

KERN COUNTY PUBLIC WORKS

CMAQ APPLICATION: Pedestrian Pathway Project

Potomac Avenue @ UPRR Crossing (Metro Bakersfield)

Project Limits: Potomac Avenue (Collins
Way to Monticello Avenue)



KERN COUNCIL OF GOVERNMENTS
Congestion Mitigation and Air Quality (CMAQ) Program
PROJECT APPLICATION – Due Thursday, July 17, 2025

*Please note this is a PDF fillable form so responses may be typed. Items 1, 2, 7, and 22 are drop downs. Totals in item 6 will automatically calculate.

- (1) Is the project included in a local agency-adopted resolution supporting the project? YES NO
- (2) Does the proposed project meet basic eligibility requirements? YES NO
- (3) Project background and justification: Explain the project in terms of the existing infrastructure, its impact for service, safety or any other issue that is relevant to the project (attach to application). If the project scope relates to fueling infrastructure please provide a 3-year fleet conversion plan.
- (4) Lead Agency: _____
- (5) Project description [(Location:) + (Limits) + (;) + (Improvement/Activity)]

(6)	Funding Type	PE	R/W	Const.	Total
	Local	\$ _____	\$ _____	\$ _____	\$ _____
	Local	\$ _____	\$ _____	\$ _____	\$ _____
	State	\$ _____	\$ _____	\$ _____	\$ _____
	Federal	\$ _____	\$ _____	\$ _____	\$ _____
	Total	\$ _____	\$ _____	\$ _____	\$ _____

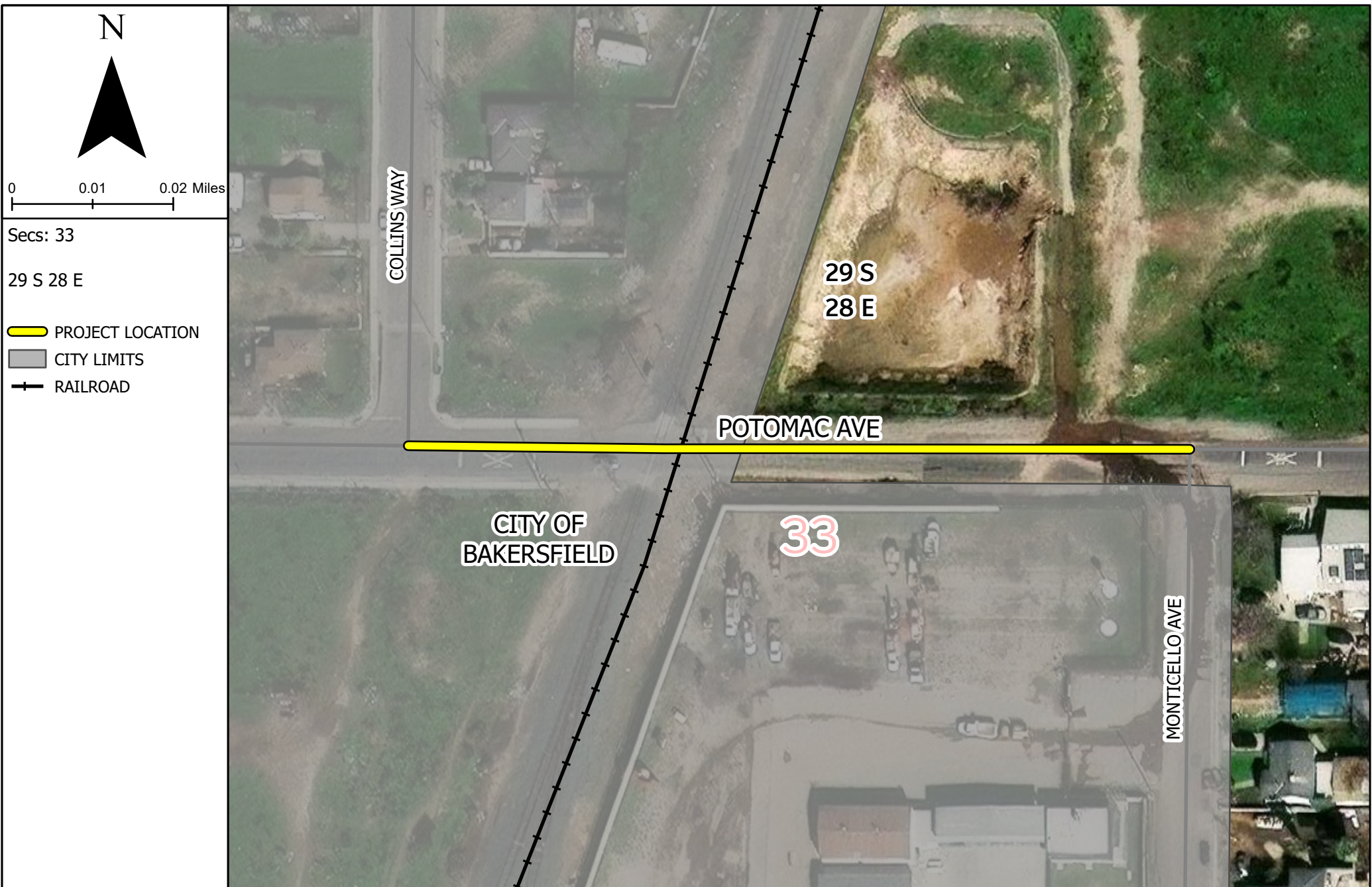
- (7) Programming Year by Phase: PE: _____ R/W: _____ Const: _____
- (8) VMT Reduction (annual miles): _____
- (9) VOC Reduction (kg/day): _____ Additional documentation required. See instructions.
- (10) NOx Reduction (kg/day): _____ Additional documentation required. See instructions.
- (11) PM₁₀ Reduction (kg/day): _____ Additional documentation required. See instructions.
- (12) PM_{2.5} Reduction (Kg/day): _____ Additional documentation required. See instructions.
- (13) CO Reduction (kg/day): _____ Additional documentation required. See instructions.
- (14) Cost-Effectiveness (\$/lb): _____ Additional documentation required. See instructions.
- (15) Livability and Safety: Describe how project provides the six benefits; limit to half page per benefit.
- (16) Hwy Peak Period LOS Before Project (AM/PM average): _____
- (17) Hwy Peak period LOS After Project (AM/PM average): _____
- (18) Bikeway Peak Period LOS Before Project (AM/PM average): _____
- (19) Bikeway Peak period LOS After Project (AM/PM average): _____
- (20) Pedestrian Peak period LOS Before Project (AM/PM average): _____
- (21) Pedestrian Peak period LOS After Project (AM/PM average): _____
- (22) Is the project identified as a RACM/BACM? YES NO

