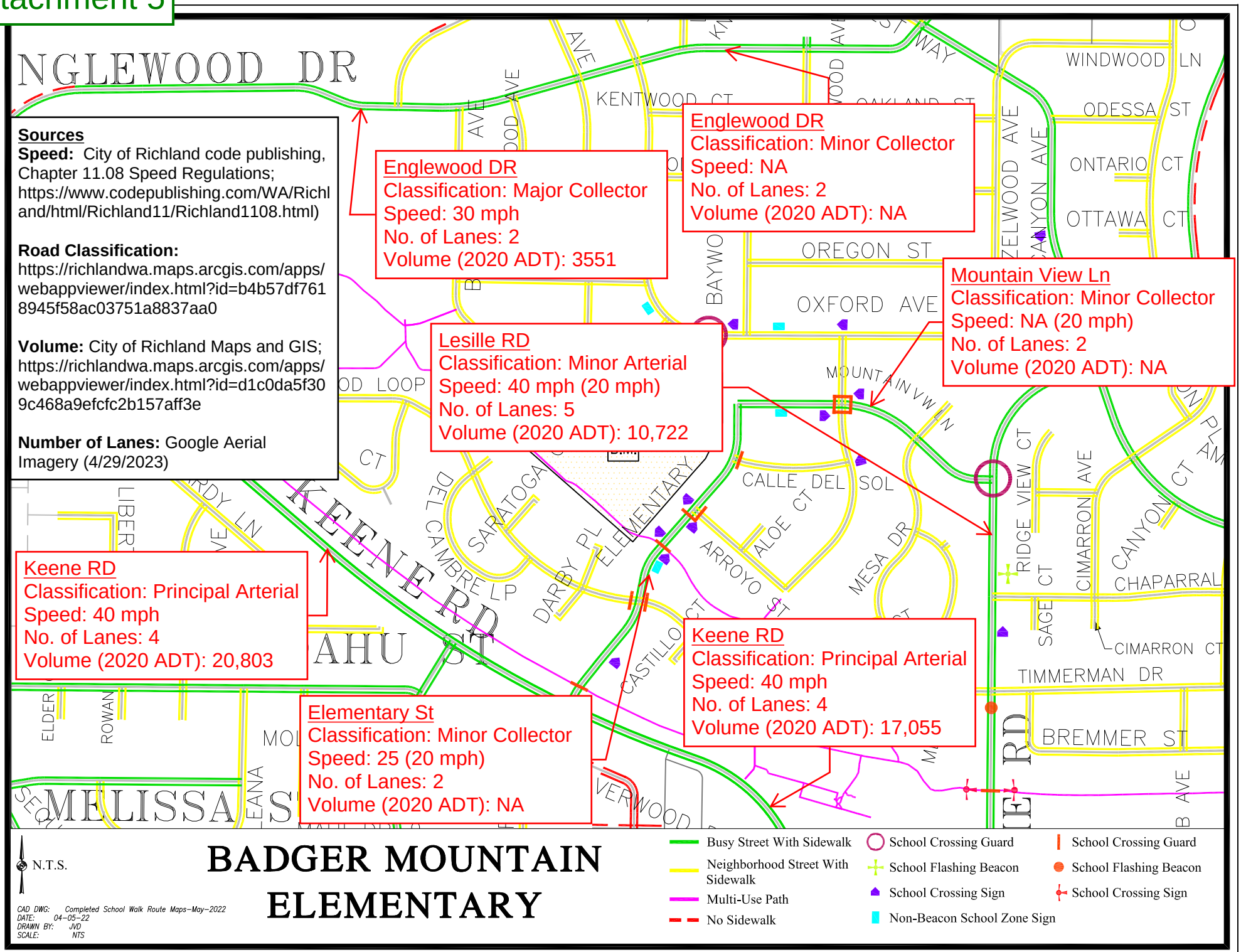
RICHLAND School District

Richland

Attachment 5



Sources

Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)

Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0

Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e

Number of Lanes: Google Aerial Imagery (4/29/2023)

Englewood DR
Classification: Major Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 3551

Englewood DR
Classification: Minor Collector
Speed: NA
No. of Lanes: 2
Volume (2020 ADT): NA

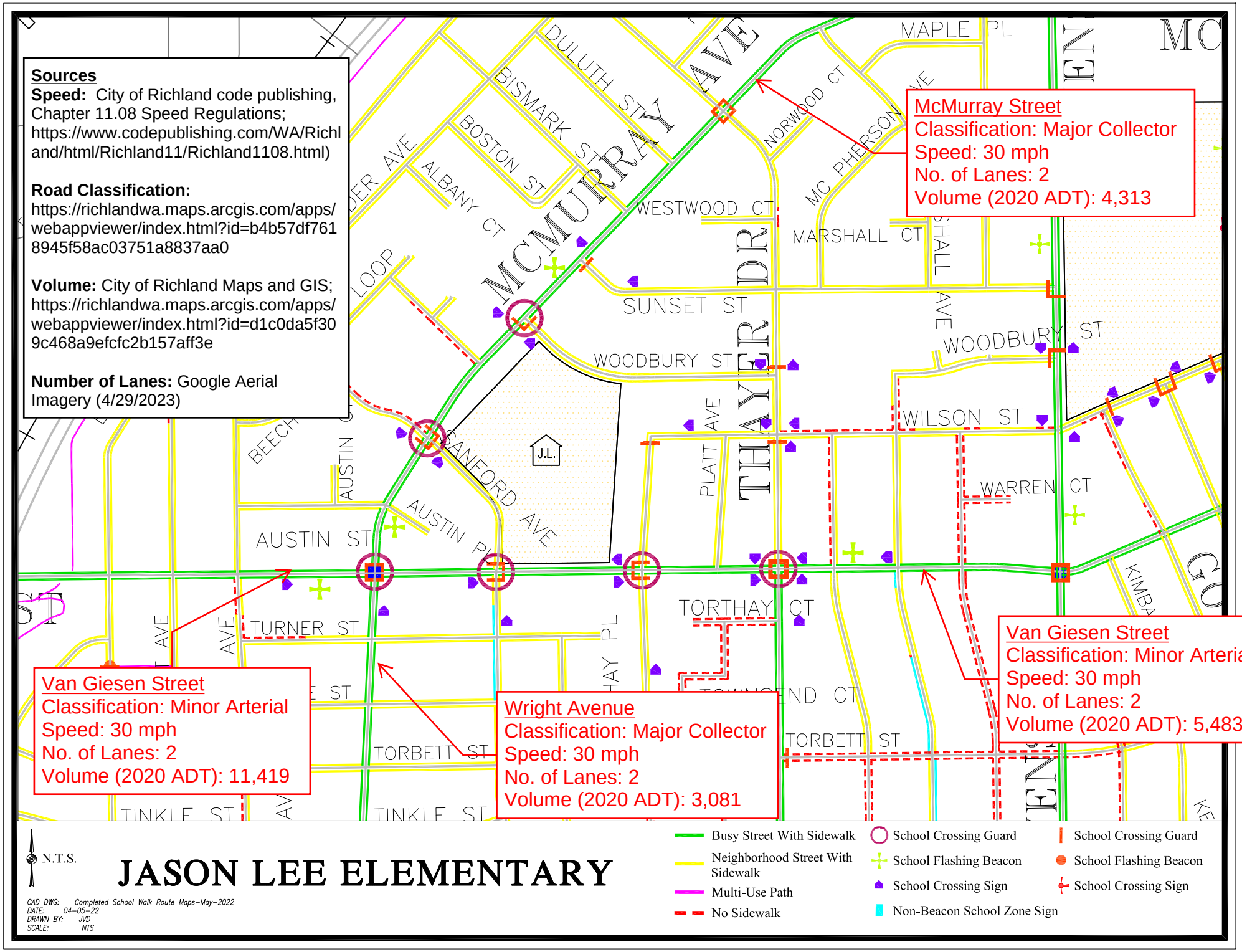
Mountain View Ln
Classification: Minor Collector
Speed: NA (20 mph)
No. of Lanes: 2
Volume (2020 ADT): NA

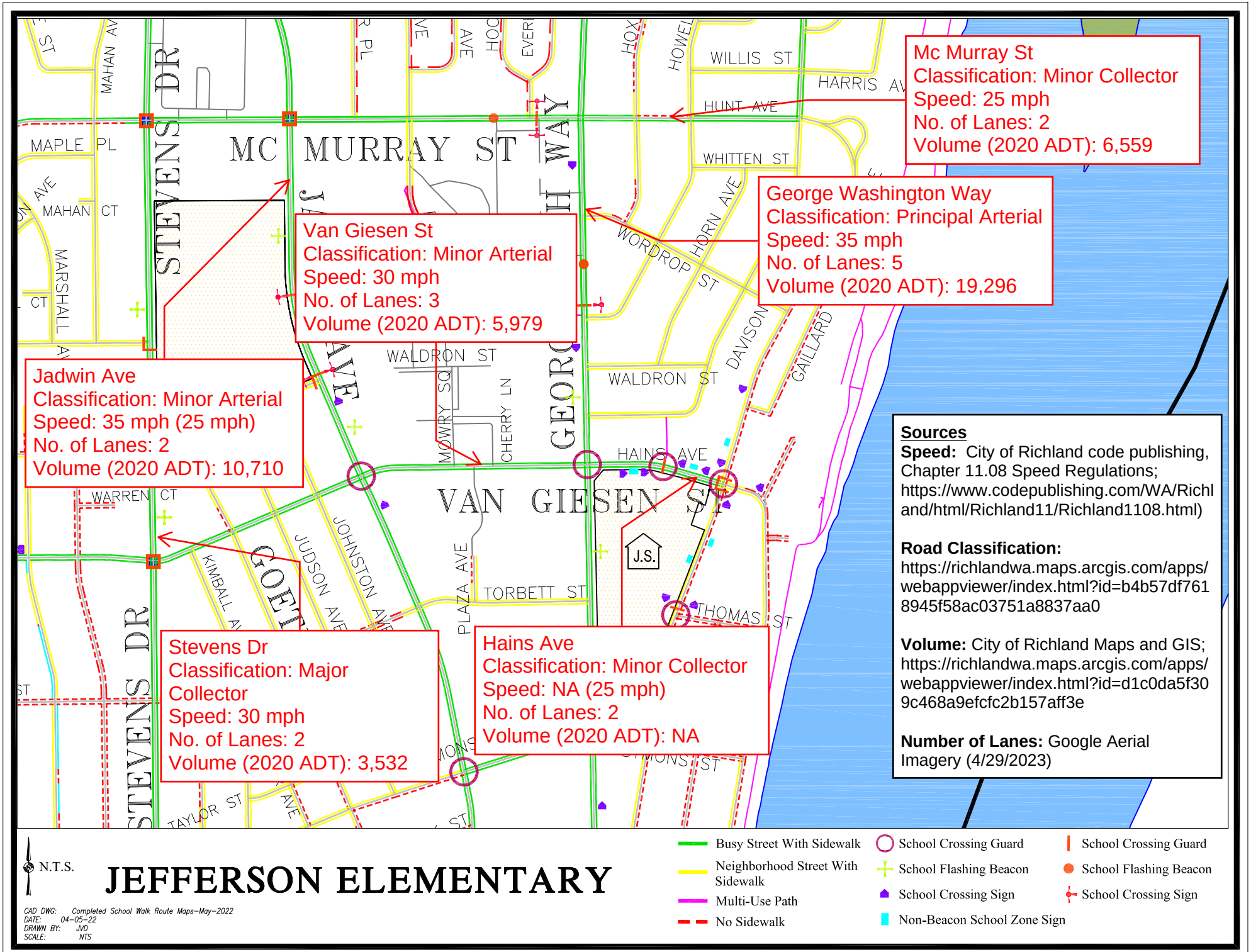
Lesille RD
Classification: Minor Arterial
Speed: 40 mph (20 mph)
No. of Lanes: 5
Volume (2020 ADT): 10,722

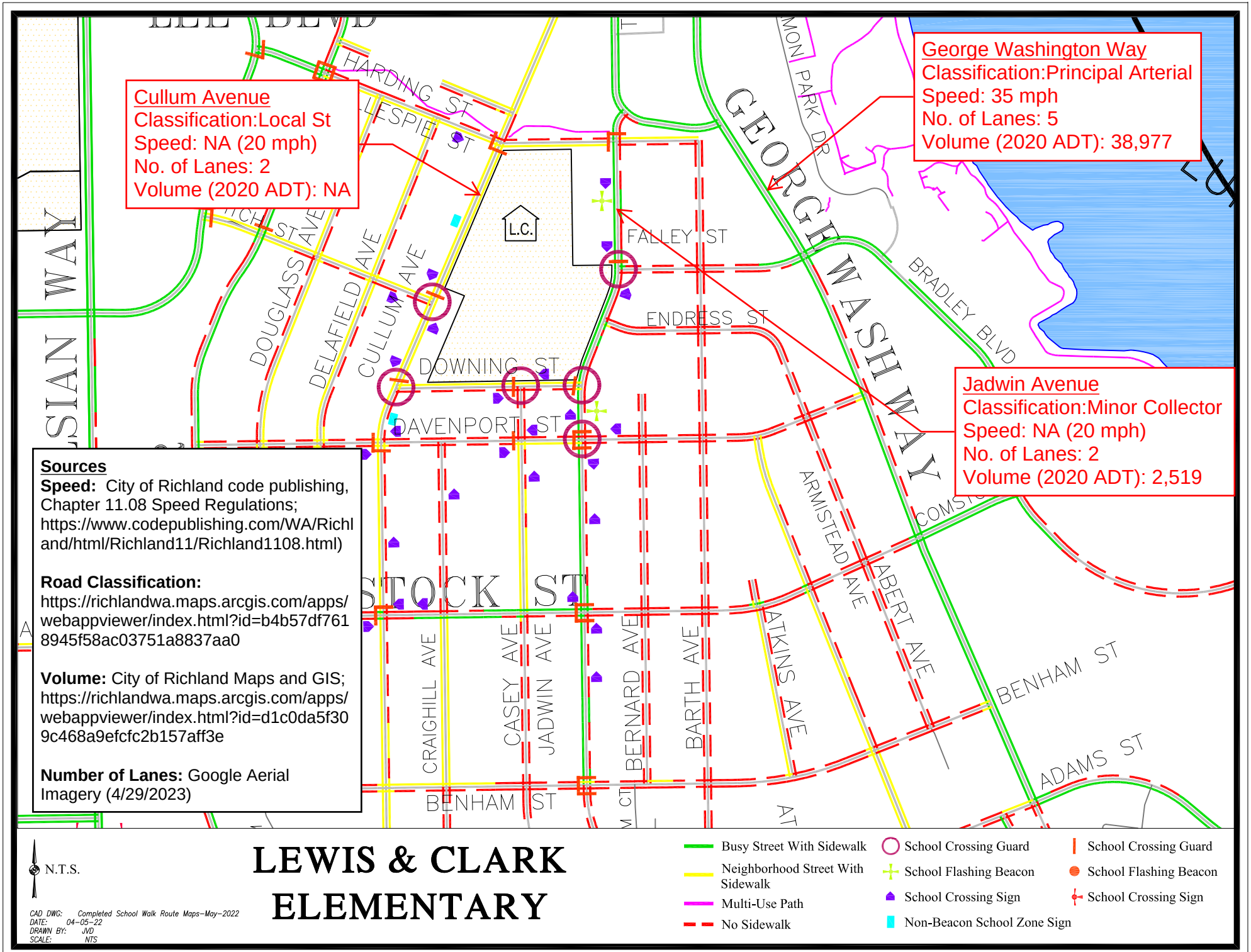
Keene RD
Classification: Principal Arterial
Speed: 40 mph
No. of Lanes: 4
Volume (2020 ADT): 20,803

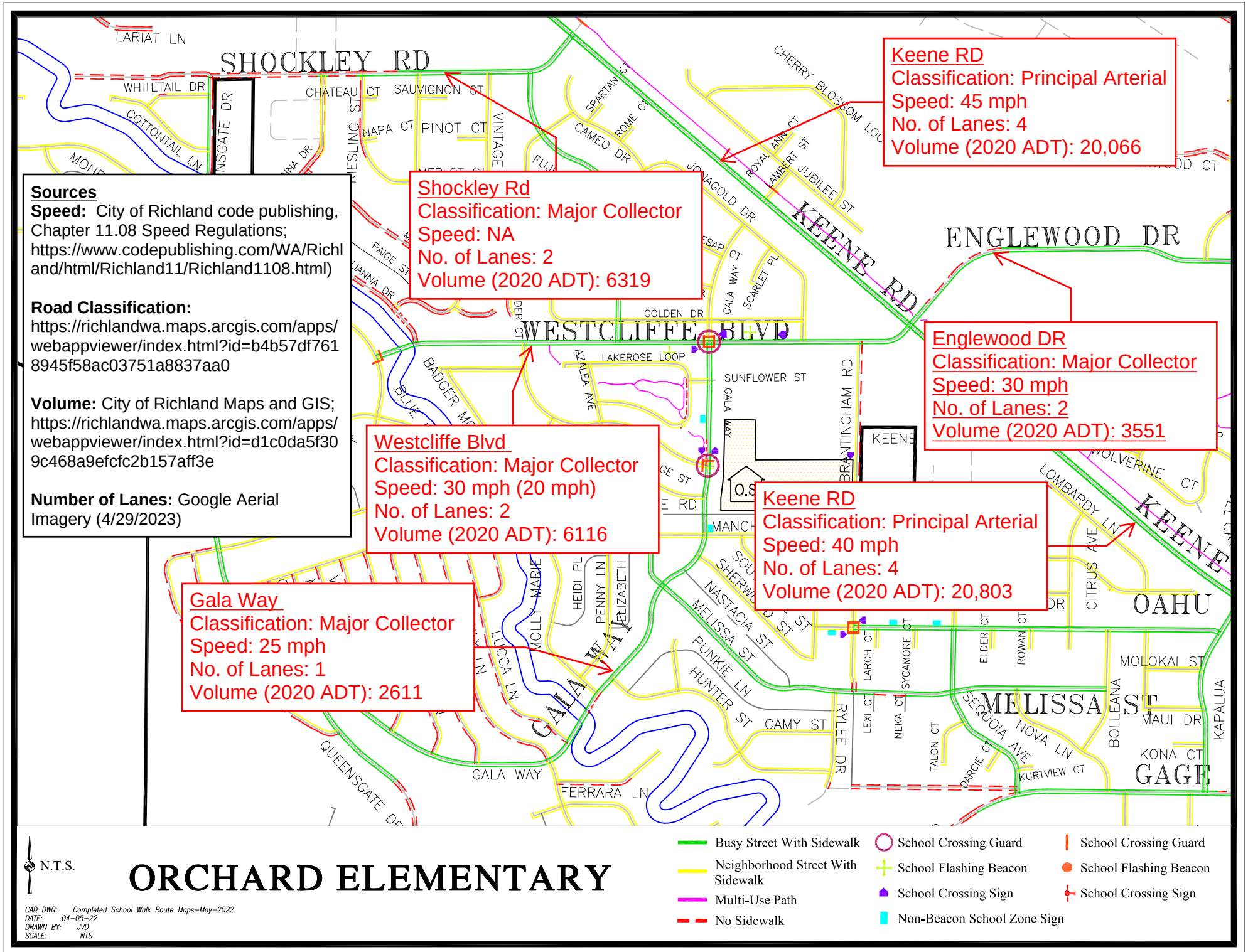
Keene RD
Classification: Principal Arterial
Speed: 40 mph
No. of Lanes: 4
Volume (2020 ADT): 17,055

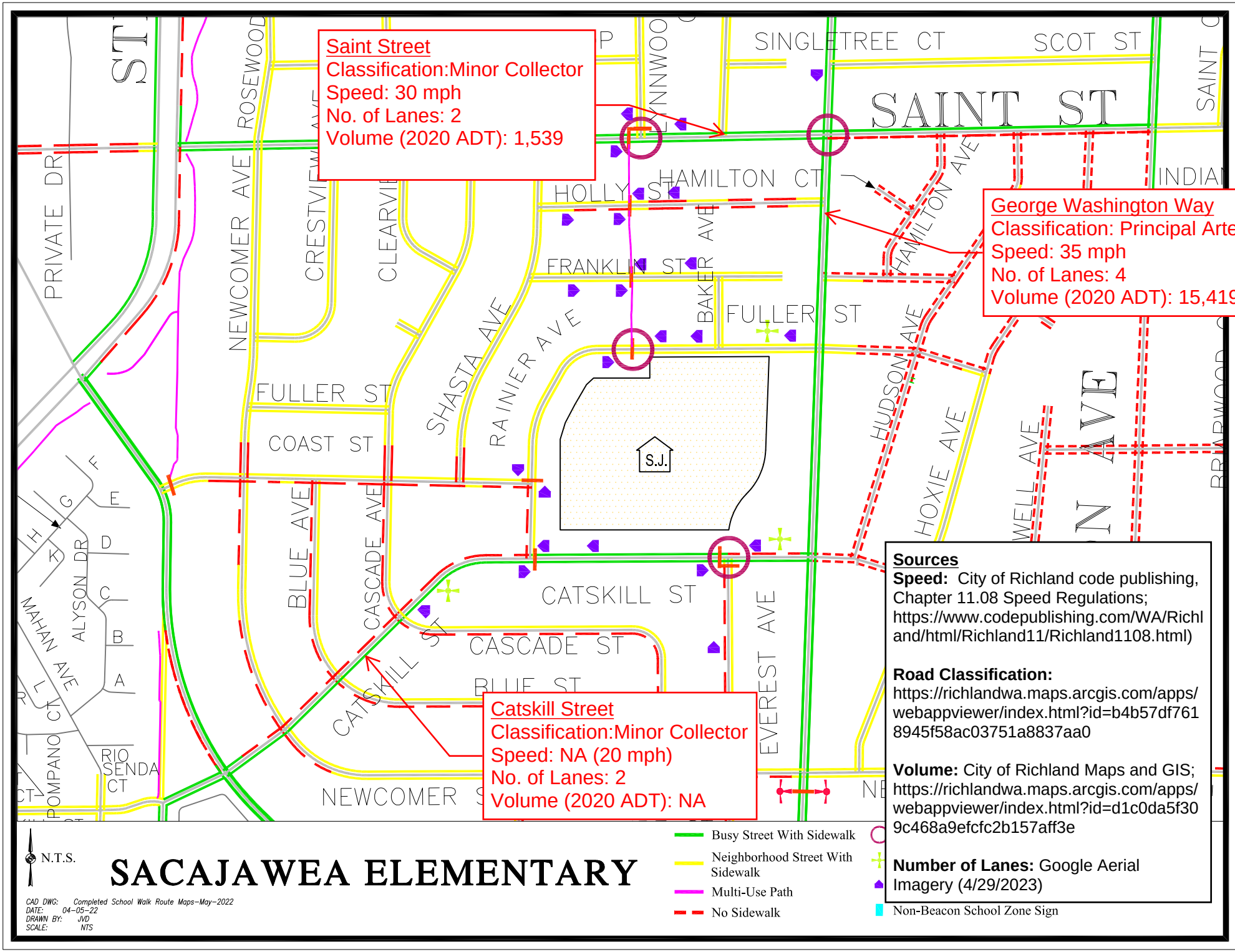
Elementary St
Classification: Minor Collector
Speed: 25 (20 mph)
No. of Lanes: 2
Volume (2020 ADT): NA

