RIVER ROAD ELEMENTARY SCHOOL

SAFE ROUTES TO SCHOOL STUDY

EUGENE, OREGON

PROJECT PRINCIPAL: KELLY SANDOW PE

PROJECT NO. 2362

MARCH 8, 2013

JRH TRANSPORTATION ENGINEERING
4765 VILLAGE PLAZA LOOP, SUITE 201, EUGENE, OREGON 97401 541.687.1081 FAX 541.345.6599 JRH@JRHWEB.COM

INTRODUCTION

This document has been prepared in coordination with the Eugene School District 4J to provide a Safe Routes to School plan for River Road Elementary School at 120 West Hilliard Avenue, Eugene, Oregon. The parking lots and main entrance to the school are accessed from Hilliard Avenue to the north. Signed and marked access is also available from Marion Lane on the south side of campus. The location of River Road Elementary School is illustrated in Figure 1.

The Safe Routes to School program is a national program designed to encourage and provide safe walking and biking to and from school. The program is designed to examine routes that children take to get to and from school, paying particular attention to roadway crossings, to identify and recommend relatively safe routes, to provide treatment options that improve the safety of the routes, to supply students with route information and safety information, and to encourage the use of active modes of travel.

There are typically five elements in a Safe Routes to School (SRTS) plan that are necessary to meet the goals and improve the success of the program. The five elements of a successful SRTS program include Engineering, Education, Encouragement, Enforcement, and Evaluation, with this report focusing on the engineering component.

The **ENGINEERING** element of a Safe Routes to School program addresses the built environment with an emphasis on safety along active transportation routes and crossings. This element typically identifies locations where safety may be a concern and strategies are identified for implementation to improve upon safety. Such improvements can include maintenance and operational measures as well as construction projects. As safety is the first priority, this element of the SRTS program may be the most essential to a successful program, and a safe active transportation routing has the potential to encourage an increase in walking and biking.

EDUCATION is the process of informing students, parents, neighbors, and other drivers in the community of safe driving, walking, and biking practices while in the school area. Aspects of this element can include classroom activities to teach students how to bike and walk safely and can include informing parents, neighbors, and student drivers to yield at crosswalks, drive safely, and to take other actions to make it safer for pedestrians and bicyclists.