Application completed by: _____	Date Completed: _____
E-mail: _____	Phone Number: _____
Agency: _____	
Address: _____	

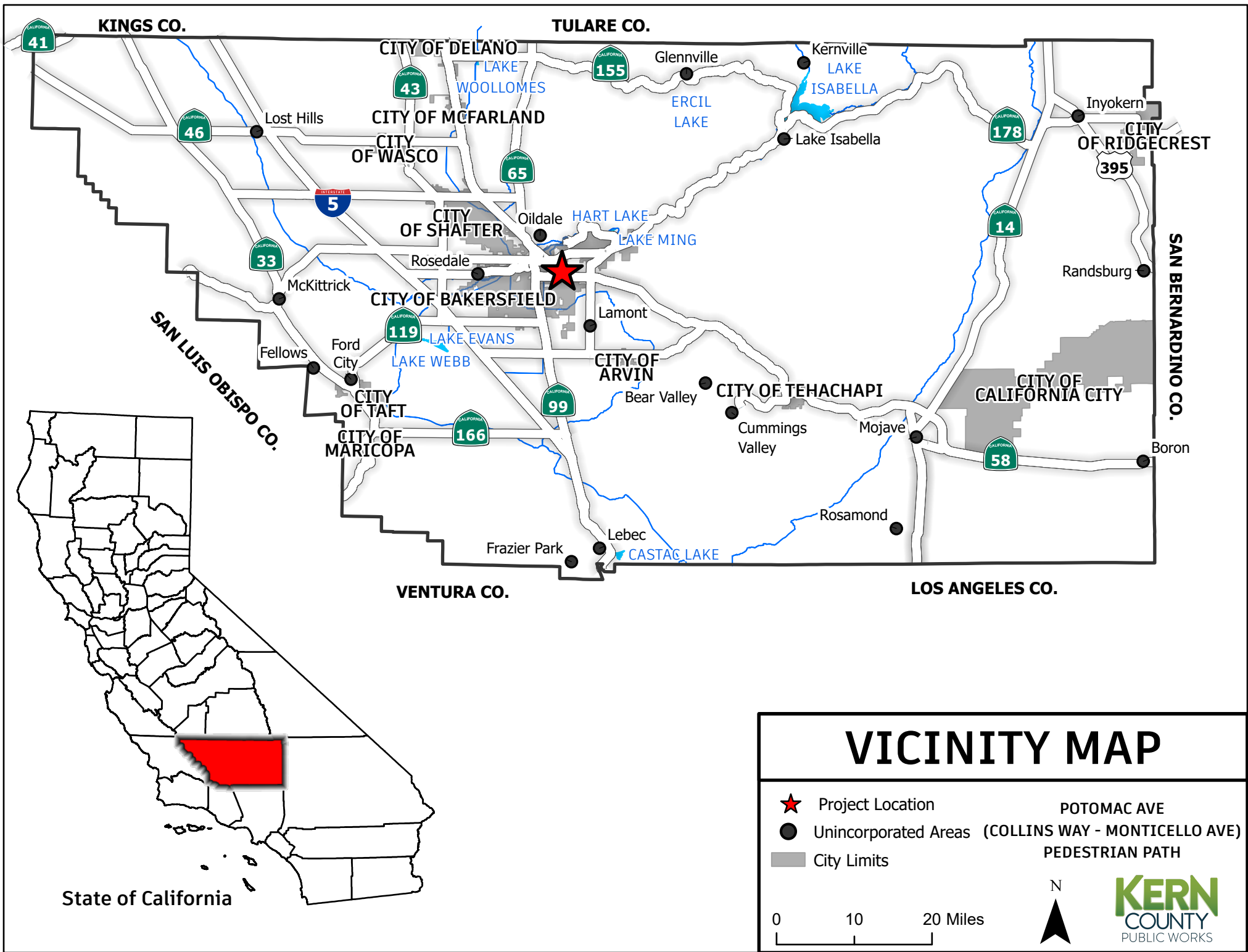
Send completed application electronically on a flash drive with transmittal letter on agency letterhead to:

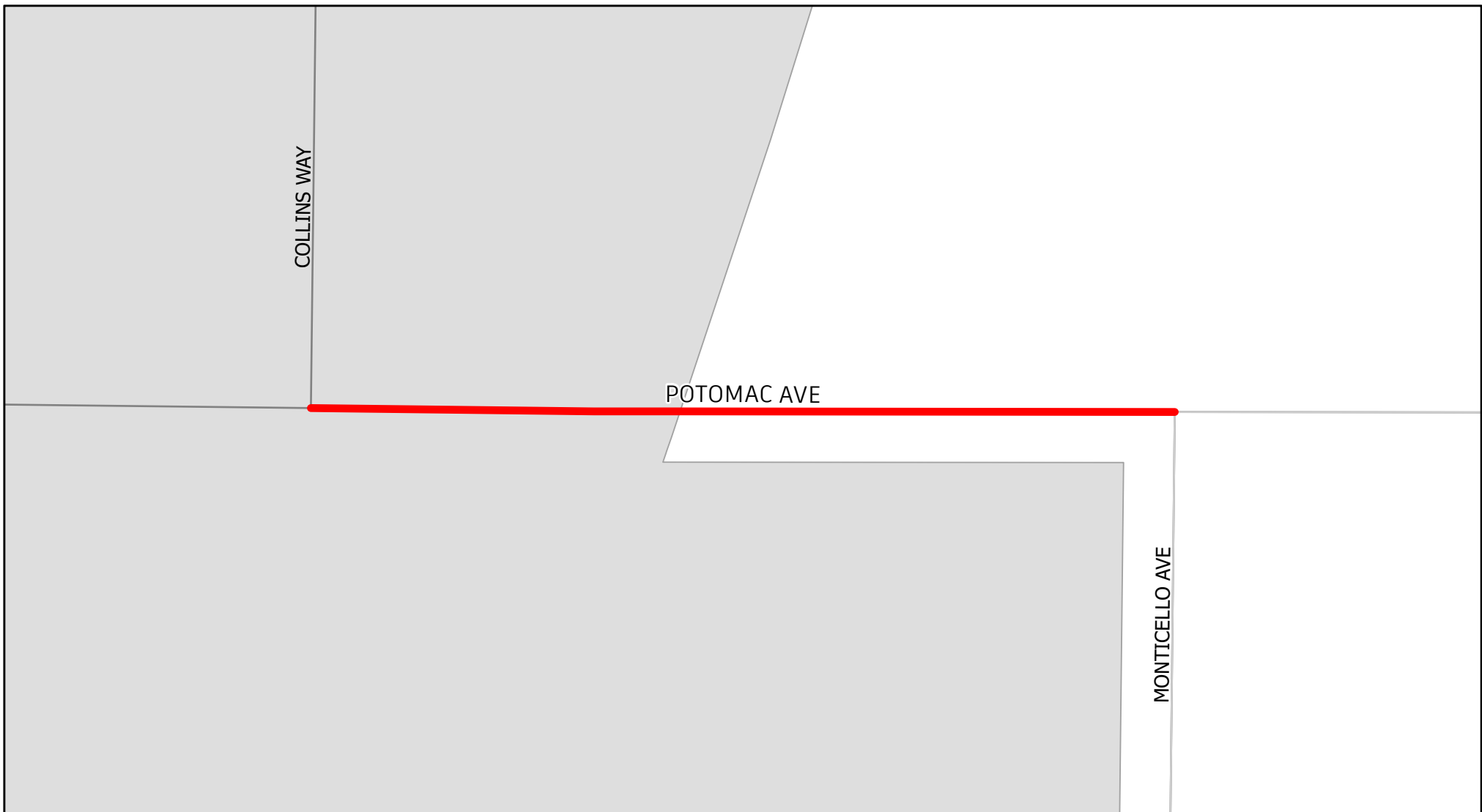
Attn: Ceasar Valle ❖ Kern Council of Governments, 1401 19th Street, Suite 300, Bakersfield, CA 93301

OR send Digitally via [Dropbox, click here.](#)



<div>DRAWN BY: WRK</div> <div>CHECKED BY: YA</div>	<div>KERN</div> <div>COUNTY</div> <div>PUBLIC WORKS</div>	<div>COUNTY OF KERN</div> <div>PUBLIC WORKS DEPARTMENT</div> <div>METRO BAKERSFIELD, CA</div>	<div>AERIAL MAP</div>
			<div>POTOMAC AVE</div> <div>COLLINS WAY - MONTICELLO AVE</div> <div>PEDESTRIAN PATH</div>