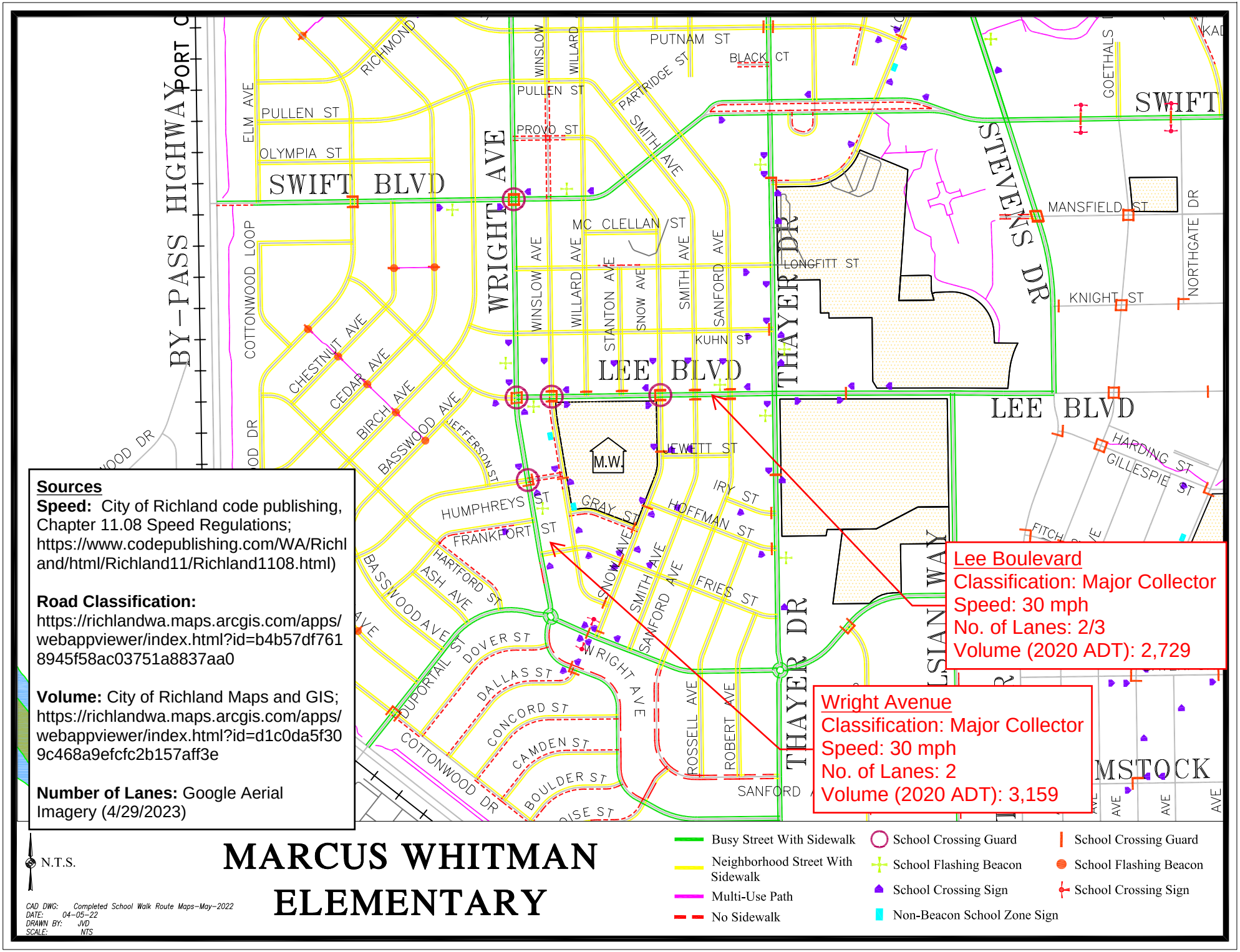

Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
McMurray Street
Classification: Major Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 4,313
Van Giesen Street
Classification: Minor Arterial
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 11,419
Wright Avenue
Classification: Major Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 3,081
Van Giesen Street
Classification: Minor Arterial
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 5,483
MAPLE PL
NORWOOD CT
MC PHERSON AVE
DULUTH STY
BISMARK ST
BOSTON ST
ALBANY CT
MCMURRAY AVE
WESTWOOD CT
MARSHALL CT
SUNSET ST
WOODBURY ST
THAYER DR
WILSON ST
WARREN CT
PLATT AVE
SANFORD AVE
AUSTIN ST
AUSTIN PL
TURNER ST
TORTHAY CT
TORBETT ST
TINKLE ST
J.L.
N.T.S.
JASON LEE ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign


Mc Murray St
Classification: Minor Collector
Speed: 25 mph
No. of Lanes: 2
Volume (2020 ADT): 6,559
George Washington Way
Classification: Principal Arterial
Speed: 35 mph
No. of Lanes: 5
Volume (2020 ADT): 19,296
Van Giesen St
Classification: Minor Arterial
Speed: 30 mph
No. of Lanes: 3
Volume (2020 ADT): 5,979
Jadwin Ave
Classification: Minor Arterial
Speed: 35 mph (25 mph)
No. of Lanes: 2
Volume (2020 ADT): 10,710
Stevens Dr
Classification: Major Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 3,532
Hains Ave
Classification: Minor Collector
Speed: NA (25 mph)
No. of Lanes: 2
Volume (2020 ADT): NA
MC MURRAY ST
VAN GIESEN ST
STEVENS DR
GEORGE WASHINGTON WAY
WILLIS ST
HUNT AVE
WHITTEN ST
WALDRON ST
HAINS AVE
TORBETT ST
THOMAS ST
TAYLOR ST
SIMMONS ST
MAPLE PL
MAHAN CT
MARSHALL CT
WARREN CT
KIMBALL AVE
JUDSON AVE
JOHNSTON AVE
PLAZA AVE
MOWRY SQ
CHERRY LN
HORN AVE
WORDROP ST
DAVISON
GAILLARD
J.S.
Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
N.T.S.
JEFFERSON ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign


Cullum Avenue
Classification:Local St
Speed: NA (20 mph)
No. of Lanes: 2
Volume (2020 ADT): NA
George Washington Way
Classification:Principal Arterial
Speed: 35 mph
No. of Lanes: 5
Volume (2020 ADT): 38,977
Jadwin Avenue
Classification:Minor Collector
Speed: NA (20 mph)
No. of Lanes: 2
Volume (2020 ADT): 2,519
Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
HARDING ST
DOUGLASS AVE
DELAFIELD AVE
CULLUM AVE
L.C.
FALLEY ST
ENDRESS ST
DOWNING ST
DAVENPORT ST
GEORGE WASHINGTON WAY
BRADLEY BLVD
ARMISTEAD AVE
ABERT AVE
ATKINS AVE
BENHAM ST
ADAMS ST
CRAIGHILL AVE
CASEY AVE
JADWIN AVE
BERNARD AVE
BARTH AVE
N.T.S.
LEWIS & CLARK ELEMENTARY
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS


Keene RD
Classification: Principal Arterial
Speed: 45 mph
No. of Lanes: 4
Volume (2020 ADT): 20,066
Shockley Rd
Classification: Major Collector
Speed: NA
No. of Lanes: 2
Volume (2020 ADT): 6319
Englewood DR
Classification: Major Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 3551
Westcliffe Blvd
Classification: Major Collector
Speed: 30 mph (20 mph)
No. of Lanes: 2
Volume (2020 ADT): 6116
Keene RD
Classification: Principal Arterial
Speed: 40 mph
No. of Lanes: 4
Volume (2020 ADT): 20,803
Gala Way
Classification: Major Collector
Speed: 25 mph
No. of Lanes: 1
Volume (2020 ADT): 2611
Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
SHOCKLEY RD
KEENE RD
ENGLEWOOD DR
WESTCLIFFE BLVD
GALA WAY
MELISSA ST
OAHU
GAGE
N.T.S.
ORCHARD ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign


Saint Street
Classification:Minor Collector
Speed: 30 mph
No. of Lanes: 2
Volume (2020 ADT): 1,539
George Washington Way
Classification: Principal Arterial
Speed: 35 mph
No. of Lanes: 4
Volume (2020 ADT): 15,419
Catskill Street
Classification:Minor Collector
Speed: NA (20 mph)
No. of Lanes: 2
Volume (2020 ADT): NA
SAINT ST
SINGLETREE CT
SCOT ST
HAMILTON CT
HOLLY ST
FRANKLIN ST
FULLER ST
COAST ST
CATSKILL ST
CASCADE ST
BLUE ST
NEWCOMER AVE
ROSEWOOD
CRESTVIEW AVE
CLEARVIEW
PRIVATE DR
SHASTA AVE
RAINIER AVE
BAKER AVE
HAMILTON AVE
HUDSON AVE
HOXIE AVE
EVEREST AVE
BLUE AVE
CASCADE AVE
ALYSON DR
MAHAN AVE
RIO SENDA CT
S.J.
Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
N.T.S.
SACAJAWEA ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
Non-Beacon School Zone Sign



Sources

Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)

Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0

Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e

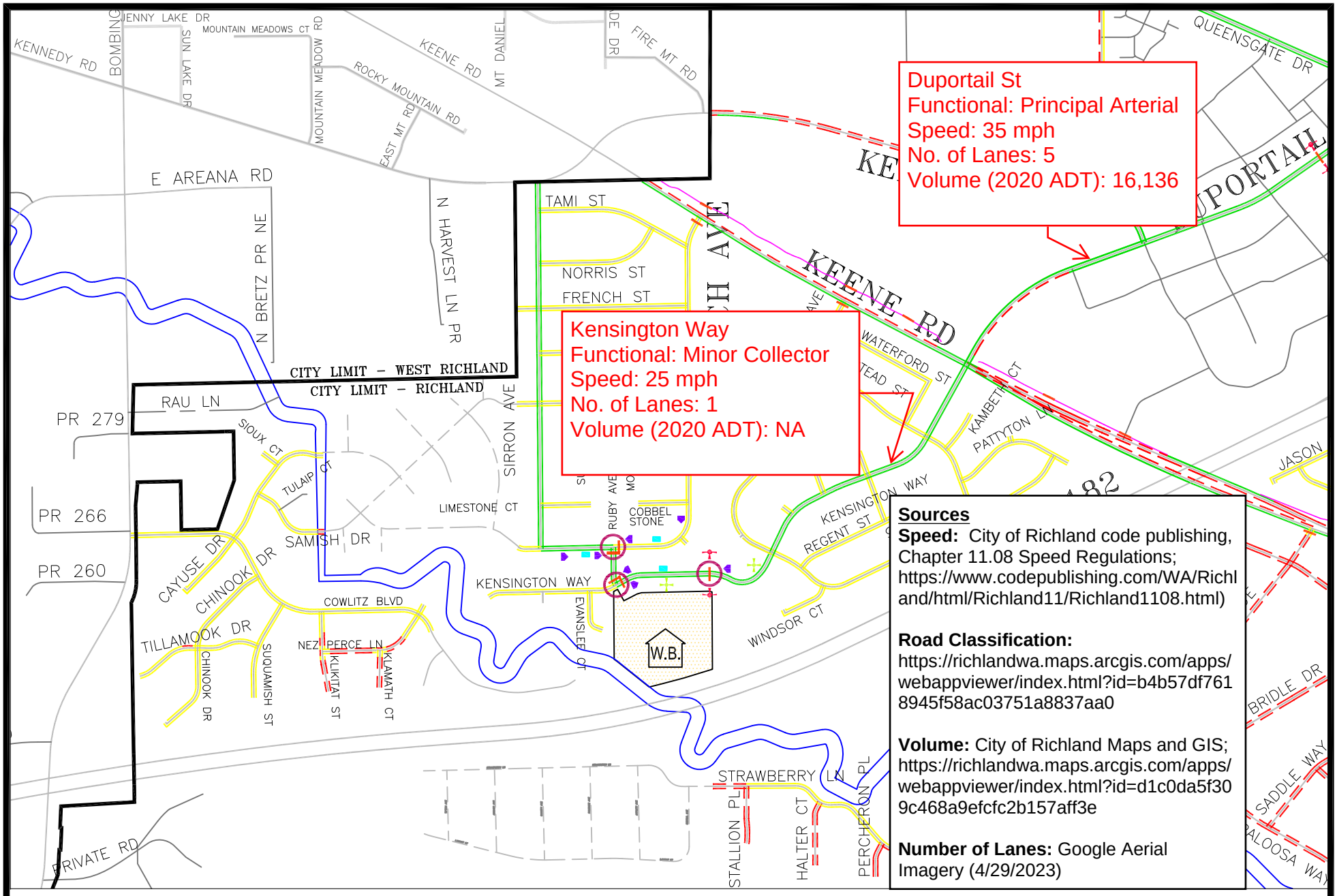
Number of Lanes: Google Aerial Imagery (4/29/2023)

N.T.S.

MARCUS WHITMAN ELEMENTARY

- Busy Street With Sidewalk
- Neighborhood Street With Sidewalk
- Multi-Use Path
- No Sidewalk
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign
- Non-Beacon School Zone Sign
- School Crossing Guard
- School Flashing Beacon
- School Crossing Sign

CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS

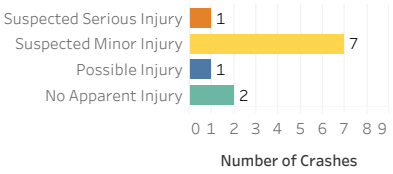

Duportail St
Functional: Principal Arterial
Speed: 35 mph
No. of Lanes: 5
Volume (2020 ADT): 16,136
Kensington Way
Functional: Minor Collector
Speed: 25 mph
No. of Lanes: 1
Volume (2020 ADT): NA
Sources
Speed: City of Richland code publishing, Chapter 11.08 Speed Regulations; https://www.codepublishing.com/WA/Richland/html/Richland11/Richland1108.html)
Road Classification: https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=b4b57df7618945f58ac03751a8837aa0
Volume: City of Richland Maps and GIS; https://richlandwa.maps.arcgis.com/apps/webappviewer/index.html?id=d1c0da5f309c468a9efcfc2b157aff3e
Number of Lanes: Google Aerial Imagery (4/29/2023)
KENNEDY RD
BOMBING
JENNY LAKE DR
SUN LAKE DR
MOUNTAIN MEADOWS CT
MOUNTAIN MEADOW RD
ROCKY MOUNTAIN RD
KEENE RD
MT DANIEL
FIRE MT RD
EAST MT RD
QUEENSGATE DR
E AREANA RD
N BRETZ PR NE
N HARVEST LN PR
TAMI ST
NORRIS ST
FRENCH ST
KEENE RD
WATERFORD ST
KAMBETH CT
PATTYTON LN
JASON
CITY LIMIT – WEST RICHLAND
CITY LIMIT – RICHLAND
RAU LN
PR 279
PR 266
PR 260
SIOUX CT
TULAIP CT
SIRRON AVE
LIMESTONE CT
RUBY AVE
COBBEL STONE
KENSINGTON WAY
REGENT ST
SAMISH DR
CAYUSE DR
CHINOOK DR
COWLITZ BLVD
TILLAMOOK DR
NEZ PERCE LN
KLIKITAT ST
KLAMATH CT
SUQUAMISH ST
EVANSLEE CT
WINDSOR CT
W.B.
BRIDLE DR
SADDLE WAY
STRAWBERRY LN
STALLION PL
HALTER CT
PERCHERON PL
PRIVATE RD
N.T.S.
WHITE BLUFFS ELEMENTARY
CAD DWG: Completed School Walk Route Maps-May-2022
DATE: 04-05-22
DRAWN BY: JVD
SCALE: NTS
Busy Street With Sidewalk
Neighborhood Street With Sidewalk
Multi-Use Path
No Sidewalk
School Crossing Guard
School Flashing Beacon
School Crossing Sign
Non-Beacon School Zone Sign
School Crossing Guard
School Flashing Beacon
School Crossing Sign

Attachment 6

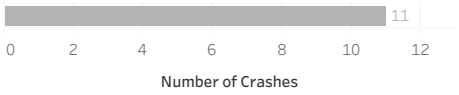
1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

Washington DASH (2017 - 2022)

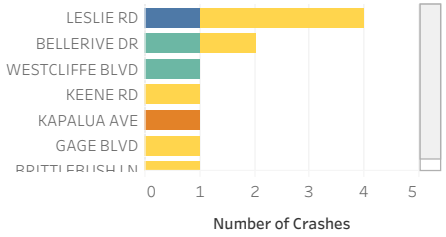
Severity

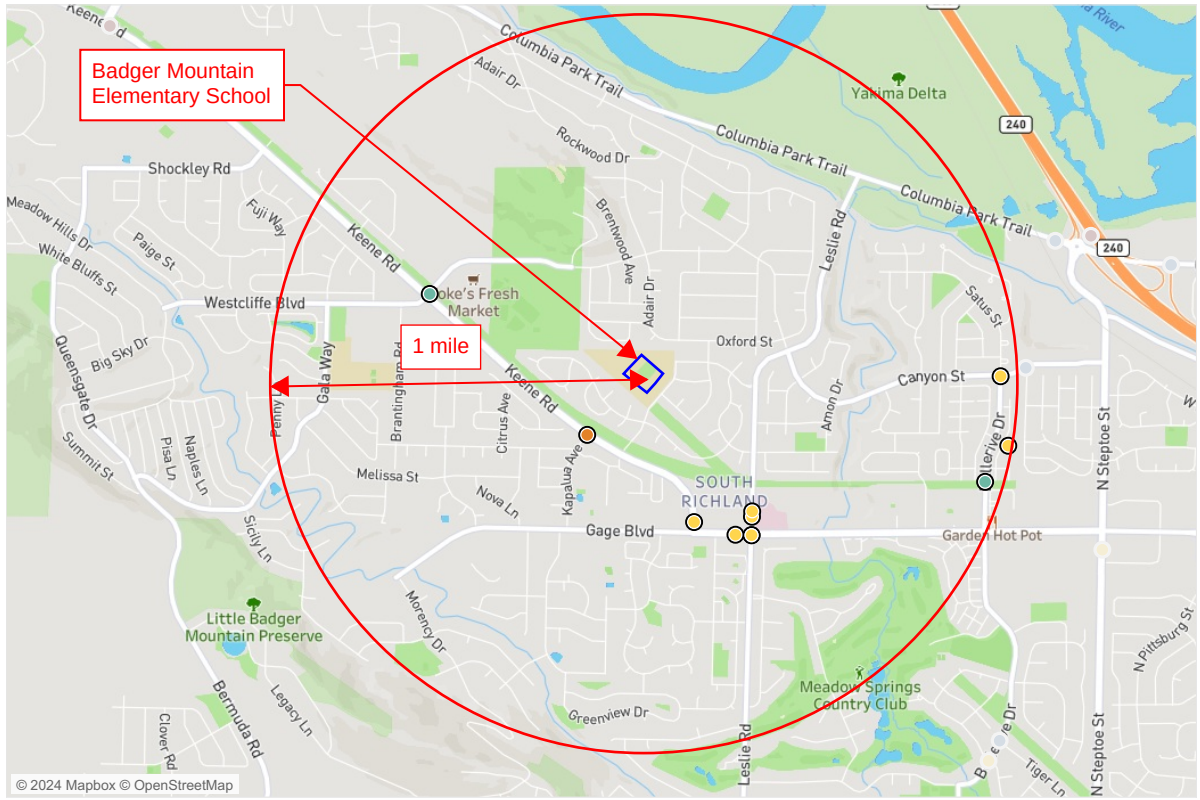


All Crashes

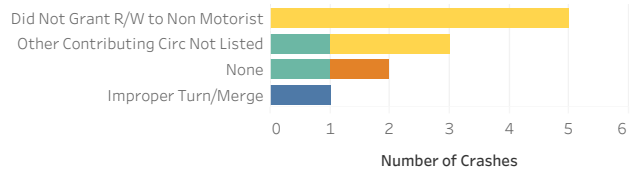


Street Name

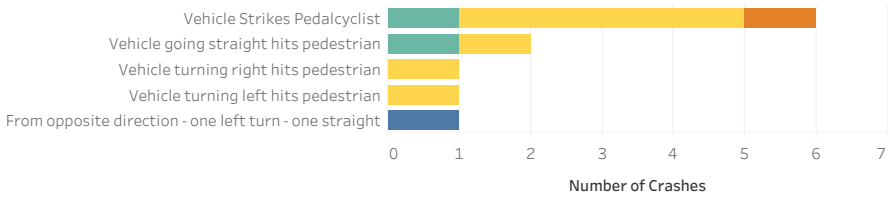




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

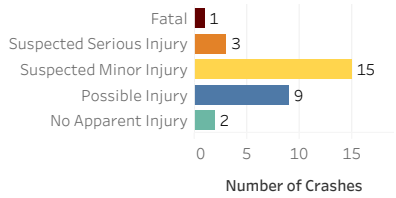
Roadway Characteristic
All

DKS

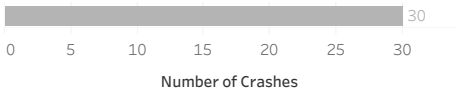
1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

Washington DASH (2017 - 2022)