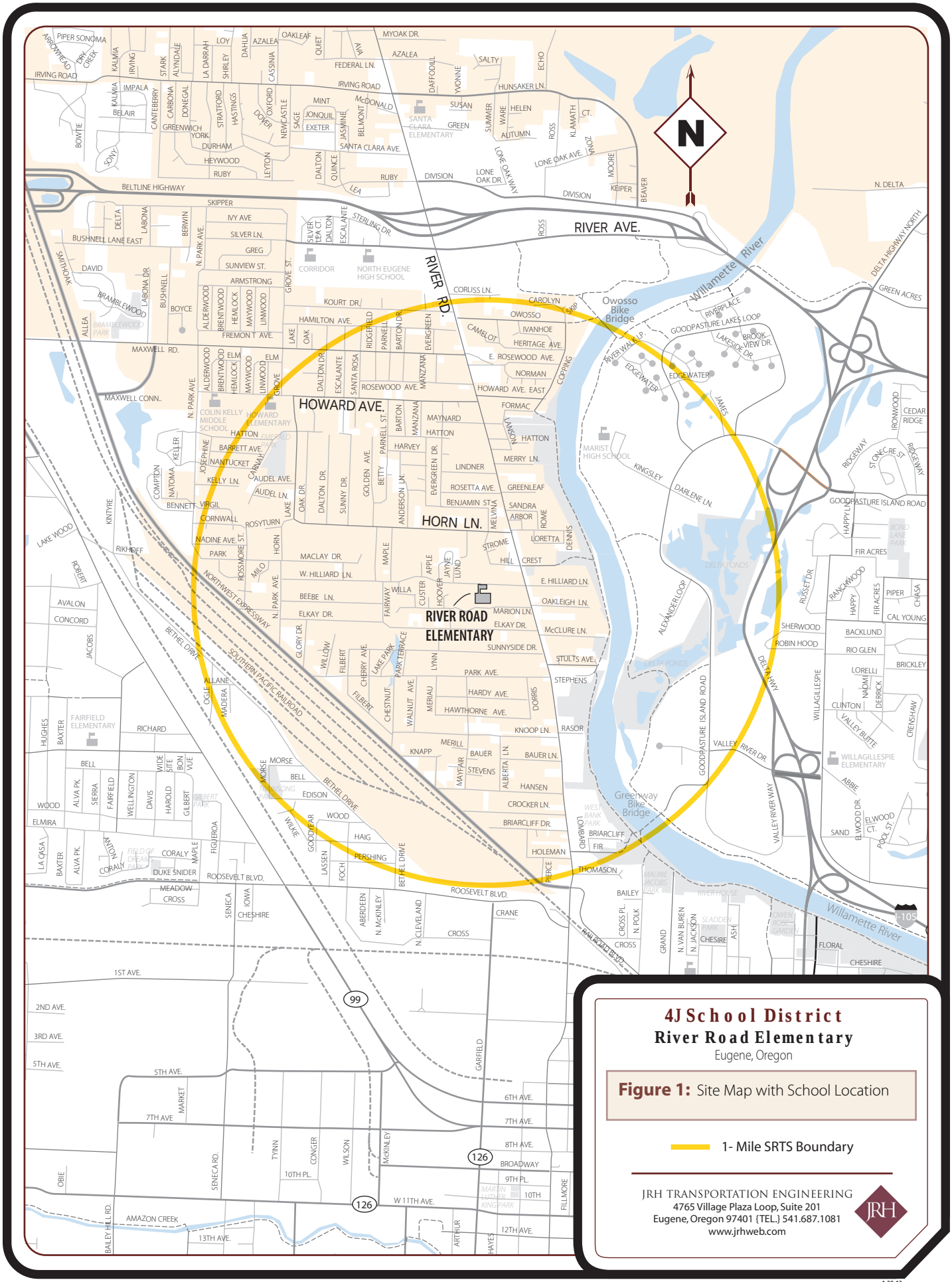
ENCOURAGEMENT strategies generally focus on generating excitement about using active transportation modes safely to school. Activities can include participation in the International Walk to School Days, challenges, and activities to encourage walking and biking to school. Some successful challenges and activities have been “Frequent Rider” challenges and “Ride n’ Seek” treasure hunts. Encouragement can also include school participation activities which can promote the health aspects of walking/biking to school. The 4J School district has a program in place at many district schools to encourage

students to walk and bike to school. Currently there are eight schools that have complete action plans in place.

ENFORCEMENT activities are designed to help change unsafe behavior of drivers, bicyclists, and pedestrians and to encourage safe behaviors. Enforcement activities commonly include involving local law enforcement agencies to provide help in enforcing traffic laws and school zone speed limits near the site. Enforcement can also be provided by community members to encourage students, parents, and neighbors to follow traffic laws and to yield at crosswalks and along the routes.

EVALUATION is used to determine if the goals are being met and can identify needed adjustments to the program while it is underway. This process typically consists of the identification of clear goals and objectives, a strategy for achieving goals, and a mechanism in place for measuring the success of the program towards achieving the goals.

As this report focuses on the Engineering aspect of the SRTS Plan, an inventory and analysis of the existing walking/biking facilities along the identified major active transportation routes was performed, followed by a needs assessment which looked at deficiencies and locations where improvements/treatments are necessary.



4J School District

River Road Elementary

Eugene, Oregon

Figure 1: Site Map with School Location

1- Mile SRTS Boundary

JRH TRANSPORTATION ENGINEERING
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401 {TEL.} 541.687.1081
www.jrhweb.com

1.28.13

PEDESTRIAN INVENTORY/PEDESTRIAN ROUTES

It is the Eugene School District 4J's policy not to provide school transportation, busing, to students who reside within 1.0 mile from an elementary school. However, 4J will provide busing to students within a 1.0 mile radius that do not have a safe active transportation route to school or who need the service as part of a special needs program. Students living inside the 1.0 mile perimeter are responsible for their own transportation to school, which may include vehicle and active modes of travel.

The Lane Transit District in cooperation with the Eugene School District 4J has provided a map which illustrates the housing locations of existing students in grades K through 5 within the school district boundaries.