VICINITY MAP 2

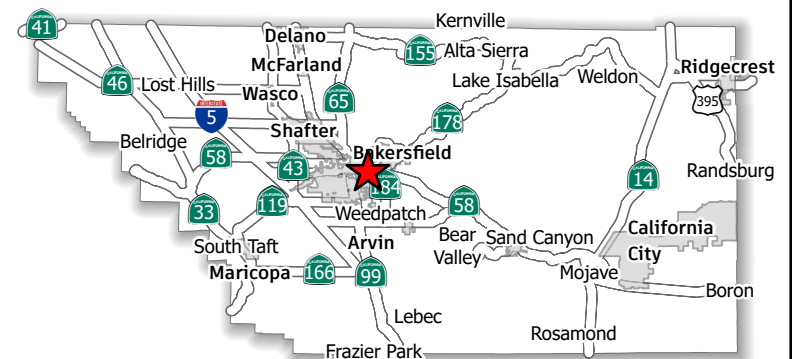
COUNTY OF KERN
DEPARTMENT OF PUBLIC WORKS

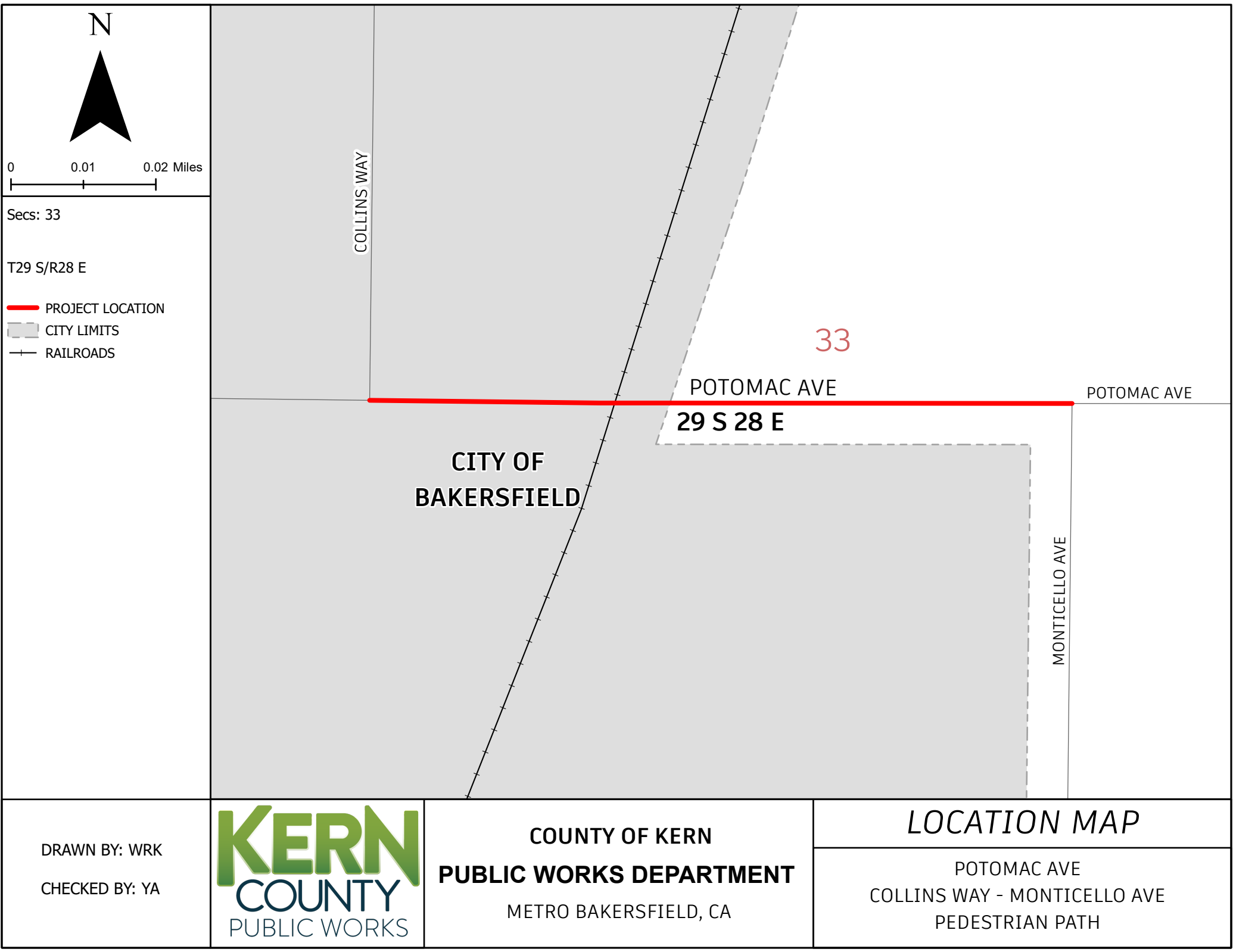
Legend

-  PROJECT LOCATION
-  CITY LIMITS

0 0.02 0.04
 Miles

Map by: Kilmerw
Printed: 6/19/2025





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COUNTY OF KERN
PUBLIC WORKS DEPARTMENT
METRO BAKERSFIELD, CA

LOCATION MAP

POTOMAC AVE
COLLINS WAY - MONTICELLO AVE
PEDESTRIAN PATH



PROJECT BACKGROUND

1. Justitification
2. Livability
3. Safety
 - A. Collision Maps
 - B. Collision Rates

CMAQ Pedestrian Pathway Project:
Potomac Avenue @ UPRR Crossing
(Metro Bakersfield)