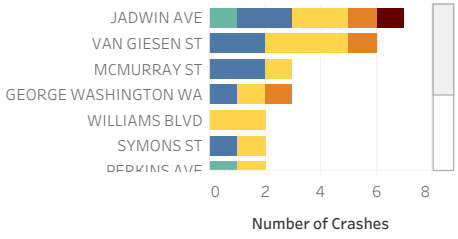
Severity

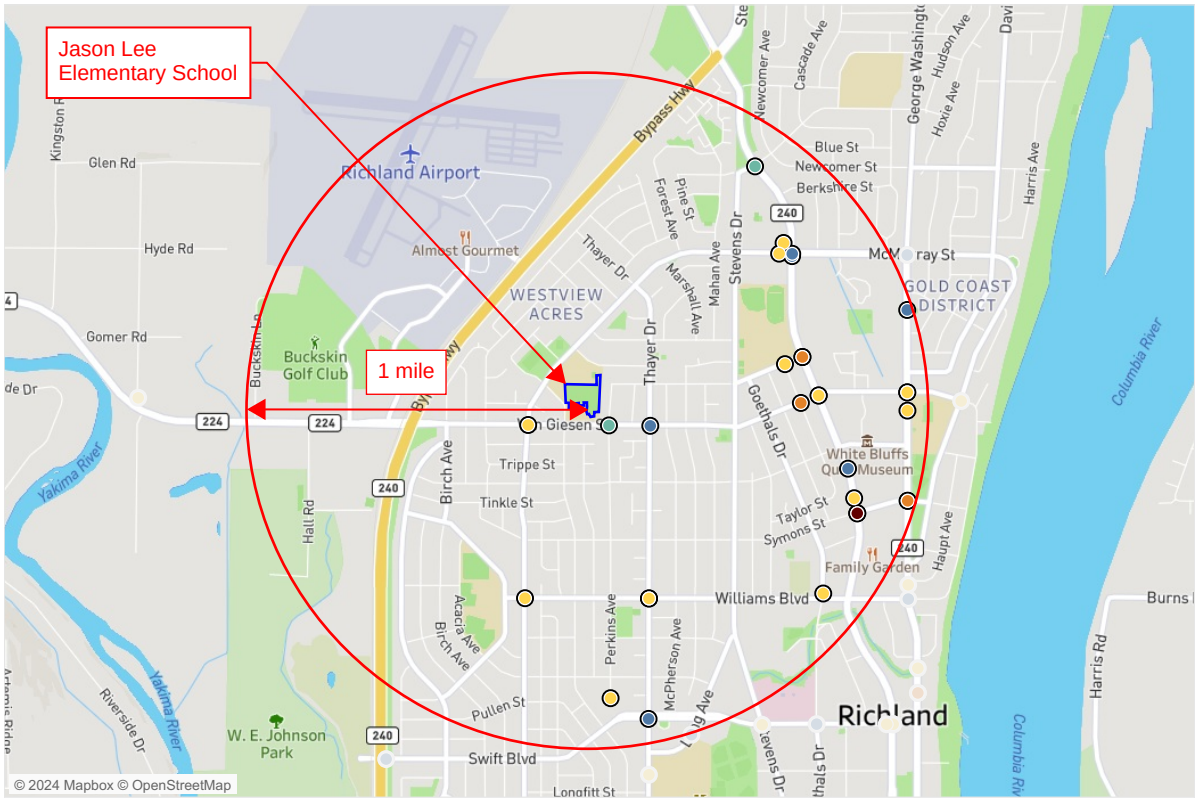


All Crashes

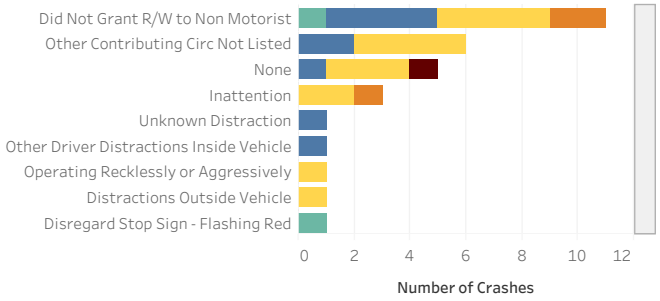


Street Name

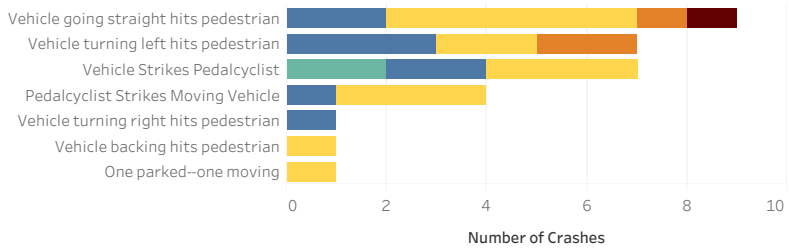




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

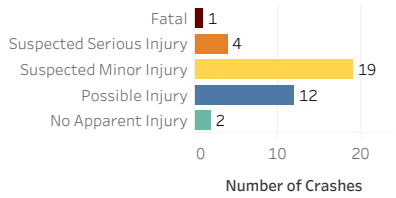
Roadway Characteristic
All

DKS

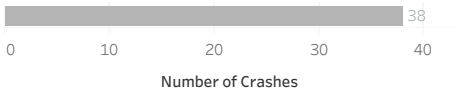
1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

Washington DASH (2017 - 2022)

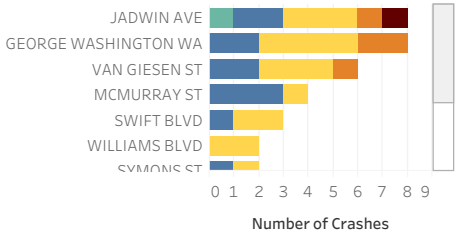
Severity

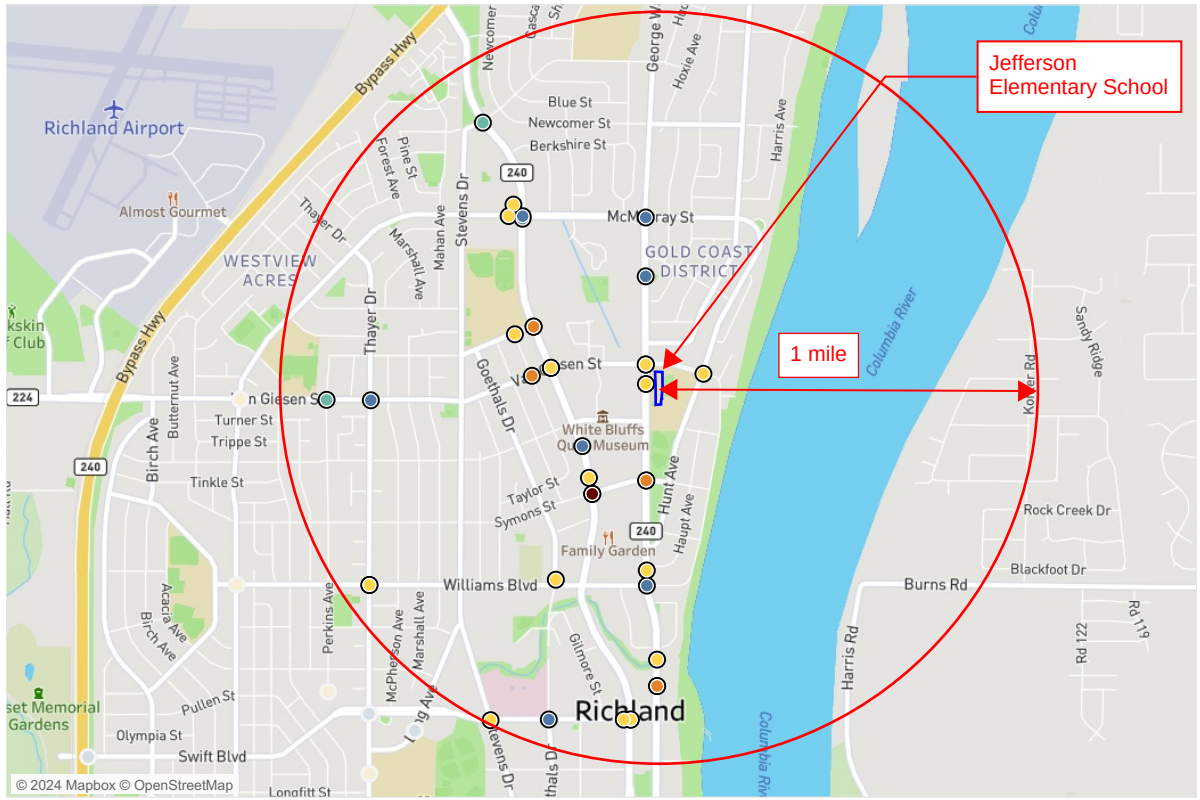


All Crashes

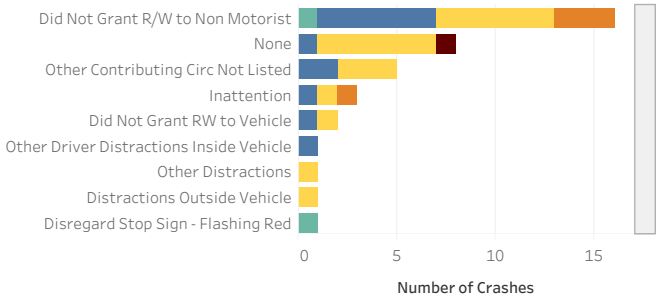


Street Name

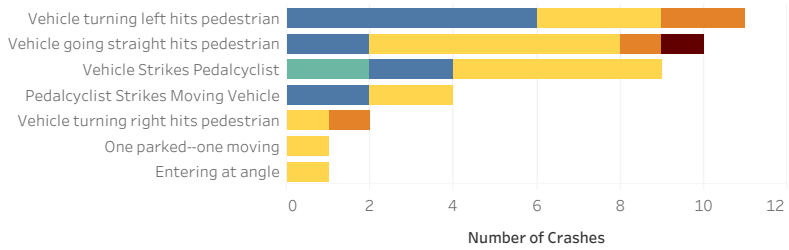




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

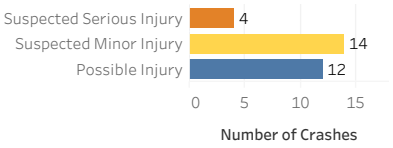
Roadway Characteristic
All

DKS

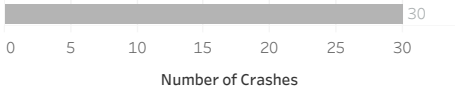
1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

Washington DASH (2017 - 2022)

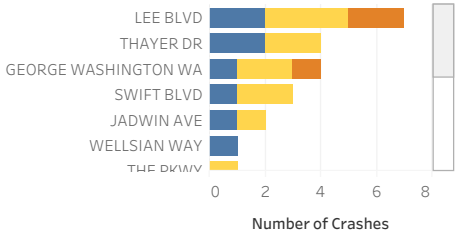
Severity

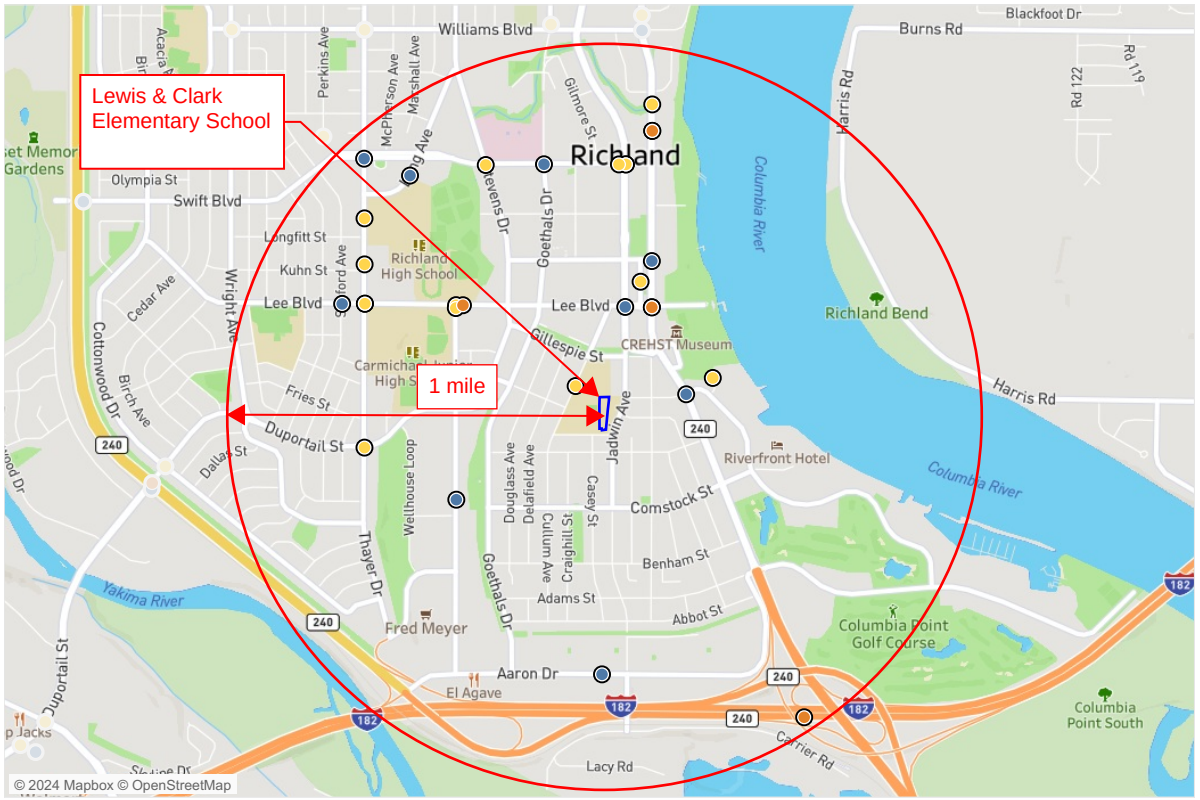


All Crashes

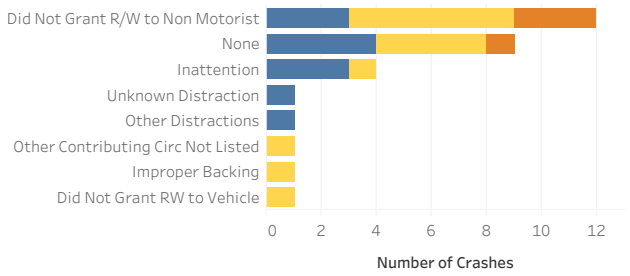


Street Name

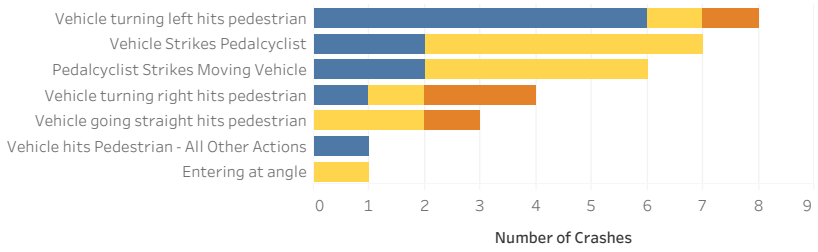




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

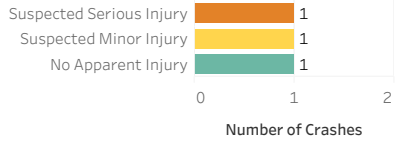
Roadway Characteristic
All

DKS

1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

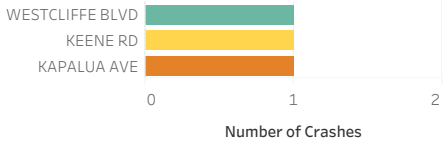
Washington DASH (2017 - 2022)

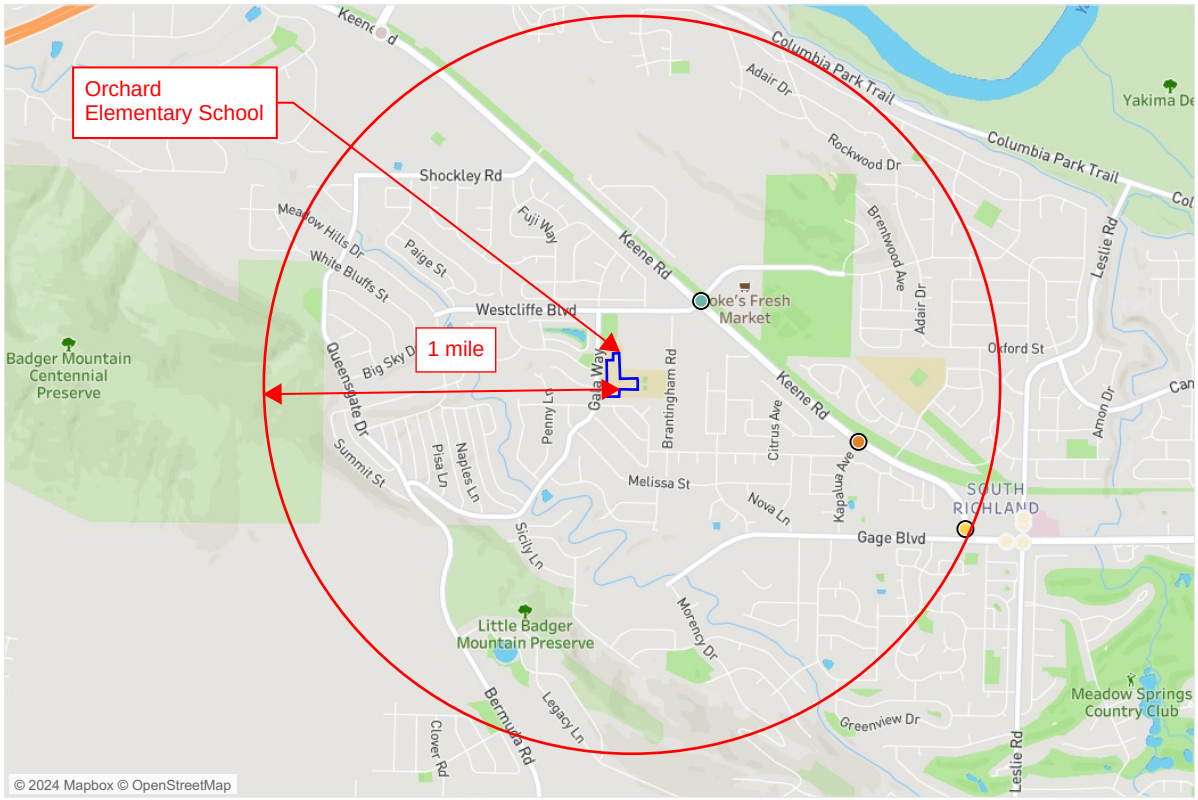
Severity



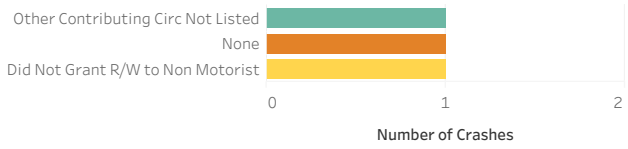
All Crashes

Street Name

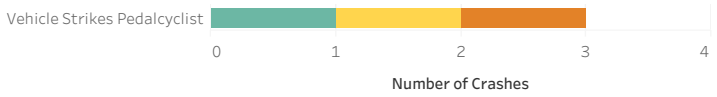




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

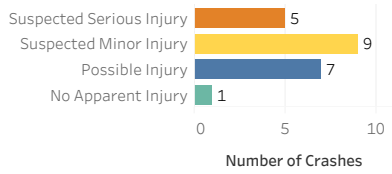
Roadway Characteristic
All

DKS

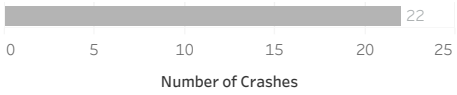
1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

Washington DASH (2017 - 2022)

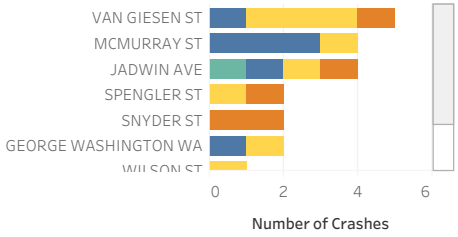
Severity

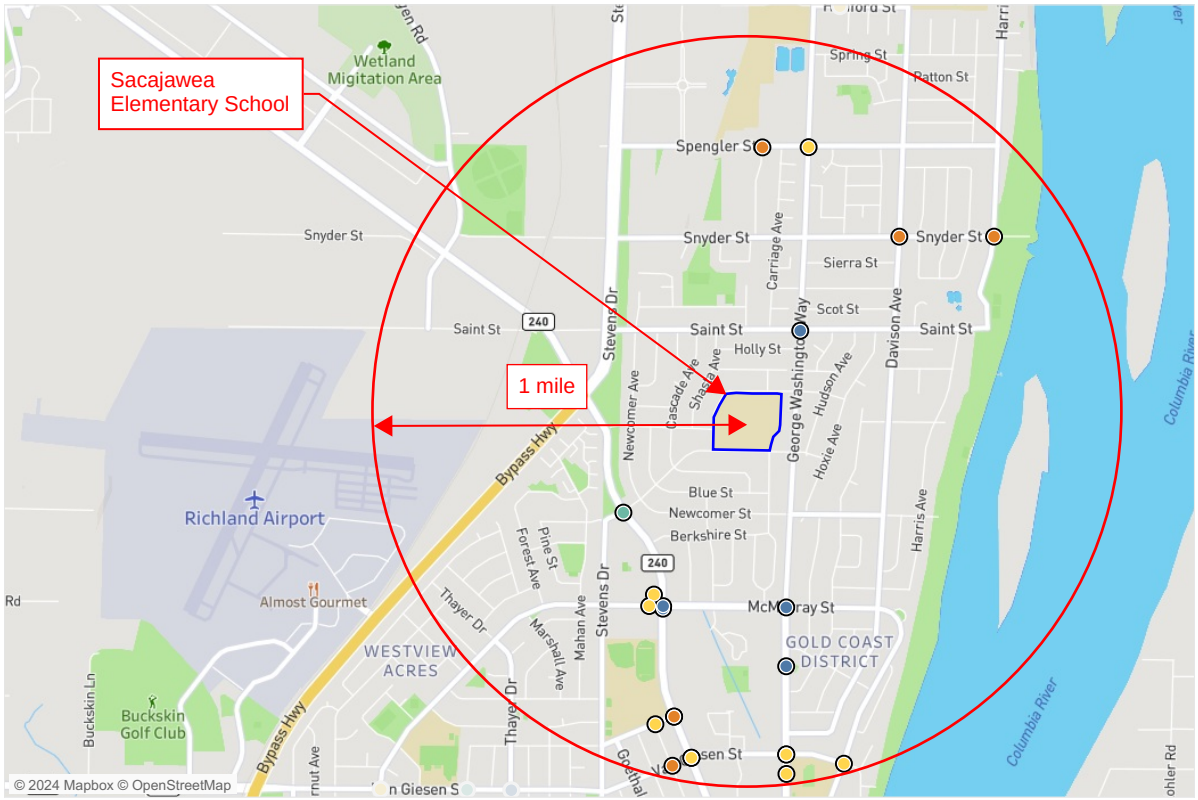


All Crashes

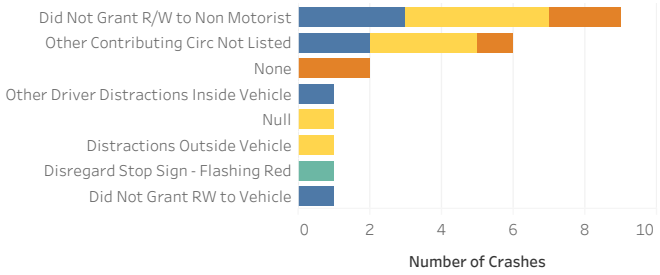


Street Name

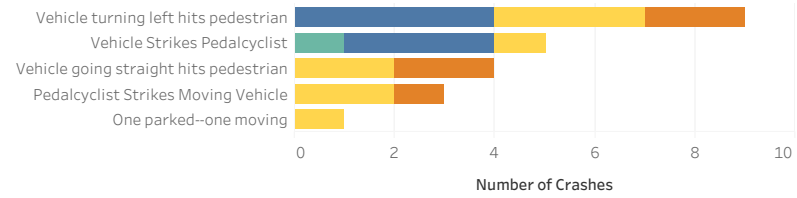




Contributing Circumstance



Collision Type



Severity
- [x] Fatal
- [x] No Apparent Injury
- [x] Possible Injury
- [x] Suspected Minor Injury
- [x] Suspected Serious Injury
- [x] Unknown