The first step in the plan is to identify the routes that pedestrians and bicyclists will likely take to/from school. The student map provided illustrates the origin (housing location) of each student for the most recent year. From the point of origin a walking/biking route is developed which takes the student to school. These routes are based on a shortest distance to school and type of roadway traveled. Once all of the routes are created they are classified as a minor active transportation route or a major active transportation route. A minor active transportation route is a route that will typically be traveled by few students and are on lower traffic volume roadways. A major active transportation route is a route that a larger number of students will travel or are routes along higher traffic volume roadways. The major routes are typically a section of roadway into which several minor routes connect or funnel. These routes are illustrated in Figure 2.

The neighborhood surrounding River Road elementary is made up of unimproved roadways with many of the roadways lacking pedestrian and bicycle amenities. The street system layout creates long walking/biking routes winding through the neighborhood. The layout makes it difficult to identify clear and concise walking/biking routes.

There are many families that live to the south in the Whiteaker neighborhood outside the one-mile focused walking/biking routes. These families use the River Path multi-use path that connects to East Hilliard Lane and cross River Road to the school. This is an important connection for many students.

The major active transportation routes have been identified along Maple Drive, West Hilliard Lane, East Hilliard Lane, Marion Lane, Hoover Lane, Lynn Lane, Sunnyside Drive, Park Terrace, Park Avenue, and Walnut Avenue.

4J School District

River Road Elementary

Eugene, Oregon

Figure 2: Preferred Bike/PED Routes

JRH TRANSPORTATION ENGINEERING
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401 {TEL.} 541.687.1081
www.jrhweb.com