Project Limits: Potomac Avenue (Collins Way to Monticello Avenue)

Project Description & Justification

Project Description

The proposed project will install pedestrian path improvements on Potomac Avenue at the Union Pacific Railroad Crossing, particularly from Collins Way to Monticello Avenue. Length of sidewalk to be installed consists of approximately 0.07 miles. The proposed project consists of the construction of ADA-compliant sidewalk at an at-grade railroad crossing including handrails (pedestrian channelization), guardrails, tactile strips, signage and pavement markings, and fencing to keep pedestrians away from roadway, and to ensure vehicles do not enter in the railroad right-of-way or onto new pedestrian facilities. The project will include the installation of ancillary facilities necessary for the proper construction and operation of these facilities according to the County of Kern, Caltrans, and Americans with Disabilities Act (ADA) design standards.

Project Justification

The proposed project is located in an unincorporated portion of Bakersfield (in CES4.0, denoted as Census Tracts 22.00 and 23.02 but as of 2025 they are census tracts 22.02 and 23.02 respectively). It is located in one of the most socioeconomically and environmentally disadvantaged communities in the state: 22.02 is in the 99th percentile of overall scores based on CalEnviroscreen 4.0 (see attached Disadvantaged Community Map) and 23.02 is at the 90th percentile. ADA-compliant sidewalk installation will improve the quality of life for residents in this neighborhood and the surrounding areas by providing pedestrians with a safer and more reliable route to and from their homes. Pedestrian facilities can replace vehicle trips by providing or improving pedestrian access. They reduce emissions when vehicle trips are replaced by walking. Installing pedestrian path improvements will increase and enhance the number of modes accommodated on the existing asset by creating a safer and more accessible road for pedestrians, seniors, and disabled individuals. The project features fencing that will provide a barrier between pedestrians and the open street, promoting safety and mindfulness as they traverse the pedestrian path.

The San Joaquin Valley's Air Pollution Control District (Valley Air District) is currently in non-attainment for PM₁₀ under state clean air guidelines. The SJVAPCD has a maintenance plan for particulate matter smaller than 10 microns (PM₁₀). Prolonged exposure to PM₁₀ is linked to premature death, respiratory and cardiovascular diseases, lost workdays, school absences, and reduced activity, all of which translate into increased health costs. Attainment of California's emission standards would prevent 8,600 premature deaths annually statewide, per the [California Air Resources Board](#).



Potomac Avenue@UPRR Crossing, Kern County

Livability and Safety

1. Will enhance or reduce the average cost of user mobility through the creation of more convenient transportation options for travelers?

Yes, sidewalk construction and ADA pedestrian path improvements will reduce the average cost of user mobility by creating more convenient routes for residents to travel. Construction of the proposed project will more easily connect pedestrians from the residences along these streets to collector and arterial roads nearby, reducing travel delay and related costs. Pedestrian path improvements on the railroad crossing will provide an at-grade barrier between pedestrians and the crossing, allowing for safer walking and promoting mindfulness as pedestrians cross. The crossing currently has no formal walkway or paved shoulder, meaning that pedestrians are exposed to the open train tracks. Adding these improvements will reduce average costs because residents will be better able to walk around, not needing to drive, thus reducing fuel costs (and thereby emissions).

2. Will improve existing transportation choices by enhancing points of modal connectivity, increasing the number of modes accommodated on existing assets, or reducing congestion on existing modal assets?

Yes, this project will increase the number of modes accommodated on the roadway and will enhance modal connectivity by improving roadway access. The crossing and surrounding road has significant sidewalk gaps, deterring many travelers from walking or biking. Project improvements will be designed to ADA standards and will increase pedestrian and bicyclist access and connectivity.

3. Will improve travel between residential areas and commercial centers and jobs?

Yes, the project is located in a residential area and is about half a mile away from commercial centers on East California Avenue. Increased safety and protections for non-drivers at the railroad crossing will improve travel for both commuters and consumers desirous of alternatives to vehicle travel. Schools, religious facilities, industrial job centers, retail centers, and more in east Bakersfield will all be easier and safer to reach with the pedestrian path improvements this project provides, along with connectivity to the area's major roads for non-motorized travel.