Year
- [ ] 2017
- [x] 2018
- [x] 2019
- [x] 2020
- [x] 2021
- [x] 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

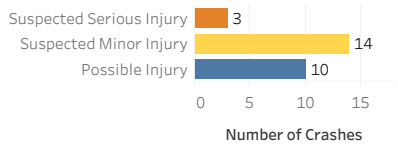
Roadway Characteristic
All

DKS

1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

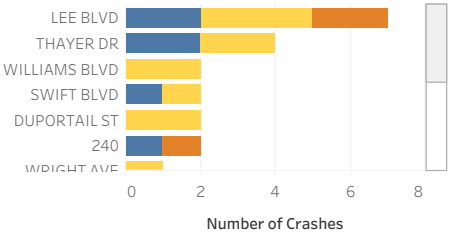
Washington DASH (2017 - 2022)

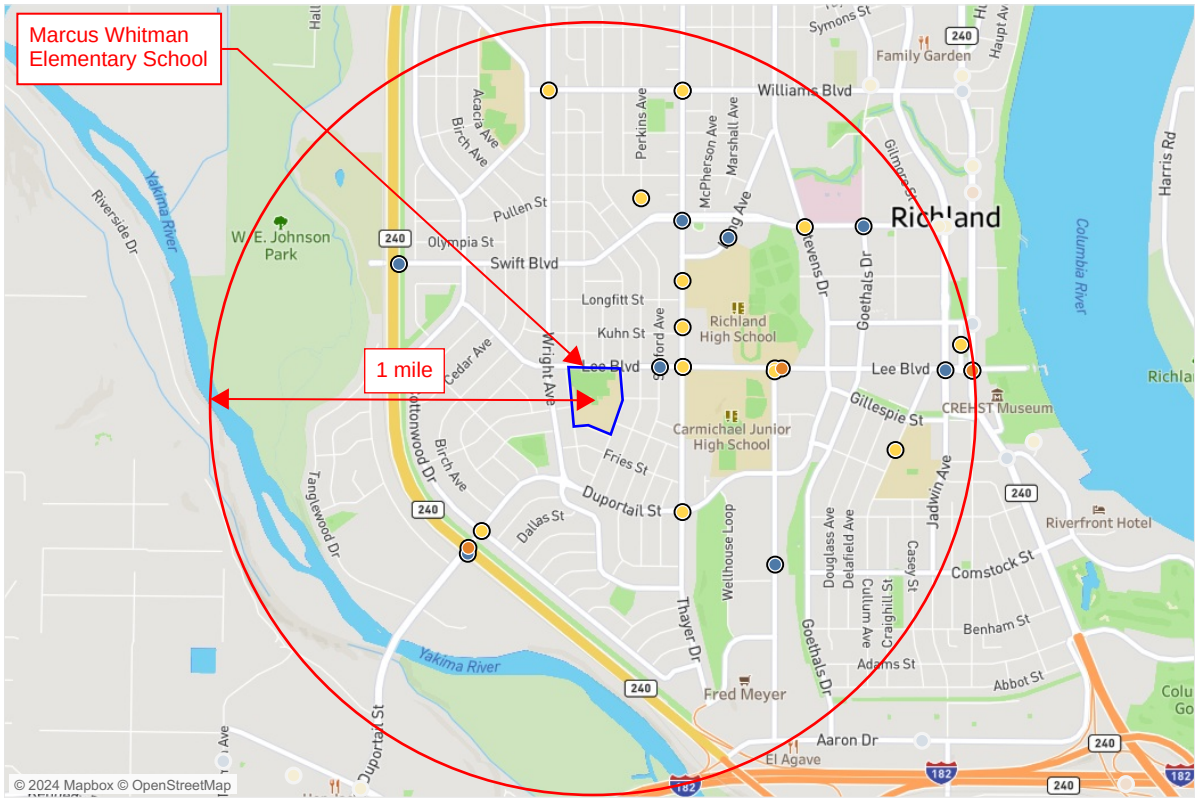
Severity



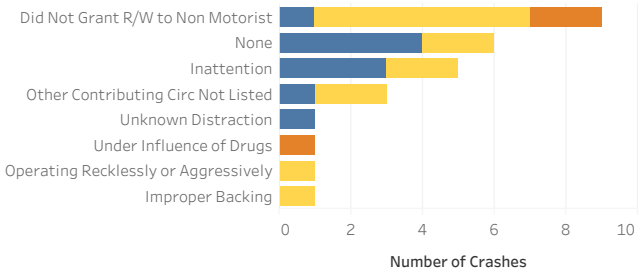
All Crashes

Street Name

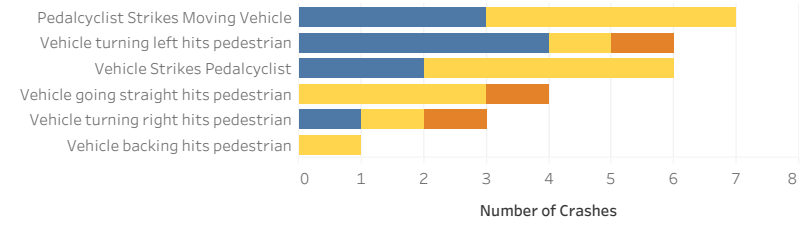




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

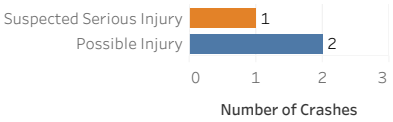
Roadway Characteristic
All

DKS

1-Mile Radius Pedestrian/Cyclist Crash Map Between 2018 and 2022

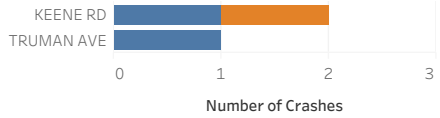
Washington DASH (2017 - 2022)

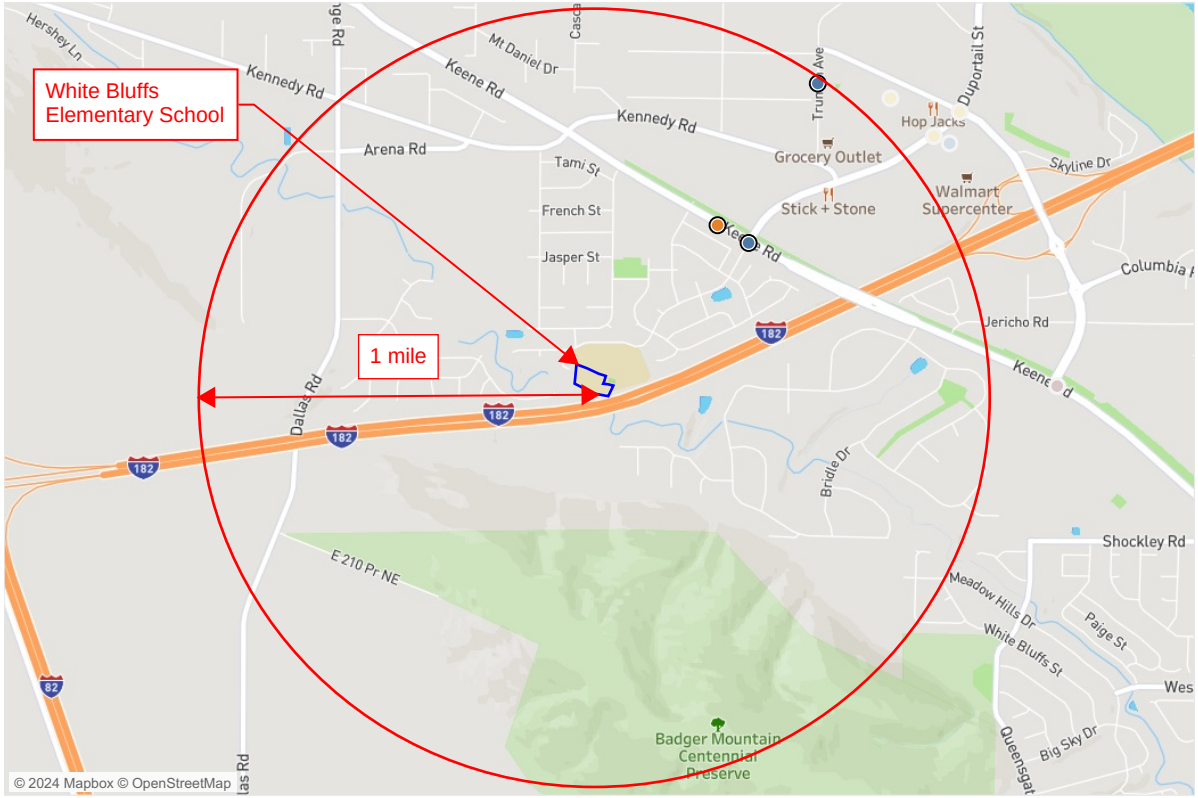
Severity



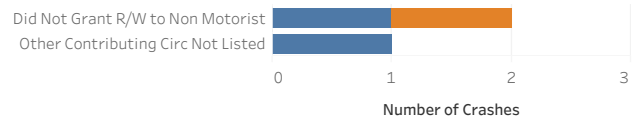
All Crashes

Street Name

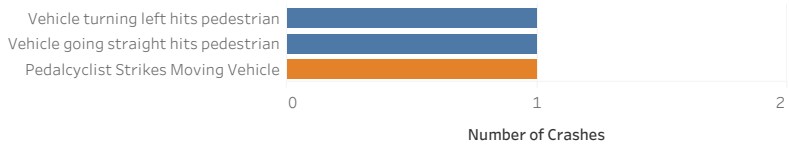




Contributing Circumstance



Collision Type



Severity
- ✔ Fatal
- ✔ No Apparent Injury
- ✔ Possible Injury
- ✔ Suspected Minor Injury
- ✔ Suspected Serious Injury
- ✔ Unknown

Year
- ☐ 2017
- ✔ 2018
- ✔ 2019
- ✔ 2020
- ✔ 2021
- ✔ 2022

County
Benton

City
Richland

Jurisdiction
All

Junction Relationship
All

Intersection Related
All

Collision Type (First)
All

Contributing Circumstance (V..
All

Ped or Bike Involved
Multiple values

Roadway Characteristic
All

DKS

Badger Mountain Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Badger Mountain Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	MI or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
EC92501	KAPALUA AVE	KEENE RD					Vehicle Strikes Pedalcyclist	None	8-Oct-22	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.231	-119.275
EB59535	WESTCLIFFE BLVD	KEENE RD					Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	19-Aug-21	At Intersection and Related	City Street	Daylight	Only Bike	Dry		No Apparent Injury	Richland	Benton	Yes	No	No	2021	46.237	-119.284
EB00759	LESLIE RD		GAGE BLVD	N	358	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	21-May-18	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.228	-119.265
EB55651	GAGE BLVD		LESLIE RD	W	243	F	Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	16-Oct-18	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.227	-119.266
EC14554	LESLIE RD	GAGE BLVD					From opposite direction - one left turn - one straight	Improper Turn/Merge	23-Jan-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2022	46.227	-119.265
EA27883	LESLIE RD		GAGE BLVD	N	277	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	4-Apr-20	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2020	46.228	-119.265
EA49917	LESLIE RD	GAGE BLVD					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	12-Jul-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.227	-119.265
EB40034	KEENE RD		GAGE BLVD	N	175	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	16-Jun-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.228	-119.268

Attachment 7

Jason Lee Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Jason Lee Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	MI or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
E868662	GEORGE WASHINGTON WAY		WORDROP ST	S	247	F	Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	27-Nov-18	At Driveway	City Street	Dark-Street Lights On	Only Bike	Wet	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2018	46.29795	-119.274
E957058	VAN GIESEN ST	THAYER DR					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	4-Sep-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.29306	-119.29
E976706	JADWIN AVE		TORBETT ST	S	351	F	Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	30-Oct-19	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2019	46.29125	-119.278
E936681	GEORGE WASHINGTON WAY	SYMONS ST					Vehicle turning left hits pedestrian	Inattention	15-Jun-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2019	46.2899	-119.274
E920767	WRIGHT AVE	WILLIAMS BLVD					Pedalcyclist Strikes Moving Vehicle	Other Contributing Circ Not Listed	15-May-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.28578	-119.298
E845545	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Other Driver Distractions Inside Vehicle	2-Oct-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.30032	-119.281
E991962	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	10-Dec-19	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.30022	-119.281
EC17735	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	6-Feb-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.28577	-119.29
EC61173	PERKINS AVE		PUTNAM ST	S	321	F	Vehicle backing hits pedestrian	Operating Recklessly or Aggressively	3-Jul-22	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.28156	-119.292
E790803	SYMONS ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Inattention	19-Apr-18	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.2899	-119.274
E843720	VAN GIESEN ST	WRIGHT AVE					Vehicle Strikes Pedalcyclist	Inattention	27-Sep-18	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.2931	-119.297
E788926	MCMURRAY ST		JADWIN AVE	W	203	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	16-Apr-18	At Driveway	City Street	Dawn	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.30033	-119.282
E804148	JADWIN AVE		SYMONS ST	N	236	F	Pedalcyclist Strikes Moving Vehicle	Did Not Grant R/W to Non Motorist	2-Jun-18	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.29	-119.278
E808885	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	14-Jun-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.29596	-119.281
E787475	GOETHALS DR		WILLIAMS BLVD	N	84	F	Vehicle going straight hits pedestrian	None	11-Apr-18	Not at Intersection and Not Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.28598	-119.279
E948808	SYMONS ST	JADWIN AVE					Pedalcyclist Strikes Moving Vehicle	None	4-Aug-19	At Intersection and Related	City Street	Dusk	Only Bike	Dry	Straight & Grade	Possible Injury	Richland	Benton	Yes	No	No	2019	46.28937	-119.277
E945234	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	29-Jul-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.29447	-119.274
E815065	JADWIN AVE	SYMONS ST					Vehicle going straight hits pedestrian	None	1-Jul-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Fatal	Richland	Benton	Yes	No	No	2018	46.28937	-119.277
E858695	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	6-Nov-18	At Intersection and Related	City Street	Other	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2018	46.29686	-119.281
E992869	JADWIN AVE	CATSKILL ST					Vehicle Strikes Pedalcyclist	Disregard Stop Sign - Flashing Red	13-Dec-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	No Apparent Injury	Richland	Benton	Yes	No	No	2019	46.30401	-119.284
E997905	PERKINS AVE	VAN GIESEN ST					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	27-Dec-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	No Apparent Injury	Richland	Benton	Yes	No	No	2019	46.29308	-119.293
EC64880	JADWIN AVE	VAN GIESEN ST					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	12-Jul-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2022	46.29434	-119.28
E890430	WILSON ST	JOHNSTON AVE					Vehicle going straight hits pedestrian	Other Contributing Circ Not Listed	4-Feb-19	At Intersection and Related	City Street	Daylight	Only Ped	Ice	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.29666	-119.282
EB26050	GEORGE WASHINGTON WAY		VAN GIESEN ST	S	280	F	Pedalcyclist Strikes Moving Vehicle	Distractions Outside Vehicle	28-Apr-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.2937	-119.274
EA18755	THAYER DR	SWIFT BLVD					Vehicle turning right hits pedestrian	Unknown Distraction	24-Feb-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2020	46.28069	-119.29
EA49932	JADWIN AVE CHEVRON PKG LOT						One parked--one moving	Other Contributing Circ Not Listed	20-Jul-20	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	Yes	No	2020	46.30078	-119.282
EB72486	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	27-Sep-21	At Intersection and Related	City Street	Daylight	Only Ped	Wet	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2021	46.28577	-119.29
EA68822	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	3-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.29447	-119.274
EA76810	VAN GIESEN ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	31-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.29434	-119.28
EC14929	VAN GIESEN ST	JOHNSTON AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	25-Jan-22	At Intersection and Related	City Street	Dark-Street Lights Off	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.29403	-119.281

Jefferson Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Jefferson Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	Mi or Ft	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
8945545	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Other Driver Distractions Inside Vehicle	2-Oct-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.3	-119.281
8948808	SYMONS ST	JADWIN AVE					Pedalcyclist Strikes Moving Vehicle	None	4-Aug-19	At Intersection and Related	City Street	Dusk	Only Bike	Dry	Straight & Grade	Possible Injury	Richland	Benton	Yes	No	No	2019	46.289	-119.277
8945234	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	29-Jul-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.294	-119.274
8788979	GOETHALS DR	SWIFT BLVD					Vehicle turning left hits pedestrian	Inattention	17-May-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Possible Injury	Richland	Benton	Yes	No	No	2018	46.28	-119.28
8957058	VAN GIESEN ST	THAYER DR					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	4-Sep-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.293	-119.29
EC146909	VAN GIESEN ST	JOHNSTON AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	25-Jan-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.281
EC17735	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	5-Feb-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.286	-119.29
EC880699	JADWIN AVE	SWIFT BLVD					Entering at angle	None	23-Sep-22	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.28	-119.275
EC884408	VAN GIESEN ST	HUNT AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	23-Sep-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.271
EC75273	GEORGE WASHINGTON WAY		HAUPT AVE	S	53	F	Vehicle turning right hits pedestrian	Other Distractions	9-Aug-22	At Driveway	City Street	Daylight	Only Ped	Dry		Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.286	-119.274
E790803	SYMONS ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Inattention	19-Apr-18	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.29	-119.274
E788928	MCMURRAY ST		JADWIN AVE	W	203	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	16-Apr-18	At Driveway	City Street	Dawn	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.3	-119.282
E804148	JADWIN AVE		SYMONS ST	N	236	F	Pedalcyclist Strikes Moving Vehicle	Did Not Grant R/W to Non Motorist	2-Jun-18	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.29	-119.278
E838862	GEORGE WASHINGTON WAY		SWIFT BLVD	N	485	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Vehicle	15-Sep-18	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.282	-119.274
E991962	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	10-Dec-19	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.3	-119.281
E808885	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	14-Jun-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.296	-119.281
E787475	GOETHALS DR		WILLIAMS BLVD	N	84	F	Vehicle going straight hits pedestrian	None	11-Apr-18	Not at Intersection and Not Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.286	-119.279
8855462	GEORGE WASHINGTON WAY	WILLIAMS BLVD					Pedalcyclist Strikes Moving Vehicle	Did Not Grant RW to Vehicle	25-Oct-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Bike	Dry	Straight & Grade	Possible Injury	Richland	Benton	Yes	No	No	2018	46.286	-119.274
E868662	GEORGE WASHINGTON WAY		WORDROP ST	S	247	F	Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	27-Nov-18	At Driveway	City Street	Dark-Street Lights On	Only Bike	Wet	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2018	46.298	-119.274
8815065	JADWIN AVE	SYMONS ST					Vehicle going straight hits pedestrian	None	1-Jul-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Fatal	Richland	Benton	Yes	No	No	2018	46.288	-119.277
8858695	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	6-Nov-18	At Intersection and Related	City Street	Other	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2018	46.296	-119.281
E902869	JADWIN AVE	CATSKILL ST					Vehicle Strikes Pedalcyclist	Disregard Stop Sign - Flashing Red	13-Dec-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	No Apparent Injury	Richland	Benton	Yes	No	No	2019	46.304	-119.284
E897905	PERKINS AVE	VAN GIESEN ST					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	27-Dec-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	No Apparent Injury	Richland	Benton	Yes	No	No	2019	46.293	-119.293
E876706	JADWIN AVE		TORBETT ST	S	351	F	Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	30-Oct-19	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2019	46.291	-119.278
E936681	GEORGE WASHINGTON WAY	SYMONS ST					Vehicle turning left hits pedestrian	Inattention	15-Jun-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2019	46.29	-119.274
E890436	WILSON ST	JOHNSTON AVE					Vehicle going straight hits pedestrian	Other Contributing Circ Not Listed	4-Feb-19	At Intersection and Related	City Street	Daylight	Only Ped	Ice	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.296	-119.282
E914305	SWIFT BLVD	STEVENS DR					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	24-Apr-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.28	-119.283
EA59047	GEORGE WASHINGTON WAY		SWIFT BLVD	N	483.05	F	Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	27-Aug-20	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	No	No	No	2020	46.282	-119.274
EA46932	JADWIN AVE CHEVRON PKG LOT						One parked--one moving	Other Contributing Circ Not Listed	20-Jul-20	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	Yes	No	2020	46.301	-119.282
EE72488	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	27-Sep-21	At Intersection and Related	City Street	Daylight	Only Ped	Wet	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2021	46.286	-119.29
EA68822	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	3-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.294	-119.274
EA76816	VAN GIESEN ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	31-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.294	-119.28
EB82342	SWIFT BLVD		JADWIN AVE	W	99	F	Vehicle going straight hits pedestrian	None	28-Aug-21	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.28	-119.276
EB26059	GEORGE WASHINGTON WAY		VAN GIESEN ST	S	280	F	Pedalcyclist Strikes Moving Vehicle	Distractions Outside Vehicle	28-Apr-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.294	-119.274
EB42864	GEORGE WASHINGTON WAY		GUYER AVE	S	158	F	Vehicle Strikes Pedalcyclist	None	20-Jun-21	Not at Intersection and Not Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.283	-119.274
EA08123	SWIFT BLVD	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	23-Jan-20	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2020	46.28	-119.275
EB70340	MCMURRAY ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	16-Sep-21	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2021	46.3	-119.274
EC64880	JADWIN AVE	VAN GIESEN ST					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	12-Jul-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.28