1.28.13

NEEDS ASSESSMENT

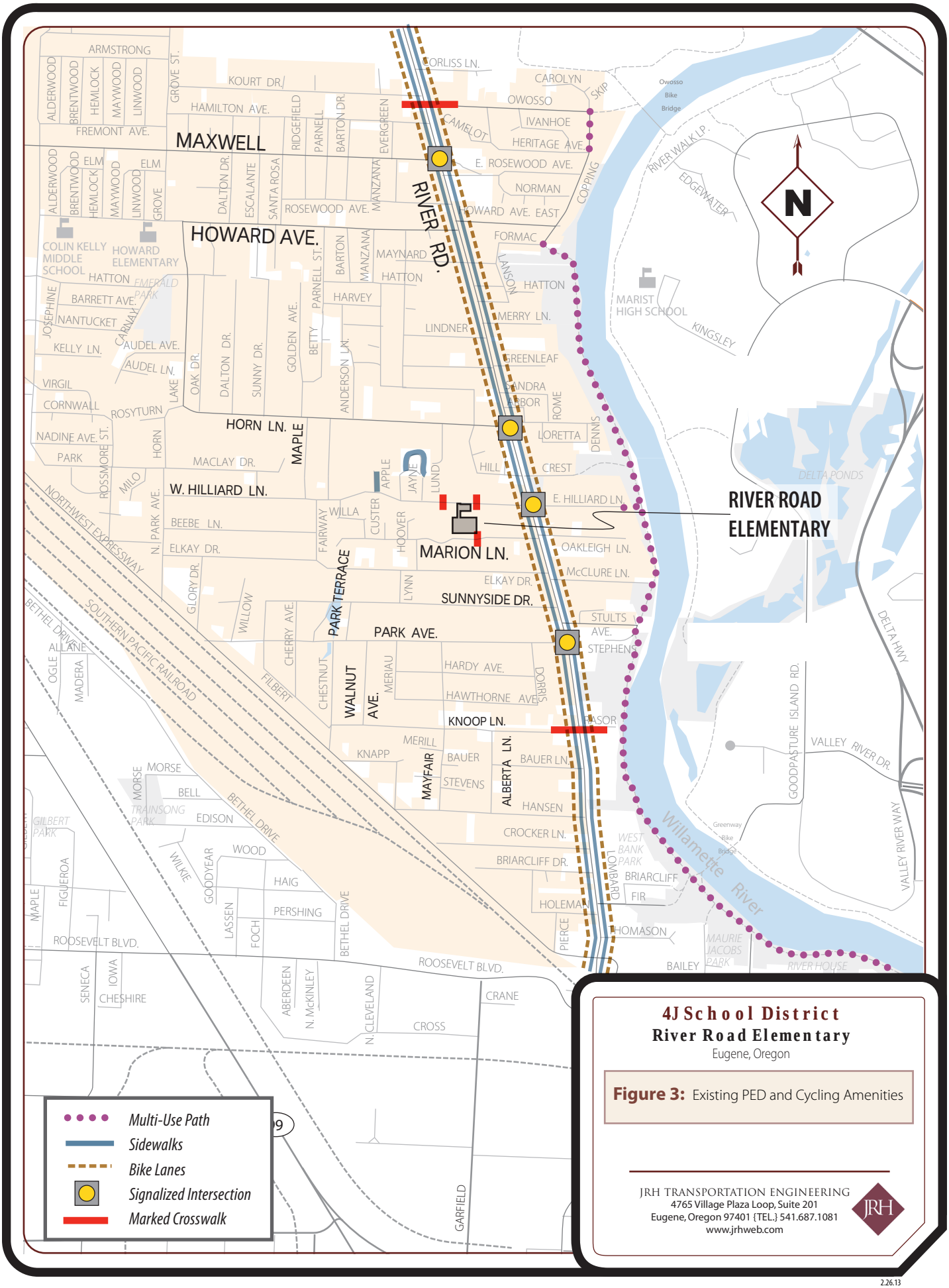
EXISTING CONDITIONS

All of the routes illustrated in Figure 2 were inventoried to examine existing walking and biking treatments. These treatments include locations where sidewalks and crosswalks are present and intersections which are stop-controlled or signalized. Along major active transportation routes the characteristics are examined to determine if additional treatments are necessary to improve safety. The route characteristics are illustrated in Figure 3.

Maple Drive
There are no sidewalks, bike lanes or shoulders along Maple Drive between Horn Lane and Hilliard Lane.

East/West Hilliard Lane
There are no sidewalks along West Hilliard Lane between North Park Street and River Road. Pedestrian and bicycle travel along this segment utilizes a paved shoulder of approximately four feet in width although it varies. These shoulders are on both sides of the road. The school zone is marked and signed. There are also two marked and signed pedestrian crossings at the entrances to the building across Hilliard. There is a signal at River Road and East Hilliard Lane which connects to the multi-use path along the river via a paved connector.

Hilliard Lane Looking East in Front of School



4J School District

River Road Elementary

Eugene, Oregon

Figure 3: Existing PED and Cycling Amenities

JRH TRANSPORTATION ENGINEERING
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401 {TEL.} 541.687.1081
www.jrhweb.com

2.26.13

Marion Lane
Marion Lane has no sidewalks for its entire length. Pedestrian/bicycle travel along this segment utilizes a paved shoulder of approximately four feet in width although it varies. There is a marked pedestrian crossing across Marion Lane to an opening in the south fence of the school.

Marion Lane Looking East Towards School Crossing

Hoover Lane
Hoover Lane between Elkay Drive and Marion Lane has no sidewalks or shoulders. There is a marked and signed pedestrian crossing at Hoover Lane north of Marion Lane. There is an access way from Hoover Lane onto the school grounds. Travel from Hoover to the school building is across a grass field.

Elkay Drive
Elkay Drive between Lynn Lane and Hoover Lane has no sidewalks, bike lanes or shoulders.

Lynn Lane
Between Sunnyside Drive and Elkay Drive there are no sidewalks, bike lanes or shoulders on Lynn Lane.

Sunnyside Drive
Between Park Terrace and Lynn Lane there are no sidewalks, bike lanes or shoulders.

Park Terrace
Between Sunnyside Drive and Park Avenue there are no sidewalks, bike lanes or shoulders along Park Terrace.

Park Avenue looking east

Park Avenue
Between Northwest Expressway and River Road there are no sidewalks or bike lanes. There are marked narrow shoulders, in some cases less than two feet in width. There is a traffic signal at the intersection of Park Avenue and River Road.

Walnut Avenue
Walnut Avenue extends between Knoop Lane and Park Avenue. Along its length there are no sidewalks, bike lanes or shoulders.

BARRIERS AND DEFICIENCIES

Barriers located along the major active transportation routes may be viewed as a deterrent to walking and biking. Barriers are any physical or perceived obstacle/concern along a route that would deter a student from walking or biking to school. Barriers may include locations where sidewalks are not present, unsafe road crossing locations or conditions exist, and the speed/high volume of traffic along the roadways. Figure 4 illustrates the observed barriers and deficiencies.