4. Will improve accessibility and transportation services for economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities, or make goods, commodities, and services more readily available to these groups. The two Safety benefits are:

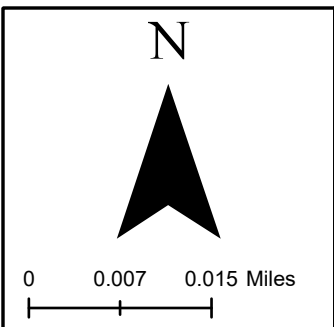
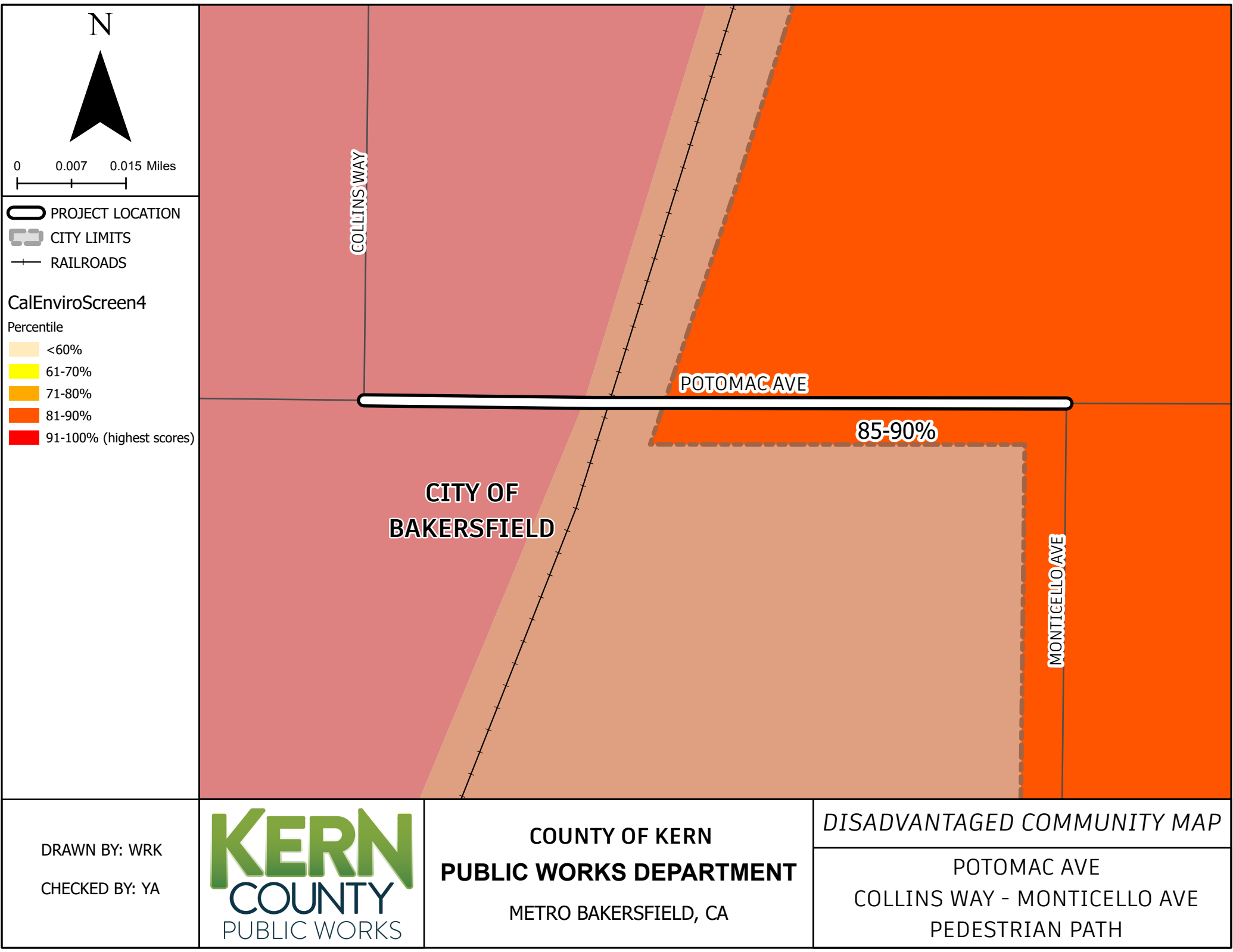
Yes, the proposed project will directly increase accessibility to non-drivers, senior citizens, and persons with disabilities by installing facilities that meet the most recent Americans with Disabilities Act (ADA) construction standards. The proposed project is located in one of the most socioeconomically and environmentally disadvantaged communities in the state: 22.02 is in the 99th percentile of overall scores based on CES 4.0 and 23.02 is at the 90th percentile. Project improvements will directly serve this disadvantaged population. Roadway shoulders and sidewalks give space for pedestrians and bicyclists to safely travel. They improve safety and accessibility for both non-drivers and motorists by providing a larger buffer zone between the two and increasing driver visibility. They also make goods and services more readily available to the above groups by improving roadway safety and accessibility.

5. Is the existing Accident Rate higher than the average rate for a similar facility, and does the project reduce the Accident Rate to the average rate or lower? Yes or No and if yes, provide rates and supporting documentation:

No, the existing Collision/Accident Rate is not higher than the statewide average rate. The After Collision/Accident Rate will be equal to or less than the statewide average rate (See Collision Map).

6. Is the existing Fatality Rate higher than the average rate for a similar facility, and does the project reduce the Fatality Rate to the average rate or lower? Yes or No and if yes, provide rates and supporting documentation.

