CANADIAN COUNTY

El Reno Public Schools

2012 Multi-Hazard Mitigation Plan Update

Flanagan & Associates, LLC
Planning Consultants

Acknowledgements

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The Plan was prepared by Canadian County and El Reno Public Schools under the direction of the Canadian County Commissioner's Office, with the participation and assistance of numerous agencies, organizations, and individuals, including:

El Reno School Board

President ..... Bob Lee
Vice-President..... Steven Jensen
Member..... Justin Martin
Member ..... Andy Wedmen
Member ..... Dorrie Parrott

El Reno School Administration

School Superintendent ..... Ranet Tippens
Board Clerk..... Laura Kennedy
Finance Director ..... Judy Cavins

El Reno School Staff Technical Advisory Committee (STAC)

El Reno Public Schools..... Ranet Tippins
El Reno Public Schools ..... LeAnn Tyson
Dir. of Maintenance and Operations..... Jeff Johnson
District Grant Coordinator..... Lonnie Hamilton
El Reno Public Schools..... Matt Goucher
Federal Programs Coordinator..... Michelle Ahern

G.5 El Reno Public Schools

El Reno School District is in the center Canadian County and, as shown in Locator Map G.7-1, has an unusual configuration. The District is comprised of eight schools: a high school, two middle schools, four elementary schools and one early childhood center.. These are summarized in Table G.5-1 and in the paragraphs and sections that follow, providing an overview of all schools and support facilities, with a survey of the general hazards that impact them and a more detailed look as site-specific hazards for each of the schools.

Section 1 Introduction

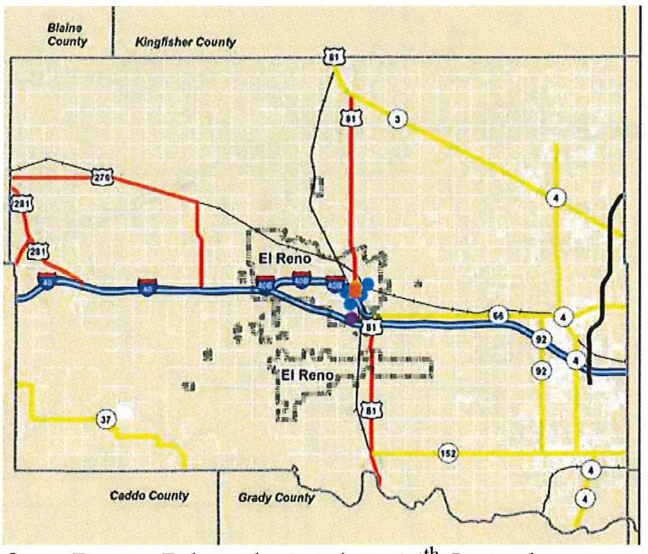
1.1 Services Summary

El Reno Public Schools provide education services for children from Pre-K through Grade12.

1.2 Boundaries

El Reno Public School District boundaries include a northern tier of about 27 square miles from Ft. Reno Rd. in the west to Alfadale Rd. in the east, and from the North Canadian River south to I-40, comprising all of the City of El Reno's urban core; and a southern tier of about 15 square miles from Evans Rd. in the east to Brandley Rd. in the west, and generally from Reuter Rd. in the north to 15th St. in the south. These two tiers are separated by Maple, Riverside and Banner Public School Districts. Figure G.5-2 presents the El Reno Public School District base map.

Figure G.5–1 El Reno Public School District Locator Map

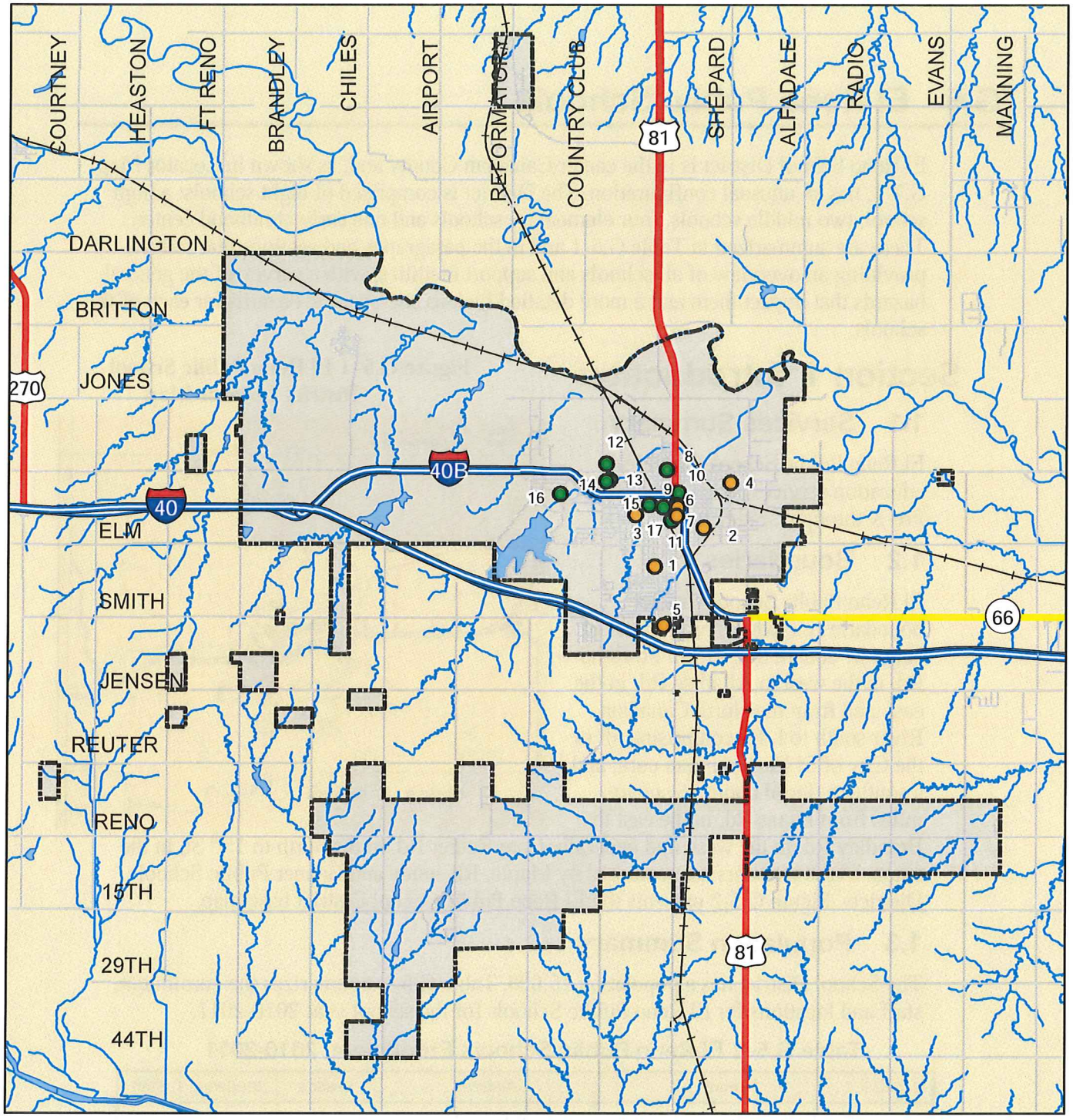


1.3 Population Summary

The School District has a population 15,638. Table G.5-1 summarizes the enrollment, staff and locations for El Reno Public Schools for the school year 2010-2011.

Table G.5–1 El Reno Public Schools Enrollment, 2010-2011

Map ID	School	Address	Grades	Students	Staff
1	El Reno High School	407 South Choctaw Ave.	9-12	826	37
2	Etta Dale Junior High School	601 South Choctaw Ave.	8	166	30
3	Leslie F. Roblyer Middle School	427 Southwest 27th Street	6-7	340	27
4	Webster Elementary School	100 North L. Avenue	5	162	16
5	Lincoln Elementary School	500 South Keith Avenue	3-4	318	28
6	Rose Witcher Elementary School	901 South Williams Avenue	1-2	354	24
7	Hillcrest Elementary School	1302 S. Miles	Pre-K-KG	370	25
	TOTALS			2,536	187



LEGEND

- Interstate
- US Highway
- State Highway
- Roads
- Railroads
- El Reno Schools
- El Reno Facilities
- El Reno
- Lakes
- Rivers/ Streams

0 1 2 Miles

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Figure G.5-2

El Reno Public Schools

Basemap

School Demographics

Ethnicity

Caucasian – 59%
Native American – 17%
Hispanic – 16%
African American – 7%
Asian – 1%

Other Census Data

Poverty Rate – 18%
Unemployment Rate – 8%
Single Parent Families – 37%

Jenks Simmons Fieldhouse – Home of the Indians

1.4 Economic Summary

Chapter 2.2.1 expresses the general governing, financing and policy-making authority of public boards of education in Oklahoma.

The El Reno School District has one of the highest poverty levels among the school districts in Canadian County. Although the District includes the City of El Reno, which is benefitting from economic growth in the Oklahoma City Metro Area, the El Reno School District is wedged among four dependent school districts (the district's unusual boundaries are shown in Figure G.5-2 above and in Figure. In addition 51% of the land area within the district is owned by the US Government or are Tribal Lands, which results in a minimal tax base that hampers the district's ability to build, maintain and improve school buildings and provide necessary equipment, transportation and technology. The District has the lowest bonding capacity among the County's School Districts.

The El Reno School District presented a bond issue to its voters in 2011 which did not pass. At the writing of this plan, the District is restructuring the bond issue to resubmit to District votes in January 2013.

Section 2 Existing Mitigation Strategies

National Flood Insurance Program/Community Rating System. El Reno Public Schools are covered by El Reno's participation in the NFIP program but they are not participants in the CRS.

Floodplain Management. El Reno Public Schools participates in and benefits from El Reno's regulations for the floodplains.

StormReady Program. El Reno Public Schools is not a StormReady community.

FireWise Program. El Reno Public Schools does not participate in the FireWise Program.

Building Codes. El Reno Public Schools abides by the codes governing El Reno and the states required codes for the schools.

Emergency Services

Security. El Reno Public Schools has authorized the Superintendent or Principal of the school to enforce security.

Fire Protection. The fire department of El Reno would be responsible for responding to a fire at El Reno Public Schools.

Hospitals. The closest hospital is Parkview Hospital in El Reno.

Ambulance Service. Parkview Hospital provides ambulance service for El Reno Public Schools.

Section 3 Hazards

The following subsections discuss general hazard information for the El Reno Public School District as a whole. A summary appears in Table G.5-2. These general hazards, including the extent/severity and vulnerability/impact, are addressed more fully in Chapter 4.

Section 3 analyzes the vulnerability of each school and support facility to six site-specific hazards: Flood, Expansive Soils, Wildfire, Hazardous Materials, Dam Failure and Transportation. The narratives are accompanied by maps showing the sites of the schools and facilities and their relationships to six site-specific hazards.