West Hilliard Lane
The two crossings across Hilliard Lane to the school are an area of potential concern. There are no sidewalks along West Hilliard Lane between North Park Street and River Road. Active modes of travel along this segment utilize a paved shoulder of approximately four feet in width although it varies. The school zone is marked and signed and there are two marked and signed pedestrian crossings at the entrances to the building across Hilliard. Pedestrian comfort could be enhanced here with improved crossing treatment and sidewalks to create a greater separation between pedestrians and motor vehicles. Additionally, connectivity and pedestrian safety from the south and east to Hilliard could be improved by emphasizing the connection to the multi-use path along the river and improvements at the signalized crossing at River Road and Hilliard Lane.

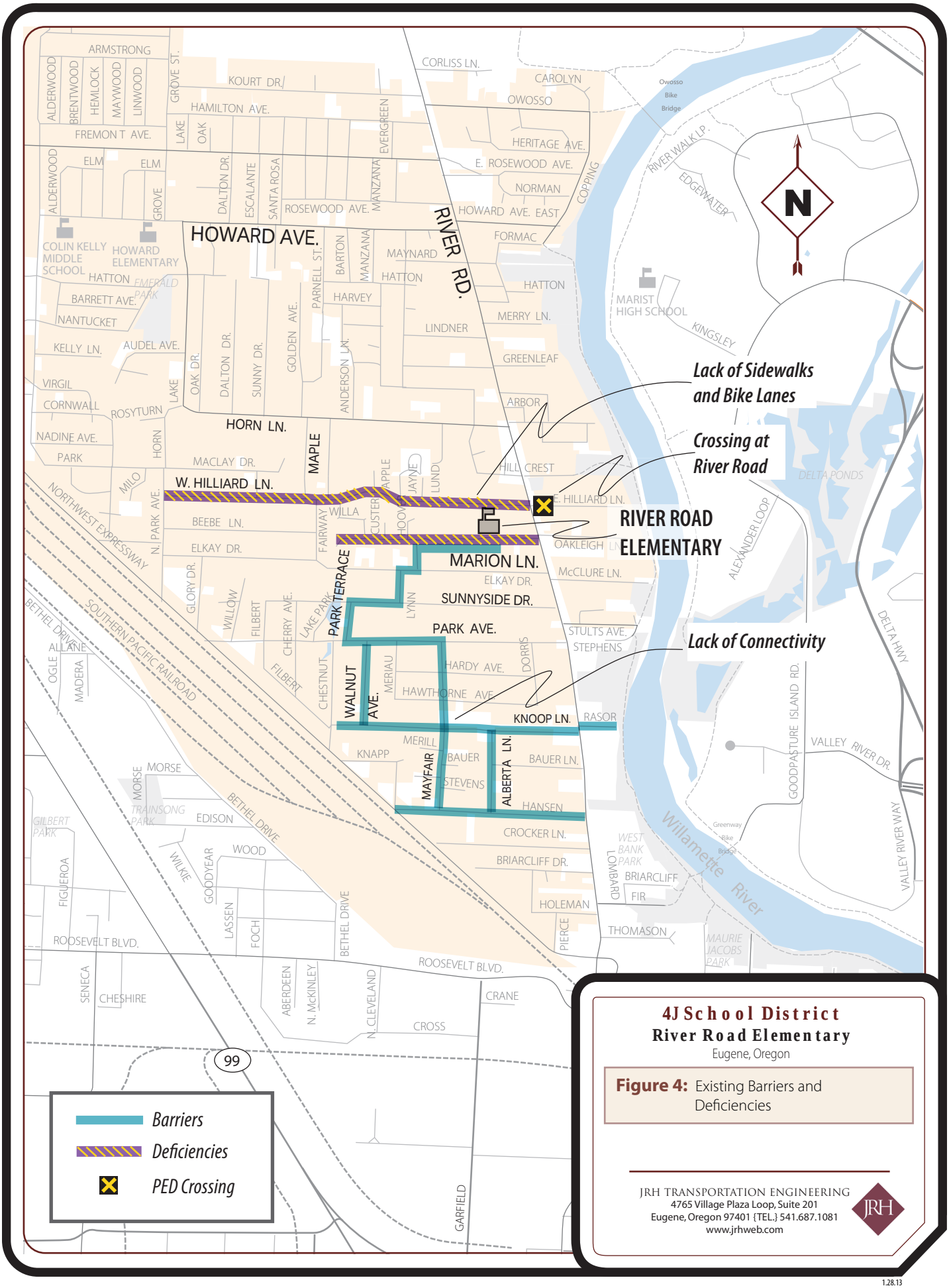
Marion Lane
Lack of sidewalks leading to the marked crossing on Marion Lane is also an area of concern given the proximity to River Road. Pedestrian and bicycle safety could be improved by providing sidewalks and bike lanes between the campus and River Road and improving driver awareness of the crossing, especially for eastbound vehicles due to the horizontal curvature of the road.