No, the existing fatality rate is not higher than the state average. The project will help keep the fatality rate 0.00, or less than or equal to the state average rate. (See Collision Map).



PROJECT LOCATION

CITY LIMITS

RAILROADS

CalEnviroScreen4
Percentile

- <60%
- 61-70%
- 71-80%
- 81-90%
- 91-100% (highest scores)

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KERN
COUNTY
PUBLIC WORKS

COUNTY OF KERN

PUBLIC WORKS DEPARTMENT

METRO BAKERSFIELD, CA

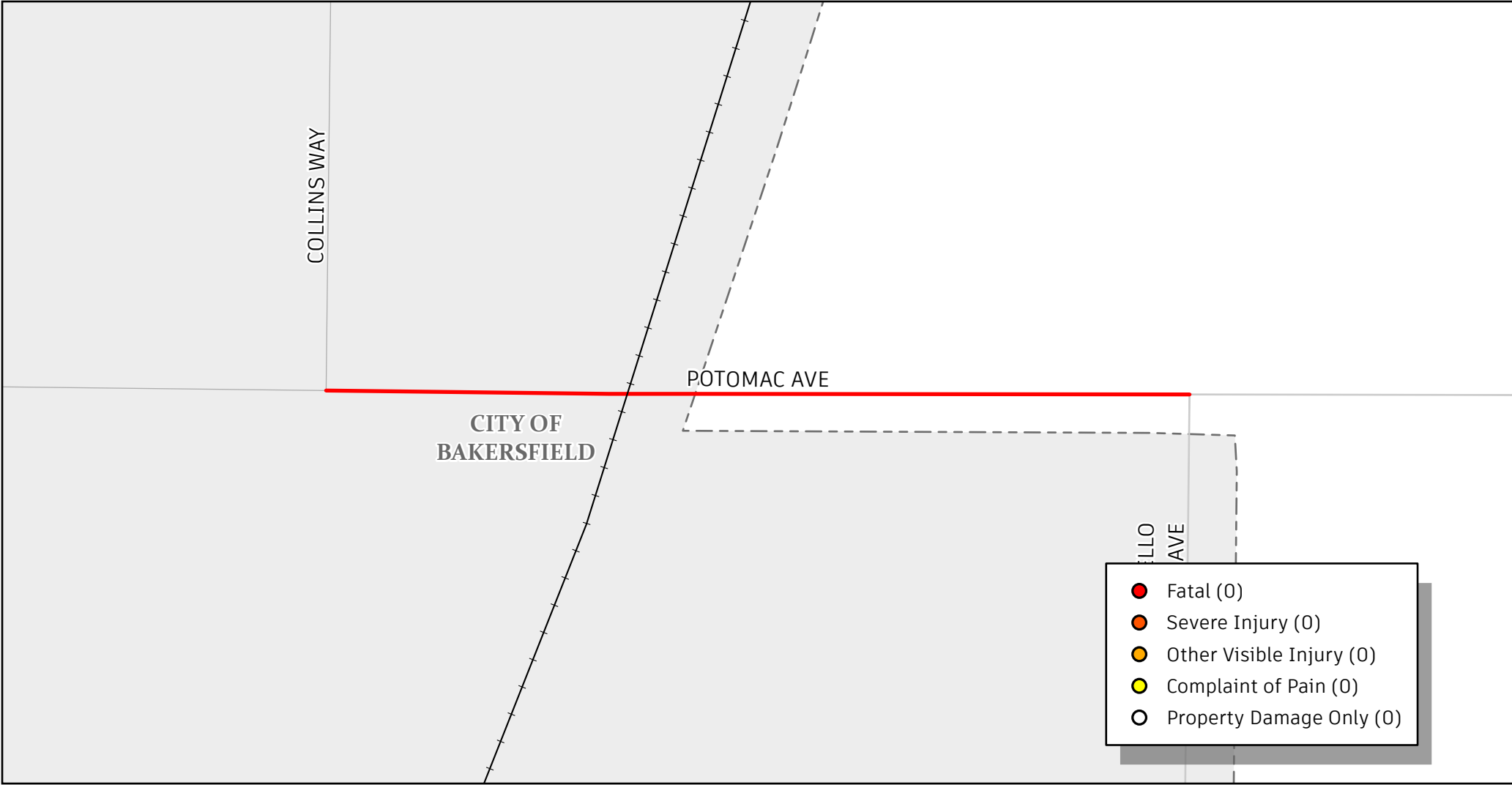
DISADVANTAGED COMMUNITY MAP

POTOMAC AVE
COLLINS WAY - MONTICELLO AVE
PEDESTRIAN PATH

TRAFFIC COLLISION MAP
POTOMAC AVE (COLLINS WAY - MONTICELLO AVE)