Table G.5–2 El Reno Public School District Hazards Summary

Map ID	Name	Floods	Tornadoes	High Winds	Lightning	Hail	Winter Storms	Extreme Heat	Drought	Expansive Soils	Urban Fires	Wildfires	Earthquakes	Hazardous Material Sites	Dam Failures	Transportation Hazards
1	El Reno High School		X	X	X	X	X	X	X	X	X		X	X		X
2	Etta Dale Junior High School		X	X	X	X	X	X	X	X	X		X	X		X
3	Leslie F. Roblyer Middle School		X	X	X	X	X	X	X	X	X	X	X			X
4	Webster Elementary School		X	X	X	X	X	X	X	X	X		X		X	X
5	Lincoln Elementary School	X	X	X	X	X	X	X	X	X	X		X			X
6	Rose Witcher Elementary School	X	X	X	X	X	X	X	X	X	X	X	X			X
7	Hillcrest Elementary School		X	X	X	X	X	X	X	X	X		X			
8	Booker T Washington Head Start		X	X	X	X	X	X	X	X	X		X		X	X
9	Child Development Center		X	X	X	X	X	X	X	X	X		X	X		X
10	Administration Building		X	X	X	X	X	X	X	X	X		X	X		X
11	Carsons Warehouse		X	X	X	X	X	X	X	X	X		X	X		X
12	FAA Cow, Hog and Sheep Barns		X	X	X	X	X	X	X	X	X	X	X			
13	Golden Warehouse		X	X	X	X	X	X	X	X	X	X	X		X	X
14	Jenks Simmons Fieldhouse		X	X	X	X	X	X	X	X	X		X		X	X
15	Maintenance Center		X	X	X	X	X	X	X	X	X		X	X		X
16	Youth Services		X	X	X	X	X	X	X	X	X	X	X		X	
17	Transportation Center		X	X	X	X	X	X	X	X	X		X			X

3.1 Flood

The El Reno Public School District has two facilities – Lincoln Elementary School and Rose Witcher – that is within a 100-year floodplain, that of Fourmile Creek. As flooding is one of six site-specific hazards, flooding is discussed for each El Reno school and other facility in the following Section 3. The impact of flooding on school facilities is discussed in Chapter 4. None of the schools that make up El Reno Public School District have been impacted by the Flood hazard in the past. El Reno Public Schools consider a rainfall of one inch in an hour that results in a flood depth of less than three feet on a one story building to be a minor severity event and a rainfall of greater than one inch per hour that results in a flood depth of greater than three feet to be of major severity for riverine

and/or flash flooding. The El Reno Public School District is considered to have a Low vulnerability to and Low probability of the Flood hazard.

3.2 Tornado

Tornadoes are a random hazard that can strike anywhere in Canadian County, including El Reno Public Schools. Canadian County experienced 34 tornadoes between 1995 and 2010, including a devastating EF5 tornado in May 2011. Given these frequencies, the County can expect 2.3 tornadoes each year, any one of which could impact El Reno Public Schools. The May 2011 tornado did not impact the schools, there is no record of El Reno Public School facilities being damaged by a tornado event. Were a tornado like the EF5 that passed through El Reno and Piedmont in May 2011 were to hit one of the schools, it would completely destroy it. The impact of this hazard on structures is discussed in Chapter 4. Students and staff unable to seek adequate shelter during the onset of a tornado event remain at risk of loss of life or injury. Shelter locations in the El Reno School District are listed in the subsections, below. El Reno Public Schools consider a minor severity tornado to be tornado of level EF1 or lower on the Fujita Scale and major severity tornado to be a tornado greater than a level EF1 on the Fujita Scale. El Reno Public Schools have a High vulnerability to and High probability of the Tornado hazard.

3.3 High Wind

Like Tornadoes, High Wind is a general hazard that occurs commonly and randomly throughout Canadian County. The County reported 73 high wind events from 1995 through 2010, with winds as high as 95 mph. Canadian County and El Reno Public Schools can expect about five potentially damaging high wind events each year. There are no reports of El Reno Public Schools being impacted by high winds in the past. As indicated in Chapter 4, high winds can cause major damages to public school facilities. El Reno Public Schools consider a minor severity wind force to be a wind force of on the Beaufort Scale of 9 (55 mph) or below, and a major severity wind force to be a wind force of greater than 9 on the Scale. El Reno Public Schools have a High vulnerability to and High probability of the High Wind hazard.

3.4 Lightning

Lightning is another general hazard that accompanies severe thunderstorms, particularly in the spring and autumn months. Canadian County reported nine damaging lightning events between 1995 and 2010 generated by the approximately 76 severe thunderstorms that passed through the area. Given this frequency, El Reno Public Schools can expect about five lightning events per year. El Reno High School is the only site in the District that has been impacted by this hazard in the past. The school suffered loss of computers as a result of a lightning strike. Information on the impact of lightning events on structures and populations is included in Chapter 4. Based on the information provided by the National Weather Service, Chapter 4, El Reno Public Schools considers a negative cloud-to-ground flash with multiple return strokes, that causes no loss of life or injury and less than $1,000 in property damage, to be a minor severity lightning event; and a positive cloud-to-ground flash with a continuous or high peak current, that causes loss of life and/or injury and more than $1,000 property damage, to be a major severity lightning

event. El Reno Public Schools have a High vulnerability to and High probability of the Lightning hazard.

3.5 Hail

Hail is a general hazard that strikes randomly and more or less equally throughout the County, along with lightning, high winds and tornadoes. From 1995 through 2010, Canadian County reported 105 separate hail events. Given this frequency, El Reno Public Schools can expect about seven hail events each year. As indicated in Chapter 4, hail can cause significant structural damage to facilities, particularly roofing systems and glass windows, doors, and skylights. A hail event could cause the roof of a school to need complete replacement depending on the severity of the event. School busses not secured under covered parking are also at risk if hail is large enough to render them non-operational. In the past, hail has caused significant roof damage to all sites in the El Reno Public School District causing need of complete replacement. Specific damage totals were not reported. El Reno Public Schools consider a minor severity hail storm to be a hail storm of H2 or lower on the Combined NOAA/ TORRO Hailstorm Intensity Scale (See Chapter 4.5), and a major severity hail storm to be a hail storm greater than H2 on the Combined NOAA/ TORRO Hailstorm Intensity Scale. El Reno Public Schools have a High vulnerability to and High probability of the Hail hazard.

3.6 Winter Storm

From 1995 through 2010 Canadian County experienced 35 ice and snow events, or an average of 2.3 winter storms each year. Because of the general and widespread nature of winter storms, it is assumed that El Reno Public Schools have also experienced 35 ice and snow events in this period. As indicated in Chapter 4 of this plan, public schools are in any case not in session during severe winter storms due to an allotted number of snow days so the populations are not immediately at risk. El Reno Public Schools consider a minor severity winter storm to be a winter storm that results in no loss of life, no loss of electricity or water service, and no transportation interruptions, and major severity winter storm to be a severe winter storm that causes personal injury or death, water or power outages, travel disruptions, damage to private property and public infrastructure El Reno Public Schools have a High vulnerability to and High probability of the Winter Storm hazard.

3.7 Extreme Heat

During the period 1996 through 2011, Canadian County experienced four extreme heat events, or an average of one every 3.7 years. Because of the general and widespread nature of heat waves, it is assumed that El Reno Public Schools will experience the same number of extreme heat events as the rest of the County. As a rule, public schools are not in session during the peak of the extreme heat season. The most vulnerable populations of El Reno Public Schools would be students participating in summer sports practice, as discussed in Chapter 4. The School District has not been directly impacted by this hazard in the past. El Reno Public Schools consider minor severity extreme heat to register 95°F or less on the NOAA National Weather Service Heat Index and major severity extreme heat to register 95°F on the NOAA Heat Index that lasts for more than two weeks. El

Reno Public Schools have a Low vulnerability to and High probability of the Extreme Heat hazard.

3.8 Drought

Canadian County experienced four droughts from 1996 to 2011. Given the widespread nature of the hazard, it can be assumed that El Reno Public Schools have experienced the same number of droughts. The Public Schools receive their water from the City of El Reno. The drought of 2010-2011, which caused water shortages in Oklahoma City and Yukon, did not directly impact the Public Schools. The District has not been directly impacted by this hazard in the past. El Reno Public Schools consider a minor severity drought to be a drought greater than a -2 on the Palmer Drought Index and a major severity drought to be -2 or lower on the Index. The Index goes from -4 to +4, with lower numbers indicating greater drought. See Tables and Figures in Chapter 4.8.1 for a discussion of drought indexes. El Reno Public Schools have a Low vulnerability to and Moderate probability of the Drought hazard.

3.9 Expansive Soils

El Reno Public Schools are located throughout the City of El Reno on varying kinds of soils. Expansive Soils is one of six site-specific hazards, the Expansive Soils hazard, including past damages, is discussed for all El Reno Public Schools and support facilities in the following Section 3. El Reno Public Schools consider a shrink-swell level of Moderate and below based upon NRCS soil survey database (See Chapter 4.9) to be of minor severity and a shrink-swell level of High or Very High based upon NRCS soil survey database to be of major severity. El Reno Public Schools have a Moderate vulnerability to and Moderate probability of the Expansive Soils hazard.

3.10 Urban Fire

El Reno Public School buildings are constructed of diverse materials, but for the most part are of cement block and brick. Most of the district facilities do not have sprinkler systems installed; this information is included in each school campus description in Section 4 below. The Schools are protected by the El Reno Fire Department, which has an excellent ISO rating of 4. Equipment includes four pump engines, a ladder truck, a tanker truck, two brush pumpers, and two command vehicles. The Department has aggressive inspection, code enforcement and public education programs. More information about the impact of this hazard on structures is included in Chapter 4. El Reno Public Schools consider a minor severity structure fire to be a structure fire that results in no loss of life or injury and/or $5,000 or less in damages, and a major severity structure fire to a structure fire that causes loss of life or injury and/or more than $5,000 in damages. The District has not been impacted by this hazard in the past. El Reno Public Schools have a Low vulnerability to and Low probability of the Urban Fire hazard.

3.11 Wildfire

Wildfire is one of the six site-specific hazards. El Reno Public Schools has not been impacted by this hazard in the past. As indicated in Chapter 4, wildfires can cause severe damages to property if actions are not taken to mitigate the risks and impacts. The Wildfire hazard is discussed for each El Reno Public School and support facility in the

following Section 3. El Reno Public Schools consider a reading of Moderate and below on the Fire Danger Rating system to be a minor severity wildfire condition, and a rating of above Moderate on the Fire Danger Rating system to be a major severity wildfire condition. Overall, El Reno Public Schools have a Low vulnerability to and Low probability of the Wildfire hazard.

3.12 Earthquake

Earthquake is considered a general hazard that is relatively unpredictable and not site-specific, since it usually impacts a wide area. Canadian County recorded 28 earthquakes between 1995 and 2009, followed by a cluster of 11 quakes on March 11-12, 2010. Thirteen of these events were in or very close to El Reno. The greatest recorded quake in Oklahoma, a 5.6 event, occurred recently (November 2011) in Lincoln County. Prior to the Lincoln County quake, the highest magnitude tremor (5.5) was at El Reno in 1952. As a rule, only a few of the earthquakes in Canadian County have been "felt" events. As mentioned in Chapter 4, according to HAZUS an earthquake would have minimal impact on any public school facility in Canadian County. El Reno Public Schools considers a minor severity earthquake to be a reading of 4.8 magnitude and below on the Richter Scale and a major severity earthquake with to be an earthquake with a reading of above 4.8 magnitude on the Richter Scale. The District has not been directly impacted by this hazard in the past. El Reno Public Schools have a Low vulnerability to and Low probability of the Earthquake hazard.