Lewis and Clark Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Lewis and Clark Elementary Schoo within 1-mile Radius Ped-Bike Crash Data (2018-2022)

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E754763	GEORGE WASHINGTON WAY	FALLEY ST					Vehicle hits Pedestrian - All Other Actions	None	1-Jan-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.271	-119.272
E852133	JADWIN AVE	LEE BLVD					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	19-Oct-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.275
E849576	LEE BLVD	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Inattention	15-Oct-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.274
ED12183	KNIGHT ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	3-Dec-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2022	46.277	-119.274
EB38022	AARON DR		JADWIN AVE	W	374	F	Vehicle Strikes Pedalcyclist	Other Distractions	9-Jun-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2021	46.26	-119.277
EB69015	LONG AVE		SWIFT BLVD	S	261	F	Pedalcyclist Strikes Moving Vehicle	None	16-Sep-21	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2021	46.28	-119.288
EC95070	LEE BLVD	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	19-Oct-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.275	-119.274
EC93183	182						Vehicle going straight hits pedestrian	None	7-Oct-22	Not at Intersection and Not Related	State Route	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	No	No	No	2022	46.298	-119.269
EC36616	LEE BLVD	THAYER DR					Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	12-Apr-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Grade	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.275	-119.29
EC88099	JADWIN AVE	SWIFT BLVD					Entering at angle	None	23-Sep-22	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.28	-119.275
EC36209	CULLUM AVE		FITCH ST	NE	348	F	Pedalcyclist Strikes Moving Vehicle	Improper Backing	6-Apr-22	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.272	-119.278
EC83288	THAYER DR		LONGFITT ST	N	276	F	Pedalcyclist Strikes Moving Vehicle	Did Not Grant R/W to Non Motorist	8-Sep-22	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.278	-119.29
E875521	THAYER DR	LEE BLVD					Vehicle turning left hits pedestrian	None	19-Dec-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.29
E798979	GOETHALS DR	SWIFT BLVD					Vehicle turning left hits pedestrian	Inattention	17-May-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Possible Injury	Richland	Benton	Yes	No	No	2018	46.28	-119.28
E929836	LEE BLVD	SANFORD AVE					Vehicle Strikes Pedalcyclist	None	12-Jun-18	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.291
E813733	THE PKWY		KNIGHT ST	S	301	F	Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	26-Jun-18	Not at Intersection and Not Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	Yes	No	2018	46.276	-119.274
E774586	AMON PARK DR		BRADLEY BLVD	N	253	F	Pedalcyclist Strikes Moving Vehicle	None	28-Feb-18	At Driveway	City Street	Dark-Street Lights On	Only Bike	Dry	Straight & Grade	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.272	-119.27
E838682	GEORGE WASHINGTON WAY		SWIFT BLVD	N	485	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Vehicle	15-Sep-18	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.282	-119.274
E885854	WELLSIAN WAY		WYMAN ST	N	244	F	Pedalcyclist Strikes Moving Vehicle	Inattention	23-Jan-19	At Driveway	City Street	Dark-Street Lights On	Only Bike	Dry		Possible Injury	Richland	Benton	No	No	No	2019	46.267	-119.285
E995500	LEE BLVD		WELLSIAN WAY	E	100	F	Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	16-Dec-19	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	No	No	No	2019	46.275	-119.284
E925330	LEE BLVD	WELLSIAN WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	28-May-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.275	-119.286
E924179	LEE BLVD	WELLSIAN WAY					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	25-May-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.275	-119.285
E914305	SWIFT BLVD	STEVENS DR					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	24-Apr-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.28	-119.283
E956948	DUPORTAL ST	THAYER DR					Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	27-Aug-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.269	-119.29
E956626	THAYER DR		KUHN ST	N	89	F	Pedalcyclist Strikes Moving Vehicle	Inattention	3-Sep-19	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2019	46.277	-119.29
EA59047	GEORGE WASHINGTON WAY		SWIFT BLVD	N	483.05	F	Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	27-Aug-20	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	No	No	No	2020	46.282	-119.274
EB62342	SWIFT BLVD		JADWIN AVE	W	99	F	Vehicle going straight hits pedestrian	None	28-Aug-21	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.28	-119.276
EB42664	GEORGE WASHINGTON WAY		OUYER AVE	S	158	F	Vehicle Strikes Pedalcyclist	None	20-Jun-21	Not at Intersection and Not Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.283	-119.274
EA08123	SWIFT BLVD	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	23-Jan-20	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2020	46.28	-119.275
EA18795	THAYER DR	SWIFT BLVD					Vehicle turning right hits pedestrian	Unknown Distraction	24-Feb-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2020	46.281	-119.29

Orchard Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Orchard Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	MI or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
EB59635	WESTCLIFFE BLVD	KEENE RD					Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	19-Aug-21	At Intersection and Related	City Street	Daylight	Only Bike	Dry		No Apparent Injury	Richland	Benton	Yes	No	No	###	46.237	-119.284
EC92501	KAPALUA AVE	KEENE RD					Vehicle Strikes Pedalcyclist	None	8-Oct-22	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	###	46.2312	-119.275
EB40034	KEENE RD		GAGE BLVD	N	175	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	16-Jun-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	###	46.2277	-119.268

Sacajawea Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Sacajawea Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	Mi or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
EC14929	VAN GIESEN ST	JOHNSTON AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	25-Jan-22	At Intersection and Related	City Street	Dark-Street Lights Off	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.281
ED03420	SNYDER ST	HARRIS AVE					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	12-Nov-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Grade	Suspected Serious Injury	Richland	Benton	Yes	No	No	2022	46.315	-119.262
EC80596	SPENGLER ST	GEORGE WASHINGTON WAY					Pedalcyclist Strikes Moving Vehicle		31-Aug-22	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.318	-119.273
EC88408	VAN GIESEN ST	HUNT AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	23-Sep-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.271
EB45545	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Other Driver Distractions Inside Vehicle	2-Oct-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.3	-119.281
EC64880	JADWIN AVE	VAN GIESEN ST					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	12-Jul-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2022	46.294	-119.28
E945234	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	29-Jul-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.294	-119.274
E788926	MCMURRAY ST		JADWIN AVE	W	203	F	Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	16-Apr-18	At Driveway	City Street	Dawn	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2018	46.3	-119.282
EB08885	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	14-Jun-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2018	46.296	-119.281
EB49609	SAINT ST	GEORGE WASHINGTON WAY					Vehicle Strikes Pedalcyclist	Did Not Grant RW to Vehicle	11-Oct-18	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.311	-119.274
EB69862	GEORGE WASHINGTON WAY		WORDROP ST	S	247	F	Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	27-Nov-18	At Driveway	City Street	Dark-Street Lights On	Only Bike	Wet	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2018	46.298	-119.274
E991962	MCMURRAY ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	10-Dec-19	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Wet	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.3	-119.281
EB58695	JADWIN AVE	WILSON ST					Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	6-Nov-18	At Intersection and Related	City Street	Other	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2018	46.296	-119.281
E992869	JADWIN AVE	CATSKILL ST					Vehicle Strikes Pedalcyclist	Disregard Stop Sign - Flashing Red	13-Dec-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	No Apparent Injury	Richland	Benton	Yes	No	No	2019	46.304	-119.284
E890430	WILSON ST	JOHNSTON AVE					Vehicle going straight hits pedestrian	Other Contributing Circ Not Listed	4-Feb-19	At Intersection and Related	City Street	Daylight	Only Ped	Ice	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.296	-119.282
EA49932	JADWIN AVE CHEVRON PKG LOT						One parked--one moving	Other Contributing Circ Not Listed	20-Jul-20	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	Yes	No	2020	46.301	-119.282
EA68822	VAN GIESEN ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Other Contributing Circ Not Listed	3-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.294	-119.274
EA76810	VAN GIESEN ST	JADWIN AVE					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	31-Oct-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2020	46.294	-119.28
EB26050	GEORGE WASHINGTON WAY		VAN GIESEN ST	S	280	F	Pedalcyclist Strikes Moving Vehicle	Distractions Outside Vehicle	28-Apr-21	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2021	46.294	-119.274
EB81207	SPENGLER ST	HOOD AVE					Vehicle going straight hits pedestrian	None	22-Oct-21	At Intersection and Not Related	City Street	Daylight	Only Ped	Wet	Straight & Grade	Suspected Serious Injury	Richland	Benton	No	No	No	2021	46.318	-119.276
EB38017	SNYDER ST	DAVISON AVE					Pedalcyclist Strikes Moving Vehicle	None	5-Jun-21	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Grade	Suspected Serious Injury	Richland	Benton	Yes	No	No	2021	46.315	-119.268
EB70040	MCMURRAY ST	GEORGE WASHINGTON WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	16-Sep-21	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2021	46.3	-119.274

Marcus Whitman Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Marcus Whitman Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

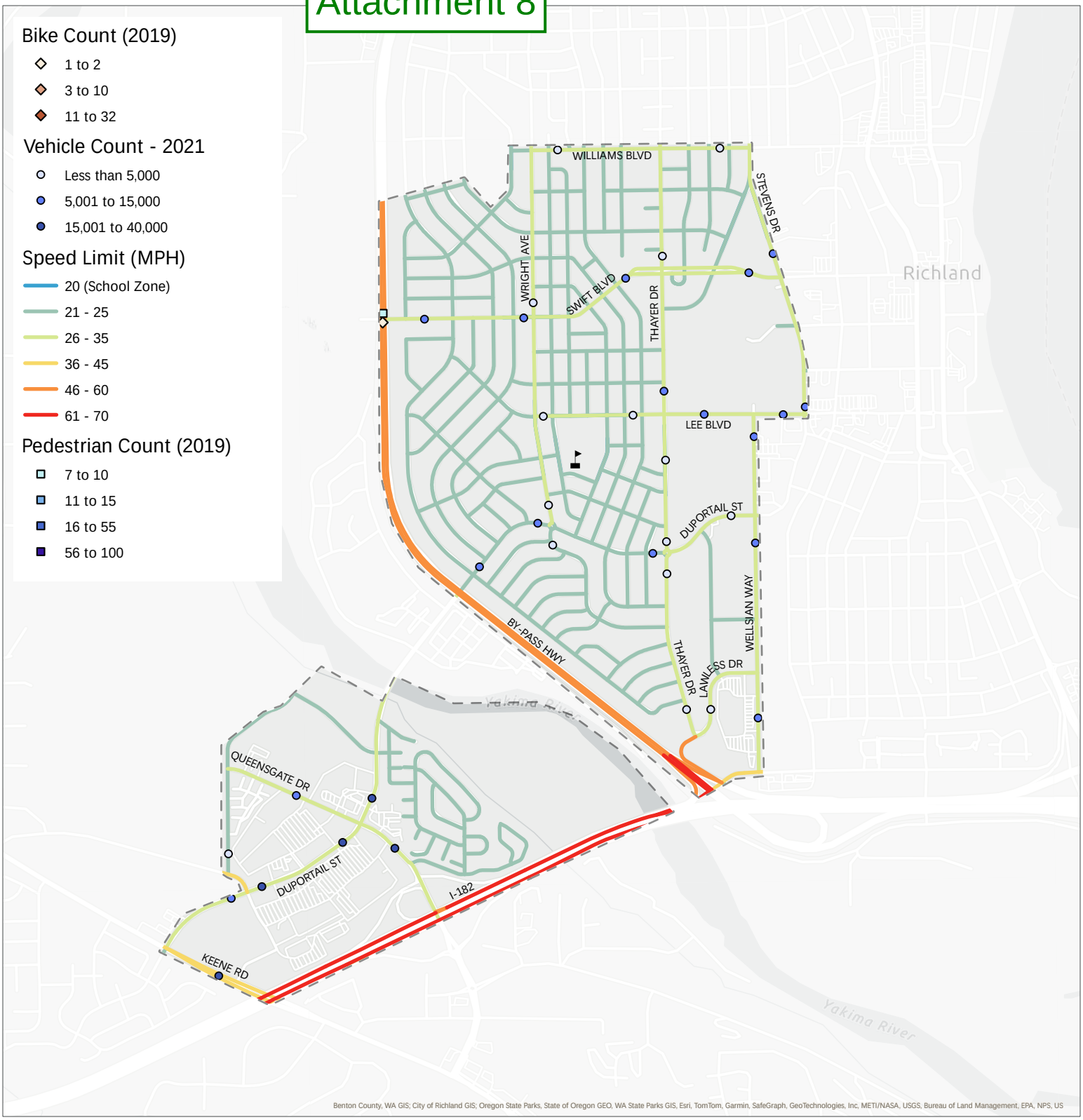
Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	MI or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicater	Speeding Driver Indicator	Year	LAT	Long
E885854	WELLSIAN WAY		WYMAN ST	N	244	F	Pedalcyclist Strikes Moving Vehicle	Inattention	23-Jan-19	At Driveway	City Street	Dark-Street Lights On	Only Bike	Dry		Possible Injury	Richland	Benton	No	No	No	2019	46.267	-119.285
E955500	LEE BLVD		WELLSIAN WAY	E	100	F	Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	16-Dec-19	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	No	No	No	2019	46.275	-119.284
E875521	THAYER DR	LEE BLVD					Vehicle turning left hits pedestrian	None	19-Dec-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.29
E798879	GOETHALS DR	SWIFT BLVD					Vehicle turning left hits pedestrian	Inattention	17-May-18	At Intersection and Related	City Street	Daylight	Only Ped	Dry		Possible Injury	Richland	Benton	Yes	No	No	2018	46.28	-119.28
E929936	LEE BLVD	SANFORD AVE					Vehicle Strikes Pedalcyclist	None	12-Jun-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.275	-119.291
E852133	JADWIN AVE	LEE BLVD					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	19-Oct-18	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.275	-119.275
E869015	LONG AVE		SWIFT BLVD	S	261	F	Pedalcyclist Strikes Moving Vehicle	None	16-Sep-21	At Driveway	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2021	46.28	-119.288
E813733	THE PKWY		KNIGHT ST	S	301	F	Vehicle going straight hits pedestrian	Did Not Grant R/W to Non Motorist	26-Jun-18	Not at Intersection and Not Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	Yes	No	2018	46.276	-119.274
EC17735	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	5-Feb-22	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.286	-119.29
EC36616	LEE BLVD	THAYER DR					Vehicle turning right hits pedestrian	Did Not Grant R/W to Non Motorist	12-Apr-22	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Grade	Suspected Minor Injury	Richland	Benton	Yes	No	No	2022	46.275	-119.29
EC36209	CULLUM AVE		FITCH ST	NE	348	F	Pedalcyclist Strikes Moving Vehicle	Improper Backing	5-Apr-22	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.273	-119.278
EC61173	PERKINS AVE		PUTNAM ST	S	321	F	Vehicle backing hits pedestrian	Operating Recklessly or Aggressively	3-Jul-22	Not at Intersection and Not Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.282	-119.292
EC83288	THAYER DR		LONGFITT ST	N	276	F	Pedalcyclist Strikes Moving Vehicle	Did Not Grant R/W to Non Motorist	8-Sep-22	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2022	46.278	-119.29
E855468	240						Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	31-Oct-18	At Intersection and Related	State Route	Dawn	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2018	46.268	-119.302
E773246	SWIFT BLVD		SR 240	E	72	F	Pedalcyclist Strikes Moving Vehicle	None	23-Feb-18	Not at Intersection and Not Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2018	46.279	-119.306
E925330	LEE BLVD	WELLSIAN WAY					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	28-May-19	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.275	-119.285
E924179	LEE BLVD	WELLSIAN WAY					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	25-May-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.275	-119.285
E914305	SWIFT BLVD	STEVENS DR					Vehicle Strikes Pedalcyclist	Did Not Grant R/W to Non Motorist	24-Apr-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.28	-119.283
E919034	DUPORTAIL ST	COTTONWOOD DR					Vehicle Strikes Pedalcyclist	Inattention	10-May-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.269	-119.301
E920767	WRIGHT AVE	WILLIAMS BLVD					Pedalcyclist Strikes Moving Vehicle	Other Contributing Circ Not Listed	15-May-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.286	-119.298
E956948	DUPORTAIL ST	THAYER DR					Vehicle Strikes Pedalcyclist	Other Contributing Circ Not Listed	27-Aug-19	At Intersection and Related	City Street	Daylight	Only Bike	Dry		Suspected Minor Injury	Richland	Benton	Yes	No	No	2019	46.269	-119.29
E956626	THAYER DR		KUHN ST	N	89	F	Pedalcyclist Strikes Moving Vehicle	Inattention	3-Sep-19	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Level	Suspected Minor Injury	Richland	Benton	No	No	No	2019	46.277	-119.29
EA49506	240						Vehicle going straight hits pedestrian	Under Influence of Drugs	13-Jul-20	At Intersection and Related	State Route	Daylight	Only Ped	Dry	Straight & Level	Suspected Serious Injury	Richland	Benton	Yes	No	No	2020	46.268	-119.302
EB72486	WILLIAMS BLVD	THAYER DR					Vehicle going straight hits pedestrian	None	27-Sep-21	At Intersection and Related	City Street	Daylight	Only Ped	Wet	Straight & Level	Suspected Minor Injury	Richland	Benton	Yes	No	No	2021	46.286	-119.29
EA18755	THAYER DR	SWIFT BLVD					Vehicle turning right hits pedestrian	Unknown Distraction	24-Feb-20	At Intersection and Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2020	46.281	-119.29

White Bluffs Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

White Bluffs Elementary School within 1-mile Radius Ped-Bike Crash Data (2018-2022)

Report Num	Primary Trafficway	Intersecting Trafficway	Reference Point Name	Comp Dir From Ref Point	Dist From Ref Point	MI or FT	Collision Type (First)	Contributing Circumstance (Veh 1)	Day of Date	Junction Relationship	Jurisdiction	Lighting Conditions	Ped or Bike Involved	Road Surface Conditions	Roadway Characteristic	Severity	City	County	Intersection Related	Lane Departure Indicator	Speeding Driver Indicator	Year	LAT	Long
E980888	KEENE RD	DUPORTAIL ST					Vehicle turning left hits pedestrian	Did Not Grant R/W to Non Motorist	8-Nov-19	At Intersection and Related	City Street	Dark-Street Lights On	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	Yes	No	No	2019	46.253	-119.32
E900238	TRUMAN AVE		QUEENSGATE DR	S	450	F	Vehicle going straight hits pedestrian	Other Contributing Circ Not Listed	7-Mar-19	Not at Intersection and Not Related	City Street	Daylight	Only Ped	Dry	Straight & Level	Possible Injury	Richland	Benton	No	No	No	2019	46.26	-119.316
EC65139	KEENE RD		LETHBRIDGE AVE	SE	441	F	Pedalcyclist Strikes Moving Vehicle	Did Not Grant R/W to Non Motorist	15-Jul-22	At Driveway	City Street	Daylight	Only Bike	Dry	Straight & Grade	Suspected Serious Injury	Richland	Benton	No	No	No	2022	46.254	-119.322

Attachment 8



Marcus Whitman Elementary Safe Routes to School - Vehicle Count

Richland, Washington

Date: January 2024 | Project: 78148.000

Figure: 3

Marcus Whitman Elementary

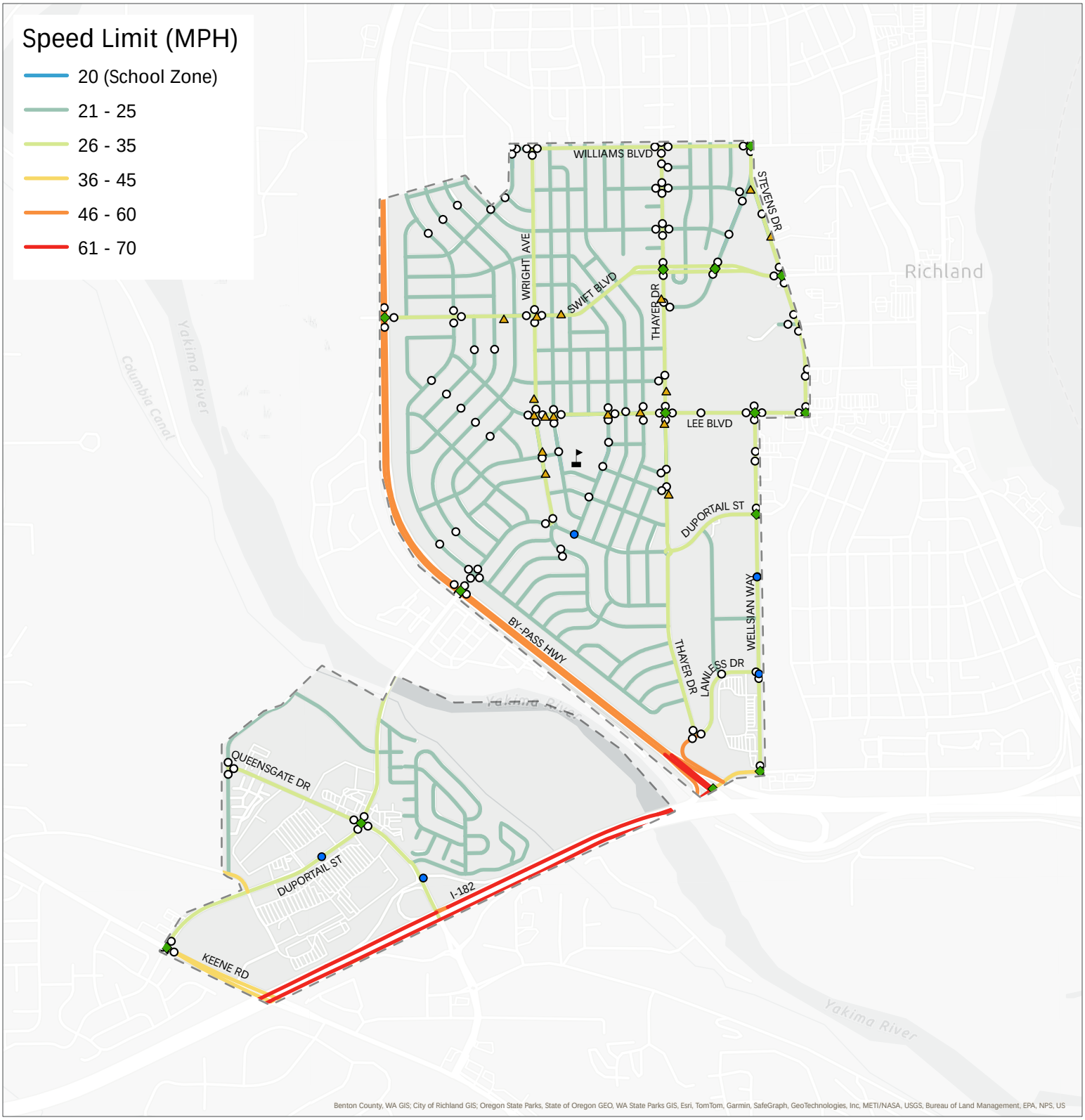
School Attendance Boundary

N

1 INCH = 2,000 FEET

0 2,000 Feet

PBS



Marcus Whitman Elementary Safe Routes to School

Richland, Washington

Date: January 2024 | Project: 78148.000

Figure: 2

- Marcus Whitman Elementary
- Traffic Signal
- Crosswalk
- Rectangular Rapid Flashing Beacon
- School Speed Limit Zones Flasher and Crossing Beacon
- School Attendance Boundary

N

1 INCH = 2,000 FEET

0 2,000 Feet

PBS

NAD 1983 StatePlane Washington South FIPS 4602 Feet | C:\Users\JillianP\OneDrive - PBS Engineering and Environmental\Documents\ArcGIS\Projects\78148_RichlandSafeRoutestoSchool\78148_RichlandSafeRoutestoSchool.aprx | 1/31/2024 5:11 PM

Appendix B

Community 1 Outreach Materials

BFCOG Survey Summary

Safe Routes to School Survey

Summary

The Benton Franklin Council of Governments conducted region-wide outreach targeting parents, caregivers, teachers, and students' perspectives on walking and biking across the bi-county area. The Safe Routes to School (SRTS) Survey was open to respondents for a five-month period from August 2023 to December 2023. We utilized local news networks, school districts, and other community partners to maximize the reach, ultimately, we received 228 responses.