JANUARY 2022 - DECEMBER 2024

LOCATION: METRO BAKERSFIELD



PROJECT LOCATION
 CITY LIMITS
 RAILROAD

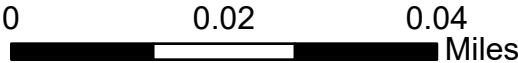
Collision Data Source:
California Highway Patrol (CHP), 2024
California State Transportation Agency (CalSTA) Department of Transportation, 2020
Collision Data on California State Highways (road miles, travel, collisions, collision rates). 2022
Federal Highway Administration (FHWA) U.S. Department of Transportation, (2010)
Roadway Safety Information Analysis: A Manual for Local Rural Road Owners. 2023

Total Collisions: 0
Fatalities: 0
Injuries: 0

Collision Rate (c/mve)
Statewide Average: 1.07
Before Rate: 0.0
After Rate: 0.0
Fatality Rate (c/mve)
Statewide Average: 0.012
Before Rate: 0.0
After Rate: 0.0

Collision Rate=
$$\frac{(\text{Number of Collisions} \times 1 \text{ Million})}{(\text{ADT} \times 365 \text{ Days Per Year} \times \text{Segment Length} \times \text{Number of Years})}$$

C/MVE: Collisions per mile vehicles entering intersection
ADT: Average Daily Traffic Volume





EMISSIONS BENEFIT & COST EFFECTIVENESS

CMAQ Pedestrian Pathway Project:

Potomac Avenue @ UPRR Crossing

(Metro Bakersfield)

Project Limits: Potomac Avenue (Collins Way to Monticello Avenue)

Project Description

Bakersfield: Potomac Avenue (Collins Way to Monticello Avenue); construct ADA compliant sidewalk with ancillary ped path facilities at at-grade railroad crossing.

Inputs to Calculate Cost-Effectiveness:

Total Project Cost	1,896,014	
CMAQ Dollars	1,678,541	
Effectiveness Period (Life):	20 yrs	
Days of Use/year (D):	365 days	
Length (L) of Curb and Gutter:	0.071 mile	Centerline miles
Annual Average Daily Traffic (ADT):	3919 vpd	

Emissions Factors (g/vehicle mile from the SJV Amended 2003 PM-10 Plan & SJV Air District):

	Before Emission Factor	After Emission Factor	
PM10 Factor	907.18	1.58	← 1.58 for paved local roads 4.54 for rural local roads

Annual Emission Reductions (PM10 in pounds/year)

Daily PM10 Reductions (kg/day)	=	0.20
Annual Emission Reductions (lbs/yr)	=	160.6

Capital Recovery Factor (CRF)

$$= \frac{(1+i)^n \times i}{(1+i)^n - 1} \quad \text{where } i = \text{Discount Rate (3\%)} \text{ and } n = \text{Project Life (20 years)}$$

So, the capital recovery factor = 0.07

Cost - Effectiveness of Funding Dollars

$$= (\text{CRF} \times \text{Funding}) / (\text{Annual PM10 Reductions})$$

$$= 731.5$$

Thus,

$$\text{Calculated Cost - Effectiveness} = 731.50$$

Potomac Ave - Bakersfield

Annual Automobile VMT Reduced =

$$(D) * (ADT) * (A+C) * (L)$$

Where,

D = days of use per year (default is 200 days)

ADT = annual average two-way daily vehicular traffic on parallel road (project-specific data, with a maximum of 30,000)

A = adjustment factor (table lookup value)

C = activity center credit (table lookup value)

L = walking trip length (1.0 miles/trip in one direction)

Potomac Ave Annual VMT Reduction:

$$(365) * (3919) * (0.0019+0.0015) * (0.071) \approx 345.3$$



LEVEL OF SERVICE

CMAQ Pedestrian Pathway Project:

Potomac Avenue @ UPRR Crossing

(Metro Bakersfield)

Project Limits: Potomac Avenue (Collins Way to Monticello Avenue)

Potomac Ave@UPRR Crossing Ped Path - Before Level of Service
BLOS and PLOS for the following road segment

Lanes per direction:	1
Outside lane width:	12 ft
Paved shoulder/bike lane/marked parking width:	0 ft
Bidirectional ADT traffic volume:	3919 (veh/day)
Posted speed limit:	25 mph
Heavy vehicle percentage:	2%
FHWA's pavement condition rating:	2
% of segment with occupied parking:	0%
% of segment with sidewalks:	22%
Sidewalk width:	5 ft
Sidewalk buffer/parkway width:	0 ft

	Score	Level-of-service	Compatibility Level
BLOS:	4.55	E (4.51-5.50)	Very Low
PLOS:	3.42	C (2.51-3.50)	Moderately High

Potomac Ave@UPRR Crossing Ped Path - After Level of Service
BLOS and PLOS for the following road segment

Lanes per direction:	1
Outside lane width:	12 ft
Paved shoulder/bike lane/marked parking width:	0 ft
Bidirectional ADT traffic volume:	3919 (veh/day)
Posted speed limit:	25 mph
Heavy vehicle percentage:	2%
FHWA's pavement condition rating:	2
% of segment with occupied parking:	0%
% of segment with sidewalks:	100%
Sidewalk width:	5 ft
Sidewalk buffer/parkway width:	0 ft

	Score	Level-of-service	Compatibility Level
BLOS:	4.55	E (4.51-5.50)	Very Low
PLOS:	2.4	B (1.51-2.50)	Very High