3.13 Fixed-Site Hazardous Materials

There are 28 Tier II facilities within the boundaries of the El Reno School District, 10 of which are considered extremely hazardous. Five El Reno schools are within a quarter mile of these sites. El Reno Public Schools has not been impacted by this hazard in the past. A hazardous material event could require evacuation or shelter-in-place procedures to be implemented. It is not likely an event would cause significant structural damages to the school facilities. A hazardous material event could require shelter-in-place or evacuation procedures to be implemented. As one of six site-specific hazards, the Fixed-Site Hazardous Materials hazard is discussed for each El Reno Public School and support facility in the following Section 3.

El Reno Public Schools consider a minor severity fixed-site Hazards Materials incident to be the release of a toxic chemical that is unlikely to cause severe casualties and/or which meets the *Emergency Response Guidebook* definition of a "small spill" The District considers a major severity fixed-site Hazardous Materials incident to event to be the release of a toxic chemical which has the likelihood of producing serious injury or death and/or which meets the definition of a "large spill" for a particular chemical, according to the most current edition of the *Guidebook.* El Reno Public Schools have a High vulnerability to and Low probability of the Fixed-Site Hazardous Materials hazard.

3.14 Dam Failure

Dam Failure is one of six site-specific hazards. Only Webster Elementary School is vulnerable to the Dam Failure hazard. This vulnerability is discussed for Webster Elementary and for each other El Reno Public School and support facility in the following Section 3. None of the schools in the District have been impacted by this

hazard in the past. El Reno Public Schools considers a minor severity dam event to be an extraordinary release that results in less than three feet of flooding on a one story building, and a major severity dam event to be a breach or failure that exceeds the capacity of the Dam's downstream riverbed immediately downstream from the dam and/or equates to (or exceeds) a 100- or 500-year flood and results in a depth of three feet of flooding or more on a one story building. El Reno Public Schools are considered to have a Low vulnerability to and Low probability of the Dam Failure hazard.

3.15 Transportation

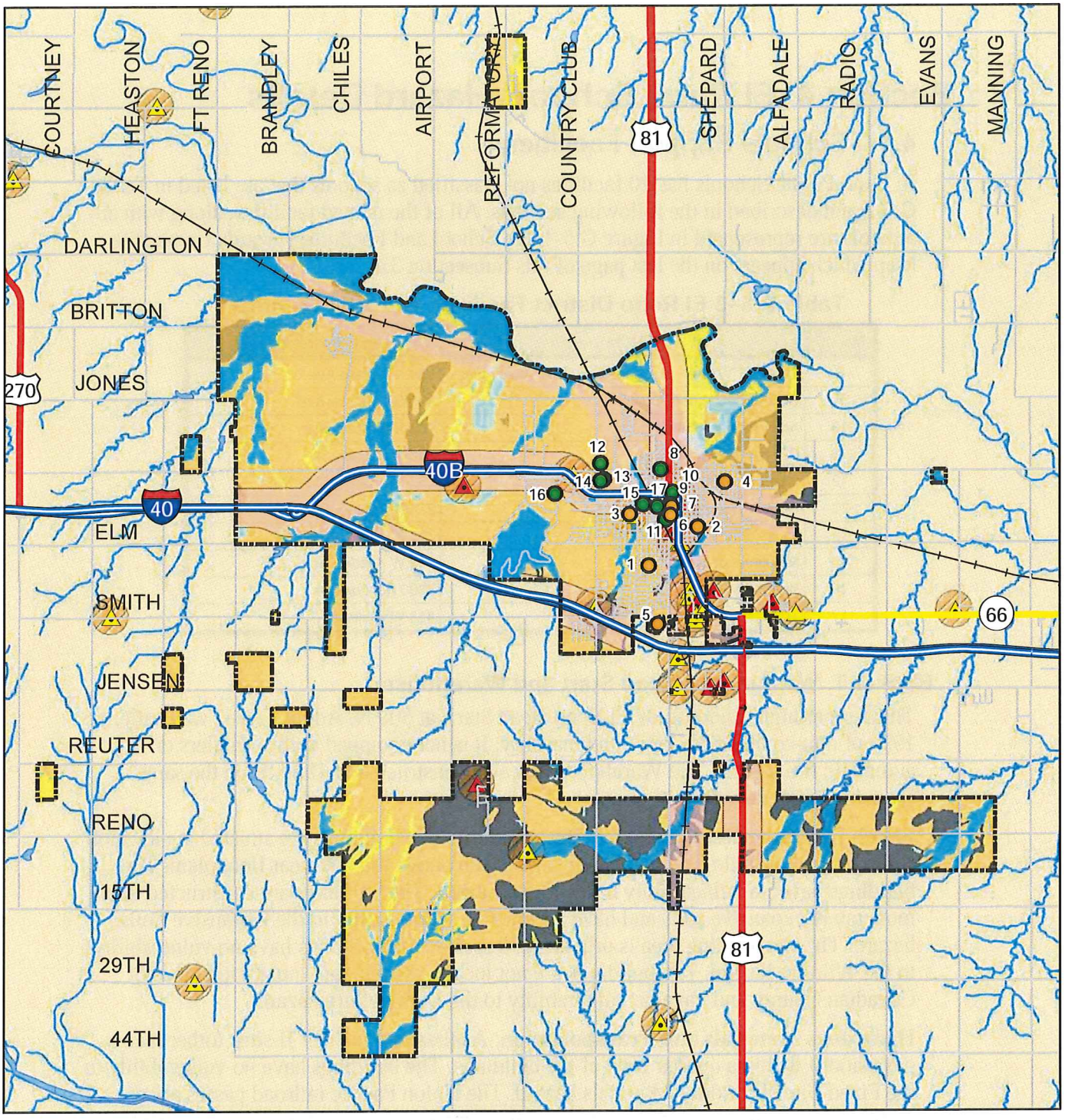
Transportation hazards are site-specific, with the degree of risk related to the proximity of a particular facility to major highways, railroads, airports and pipelines. Five El Reno Public Schools are within a quarter mile of at least one of these corridors. As one of the six site-specific hazards, the Transportation hazard is discussed for each El Reno Public School and support facility in the following Section 3. El Reno Public Schools have not been impacted by this hazard in the past, although the location of the schools to major transportation hazards makes it likely an event could impact the District in the future. A transportation incident could cause shelter in place or evacuation procedures to be implemented at any or all of the facilities.

El Reno Public Schools considers a minor severity transportation incident to be an incident that involves no loss of life or major injuries, detours of less than half a mile, traffic disruption of less than half an hour and/or hazardous materials are contained within a quarter mile. A major severity transportation incident would include loss of life and/or major injuries, detours exceeding half an hour, traffic disruption of more than half an hour, and/or hazardous materials releases whose impact area exceeds a quarter mile. El Reno Public Schools have a High vulnerability to and High probability of the Transportation hazard.

3.16 Hazards Summary

A visual perspective of potential hazards within the boundaries of the El Reno Public School District is the Hazards Composite Map presented in Figure G.5-3.

Figure G.5-4, which appears as the last page of Subsection 3.1 of the following Section 3, focuses on each Public School and support facility site and the specific hazards relative to each. Please note the legend accompanying Figure G.5-4 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards.



LEGEND

- Interstate
- US Highway
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- El Reno Facilities
- Rivers/ Streams

0 1 2 Miles

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Figure G.5-3

El Reno Public Schools

Hazard Composite

Section 4 El Reno Schools Hazard Details

4.1 Schools Support Facilities

El Reno Public Schools has 10 facilities not classified as schools that are listed in Table G.5-3 and described in the following sections. All of the named facilities, along with all Schools are represented in Figure G.5-4, the School and Facilities Hazards Composite Map which appears on the last page of this Subsection 3.1.

Table G.5–3 El Reno District Facilities Hazards Summary

Map ID	Name	Address
8	Booker T Washington Head Start and Warehouse	500 N Admire Ave
9	Child Development Center	405 S Choctaw Ave
10	Administration Building	100 S Bickford Ave
11	Carsons Warehouse	240 W Carson St
12	FAA Cow, Hog and Sheep Barns	682 N Country Club Rd
13	Golden Warehouse	214 N Country Club Rd
14	Jenks Simmons Fieldhouse	213 N Country Club Rd
15	Maintenance Center	719 W Landon St
16	Youth Services	2200 Babcock Dr
17	Transportation Center	418 W Watts St

Booker T. Washington Head Start and Warehouse

This former high school (now El Reno Head Start) at 500 N. Admire Ave., was built in 1950 of non-combustible brick and masonry. It is not equipped with sprinklers or automatic fire alarms. The Warehouse was also constructed in 1950, is on the same property, but is detached.

Flood, Expansive Soils, Wildfire, Dam Failure: The buildings are situated at elevation 1,350 in the Fourmile Creek drainage basin, well above the 100-year floodplain. The buildings have no vulnerability to the Flood hazard. The buildings are constructed upon moderately expansive soils and have a Moderate vulnerability to the Expansive Soils hazard. The surrounding area is urbanized, therefore the buildings have no vulnerability to the Wildfire hazard. The buildings are not located within dam inundation areas of Canadian County and have no vulnerability to the Dam Failure hazard.

Hazardous Materials and Transportation: As there are no Tier II sites (other than a gas station) within a quarter mile of the buildings. The buildings have no vulnerability to the Fixed-Site Hazardous Materials hazard. The Union Pacific railroad passes about 1,500 feet west of the buildings, and US Highway 81 about 500 feet to the east. Both transport corridors carry volatile and hazardous materials. The buildings have a Moderate vulnerability to the Transportation hazard.

Child Development Center

The Child Development Center is located at 405 S. Choctaw Ave., next door to the High School. Built in 1985 of masonry and siding, the structure is a converted residence that houses the Child Development staff.

Flood, Expansive Soils, Wildfire, Dam Failure: The Child Development Center has no vulnerability to and no probability of the Flood hazard; it has not been impacted by flooding in the past and is not located within the 100 year floodplain. The facility has no vulnerability or probability to the Wildfire hazard or the Dam Failure hazard. The Center has a Low vulnerability to and Low probability to the Expansive Soils hazard.

Hazardous Materials and Transportation: There are two EHS Tier II sites within a quarter mile of the Child Development Center: Evergreen Mills at 920 S. Bickford Ave., and AT&T El Reno at 319 S. Rock Island Ave. A major fire involving anhydrous ammonia at Evergreen Mills under conditions of southerly winds could require the evacuation of the Center. The Child Development Center has a High vulnerability to and Low probability of the Fixed-Site Hazardous Materials hazard; the facility has not been impacted by this hazard in the past. The Center is within a quarter mile of the Union Pacific railroad and US Highway 81/OK Highway 66, both of which carry volatile and hazardous materials. Though the center has not in the past been impacted by the Transportation hazard, its close proximity to the transportation routes increases its exposure to the hazard. The Child Development Center has a High vulnerability to and High probability of the Transportation hazard.

Administration Building

The El Reno Public School Administration Building is located at 100 S. Bickford Ave., three blocks north of the High School. The building was constructed in 1935 of non-combustible stone and masonry. It is equipped with a NOAA Weather radio, but does not have a sprinkler system, automatic fire alarm, lightning protection or a backup generator.

Flood, Expansive Soils, Wildfire, Dam Failure: The building has no vulnerability to the Flood hazard, the Dam Failure hazard, or the Wildfire hazard. The building has a Low vulnerability to the Expansive Soils hazard.

Hazardous Materials: There are two EHS Tier II sites within a quarter mile of the Administration Building: Evergreen Mills at 920 S. Bickford Ave., and AT&T El Reno at 319 S. Rock Island Ave. A major fire involving anhydrous ammonia at Evergreen Mills under conditions of southerly winds could require the evacuation or sheltering in place. The AT&T El Reno is about three blocks southeast of the building. The Administration Building has a High vulnerability to the Fixed-Site Hazardous Materials hazard.