The survey sought to understand the following key questions:

- Are there barriers to walking and biking? If yes, what are they and who do they impact?
- Do people want to walk and bike more? What are their concerns? What would allow them to walk and bike more?
- What inequities are people facing regarding multi-modal/ active transportation access and mobility?
- Are people familiar with SRTS programs?

The majority of the responses were from Richland, along with responses from West Richland, Pasco, and Kennewick. The respondents were primarily female parents/caregivers[1], aged between 35-44. Additionally, 80% of the respondents identified as white and 14% as Hispanic. Of the 228 respondents, 13.3% identified as having a disability or condition affecting their mobility choices. The survey had 5 sections: 1) introductory questions on perceptions of walking and biking (accessible to all respondents); 2-4) questions on barriers, experiences, and concerns of walking and biking (available to parents/caregivers, teachers, and students); and 5) closing questions on regional improvements and demographic questions (accessible to all respondents). The survey included a range of questions about attitudes, barriers, and perceptions of walking and biking, targeting the perspective of parents/caregivers, students, and teachers. If a respondent did not identify as one of those three options, they answered the general questions about bike-pedestrian infrastructure, planning priorities, and safe routes to school programs and skipped questions relating directly to the parent/caregiver, student, or teacher experience. Although we did outreach to target all three populations, we

[1] Parents/caregivers are referred to as caregivers throughout this summary for conciseness.

primarily received parent/caregiver responses, with only eight teacher responses, and five student responses.

Introductory Questions (1-8)

Respondents generally walk and bike for fun and as a form of exercise, but throughout the month people mainly drive daily compared to other modes. People are very interested in walking and biking more for both personal and commuting trips. Most respondents never take public transit or rideshare. Although less frequent, some people walk every day, and some folks bike once or twice per week. The biggest physical barriers to walking and biking are distance and lack of path or route, and the biggest social barriers include convivence of driving, carrying capacity, and personal safety from road users. Respondents are interested in walking and biking more if there were more connected and safer crosswalks, more protected bike lanes and bike racks, and better street lighting. The greatest factors preventing people from walking and biking are convenience, personal safety, and inadequate bike/pedestrian infrastructure.

Caregiver, Teacher and Student Focused Questions (9-49)

There was representation in the responses across all grades from pre-school to seniors in high school, however, 1st, 3rd, Kindergarten, and 4th graders were the most represented grades. The most represented schools included: Desert Sky, Hanford, Chief Joseph, Three Rivers, Badger Mountain, and Jefferson. In a typical month, most children are never taking BFT, riding the school bus, carpooling, or rolling to school. Most children ride in the family vehicle every day. 23% of kids walk to school every day, and 18% walk to school a few times per week.

There is strong interest from caregivers, students, and teachers to create safer and more expansive route options for youth to walk and bike to school. These respondents highlight a lack of safe routes to prevent their children or themselves from walking or biking. Overall, safety is a key concern among all respondents; this includes safety from drivers, safe paths and crosswalks, and sidewalks. Parents are extremely or very interested in having their children bike, roll, or walk to school more, and are not at all interested in walking to the bus more. Parents and caregivers said the biggest physical factor preventing children from walking or biking is distance and the greatest social factor is personal safety from roadway users. Comparatively, students say the biggest physical factor is the weather and the greatest social factor is personal safety. Caregivers said safer and more connected sidewalks would make it more likely for children to walk/roll more. Whereas students said that crosswalks and better street lighting would increase their likelihood of walking and

rolling to school. The biggest barrier to walking and biking is infrastructural, namely inadequate street and sidewalk features, and the lack of bike lanes.

Most respondents' youngest children live either over 2 miles or 1 mile from school. The majority of caregivers and students said it takes 11-20 minutes to travel to and from school. The furthest parents and caregivers said their young children will walk to school are 1 mile, ½ mile, and ¼ mile. Students said the furthest they would walk is 2+ miles. The furthest caregivers would allow their children to bike is 1-2 miles. 80% of Students said the farthest they would bike to school was 2+ miles.

Caregivers and students had different perspectives on school support for walking or biking. 70% of parent and caregiver respondents said their student's schools neither encouraged nor discouraged walking and biking to school. Whereas, of the student respondents, 40% said their school discourages walking and biking and 40% strongly encourages it.

There was a range of responses regarding bike and pedestrian safety education; 44% of caregivers said their children either had little or no education on bike/pedestrian safety. 30% of respondents said that their children had a moderate amount of bike/ped safety education. 40% of students said they received a lot of bike/pedestrian education and 40% said they received none at all.

Lastly, respondents were asked about their attitudes toward walking and biking to school. All groups had different perspectives; 35% of Caregivers said that their children find walking and biking to school very fun and 30% said neutral. 40% of students said biking to school is fun and 75% of teachers said it is very fun or for their students.

All Respondents

The majority of respondents identified focusing on creating safer routes (80%) and to improve walk and bike connectivity and safety (71%) and the most important transportation improvements for the region. When asked about SRTS, 78% of respondents said they had never heard of SRTS prior to taking the survey.

Limitations of the SRTS Survey

This survey caught just 228 perspectives in our expansive Benton-Franklin County region. Due to this limited audience, the findings in this survey cannot be generalized to a mass audience, however, the data provides insight into the perspectives of our community members as the BFCOG works to develop a SRTS Action Plan. This survey received 3 Spanish-speaking responses, which highlights a large population in our region unaccounted for in these results. Future outreach should continue to target Spanish-

speaking communities to understand their barriers to and experiences with walking and biking to school. Additionally, a disproportionate number of respondents to this survey live in Richland. The findings skew towards the perspectives of those in Richland and future outreach should target gathering more data from the other small and large cities in our region. Lastly, our region is composed of both urban and rural schools, each with different needs for and expectations of bike and pedestrian infrastructure. The primary goal of this Action Plan and future active transportation efforts is to continue improving the safety and mobility of children walking and biking in Benton and Franklin County; when the youngest bicyclists and pedestrians are targeted in active transportation planning it allows every other person in our community to benefit from improved safety and mobility.

Appendix C

Community 2 Outreach Materials

Flier Project Summary

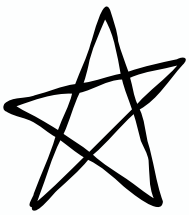
Richland Safe Routes to School Study

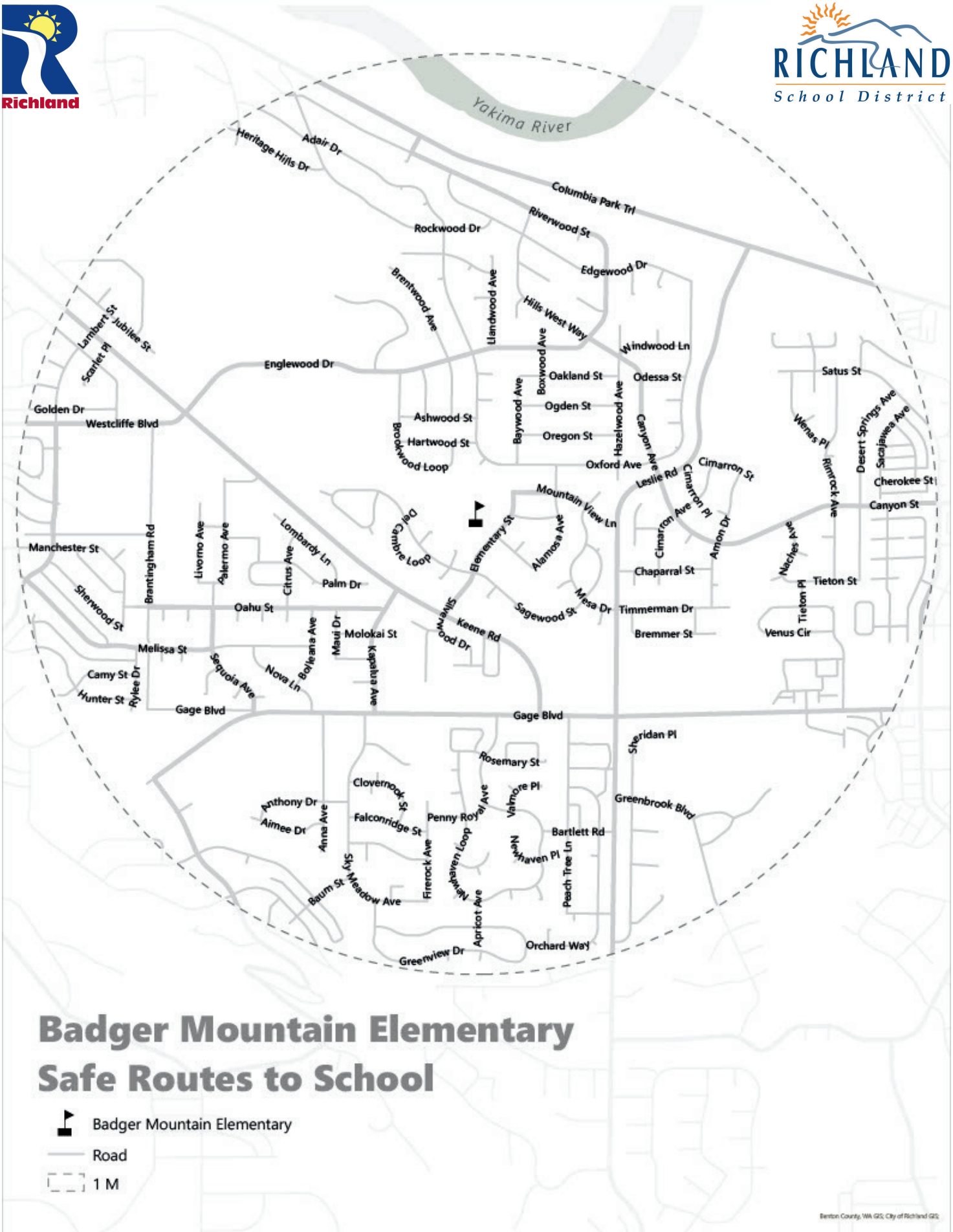
HELP US IMPROVE HOW YOU WALK, BIKE, OR ROLL TO BADGER MOUNTAIN ELEMENTARY!

Please tell us how you travel to and from school, then use the symbols to draw on the map on the back of this page. So we can add your information to our citywide study, return the completed map to your front office by Monday, April 8, 2024. Thank you for helping!

How do you get to and from school? Select all the ways you travel.

- ☐ Ride in a bus
- ☐ Ride in a car
- ☐ Walk
- ☐ Bike
- ☐ Other: _____
- ☐ Roll on a wheelchair, scooter, or skateboard

	Use a **line** to show the route you use to walk, bike, or roll to school.
	Draw a **star** in areas where you feel SAFE **crossing** or **walking along** the roadway.
	Draw an **X** in areas where you feel UNSAFE **crossing** or **walking along** the road.
	Draw a **squiggle** in areas you think need sidewalks or crosswalks.



For more information contact the project team at public-involvement@pbsusa.com.

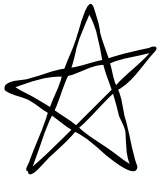
Estudio sobre Rutas Seguras a la Escuela en Richland

¡AYÚDENOS A MEJORAR CÓMO CAMINA, VIAJA EN BICICLETA O UTILIZA UN MEDIO DE TRANSPORTE CON RUEDAS A LA ESCUELA PRIMARIA DE BADGER MOUNTAIN!

Por favor díganos cómo viaja hacia y desde la escuela, y luego utilice los símbolos para dibujar en el mapa al otro lado de esta página. Para que podamos añadir su información a nuestro estudio de toda la ciudad, devuelva el mapa que ha completado a la oficina principal de su escuela a más tardar el lunes, 8 de abril de 2024. ¡Gracias por su ayuda!

¿Cómo viaja hacia y desde la escuela? Seleccione todas las maneras en que viaja.

- ☐ Viajo en un autobús
- ☐ Viajo en un automóvil
- ☐ Camino
- ☐ En bicicleta
- ☐ Otro:_____
- ☐ Utilizo un medio de transporte con ruedas, como una silla de ruedas, o una patineta con o sin manivela

	Utilice una **línea** para mostrar la ruta que usa para caminar, ir en bicicleta o viajar utilizando un medio de transporte con ruedas a la escuela.
	Dibuje una **estrella** en las áreas donde se siente seguro **cruzando** o **caminando a la par** de las calles.
	Dibuje una **X** en las áreas donde NO SE SIENTE SEGURO **cruzando** o **caminando a la par** del camino.
	Dibuje una **línea ondulada** en las áreas que cree que necesitan aceras o cruces peatonales.

Badger Mountain Elementary

Camino

1 M

Para obtener más información, póngase en contacto con el equipo del proyecto en public-involvement@pbsusa.com.

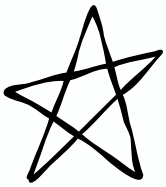
Дослідження безпечних маршрутів до школи в Річленді

ДОПОМОЖІТЬ НАМ ПОКРАЩИТИ ТЕ, ЯК ВИ ДОБИРАЄТЕСЬ ДО ПОЧАТКОВОЇ ШКОЛИ BADGER MOUNTAIN (БУДЬ ТО ПІШКИ, НА ВЕЛОСИПЕДІ ЧИ ЯКИМОСЬ ТРАНСПОРТОМ)!

Будь ласка, розкажіть нам, як ви добираєтесь до школи та зі школи додому, а потім використовуйте символи, щоб намалювати їх на мапі на звороті цієї сторінки, щоб ми могли додати вашу інформацію до нашого загальноміського дослідження. Поверніть заповнену мапу до вашого місцевого офісу до понеділка, 8 квітня 2024 року. Дякуємо за допомогу!

Як ви добираєтесь до школи та зі школи додому? Оберіть усі способи, якими ви користуєтесь.

- ☐ Автобусом
- ☐ Пішки
- ☐ Іншим способом: _____
- ☐ Автомобілем
- ☐ Велосипедом
- ☐ Їжджу на інвалідному візку, самокаті чи скейтборді

	Покажіть **лінією** маршрут, яким ви добираєтесь до школи пішки, на велосипеді або на візку.
	Намалюйте **зірочку (*)** у тих місцях, де ви почуваєтеся у безпеці, **переходячи дорогу** або **йдучи вздовж** проїжджої частини.
	Намалюйте **хрестик (X)** у тих місцях, де ви відчуваєте НЕБЕЗПЕКУ, **переходячи дорогу** або **йдучи вздовж** неї.
	Намалюйте **тильду (~)** у тих місцях, де, на вашу думку, потрібні тротуари або пішохідні переходи.

Badger Mountain Elementary

Дорога

1 М

За додатковою інформацією звертайтеся до команди проєкту за адресою public-involvement@pbsusa.com.

Jason Lee Elementary Safe Routes Survey

Type	Need	Priority	Notes
Crosswalk	Van Giesen & Sanford	High	I think it would help if we actually had 20 mph beacons near the RRFB. The nearest WB beacon is 1650 feet away and separated by three intersections. The EB beacon is 850 feet away and separated by a traffic signal where drivers may have to stop. Another respondent noted they felt safe here.
Sidewalks	Torbett - Thayer to Stevens	Medium	This is a borderline Minor Collector Street that is narrower than most. It has little to no sidewalk in this segment. East of Stevens to Jadwin, Torbett has about 70% sidewalk on the north side and maybe 25% on the south side. Sidewalks are similar west of Thayer too.
Crosswalks	Painted crosswalks on side streets of Turner & Trippe at Wright	Medium	Not required at Stop signs but slightly higher priority due to it being against higher volume street of Wright.
Crosswalks	Painted crosswalks on side streets of Turner & Trippe at Sanford	Low	Not required at Stop signs so low priority
Crosswalks	Thayer & Symons	Low	Roundabout planned

Response Summary	3 Total Responses
Ride in a Bus	0
Ride in a Car	2
Walk	2
Bike	2
Roll (Scooter, Skateboard Wheelchair)	1
Other	0

General Notes
- Sidewalk/Crossing was listed on Thayer between Symons & Thayer on one response, but there are no problems evident

Jefferson Elementary Safe Routes Survey

Type	Need	Priority	Notes
Sidewalk	Missing sidewalk on south side of Symons from Jadwin to Goethals	High	I broke this out from the request because it is a section that serves more students and comes up to the traffic signal that is managed by crossing guards. The section to the west narrows and only allows parking on the north side of the street, thus adding sidewalk would still be uncomfortable since it would not have the "buffer" against moving traffic that the parking would otherwise provide.
Crosswalk	Van Giesen and Hunt	Medium	This intersection seems like it has the Stop signs on the wrong approach (Van Giesen). Could consider swapping if that would be better, though this is a difficult change to make (probably want Paras there for a while). It would be better for the walk route since there is a crossing of Van Giesen near the school that substitures for crossing an uncontrolled crossing of Van Giesen at this intersection. Possible sight distance obstructions with wall and/or fences on both east side properties.
Sidewalk	Missing sidewalk for three properties on Wordrop & Hoxie	Low	1727 & 1729 Hoxie Ave, and 92 Wordrop St
Sidewalk	Missing sidewalk on Hains (north side) between Park Access and Hunt.	Low	Serves low number of users. There are significant landscape elements for cost and also, they don't really allow for any walking except to cross or be in street for short distance. Fixing 1603 Hains Ave alone would serve all but two houses.
Sidewalk	Missing sidewalk segments on south side of Symons from Goethals to Stevens Drive	Low	The north side of the sidewalk is present the whole route. Properties 715, 717, 719, 803, 805, 807, 905, 909 Symons and 1328 Kimball are the missing pieces between Goethals and Stevens. This was noted on two responses. As noted in the response between Jadwin & Goethals. The south side new sidewalk would still have cars driving really close to the sidewalk since the street is too narrow to allow parking on the south side.

Response Summary	17 Total Responses
Ride in a Bus	3
Ride in a Car	8
Walk	9
Bike	2
Roll (Scooter, Skateboard Wheelchair)	1
Other	0

General Notes
-Comment - **"We no longer feel safe having to walk around the ELC building. When there was access through the soccer field the visibility was much better and knowing she was secure behind a fence was better. Please allow students to walk in the field again"**
- One response noted Waldron at GW Way as difficult. It has minor street crosswalk marking as do several others that weren't called out.
- Comment - "Van Giesen & GW Way are safe because of the Para-educators. It is unsafe from the reckless drivers!"
- Comment - "Paras/crossing guards (on Hunt near Thomas) are awesome and appreciated"
-
-

Lewis & Clark Elementary Safe Routes Survey

Type	Need	Priority	Notes
Sidewalks	Comstock between Goethals & Jadwin	High	It would be nice to get sidewalks for sure.
Crosswalk	Crossing of Goethals at Comstock for Park	Low	Not a high priority for school but makes a nice link to Wellsian as well if a trail is cut thru.
Crosswalk	Cullum and Downing	High	Raised Crosswalk? Intermediate School Zone Signs.
Crosswalk	Cullum and Fitch	High	Raised Crosswalk? Intermediate School Zone Signs.
Sidewalks	Downing	Medium	Right near the school would be helpful. South side.
Sidewalks	Comstock between Jadwin & Armistead	High	It would be a good addition. All the way to GW Way would be better. Mentioned twice.
Sidewalks	Benham between Jadwin & Armistead	Medium	It would be a good addition. All the way to GW Way would be better.
Sidewalks	Adams between Jadwin & Armistead	Medium	It would be a good addition. All the way to GW Way would be better.
Sidewalks	Davenport	Medium	Goethals to Jadwin. All the way to GW Way would be better.
Crosswalk	Jadwin & Comstock	High	Raised crosswalk could be a problem, RRFB's would be better on the north crosswalk. Add east side crosswalk and delete south side crosswalk.