Even though the roadways to the south of Marion Lane are unimproved they present no obstacle to pedestrians and bikes due to the low volume of vehicle traffic. However, the lack of connectivity in this neighborhood creates long circuitous routes which can be perceived as a barrier by students and families.

ENGINEERED SOLUTIONS

There are a variety of treatments that are engineered solutions to enhance safe routes to school including the following:

- **Sidewalk improvements**: new sidewalks, sidewalk widening, sidewalk gap closures, sidewalk repairs, curbs, gutters, and curb ramps.
- **Traffic calming and speed reduction improvements**: roundabouts, bulb-outs, speed humps, raised crossings, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full- or half-street closures, automated speed enforcement, and variable speed limits.
- **Pedestrian and bicycle crossing improvements**: marked crossings, median refuges, raised crossings, raised intersections, traffic control devices (including new or upgraded traffic signals, pavement markings, traffic stripes, in-roadway crossing lights, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, vehicle speed feedback signs, and pedestrian activated signal upgrades), and sight distance improvements.
- **On-street bicycle facilities**: new or upgraded bicycle lanes, widened outside lanes or roadway shoulders, geometric improvements, turning lanes, channelization and roadway realignment, traffic signs, and pavement markings.
- **Off-street bicycle and pedestrian facilities**: exclusive multi-use bicycle and pedestrian trails and pathways that are separated from a roadway.
- **Traffic diversion improvements**: separation of pedestrians and bicycles from vehicular traffic adjacent to school facilities, and traffic diversion away from school zones or designated routes to a school.



4J School District

River Road Elementary

Eugene, Oregon

Figure 4: Existing Barriers and Deficiencies

JRH TRANSPORTATION ENGINEERING
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401 {TEL.} 541.687.1081
www.jrhweb.com