Transportation: The Administration Building is located within a quarter mile of the Union Pacific railroad and US Highway 81. US 81 carries about 7,000 vehicles per day through the center of El Reno, one block east. Traffic includes tanker trucks loaded with volatile and hazardous materials. Major cargos on the UP railroad include petroleum and petroleum products. The Administration Building has a High vulnerability to the Transportation hazard.

Carsons Warehouse

Carsons Warehouse, located at 240 W. Carson St., was built in 1980, is constructed of non-combustible metal. The warehouse is situated on the east side of the Union Pacific railroad, about 500 feet north of Evergreen Mills.

Flood, Expansive Soils, Wildfire: The Carson Warehouse is within the Fourmile Creek drainage basin, well above the 100-year floodplain. The Warehouse has no vulnerability

to the Flood hazard. The Warehouse is constructed upon moderately expansive soils and has a Low vulnerability to the Expansive Soils hazard. The surrounding area is urbanized, resulting in no vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There is one EHS Tier II site within a quarter mile of Carson Warehouse: Evergreen Mills at 920 S. Bickford Ave. A major fire involving anhydrous ammonia at this facility during a time of southerly winds would require the evacuation of the Warehouse. The Carson Warehouse has a High vulnerability to the Hazardous Materials hazard. The Union Pacific railroad, a major corridor for the transport of volatile and hazardous materials, passes within 100 feet of the building. The Carson Warehouse has a High vulnerability to the Transportation hazard.

FAA Cow Barn, Hog Barns, Hog Shed 1 & 2, Sheep Barn

The FAA Barns and Sheds are located at 682 N. Country Club Rd. and were constructed in 1975. They are built of non-combustible metal and concrete block.

Flood, Expansive Soils, Wildfire: The Barns and Sheds have no vulnerability to the Flood hazard or the Dam Failure hazard. The facilities have Low vulnerability to the Expansive Soils hazard. There is Moderate vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There are no EHS Tier II sites within a quarter mile of the FAA Barns and Sheds. The FAA Barns and Sheds have no vulnerability to the Fixed-Site Hazardous Materials hazard. However, the structures are within a quarter mile of the Union Pacific railroad and about three quarters of a mile from I-40B/OK Highway 66, both of which carry volatile and hazardous materials. The Barns and Sheds have no vulnerability to the Transportation hazard.

Golden Warehouse

The Golden Warehouse, located at 214 N. Country Club Rd., was built in 1954, and is constructed of non-combustible metal. The warehouse is situated opposite the Jenks Simmons Fieldhouse.

Flood, Expansive Soils, Wildfire: The Golden Warehouse is within the Fourmile Creek drainage basin, but not within 100-year floodplain. The Golden Warehouse is considered to have no vulnerability to the Flood hazard. The Warehouse is constructed upon moderately expansive soils and has a Low vulnerability to the Expansive Soils hazard. The surrounding area is in grass and parking lots, which creates a Moderate vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There are no EHS Tier II sites within a quarter mile of the Golden Warehouse. The Warehouse has no vulnerability to the Fixed-Site Hazardous Materials hazard. Interstate-40B/US Highway 66 passes within a quarter mile of the building. The Warehouse has a Low vulnerability to the Transportation hazard.

Jenks Simmons Fieldhouse

The Jenks Simmons Fieldhouse, located at 213 N. Country Club Rd., was built in 1954 and is constructed of non-combustible masonry and metal.

Flood, Expansive Soils, Wildfire: The Jenks Simmons Fieldhouse is within the Fourmile Creek drainage basin, not mapped within the 100-year floodplain. The

Fieldhouse is considered to have no vulnerability for the Flood hazard. The Fieldhouse is constructed upon moderately expansive soils. It has a Low vulnerability to the Expansive Soils hazard. The surrounding area is in grass and parking lots. The Fieldhouse has a Moderate vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There are no EHS Tier II sites within a quarter mile of the Jenks Simmons Fieldhouse. The building has no vulnerability to the Fixed-Site Hazardous Materials hazard. Interstate-40B/US Highway 66 passes within a quarter mile of the building. The Fieldhouse has a Low vulnerability to the Transportation hazard.

Maintenance Center

The El Reno Public Schools Maintenance Center is located at 719 W. London St. It was built in 1970 and is a frame structure. The Maintenance Center is situated about 1,000 feet west of the Union Pacific railroad, about 2,000 feet northwest of Evergreen Mills.

Flood, Expansive Soils, Wildfire: The Maintenance Center is within the Fourmile Creek drainage basin, but not within the 100-year floodplain. The Center is considered to be at no vulnerability to the Flood hazard. The Center is constructed upon moderately expansive soils. The Center is considered to have a Low vulnerability to the Expansive Soils hazard. The surrounding area is urbanized resulting in no vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There is one EHS Tier II site within a quarter mile of the Maintenance Center: Evergreen Mills at 920 S. Bickford Ave. A major fire involving anhydrous ammonia at this facility during a time of south-easterly winds could possibly require the evacuation of the Center. The Maintenance Center has a Moderate vulnerability to the Fixed-Site Hazardous Materials hazard. The Union Pacific railroad, a major corridor for the transport of volatile and hazardous materials, passes within 1,000 feet of the building. The Center has a Moderate vulnerability to the Transportation hazard.

Youth Services Building

The El Reno Public Schools Youth Services Building is located at 2200 Babcock Dr. It was built in 1986 and is of non-combustible masonry and concrete block construction. The Building has an automatic fire alarm.

Flood, Expansive Soils, Wildfire: Youth Services Building is within the Fourmile Creek drainage basin, but not located in the floodplain. The Youth Services Building is considered to have no vulnerability to the Flood hazard. The Building is constructed upon moderately expansive soils and has a Low vulnerability to the Expansive Soils hazard. The surrounding area is a mix of urban and parkland which results in the Building having a Low vulnerability to the Wildfire hazard.

Dam Failure: The Youth Services Building is located directly beneath El Reno Lake Dam, at elevation 1,340 – about 15 feet above the channel bed. The dam is 40 feet in height. A failure would release 2,865 acre-feet of water into Fourmile Creek. If such a failure were to take place during a 100-year flood on Fourmile Creek, the flood surge would likely flood the Building. The Youth Services Building has a High vulnerability to the Dam Failure hazard.

Hazardous Materials and Transportation: There are no EHS Tier II sites within a quarter-mile of the Youth Services Building. The Building has no vulnerability to the Fixed-Site Hazardous Material hazard. Interstate-40/OK Highway 66 passes about 1,500 feet to the northeast. The Building has a Low vulnerability to the Transportation hazard.

Transportation Center

The Transportation Center, located at 418 W. Watts St., and is two buildings, both constructed in 1948. The Main Building is constructed of non-combustible concrete block with wood siding. The Bus Storage building is also non-combustible masonry. The Center is situated on the east side of the Union Pacific railroad, about 500 feet north of Evergreen Mills.

Flood, Expansive Soils, Wildfire, Dam Failure: The Transportation Center is within the Fourmile Creek drainage basin, well above the 100-year floodplain. The Center has a Low vulnerability to the Flood hazard and has no vulnerability to the Dam Failure hazard. The Center is constructed upon moderately expansive soils and has a Low vulnerability to the Expansive Soils hazard. The surrounding area is urbanized resulting in the Center having no vulnerability to the Wildfire hazard.

Hazardous Materials and Transportation: There is one EHS Tier II site within a quarter-mile of the Transportation Center: Evergreen Mills at 920 S. Bickford Ave. A major fire involving anhydrous ammonia at this facility during a time of southerly winds would require the evacuation of the Center. It is not likely an event would have a major impact on the structures themselves. The Transportation Center has a High vulnerability to the Fixed-Site Hazardous Materials hazard. The Union Pacific railroad, a major corridor for the transport of volatile and hazardous materials, passes within 100 feet of the Center's buildings. The Transportation Center has a High vulnerability to the Transportation hazard.

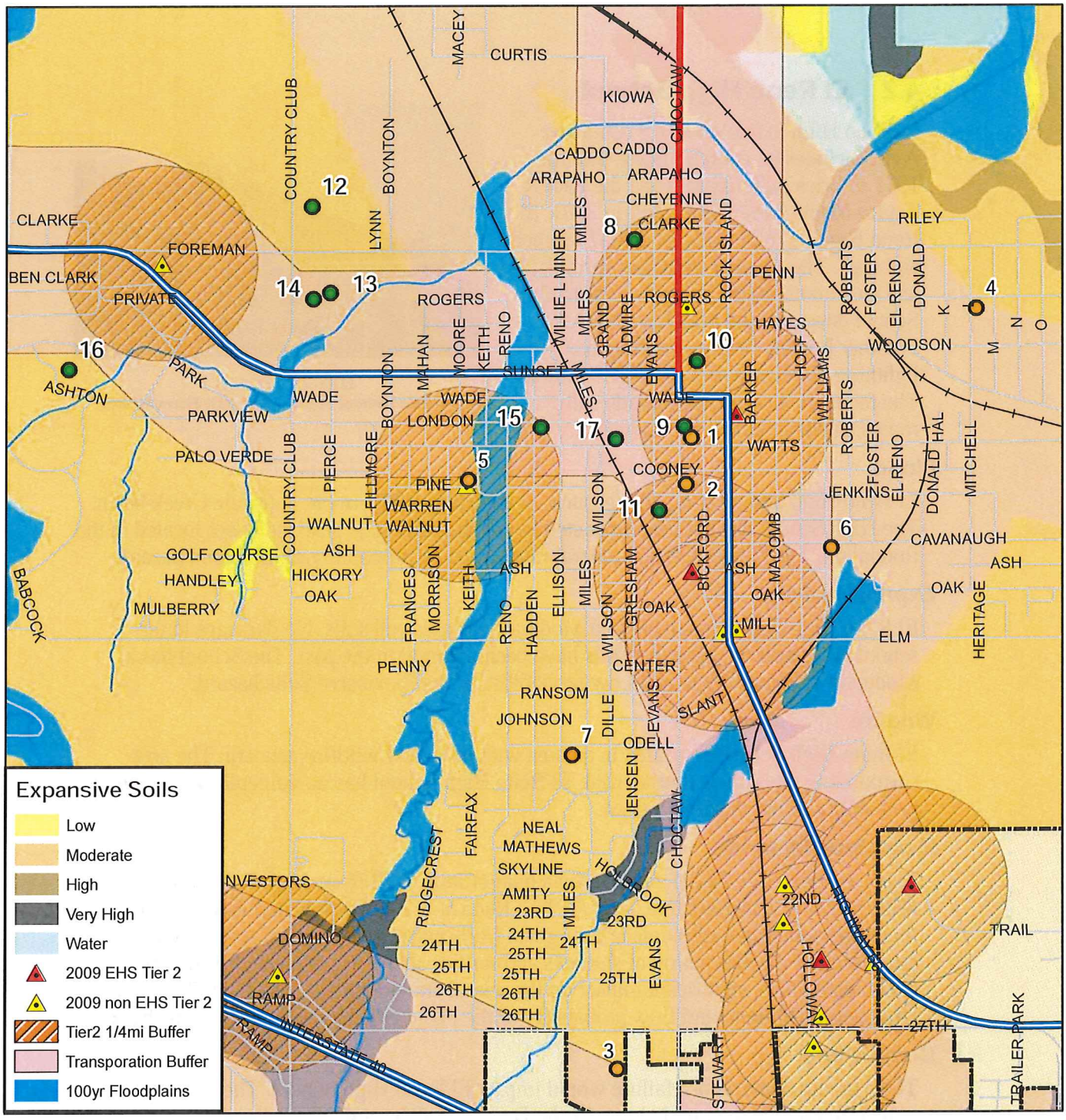


Figure G.5-4

El Reno Public Schools

Composite - Detail

4.2 El Reno High School

El Reno High School at 407 S. Choctaw Ave., includes its main building, built in 1911 of brick and masonry and the Paul R. Taylor Media Arts Center built in 2001. El Reno High has 826 students and 37 teachers and staff. The Media Center has sprinklers and an automatic fire alarm, but the High School does not, and both have NOAA Weather Radios. Neither building has lightning protection or backup generators. The facilities do not have tornado safe rooms, shelters, or basements on site.