Response Summary	4 Total Responses
Ride in a Bus	1
Ride in a Car	4
Walk	4
Bike	1
Roll (Scooter, Skateboard Wheelchair)	1
Other	

General Notes
-
-
-
-
-
-

Orchard Elementary Safe Routes Survey

Type	Need	Priority	Notes
Crosswalk	Melissa & Gala	High	Painted crosswalks on minor street crossings. Down side is that it would cause some drivers to stop too far back and not creep up when it is safe to make a left-turn. Listed 3 times
Crosswalk	Gala & Manchester	High	Painted crosswalks on minor street crossings.
Crosswalk	Melissa at Brantingham	High	New paved connection between Melissa and Brantingham Cul-de-sac, but no crossing. A raised crosswalk would also satisfy part of a Traffic Calming Request. Raised crosswalk could work as there is drainage right there. Listed twice.
Crosswalk	Oahu Crossing(s) at Brantingham	Medium	Treat west side as the specific Safe Route. Listed twice.
Sidewalk	Brantingham (east side)	Medium	Needs sidewalk and widening. This would allow for a focused crossing near the bus loop as this is a popular drop-off spot.
Intersection	Gala and Sicily	Low	Not clear what the request is other than maybe minor street crosswalks painted. The case would be speed and curvature. The requestor wouldn't really benefit from this though.
Crosswalk	Brantingham near south school boundary	Low	This would be less a priority than one further north.
Sidewalk	Gala South of Hunter Street	N/A	Short segment of missing contract. On the 2022 Infil project that is ongoing currently.
Crosswalk	Keene & Westcliffe	N/A	The location has a 7 second LPI and newer left-turn phasing that would make the crossing more safe than it has been. This is crossing over school boundaries though. They only ride in a car.

Response Summary	6 Total Responses
Ride in a Bus	1
Ride in a Car	5
Walk	5
Bike	0
Roll (Scooter, Skateboard Wheelchair)	2
Other	0

General Notes
-
-
-
-
-
-

Sacajawea Elementary Safe Routes Survey

Type	Need	Priority	Notes
Crosswalk	Parking Restrictions at Franklin Crosswalk for visibility	High	This probably applies at Holly as well. Holly could use a refresh. EB sign at Franklin could be moved to streetlight. Both locations need ramps. Holly markings need a refresh. This was mentioned in two responses. Need to discuss adding this to the Sacajawea curb paint plan.
Crosswalk	Spengler between Hood and Carraige	High	This was noted as a route that needed a crossing. There are a lot of apartments north of Spengler that need to go to GW Way for a safe crossing. Carraige is a direct route all the way to Saint where it would connect with the pathway. There is even a marked school crossing of Snyder and Carraige that supports this request. **There was an Injury A crash with an 11 year old student at Hood, getting off a school bus so it would serve the busses here too. Crash EB81207**
Crosswalk	Coast at Rainier	Medium	Enhance crossing. Right now there is no 20 mph beacons or signs near this crossing.
Sidewalk	Pave the pathway between Fuller and Saint	Medium	This would be a challenge but would be a very good project.
Sidewalk	Newcomer north of Coast Street	Medium	Missing 125 (times 2) feet of sidewalk on three properties north of Coast.
Sidewalk	Coast Street - Jadwin to Rainier (south side)	Low	North side has crosswalk.
Crosswalk	Coast at Blue, Cascade, Shasta	Low	Side street crosswalks.
Crosswalk	GW Way at Scot St.	Low	Presuming this is the minor street crosswalk
Crosswalk	GW Way Minor Street Crosswalks	Low	This isn't the route that we want kids walking really and adding crosswalks would like cause crashes due to drivers starting their left-turns from too far back from the traveled way. From same person requesting crosswalk at Spengler and Carraige where the real improvement needs to be considered.
Other	Bike Safety Training	N/A	Bikes riding the north south path and not paying attention to pedestrians or cars.

Response Summary	6 Total Responses
Ride in a Bus	0
Ride in a Car	6
Walk	6
Bike	3
Roll (Scooter, Skateboard Wheelchair)	3
Other	0

General Notes
-
-
-
-
-
-

Marcus Whitman Safe Routes Survey

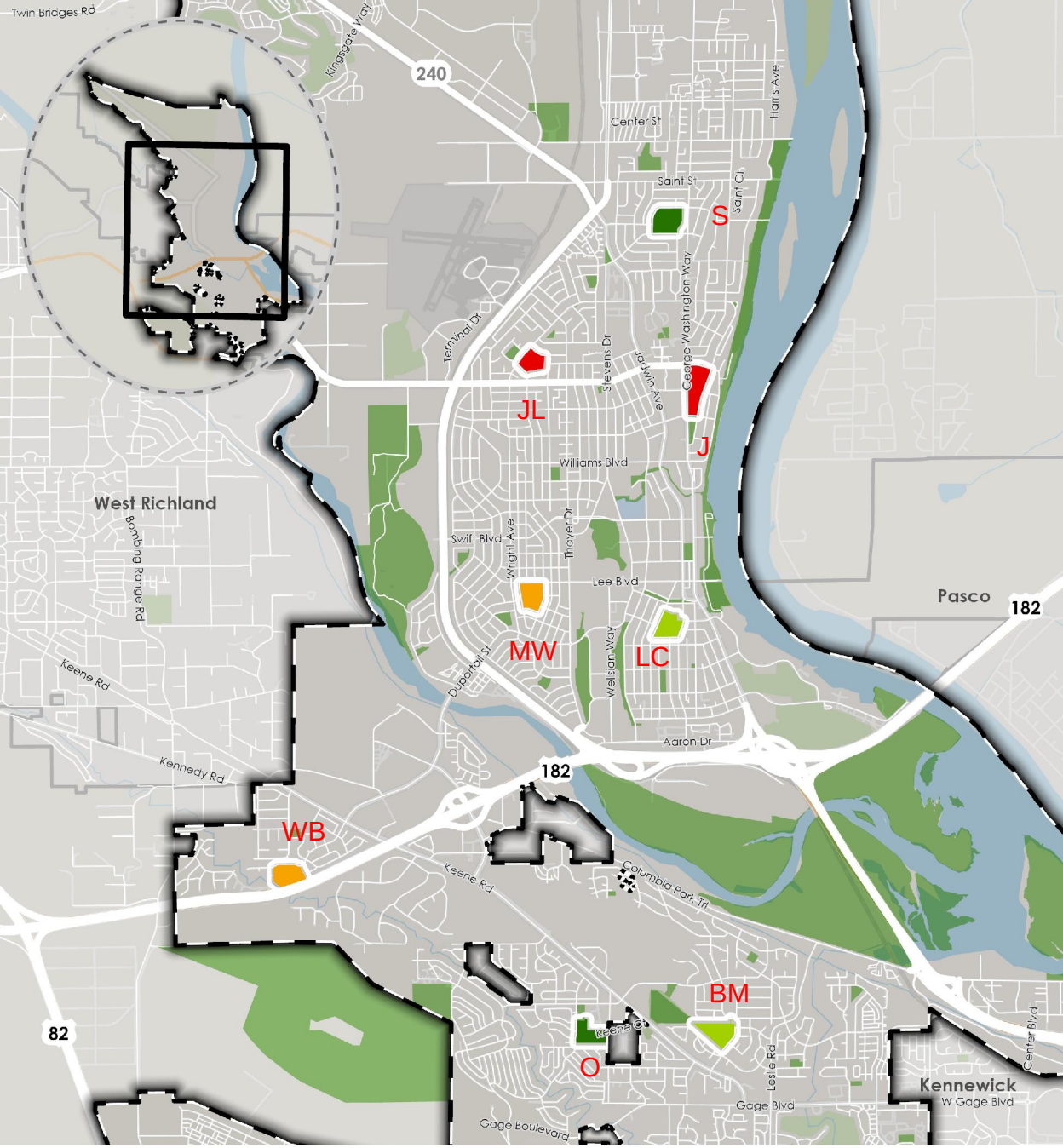
Type	Need	Priority	Notes
Sidewalk	Snow from Duportail to Gray	High	Needs both sides, but West would be prioritized if had to choose. Noted that Snow floods in rain forcing kids to walk in center of the street. Listed multiple times
Sidewalk	Humphreys between Winslow & Wright	High	Need sidewalk in this segment, prioritizing south side to align with crosswalks. Survey says "…scary for walking kids"
Crosswalk	Thayer & Lee	High	Consider the Flashing R10-15 signs. LPI already installed. Benefits Elementary, Middle School, and High School Students
Crosswalk	Swift at Elm - Request RRFB	Medium	Swift and Cottonwood is better due to existing crosswalk and surveying more users. RRFB since 9000 ADT. School Zone desirable but zone at Swift and Wright. Cottonwood saves 500 feet on walk route for some
Crosswalk	Duportail at Dallas	Medium	Consider Raised Crosswalk. This serves a cut-through pathway that leads to Duportail RRFB at Snow.
Crosswalk	Swift & Smith	Medium	Snow was requested and aligns with the school better, but Smith would be a better crossing location for visibility and more centrally located
Sidewalk	Windslow between Snow and Fries	Low	Good improvement but higher priority would be Snow crosswalks.
Crosswalk	Duportail & Wright (roundabout)	Low	No solution stands out other than raised crosswalks
Crosswalk	Pullen at Birch	Low	Difficult due to Valley gutters. Serves Limited
Crosswalk	Fries (north) and Winslow (east)	Low	Between Snow and Gray. Alternate routes available.

Response Summary	23 Total Responses
Ride in a Bus	1
Ride in a Car	17
Walk	10
Bike	1
Roll (Scooter, Skateboard Wheelchair)	2
Other	1 (Pick-up/Drop-off Boys & Girls Club)

General Notes
- Plenty of walkers coming from north of Swift
- Considering the results it seems that maintaining flashing beacons at roundabouts may still be viable on Minor Arterials that have 8000 ADT +/-
- Some surveys noted numerous minor street crossings on side streets. In general these are not captured above.
- Some surveys didn't have enough detail to capture above.
- 9 survey Respondents only rode in a car
- 5 survey Respodents only Walked or used Scooter

Appendix D

Sandy Williams Equity Needs Mapping



Safe Routes to School Corridor Ranking

Park

City Boundary

Equity Rank (Higher Score = Higher Need

4

3

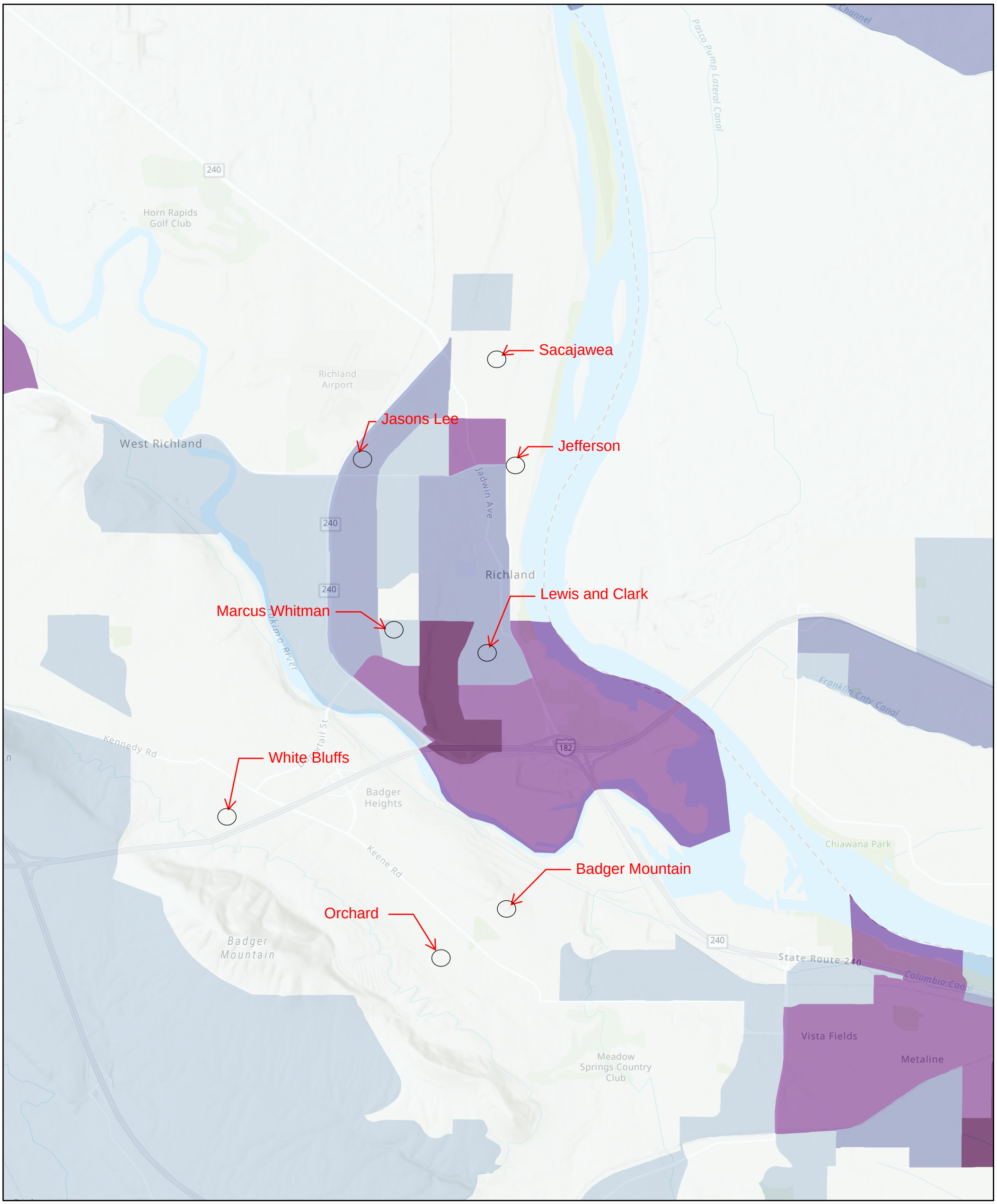
2

1

0 0.5 1 Mile

ktua

Richland



4/30/2024

WSDOT - Active Transportation Sandy Williams Equity Needs - Active Transportation Sandy Williams Equity Needs

- 0 - 6 (Lowest)
- 7 - 10 (Low)
- 11 - 13 (Moderate)
- 14 - 17 (High)
- 18 - 27 (Highest)
- World Hillshade

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Appendix E
Project Prioritization

PEDESTRIAN LEVEL OF TRAFFIC STREET BEFORE AND AFTER FOR LOCAL ROADWAYS

Symons Street - Goethal Drive to Jadwin Avenue –Pedestrian LTS

Before

No sidewalk on the south side, assumed 1,000 vehicle per day and speed target speed (posted speed Limit) 25 MPH.

Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) in mixed traffic (no marked bicycle lane, with or without shoulder) (New Exhibit 2023)

PLTS in mixed traffic (no pedestrian facility)								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	3	4	4	4	4
	751 - 1500	1	2	3	4	4	4	4
	1501 - 3000	2	2	3	4	4	4	4
	> 3000	2	3	3	4	4	4	4
2 thru lanes per direction	0 – 6000	3	3	3	4	4	4	4
	> 6000	3	3	4	4	4	4	4
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4

After

Install 5 foot side sidewalk as a minimum on both sides of Symons Street

Minimum Sidewalk Present (5')								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	4	4	4	4
	751 - 1500	1	1	2	4	4	4	4
	1501 - 3000	1	1	2	4	4	4	4
	> 3000	2	2	2	4	4	4	4
2 thru lanes per direction	0 - 6000	2	2	2	4	4	4	4
	> 6000	2	2	3	4	4	4	4
3+ thru lanes per direction	Any ADT	2	2	3	4	4	4	4

Comstock Street - Goethal Drive to George Washington Way –Pedestrian LTS

Before

No sidewalk on either side, assumed 1,000 vehicle per day and speed target speed (posted speed limit) 25 MPH.

Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) in mixed traffic (no marked bicycle lane, with or without shoulder) (New Exhibit 2023)

PLTS in mixed traffic (no pedestrian facility)								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	3	4	4	4	4
	751 - 1500	1	2	3	4	4	4	4
	1501 - 3000	2	2	3	4	4	4	4
	> 3000	2	3	3	4	4	4	4
2 thru lanes per direction	0 – 6000	3	3	3	4	4	4	4
	> 6000	3	3	4	4	4	4	4
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4

After

Install 5-foot side sidewalk as a minimum on both sides of Comstock Street

Minimum Sidewalk Present (5')								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	4	4	4	4
	751 - 1500	1	1	2	4	4	4	4
	1501 - 3000	1	1	2	4	4	4	4
	> 3000	2	2	2	4	4	4	4
2 thru lanes per direction	0 - 6000	2	2	2	4	4	4	4
	> 6000	2	2	3	4	4	4	4
3+ thru lanes per direction	Any ADT	2	2	3	4	4	4	4

Humphreys Street - Wright Avenue to Windslow Avenue –Pedestrian LTS

Before

No sidewalk on either side, assumed 1,000 vehicle per day and speed target speed (posted speed limit) 25 MPH.

Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) in mixed traffic (no marked bicycle lane, with or without shoulder) (New Exhibit 2023)

PLTS in mixed traffic (no pedestrian facility)								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	3	4	4	4	4
	751 - 1500	1	2	3	4	4	4	4
	1501 - 3000	2	2	3	4	4	4	4
	> 3000	2	3	3	4	4	4	4
2 thru lanes per direction	0 – 6000	3	3	3	4	4	4	4
	> 6000	3	3	4	4	4	4	4
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4

After

Install 5-foot side sidewalk as a minimum on both sides of Comstock Street

Minimum Sidewalk Present (5')								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	4	4	4	4
	751 - 1500	1	1	2	4	4	4	4
	1501 - 3000	1	1	2	4	4	4	4
	> 3000	2	2	2	4	4	4	4
2 thru lanes per direction	0 - 6000	2	2	2	4	4	4	4
	> 6000	2	2	3	4	4	4	4
3+ thru lanes per direction	Any ADT	2	2	3	4	4	4	4

Snow Avenue – Duportail Street to Grey Street –Pedestrian LTS

Before -

No sidewalk on either side, assumed 1,000 vehicle per day and speed target speed (posted speed limit) 25 MPH.

Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) in mixed traffic (no marked bicycle lane, with or without shoulder) (New Exhibit 2023)

PLTS in mixed traffic (no pedestrian facility)								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	3	4	4	4	4
	751 - 1500	1	2	3	4	4	4	4
	1501 - 3000	2	2	3	4	4	4	4
	> 3000	2	3	3	4	4	4	4
2 thru lanes per direction	0 – 6000	3	3	3	4	4	4	4
	> 6000	3	3	4	4	4	4	4
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4

After

Install 5-foot side sidewalk as a minimum on both sides of Snow Avenue

Minimum Sidewalk Present (5')								
Lanes	AADT	Target Speed						
		≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	4	4	4	4
	751 - 1500	1	1	2	4	4	4	4
	1501 - 3000	1	1	2	4	4	4	4
	> 3000	2	2	2	4	4	4	4
2 thru lanes per direction	0 - 6000	2	2	2	4	4	4	4
	> 6000	2	2	3	4	4	4	4
3+ thru lanes per direction	Any ADT	2	2	3	4	4	4	4

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May 3, 2024

To: John Manix and P.J. McKelvey
Company: PBS Engineering and Environmental
From: Tom Bertulis, MS, PE, PTOE
Company: KTUA Planning and Landscape Architecture
Subject: City of Richland SRTS Project Prioritization Tech Memorandum

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This document is a tech memo with details on the process that KTUA used to prioritize projects for the City of Richland SRTS plan. Developing the project prioritization and ranking was an interactive and inclusive process. A key concept of Safe Routes to School plans is the provision of infrastructure for active transportation that is fully connected and based on criteria that is weighed based on importance.

The SRTS prioritization method was based on several factors, as cited below. Not all criteria are weighed the same. The prioritization process assigns a relative rank (priority) to each proposed project by quantifying criteria such as the proximity of a proposed project to parks, commute characteristics of the surrounding population, population density, and barriers to non-vehicular (active) transportation.

Ranks have both a scaling component and a weighting component. The scaling component assigns an increasing value to increasing ranges of a variable, such as number of freeway crossings or population density. The weighting component assigns higher values to variables that are deemed more important, such as assigning collision density twice the weight (e.g., .75) of proximity to parks (e.g., .25).

A quartile scale is used to reduce bias in the scaling component. A quartile scale divides the distribution of values equally into four groups so that low or high values are not overrepresented and preconceived spatial patterns (biases) are not taken into consideration.

The value of weighting components (weights) are selected based on their relationship to the use of active transportation, and the relative importance of each criteria based on City and professional judgment. Though subjective, City and professional judgment on criteria weighting reflects community input and observations of the active transportation network relative to criteria weights.

Criteria are categorized as attractors, generators, barriers, and equity. Attractors are destinations where higher volumes of active transportation are expected or encouraged, such as schools, parks, and commercial land uses.

Using all of the criterias input, lends itself to a different set of units per criteria. To normalize all of the criteria's resulting units, a weighted score was calculated to score

the data on the same scale. A weight was applied to each subset of the data inputs, the higher the weight the more important criteria to measure. Criteria was broken into 4 categories of data: Attractors, Demand, Obstacles, and Equity.