1.28.13

RECOMMENDED TREATMENTS

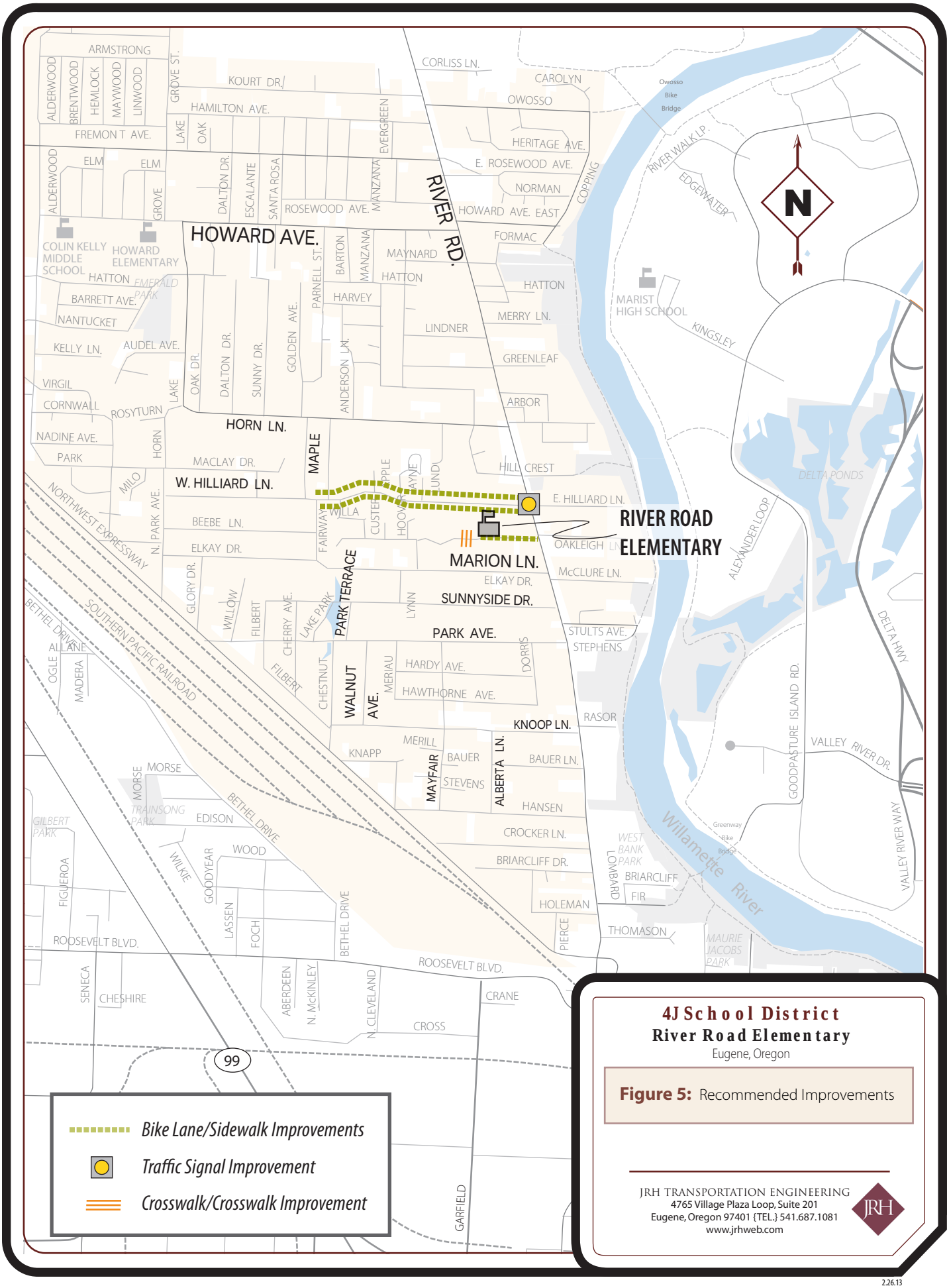
Based on the current inventory of roadway conditions and routes to school, there are key locations that would benefit from improved active transportation treatments. These locations are Hilliard Lane at the school; Hilliard Lane at River Road and connecting to the multi-use path; and Marion Lane.

The following discusses the recommended treatment options at these locations. Figure 5 illustrates the crossing locations, crossing treatments, and proposed sidewalk locations.

East/West Hilliard Avenue
Due to the proximity of the school to River Road, it is recommended that a sidewalk be provided along Hilliard Avenue between River Road and Fairway Avenue with an emphasis on the path from River Road to the west side of the school property. To highlight the connectivity of Hilliard to the multi-use path along the river, way-finding signage at the multi-use path and eastbound along Hilliard would emphasize the river path as a safe and efficient way to school. Improvements to the signal at Hilliard and River Road should be investigated for possible improvements to enhance safe and efficient travel for both bikes and pedestrians.

Marion Lane
It is recommended that a paved (asphalt or concrete) walking/biking surface be provided along the north side of Marion Lane between River Road and the west boundary of the campus. It is also recommended that a second pedestrian crossing sign assembly (MUTCD S1-1 and W16-7P) be installed at the existing crosswalk on the left hand side of the street facing west. This will make the crosswalk location more apparent to eastbound vehicles since the horizontal curvature of the roadway here obscures the sign assembly on the right hand side.

Connectivity to the South
It is recommended that that possible right-of-way be investigated for the creation of a multi-use path that would provide more direct and efficient pedestrian and bicycle connectivity to Marion Lane and the school from neighborhoods located to the south.



4J School District

River Road Elementary

Eugene, Oregon

Figure 5: Recommended Improvements

JRH TRANSPORTATION ENGINEERING
4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401 {TEL.} 541.687.1081
www.jrhweb.com

2.26.13

JRH TRANSPORTATION ENGINEERING

www.jrhweb.com

EUGENE

4765 Village Plaza Loop, Suite 201
Eugene, Oregon 97401
541-687-1081