El Reno High School
Added the National Register of Historic Places in 2000.

Flood

El Reno High School is on high ground, at elevation 1,360, in the Fourmile Creek basin. The High School has not been impacted by this hazard in the past and is not located in the floodplain. The School has no vulnerability to and no probability of the Flood hazard.

Expansive Soils

El Reno High School is situated on Moderate shrink/swell soils. No damages to the school as a result of expansive soils have been reported in the past. The School has a Moderate vulnerability to and Low probability of the Expansive Soils hazard.

Wildfire

El Reno High School is located in an area with no to low wildfire concern. The area surrounding the school is urbanized. El Reno High School has no vulnerability to and no probability of the Wildfire hazard.

Hazardous Materials

There are two EHS Tier II sites within a quarter mile of El Reno High School: Evergreen Mills at 920 S. Bickford Ave., and ATT El Reno at 319 S. Rock Island Ave. A major fire involving anhydrous ammonia at Evergreen Mills under conditions of southerly winds could require the evacuation of students and staff or sheltering in place. It is not likely an event would have significant impact on the school structure itself. The High School has a High vulnerability to and Low probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

There are no dams whose failure would impact El Reno High School. The School has no vulnerability to and no probability of the Dam Failure hazard.

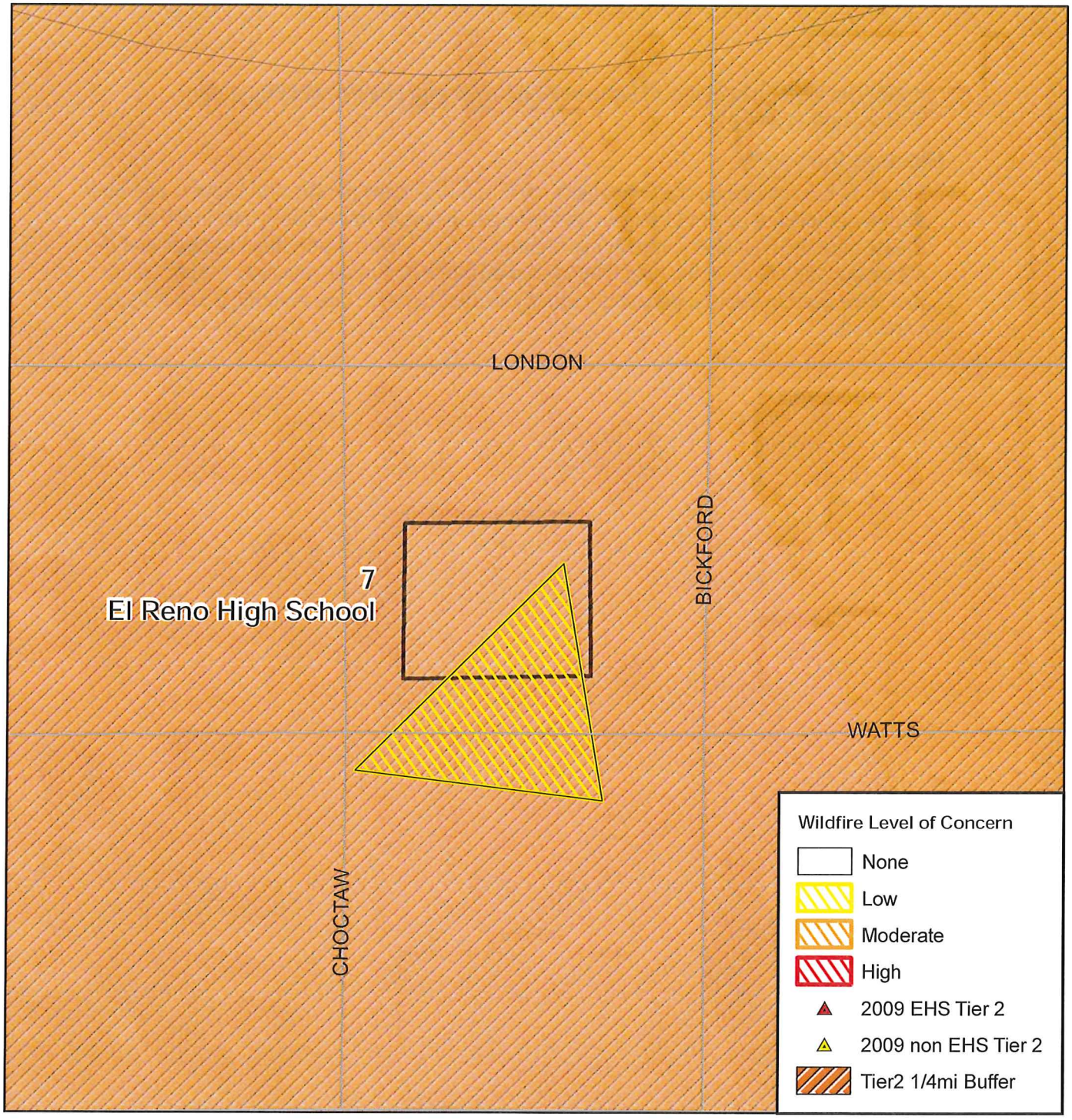
Transportation

US Highway 81/OK Highway 66, which carries 7,000 vehicles a day, including tanker trucks carrying volatile and hazardous materials, is a block east of the School, and the Union Pacific railroad, with cargos are grains, aggregate, paper, coal, and petroleum and petroleum products is within a quarter mile. Depending on the severity of the event, evacuation or shelter-in-place procedures may need to be implemented to prevent loss of life or injury. It is not likely an event would significantly impact the school structure

itself. The High School has a High vulnerability to and High probability of the Transportation hazard.

Hazards Summary

Figure G.5-5 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-5 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- Low
- Moderate
- High
- Very High
- Water
- 100yr Floodplain

0 50 100 Feet

N W E S

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Figure G.5-5

El Reno Public Schools- El Reno High

Hazard Composite

4.3 Etta Dale Junior High School

Etta Dale Junior High School is an 8th Grade Center, located at 601 S. Choctaw Ave. and includes three buildings: The main building was built in1937, Marsh Memorial building in1957, and Lucus Memorial Hall in1966. The School has 166 students and 30 teachers and staff. The buildings are constructed of non-combustible brick and masonry. The School has a NOAA Weather Radio. The buildings do not have lightning protection or backup generators. There is no tornado safe room, shelter, or basement on site.

Etta Dale Junior High School

Flood

Etta Dale Junior High School is situated on high ground, at elevation 1,360, in the Fourmile Creek basin. The School has not been impacted by this hazard in the past and is not located in the floodplain. The School has no vulnerability to and no probability of the Flood hazard.

Expansive Soils

Etta Dale Junior High School is situated on Moderate shrink/swell soils. The School has a Moderate vulnerability to and Low probability of the Expansive Soils hazard.

Wildfire

Etta Dale Junior High School is surrounded by landscaped vegetation, concreter sidewalks and roads. It is located in an area with no Wildfire Concern and has no vulnerability to and no probability of the Wildfire hazard.

Hazardous Materials

There are two EHS Tier II sites within a quarter mile of Etta Dale School: Evergreen Mills at 920 S. Bickford Ave. and AT&T El Reno at 319 S. Rock Island Ave. A major fire involving anhydrous ammonia at Evergreen Mills under conditions of southerly winds could require the evacuation of Etta Dale School or sheltering in place. Etta Dale School has a High vulnerability to and Low probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

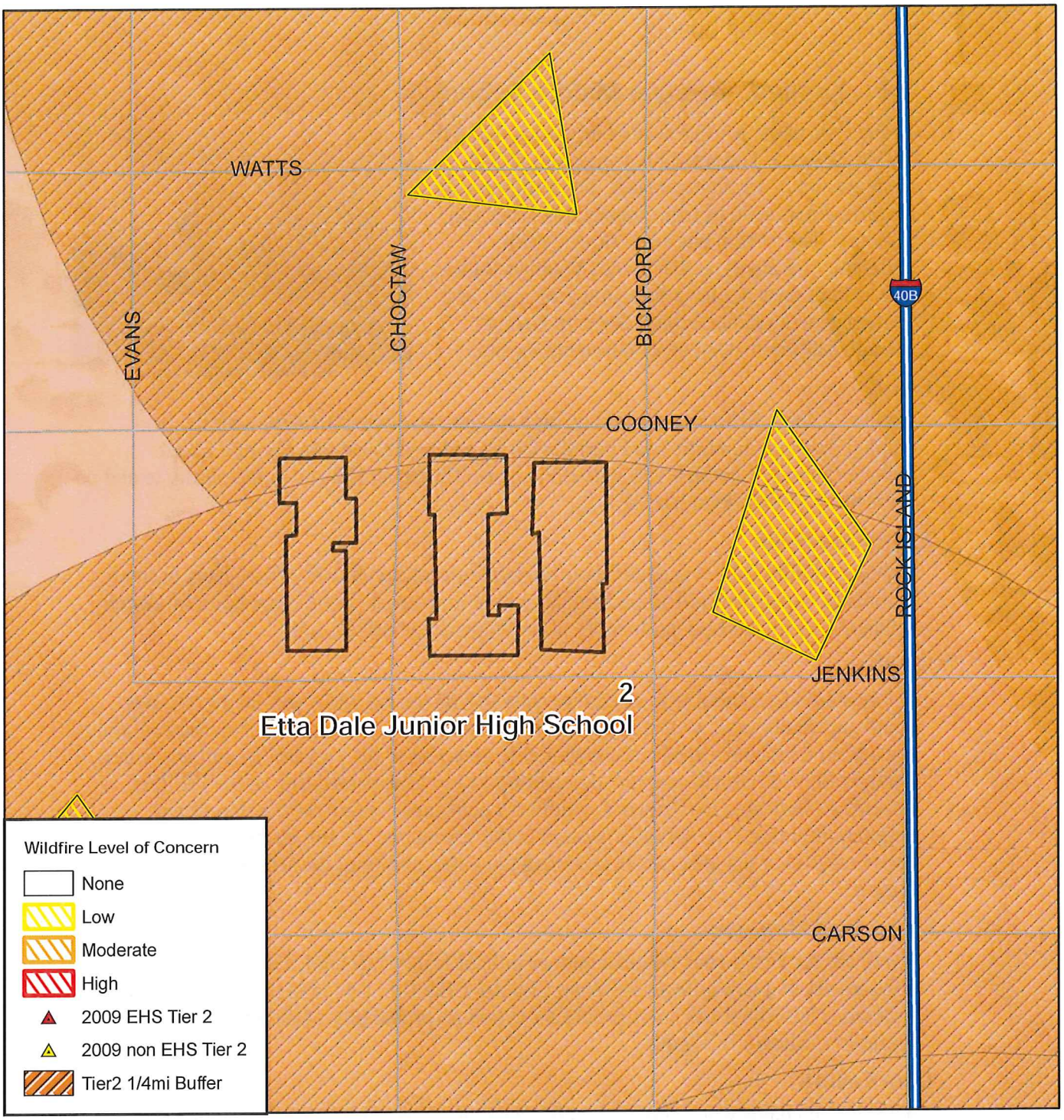
There are no dams whose failure would impact Etta Dale Junior High School. The School has no vulnerability to and no probability of the Dam Failure hazard.