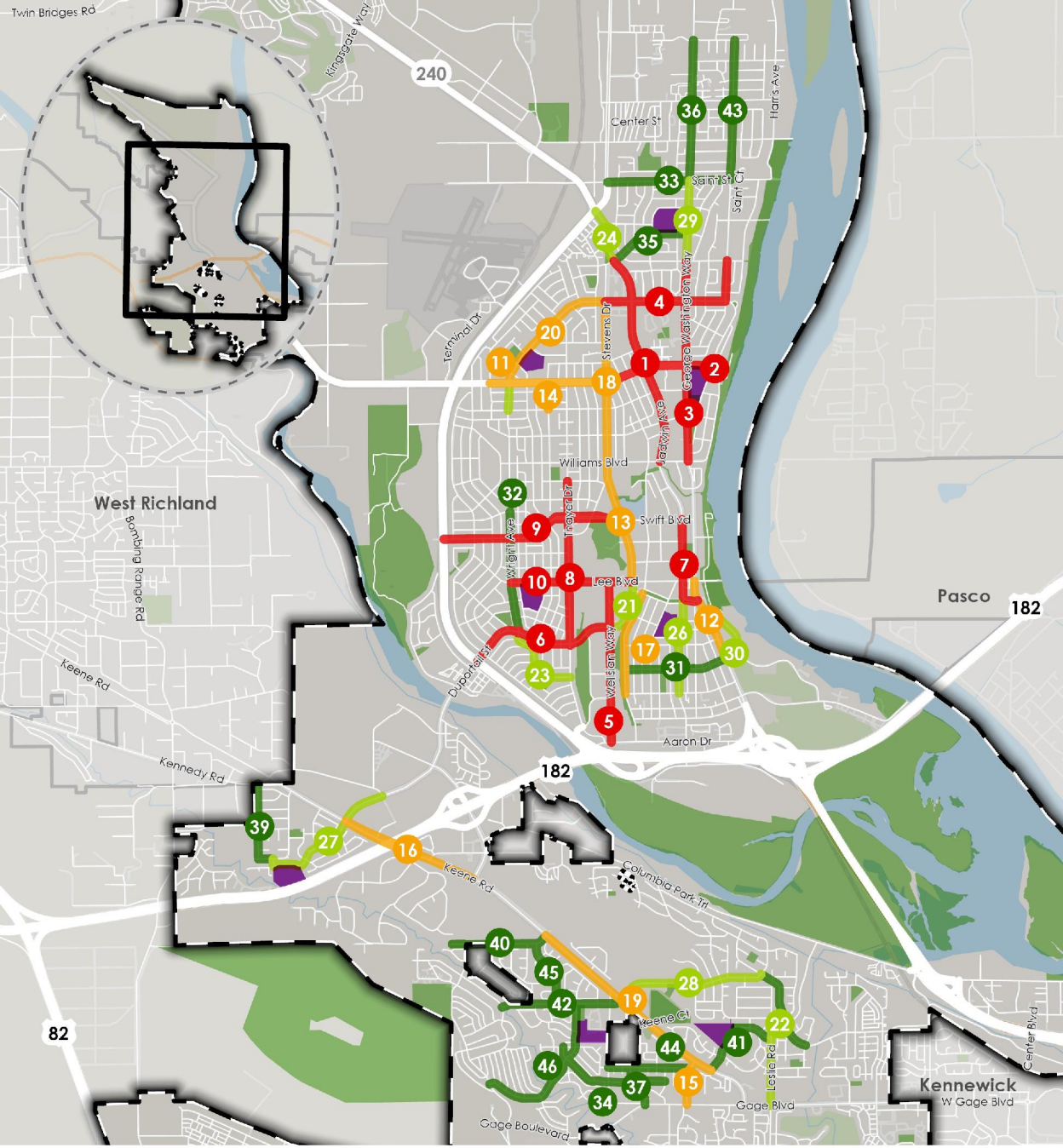
- **Attractors**
  - *Parks (Weight 0.25)*
    - Whether passive or active, parks supply areas of recreation for neighboring residents and the larger community. Accessibility to parks and recreation can encourage more residents to participate in these activities. The number of parks within 150 feet were counted along each project corridor, scaled, and assigned a weight of 0 .25.
  - *Number of Attractors (Weight 0.25)*
    - Retail and commercial space attract people from a variety of distances using a variety of travel modes. Roads serving these areas have higher traffic volumes, speeds, and safety concerns. The number of retail and commercial land use near each project was combined together as the prioritization input.

- **Generators**
  - *Population Density (Weight 0.25)*
    - Residential areas are the origin of all trips. Understanding how population is distributed helps identify the most frequented paths of travel. Roads in close proximity to high population densities will carry more traffic volumes (independent of mode) than roads farther away. Total population by Census Tract was gathered from the ACS and dispersed among the tracts within the City. Density was calculated based on the area of tract within the City, scaled, and assigned a weight of 0.75.
  - *Commute Mode to School: Walk, Bike (Weight 0.25)*
    - Existing mode share of non-vehicular travel within the City can showcase how well the road network and infrastructure is currently serving these modes. Replica data for the number of people who walk, biked to school was used as a scaled input and weighted 0.5.
  - Pedestrian Quality (Weight 0.75)
    - Determining how friendly an area can be to pedestrians traveling to, around or through, highlights areas of need and gaps within the network. The number of crosswalks, traffic signals, school beacons, crossing guards, percentage of missing sidewalks and if it was within a school zone, were totaled and ranked for input.
  - Motor Vehicle Volume (Weight 0.5)
    - Heavily trafficked roads can show areas throughout a city where the most common zones of travel are. This could be due to through traffic, common destinations, ease of travel, or the makeup of the road network. Vehicle volumes were collected as points in 2021, these points were then buffered to overlap the corridors and the highest volume within that corridor was selected.

- **Barriers**
  - *Freeway & Railroad crossings (Weight 0.25)*
    - Inconveniences and safety hazards along paths of travel avert users from considering using them as an option. Identifying these hazards will bring forward the areas that need more attention to create attractability. Freeway and railroads crossings were mapped as barriers, and the number of barrier crossings per project were counted, scaled, and weighted (0.5).
  - *Bike & Pedestrian Collisions (Weight 0.75)* **********
    - Collisons can provide an insight into dangerous roads, intersections and paths of travel. It also highlights areas of greater need for improvement. Pedestrian and bicycle related crashes were collected from 2018 -2022 within 1-mile of each school. A density of these collisions, per mile, were used as the input for ranking. The crash data originates from the WSDOT collision database. It was accessed via Washington State DASH. This explained in more detail in the data report in the following link: https://spaces.hightail.com/space/KaYlm2Wesl
  - *Level of Traffic Stress (Weight 0.5)*
    - A road network is made up of many intersecting paths with different levels of purpose, need and design. Categorizing these roads into a scoring system helps to identify roads which are more bike and pedestrian friendly versus those that could be perceived to be more dangerous or car centric. Roads with a high number of travel lanes and speeds limit ranked higher than those with less lanes and a lower speed limit. The roads with the highest “level of traffic” score within each corridor were selected and inputted.
  - *Roadway Speed (Weight 0.5)*
    - Roadways with higher posted speed limits tend to have a higher number of vehicle lanes and thus a high level of traffic stress. Higher speeds can deter pedestrians and bicycles due to an increased uncertainty of safety. Roads with the highest posted speed limit were selected within the corridors and imputed.
  - *Number of Vehicle Lanes (Weight 0.5)*
    - Roadways with a higher number of vehicle lanes invited more vehicles to use those roads and in turn create busier streets. Identifying these roads can be used to narrow down where traffic calming or safety intervention can be applied. The roads with the highest number of traffic lanes were selected within each corridor and inputted.
- **Equity**
  - *OSPI - Equity Analysis (Weight 0.75)*
    - Data from the *Report Card Enrollment 2023-24 School Year* from the State of Washiongton was to rank each of the eight schools. We combined data on the number of: students of color, low income, with disabilities, of a hispanic heritage into a total sum. Each school

was then ranked for the selection process. Schools in the closest proximity to each corridor were selected, and that rank was used as the input.

- *Percent of Households without a vehicle (Weight 0.25)*
  - Households without a vehicle will showcase areas where people are using other means to traverse their city. This could be transit, walking, biking or a combo of the sorts. Identifying these areas leads to insight into where alternatives to vehicle travel are needed. Using Census Tracts, the greatest percentage of households without vehicles within each corridor was selected and inputted.



Safe Routes to School Corridor Ranking

- School
- Park
- City Boundary

Prioritization Ranking

- 1 - 10
- 10 - 20
- 20 - 30
- 30 - 46

0 0.5 1 Mile

ktua

2024-2027 SRTS WSDOT Scoring Rubric

Richland Preliminary SRTS Project Ranking

Category	Safety (up to 40)											Equity (up to 25)					Mobility with Considerations for Equity (up to 10)			Deliverability (up to 10)					Value (up to 10)	Geographic Diversity (up to 5)				
Subcategory	Safety Treatments (up to 24)				Safety Need (up to 16)							Highest Equity Need (up to 20)				Community Engagement (5)	Network Connectivity (5)	Destination Access (5)		Quality of Budget (up to 5)	Project History (0 to -5)	Is the project in a Local or Transportation Plan? (up to 5)	Does agency have ADA Transition Plan? (1)	Does agency have Greenhouse Gas Emission Reduction Plan? (2)		What is the funding request proportional to the population? (up to 10)	How many SRTS and PBP projects per capita have been awarded to the agency? (up to 5)				
Criteria	Along a project corridor, do the proposed treatments achieve LTS 2 or better? (12)	At project intersections or crossings, do the porposed treatments achieve safety and comfort characteristics? (12)	If there is evidence of speeding or the project proposed speed reductions, are there speed management treatments to support the desired speeds? (up to -10 if not)	Subcategory Score	Is the existing active transportation route LTS 3 or 4? (up to 16)	Is there a history of crashes at this location? (up to 16)	Does operating speed exceed posted speed in the project location? (up to 10)	Do you plan to lower the posted speed? Have you completed any necessary policy chances to reduce the speed? Have you begun any necessary policy changes to reduce the speed? (up to 6)	Is the project in a Local Road Safety Plan, Safe Streets for All Action Plan, or other safety plan? (up to 6)	Subcategory Score	Category Score	Sandy Williams Equity Score (up to 20) (0-27)	OSPI Ranking* (up to 20)	Tribal Project or lands (up to 20)	Subcategory Score	Has there been an opportunity for community engagement with vulnerable populations? (5)	Category Score	Project support broad connectivity for walking/biking, connects to at least two destinations, or connecting vulnerable populations.	Considers how many destinations a project can reach.	Category Score	Considers the completeness and cost accuracy of the project budget based on provided details	Considers local agency's history with project delivery for WSDOT projects	Considers if agency has identified the project through public outreach and planning			Category Score		More points will be given to agency that have been awarded fewer projects per capita	Score Total	Environmental Healthy Disparity Score**	Modified Score
Systemic																															
School Crosswalk Safety Improvements	0	10	0	*10*	16	8	5	0	6	*20*	*30*	14	16	0	*20*	3	*23*	5	5	*10*	3	3	0	1	2	*9*	10	5	*87*	4	**78**
	10	0	0	*10*	0	8	5	0	0	*13*	*23*	7	7	0	*14*	3	*17*	5	5	*10*	3	3	0	1	2	*9*	10	5	*74*		**67**
Sidewalk																															
George Washington Way, east side – Van Giesen to Howel (Jefferson)	10	6	0	*16*	16	16	10	0	6	*20*	*36*	14	16	0	*20*	5	*25*	5	4	*9*	3	3	5	1	2	*10*	5	5	*90*	2	**81**
Van Giesen Street, south side – Wright Ave to Thayer Dr (Jason Lee)	10	6	0	*16*	16	10	5	0	6	*20*	*36*	10	16	0	*20*	2	*22*	5	4	*9*	3	3	5	1	2	*10*	5	5	*87*	8	**87**
Symons Street, south side– Goethals Dr to Jadwin Ave (Jefferson)	10	6	0	*16*	0	10	5	0	0	*15*	*31*	13	16	0	*20*	5	*25*	5	5	*10*	3	3	5	1	2	*10*	5	5	*86*	9	**86**
Comstock Street– Goethals Dr to George Washington Way (Lewis and C	10	6	0	*16*	0	0	5	0	0	*5*	*21*	13	16	0	*20*	3	*23*	5	4	*9*	3	3	5	1	2	*10*	5	5	*73*	9	**73**
Torbett Street – Thayer Dr to Stevens Dr (Jason Lee)	10	6	0	*16*	0	0	5	0	0	*5*	*21*	13	16	0	*20*	2	*22*	0	0	*0*	3	3	5	1	2	*10*	5	5	*63*	9	**63**
Davenport Street– Goethals Dr to George Washington Way (Lewis and	10	6	0	*16*	0	0	0	0	0	*0*	*16*	13	10	0	*20*	3	*23*	1	2	*3*	3	3	5	1	2	*10*	5	5	*62*		**56**
Benham Street– Jadwin Avenue to George Washington Way (Lewis and	10	6	0	*16*	0	0	0	0	0	*0*	*16*	13	10	0	*20*	3	*23*	2	1	*3*	3	3	5	1	2	*10*	5	5	*62*		**56**
Humphreys Street – Wright Ave to Winslow Ave (Marcus Whitman)	10	6	0	*16*	0	0	0	0	0	*0*	*16*	10	18	0	*20*	5	*25*	0	1	*1*	3	3	5	1	2	*10*	5	5	*62*	8	**62**
Snow Ave from Duportal Street t to Gray Street (Marcus Whitman)	10	6	0	*16*	0	0	0	0	0	*0*	*16*	10	16	0	*20*	5	*25*	0	1	*1*	3	3	5	1	2	*10*	5	5	*62*	8	**62**
Adams Street– Jadwin Avenue to George Washington Way (Lewis and C	10	6	0	*16*	0	0	0	0	0	*0*	*16*	13	10	0	*20*	3	*23*	0	0	*0*	3	3	5	1	2	*10*	5	5	*59*		**53**
Saint-Fuller Pathway – Saint to Fuller (Sacajawea)	10	6	0	*16*	0	0	0	0	0	*0*	*16*	6	13	0	*19*	2	*21*	0	1	*1*	3	3	5	1	2	*10*	5	5	*58*	5	**52**
Newcomer Street - Coast Street to 125 feet north (Sacajawea)	10	6	0	*16*	0	0	0	0	0	*0*	*16*	6	13	0	*19*	2	*21*	0	0	*0*	3	3	5	1	2	*10*	5	5	*57*	9	**57**
Downing Street– Cullum Avenue to Jadwin Avenue (Lewis and Clark)	5	6	0	*11*	0	0	0	0	0	*0*	*11*	13	10	0	*20*	3	*23*	1	1	*2*	3	3	5	1	2	*10*	5	5	*56*		**50**
Brantingham Rd, east side - Oahu St to north of School (Orchard)	10	6	0	*16*	0	0	0	0	0	*0*	*16*	6	0	0	*6*	2	*8*	0	1	*1*	3	3	5	1	2	*10*	5	5	*45*	4	**41**

* OSPI Score is derived from adding the total percentages of the "Low Income", "Hispanic", "Sum of non-White", and "Students with Disabilities" together and comparing to the average for the state (average is 140). Look at the "Enrollment" portion of the reprot card for this information.
** WSDOT must allocate at least 35% of SRTS funding to areas that have an Environmental Health Disparity score of 7 or higher. For proposed projects that do not fall within this range, the overall score is reduced by 10% to account for the higher competition pool when deciding on go/no-go for projects

Green = Higher Score
Yellow = Average Score
Red = Lower Score

Appendix F
Cost Estimate

School Zone Safety Improvements - Carmichael Middle

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total
CONSTRUCTION COST ESTIMATE				
CONSTRUCTION SURVEYING		LS		0
MOBILIZATION	1	LS		9400
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000
Permanent Signing	2	EA	1000	2000
School Zone Flashing assembly with Radar Feed Back Signs - Thayer	1	EA	80000	80000
RRFB at school Entrance - Thayer	1	EA	20000	20000
R10-15	4	EA	24000	96000

SUBTOTAL		217400
Cost Estimate Subtotal		217400
Cost Estimate Contingency (30% minimum)	30%	65220
Cost Estimate Grand Total (Construction)		282620
PE Design & Environmental (Between 10% and 30%)	30%	84786
ROW		0
Construction		282620
Project Cost Estimate Total		367406

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Chief Joseph Middle

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total
CONSTRUCTION COST ESTIMATE				
CONSTRUCTION SURVEYING		LS		0
MOBILIZATION	1	LS		13520
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000
Permanent Signing	0	EA	1000	0
School Zone Flashing assembly with Radar Feed Back Signs - Stevens	2	EA	60000	120000
R10-15	3	EA	24000	72000
Radar speed feed back signs (Based on resent PBS project in WA)	4	EA	15000	60000

SUBTOTAL		275520
Cost Estimate Subtotal		275520
Cost Estimate Contingency (30% minimum)	30%	82656
Cost Estimate Grand Total (Construction)		358176
PE Design & Environmental (Between 10% and 30%)	30%	107452.8
ROW		0
Construction		358176
Project Cost Estimate Total		465628.8

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Jason Lee

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total
CONSTRUCTION COST ESTIMATE				
CONSTRUCTION SURVEYING		LS		0
MOBILIZATION	1	LS		24000
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000
Permanent Signing	6	EA	1000	6000
School Zone Flashing assembly with Radar Feed Back Signs - Van Giesen	1	EA	80000	80000
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	4	EA	1050	4200
Intermediate School Zone Flashers Only	1	EA	60000	60000
School Zone Flashing assembly with Radar Feed Back Signs - McMurray	1	EA	60000	60000
R10-15	1	EA	24000	24000
RRFB - McMurray, 2 locations	2	EA	20000	40000
SUBTOTAL				308200

Cost Estimate Subtotal		308200
Cost Estimate Contingency (30% minimum)	30%	92460
Cost Estimate Grand Total (Construction)		400660
PE Design & Environmental (Between 10% and 30%)	30%	120198
ROW		0
Construction		400660
Project Cost Estimate Total		520858

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Jefferson

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total	
CONSTRUCTION COST ESTIMATE					
CONSTRUCTION SURVEYING		LS		0	
MOBILIZATION	1	LS		4700	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING		LS		10000	
Permanent Signing	0	EA	1000	0	
School Zone Flasher time clock update and RTC Connect - George Washington Way	2	EA	4000	8000	
Radar Feed Back Signs - George Washington Way	2	EA	13,500	27000	
R10-15	4	EA	24000	96000	
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	1	EA	1050	1050	
Raised Crosswalk - Van Geisen	1	EA	10000	10000	156750
SUBTOTAL					
					156750
Cost Estimate Subtotal					47025
Cost Estimate Contingency (30% minimum)				30%	203775
Cost Estimate Grand Total (Construction)					
PE Design & Environmental (Between 10% and 30%)				30%	61132.5
ROW					0
Construction					203775
Project Cost Estimate Total					264907.5

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Lewis & Clark

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total	
CONSTRUCTION COST ESTIMATE					
CONSTRUCTION SURVEYING		LS		0	
MOBILIZATION	1	LS		21000	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000	
Permanent Signing *	2	EA	1000	2000	
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	1	EA	1050	1050	
RRFB at Jadwin *	1	EA	20000	20000	
Concrete Raised Crosswalk *	2	EA	10000	20000	
ADA Ramps at raised crosswalk *	2	LS	15000	30000	
SUBTOTAL				104050	
Cost Estimate Subtotal					104050
Cost Estimate Contingency (30% minimum)				30%	31215
Cost Estimate Grand Total (Construction)					135265
PE Design & Environmental (Between 10% and 30%)				30%	40579.5
ROW					0
Construction					135265
Project Cost Estimate Total					175844.5

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Marcus Whitman

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total
CONSTRUCTION COST ESTIMATE				
CONSTRUCTION SURVEYING		LS		0
MOBILIZATION	1	LS		30200
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000
Permanent Signing	0	EA	1000	0
School Zone Flashing assembly with Radar Feed Back Signs - Wright Ave	1	EA	80000	80000
RRFB at school Entrance - Wright Ave	1	EA	20000	20000
RRFB at school Entrance - Lee Blvd	2	EA	20000	40000
Concrete Raised Crosswalk - Wright at Dallas *	1	EA	10000	10000
Concrete Raised Crosswalk - Winslow	1	EA	10000	10000
Intermediate School Zone Flashers	1	EA	60000	60000
School Zone Flashing assembly with Radar Feed Back Signs - Lee	1	EA	80000	80000
Concrete Raised Crosswalk - Snow	2	EA	10000	20000
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	3	EA	1050	3150
RRFB at Swift *	1	EA	20000	20000
SUBTOTAL				383350

Cost Estimate Subtotal		383350
Cost Estimate Contingency (30% minimum)	30%	115005
Cost Estimate Grand Total (Construction)		498355
PE Design & Environmental (Between 10% and 30%)	30%	149506.5
ROW		0
Construction		498355
Project Cost Estimate Total		647861.5

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Orchard

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total	
CONSTRUCTION COST ESTIMATE					
CONSTRUCTION SURVEYING		LS		0	
MOBILIZATION	1	LS		15000	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000	
Permanent Signs	0	EA	1000	0	
School Zone Flashing assembly with Radar Feed Back Signs - Braningham	1	EA	80000	80000	
School Zone Flashing assembly with Radar Feed Back Signs - Gala	1	EA	80000	80000	
Concrete Raised Crosswalk - Gala	1	EA	10000	10000	
Concrete Raised Crosswalk - Melissa *	1	EA	10000	10000	
ADA Ramps at raised crosswalk - Gala	2	LS	15000	30000	
ADA Ramps at raised crosswalk - Melissa *	2	LS	15000	30000	
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	6	EA	1050	6300	265000
SUBTOTAL					
					265000
Cost Estimate Subtotal					79500
Cost Estimate Contingency (30% minimum)				30%	344500
Cost Estimate Grand Total (Construction)					
PE Design & Environmental (Between 10% and 30%)				30%	103350
ROW					0
Construction					344500
Project Cost Estimate Total					447850

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD

School Zone Safety Improvements - Sacajawea

This optional template is intended to assist with a projects cost estimate. Add or delete the cost estimate items below based on the proposed project.

COST ESTIMATE SCOPING ITEMS	Total Quantity	Units	Unit Price	Unit Price x Quantity Total	
CONSTRUCTION COST ESTIMATE					
CONSTRUCTION SURVEYING		LS		0	
MOBILIZATION	1	LS		21000	
MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL INCLUDING FLAGGING	1	LS		10000	
Permanent Signing	10	EA	1000	10000	
Plastic crosswalk each (based on PBS project in WA with 70 SF at $15/SF *	1	EA	1050	1050	
School Zone Flashing assembly with Radar Feed Back Signs - Saint	1	EA	80	80	
Concrete Raised Crosswalk - FULLER	1	EA	10000	10000	
Concrete Raised Crosswalk - Saint	1	EA	10000	10000	
School Zone Flashing assembly with Radar Feed Back Signs - Catskill	1	EA	10000	10000	
Concrete Raised Crosswalk - Catskill	2	EA	10000	20000	
ADA Ramps at raised crosswalk - Catskill at Rainer	2	LS	15000	30000	
Concrete Raised Crosswalk - Rainer *	1	EA	10000	10000	
RRFB at Spengler - Carriage Ave *	1	EA	20000	20000	
R10-15	2	EA	24000	48000	
ADA Ramps at raised crosswalk - Rainer at Coast *	2	EA	15000	30000	
SUBTOTAL					230130
Cost Estimate Subtotal					230130
Cost Estimate Contingency (30% minimum)				30%	69039
Cost Estimate Grand Total (Construction)					299169
PE Design & Environmental (Between 10% and 30%)				30%	89750.7
ROW					0
Construction					299169
Project Cost Estimate Total					388919.7

Acronyms
LS = LUMP SUM
SF = SQUARE FOOTAGE
CY = CONSTRUCTION YARD
TN = TON
EA = EACH
SY = SQUARE YARD