Transportation

Etta Dale Junior High is a quarter mile from the Union Pacific railroad and US Highway 81. US 81 handles about 7,000 vehicles per day. This traffic includes tanker trucks loaded with volatile and hazardous materials. Major cargos on the UP system are wheat and food grains, aggregate, paper, coal, petroleum and petroleum products, non metallic minerals and plastics. Etta Dale Junior High has a High vulnerability to the Transportation hazard.

Hazards Summary

Figure G.5-6 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-6 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- Low
- Moderate
- High
- Very High
- Water
- 100yr Floodplain

0 70 140 Feet

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CANADIAN COUNTY 1890 OK

Figure G.5-6

El Reno Public Schools- Etta Dale Middle School

Hazard Composite

4.4 Leslie F. Roblyer Middle School

Leslie F. Roblyer Middle School located at 427 SW 27th in El Reno. The school is comprised of 340 students and 27 faculty and staff. The building was constructed in 1996 of non-combustible brick and masonry. The School has a sprinkler system, automatic fire alarm, and a NOAA Weather Radio. The School does not have lightning protection or a backup generator. The school does not have a tornado safe room, shelter, or basement on site.

Leslie F. Roblyer Middle School

Flood

Roblyer Middle School is situated on high ground, at elevation 1,420, with the land sloping away to the north into Fourmile Creek and to the east into Sixmile Creek. Robyler School is not in a 100-year flood zone. The School has no vulnerability to and no probability of the Flood hazard.

Expansive Soils

Roblyer Middle School is situated on Moderate shrink/swell soils. There have been no records of expansive soils impacting the school in the past. The School has a Moderate vulnerability to and Low probability of the Expansive Soils hazard.

Wildfire

Roblyer Middle School is situated on gently rolling terrain with open land to the west, south and southeast. I-40 is a little less than a half mile to the south. The School buildings are buffered by landscaped and mown fields. Because of the prevailing southerly winds, Roblyer School has a Moderate vulnerability to and Low probability of the Wildfire hazard. As indicated in Chapter 4, wildfires could cause severe destruction of any structure/building. The sprinkler system in the school and the fire district with jurisdiction over the area aids in lessening the vulnerability of the school to the wildfire hazard.

Hazardous Materials

There are no Tier II sites within a quarter mile of Roblyer School. The nearest Tier II sites are about a half mile away, along Country Club Rd., I-40, and the Union Pacific railroad. The School has no vulnerability to and no probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

There are no dams whose failure would impact Roblyer Middle School. Roblyer School has no vulnerability to and no probability of the Dam Failure hazard.

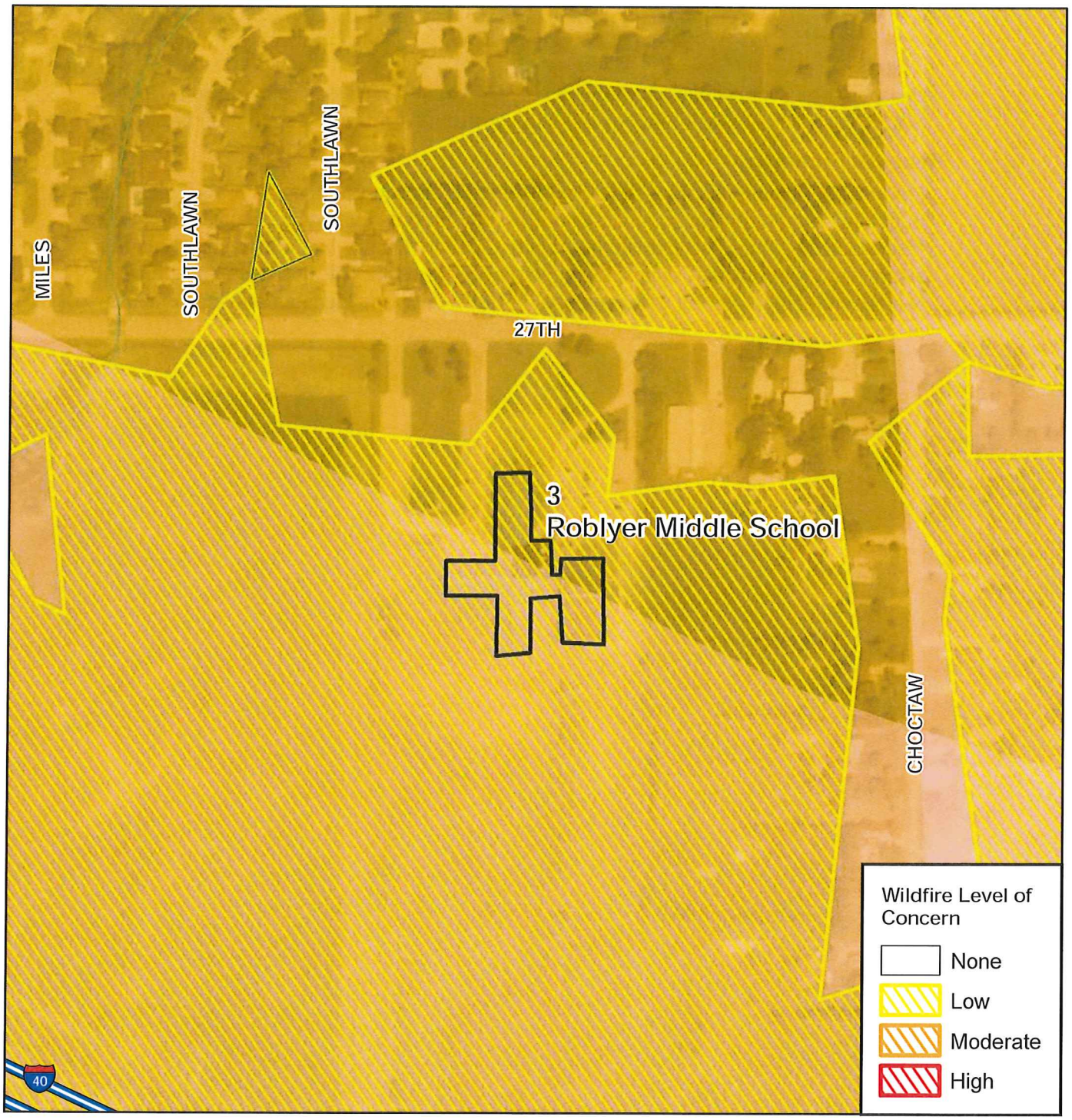
Transportation

Roblyer Middle School is located about 1,200 feet north of I-40 and about 2,000 feet west of the Union Pacific railroad. The school's greatest vulnerability would be a tanker truck accident involving hazardous materials on I-40. Such event could result in the need for evacuation or shelter-in-place procedures to be implemented. It is not likely a

transportation event would have significant impact on the school structure itself. Roblyer School has a High vulnerability to and High probability of the Transportation hazard.

Hazards Summary

Figure G.5-7 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-7 to identify individual hazards and be aware that the colors may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- Low
- Moderate
- High
- Very High
- Water
- 100yr Floodplain

0 100 200 Feet

CANADIAN COUNTY 1890 OK

Figure G.5-7

El Reno Public Schools-Roblyer

Hazard Composite

4.5 Webster Elementary School

Webster Elementary School is located at 100 N. L St.. The school is comprised of 162 5th Grade students and 16 teachers and staff. The school was built in 1937 and is constructed of non-combustible brick and masonry. It is equipped with a NOAA Weather Radio. The School does not have lightning protection or a backup generator. There is no tornado safe room, shelter, or basement on site.

Webster Elementary School

Flood

Webster Elementary School is situated at elevation 1,310 in the Fourmile Creek and North Canadian River drainage basins. The School is not within the 100-year floodplain of either stream, and has no vulnerability to and no probability of the Flood hazard.

Expansive Soils

Webster Elementary School is constructed upon Moderate shrink/swell soils. In the past, the school has experienced foundation settling and cracking. A direct link to the Expansive Soils hazard has not been determined, although it is assumed this is the cause. Damages were estimated at $100,000 at Webster and Witcher. The School has a Moderate vulnerability to and Moderate probability of the Expansive Soils hazard.

Wildfire

Webster Elementary School is in the urban core of El Reno, surrounded by streets and residences, and to the south and east is bordered by playgrounds. The School has no vulnerability to and no probability of the Wildfire hazard.

Hazardous Materials

There are no Tier II sites within a quarter mile of Webster Elementary School. The School has no vulnerability to and no probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

Webster Elementary School is within the inundation area of a Canton Dam breach. The School would have approximately 80 hours to prepare for such an event, leaving the greatest threat to school grounds and facilities rather than children and staff. Breach or failure of the Canton Dam could result in costly damages to the structural components and the contents of Webster Elementary School. Saturation of the school interior could potentially require completely new desks, carpet, books, and electronic equipment. Particularly at risk are those critical contents such as student and school records that could be completely lost in a dam failure incident. The School has a High vulnerability to but Low probability of the Dam Failure hazard.

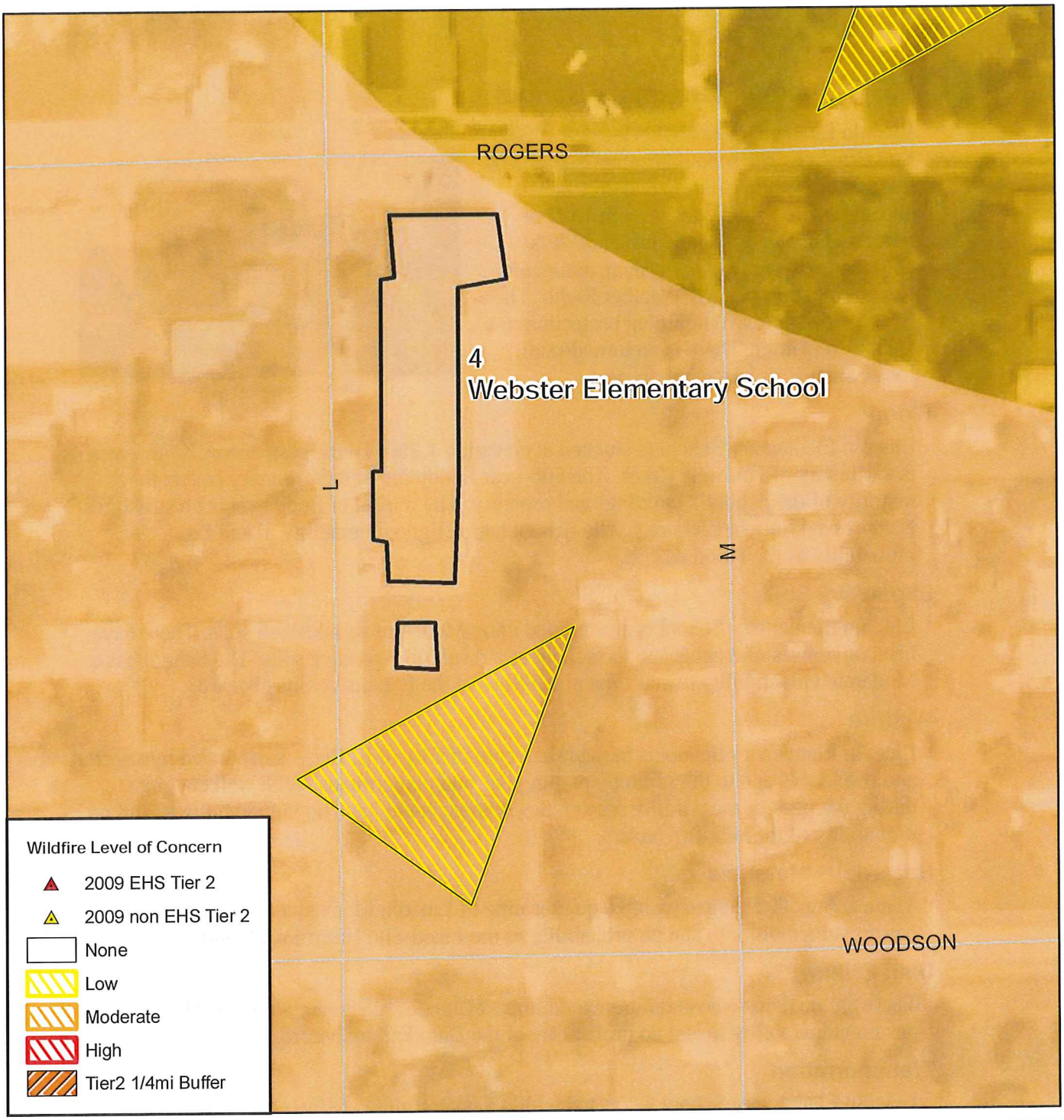
Transportation

Webster Elementary School is located within a quarter mile of the Union Pacific railroad, which passes about a quarter mile to the southwest. A train derailment involving volatile or hazardous materials and south-westerly winds could require evacuation or sheltering in

place. It is not likely a transportation incident would significantly impact the structural components of the school. The School has a High vulnerability to and High probability of the Transportation hazard.

Hazards Summary

Figure G.5-8 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-8 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- 100yr Floodplain
- Low
- Moderate
- High
- Very High
- Water

0 50 100 Feet

N W E S

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Figure G.5-8

El Reno Public Schools-Webster Elementary

Hazard Composite

4.6 Lincoln Elementary School

Lincoln Elementary School is located at 500 S. Keith Ave. The school is comprised of 318 3rd and 4th Grade children and 28 teachers and staff. The School was built in 1939 of non-combustible brick and masonry. It is equipped with a sprinkler system, automatic fire alarm, and a NOAA Weather Radio. The School does not have lightning protection or a backup generator. There is no tornado safe room, shelter, or basement on site.

Lincoln Elementary School

Flood

Lincoln Elementary School is situated at elevation 1,350. To the east, across Keith Ave., is a tributary of Fourmile Creek. The 500-year floodplain of this tributary covers the majority of the School's buildings and property. The impact of flood events on structures is addressed fully in Chapter 4. The School has a High vulnerability to and Low probability of the Flood hazard.

Expansive Soils

Lincoln Elementary School is constructed upon Moderate shrink/swell soils. There have been no reports of damages to the school as a result of expansive soils. The School has a Moderate vulnerability to and Low probability of the Expansive Soils hazard.

Wildfire

Lincoln Elementary School is in the urban core of City of El Reno, surrounded by streets and residences and to the south by parking lots and playgrounds. With well cut grass during the peak of the wildfire season, the School should have no vulnerability to and no probability of the Wildfire hazard.

Hazardous Materials

There are no Tier II sites within a quarter mile of Lincoln Elementary School. The School has no vulnerability to and no probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

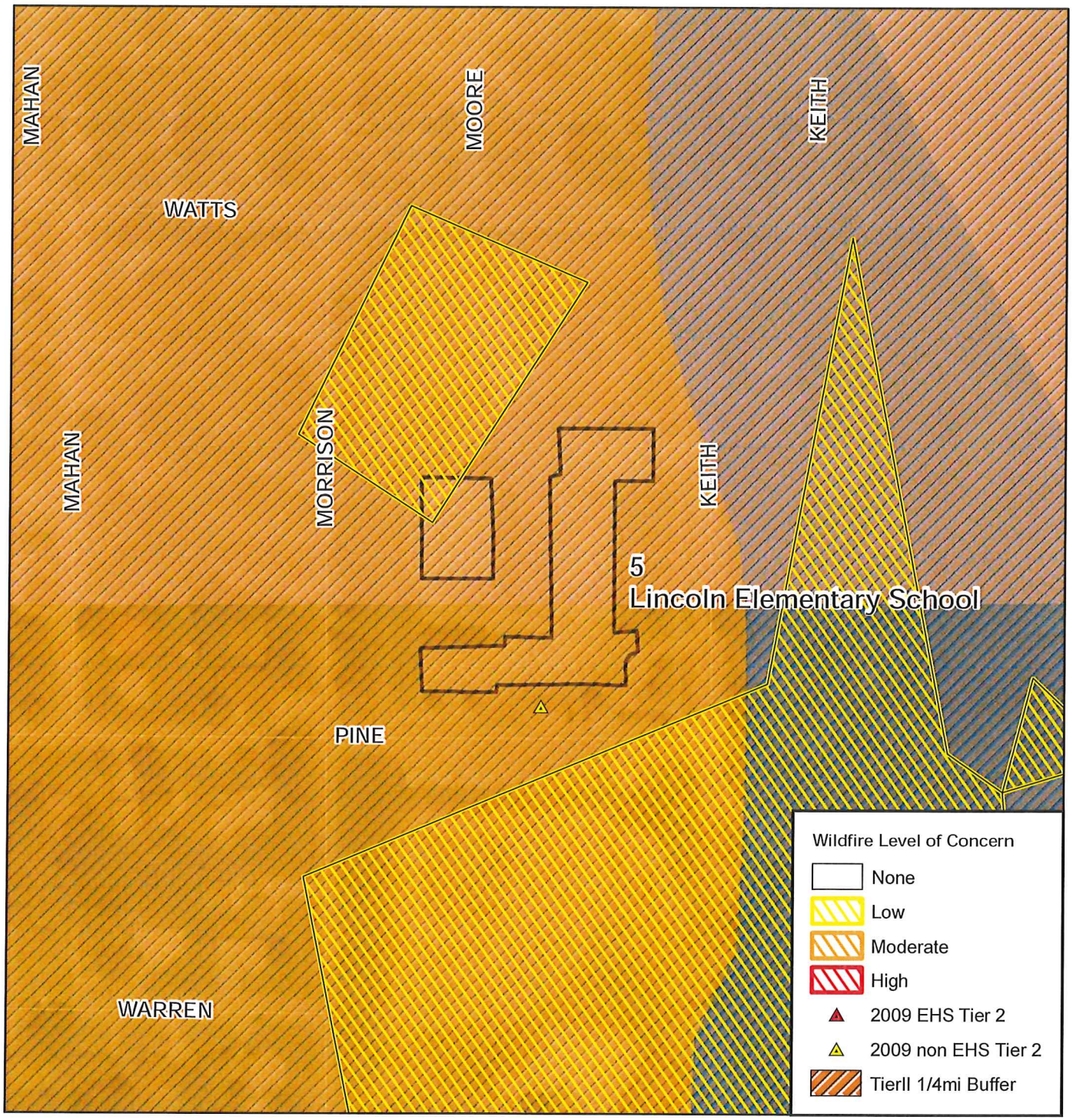
There are no dams whose failure would impact Lincoln Elementary School. The School has no vulnerability to and no probability of the Dam Failure hazard.

Transportation

Lincoln Elementary School is located within a quarter mile of Business I-40/OK Highway 66, and just beyond the transportation corridor of the UP railroad. Depending on the severity of the event, a transportation incident could cause the school to implement evacuation or shelter-in-place procedures. It is not likely the school structure itself would be directly impacted. The School has a High vulnerability to and High probability of the Transportation hazard.

Hazards Summary

Figure G.5-9 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-9 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- Low
- Moderate
- High
- Very High
- Water
- 100yr Floodplain

0 75 150 Feet

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Figure G.5-9

El Reno Public Schools-Lincoln Elementary

Hazard Composite

4.7 Rose Witcher Elementary School

Rose Witcher Elementary School is located at 900 S. Williams Ave with 354 1st and 2nd Grade children and 24 teachers and staff. Built in 1950 of non-combustible brick and masonry, the School has a sprinkler system, automatic fire alarm, and a NOAA Weather Radio. The School has no lightning protection or a backup generator. There is no tornado safe room, shelter, or basement on site.

Rose Witcher Elementary School

Flood

Witcher Elementary School sits on a tributary of Fourmile Creek at elevation 1,335. The 100-year floodplain of the intermittent tributary stream passes along the east side of the property and encroaches upon the School's grounds, but does not touch its buildings. The School has a Moderate vulnerability to and Low probability of the Flood hazard.

Expansive Soils

Witcher Elementary School is constructed upon Moderate shrink/swell soils. In the past, Witcher has experienced foundation settling and cracking. A direct link to the Expansive Soils hazard has not been determined, although it is assumed this is the cause. Damages were estimated at $100,000 at Webster and Rose. The School has a High vulnerability to and Moderate probability of the Expansive Soils hazard.

Wildfire

Witcher Elementary School is in the urban core of the City of El Reno, surrounded by streets and residences north and west and playgrounds to the southeast that back up to the Union Pacific railroad. The School has a Moderate vulnerability the Wildfire hazard. However, given the presence of the railroad and prevailing southerly winds, the School's vulnerability to and probability of the Wildfire hazard could be High during extended droughts.

Hazardous Materials

There are no Tier II sites within a quarter mile of the School. The nearest sites are along the railroad and US Highway 81 less than a half mile southwest of the School. Witcher Elementary has no vulnerability to and no probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

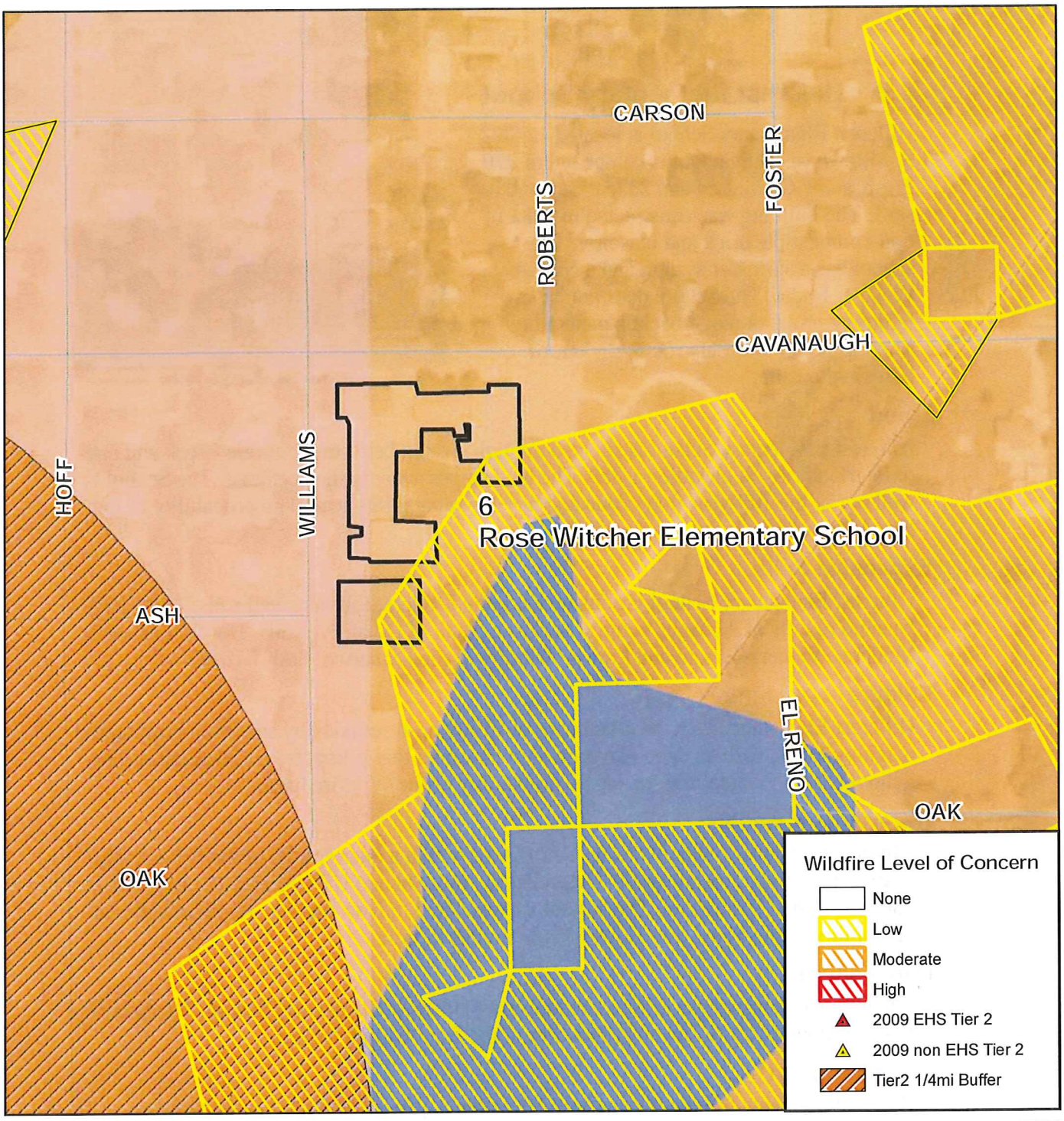
There are no dams whose failure would impact Witcher Elementary School. The School has no vulnerability to and Low probability of the Dam Failure hazard.

Transportation

Witcher Elementary School is located alongside the UP railroad, within about 300 feet of the tracks. A transportation incident could cause implementation of evacuation or shelter-in-place procedures. It is not likely the school structure itself will be impacted by a transportation incident. The School has a High vulnerability to and High probability of the Transportation hazard.

Hazards Summary

Figure G.5-10 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-10 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other colors that have been overlaid representing other potential hazards, thus creating a School-site composite.



LEGEND

- Interstate
- US Highway
- State Highway
- Turnpike
- Roads
- Railroads
- 1/4mi Transport Buffer

Expansive Soils

- Low
- Moderate
- High
- Very High
- Water
- 100yr Floodplain

0 100 200 Feet

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Figure G.5-10

El Reno Public Schools- Rose Witcher Elementary

Hazard Composite

4.8 Hillcrest Elementary School

Hillcrest Elementary School is located at 1302 S. Miles Ave. The School is comprised of 370 Pre-K and KG children and 25 teachers and staff. The building was constructed in 1981 of non-combustible brick and masonry. The school has a sprinkler system and a NOAA Weather Radio. The School does not have lightning protection or a backup generator. There is no tornado safe room, shelter, or basement on site.

Hilcrest Elementary School

Flood

Hillcrest Elementary School is situated on high ground between Fourmile Creek and one of its tributaries, at elevation 1,350. The land slopes away to the northeast. The School is well out of the 100-year flood zone and has no vulnerability to and no probability of the Flood hazard.

Expansive Soils

Hillcrest Elementary School is constructed upon Moderate shrink/swell soils. There have been no reports of damages to the school as a result of expansive soils. The School has a Moderate vulnerability to and Low probability of the Expansive Soils hazard.

Wildfire

Hillcrest Elementary is in the urban core of El Reno, surrounded by streets and residential neighborhoods, with an open playground to the south that is kept free of high grass. The School has no vulnerability to and no probability of the Wildfire hazard.

Hazardous Materials

Hillcrest Elementary School has no Tier II sites within a quarter mile of the School. The nearest Tier II sites are along the Union Pacific railroad and US Highway 81 less than one mile east of the School. The School is considered to have no vulnerability to and no probability of the Fixed-Site Hazardous Materials hazard.

Dam Failure

There are no dams whose failure would impact Hillcrest Elementary School. The School has no vulnerability to and no probability of the Dam Failure hazard.

Transportation

Hillcrest Elementary School is not located within a quarter mile of a major highway, railroad or pipeline. Hillcrest School has no vulnerability to and no probability of the Transportation hazard.

Hazards Summary

Figure G.5-11 focuses on the School site itself and illustrates the specific hazards and their individual level of potential impact on the building and its immediately surrounding area. Please note the legend accompanying Figure G.5-11 to identify individual hazards and be aware that the colors in the map may appear different due to the number of other

colors that have been overlaid representing other potential hazards, thus creating a School-site composite.

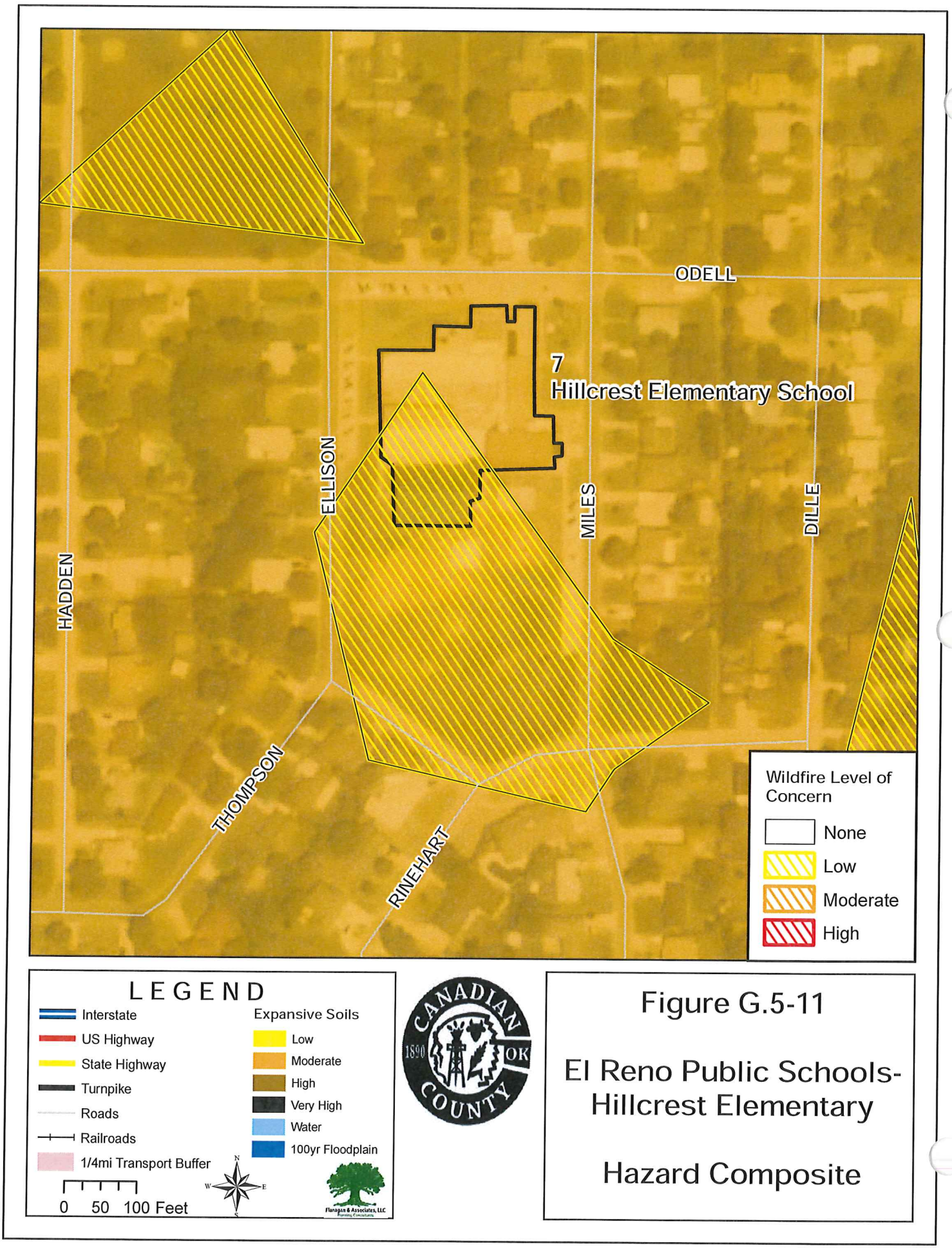

Figure G.5-11

El Reno Public Schools-Hillcrest Elementary

Hazard Composite

Section 5 Mitigation Strategy

This section provides a description of El Reno Public Schools ability to reduce potential losses, identified in Sections 3 and 4, based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing tools. Included in this section is a process by which El Reno Public School incorporates the requirements of the mitigation plan into other planning mechanisms such as emergency action plans or long range plans, when appropriate. Goals and objectives of El Reno Public Schools to reduce or avoid long-term vulnerabilities to the identified hazards are included in Chapter 5. A comprehensive range of specific actions and projects being considered to reduce the effects of each hazard are listed in Chapter 6, Action Plan.

5.1 Integration into Planning Mechanisms

El Reno Public Schools described the following process for implementing its hazard mitigation plan through existing planning mechanisms:

Upon formal adoption of the *Canadian County Multi-Jurisdictional Multi- Hazard Mitigation Plan,* mitigation goals will be incorporated into future versions of El Reno Public Schools emergency operations plans and procedures. The Director of Operations is responsible for maintaining and updating the *El Reno Public Schools Emergency Action Plan* and oversees the implementation and integration of the *Canadian County Multi-Jurisdictional Multi- Hazard Mitigation Plan.* Meetings of the School Board of Education and public hearings will provide an opportunity for district officials to report back on the progress made on the integration of mitigation planning elements into District planning documents and procedures.

The superintendent may use this hazard mitigation plan as a reference tool when recommending school improvement projects to the school board of education. As the District continues to develop, the hazard mitigation plan may be integrated into the districts development plans to determine the site of new facilities and prevent development in more hazard prone areas. Structural recommendations in new construction may also be followed in order to create a higher resiliency to natural and man-made hazards.

5.2 Prioritization Process of Mitigation Measures

El Reno Public Schools identified 20 mitigation measures, specific to their jurisdiction, during the *Canadian County Multi-Hazard Mitigation Plan Update* process. The mitigation measures will be prioritized using the STAPLEE process as recommended by FEMA, included in Chapter 5, Table 5-1. Complete detailed information for each mitigation measure is included in Chapter 6.