



**CMAQ APPLICATION:
Surfacing Unpaved Surfaces Project**

**Niles Street
(Lynwood Steet to Morning Drive)**



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.](#)

N



0 0.05 0.1 Miles

29 S 28 E; 29 S 29 E

Secs: 25, 30

 PROJECT LOCATION

 HIGHWAYS

 CITY LIMITS

 SCHOOL



DRAWN BY: WRK

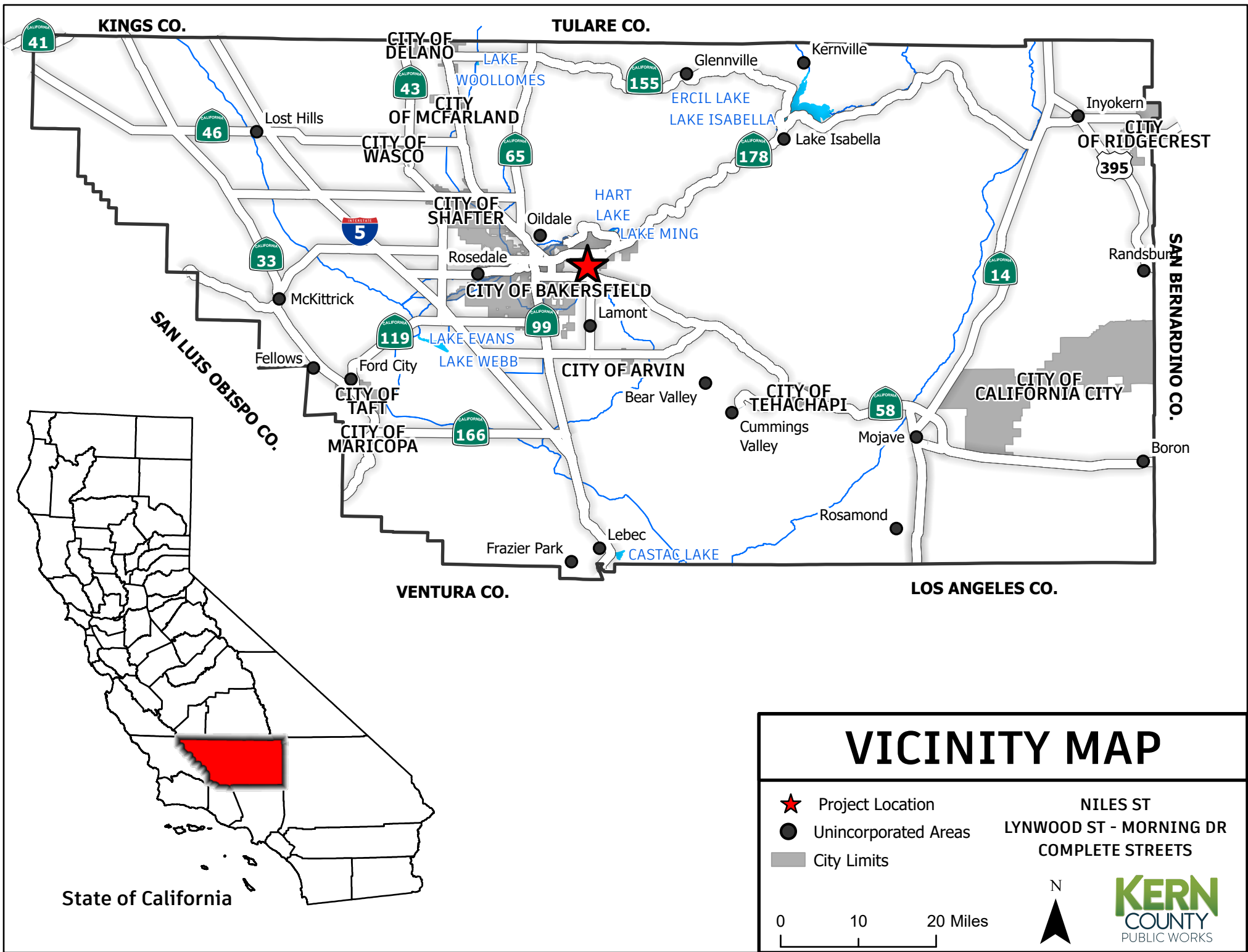
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KERN
COUNTY
PUBLIC WORKS

COUNTY OF KERN
PUBLIC WORKS DEPARTMENT
METRO BAKERSFIELD, CA

AERIAL MAP

NILES ST
LYNWOOD ST - MORNING DR
COMPLETE STREETS





DRAWN BY: WRK
CHECKED BY: YA



COUNTY OF KERN
PUBLIC WORKS DEPARTMENT
METRO BAKERSFIELD, CA

LOCATION MAP
NILES ST
LYNWOOD ST - MORNING DR
COMPLETE STREETS



PROJECT BACKGROUND

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

Project Description & Justification

Project Description

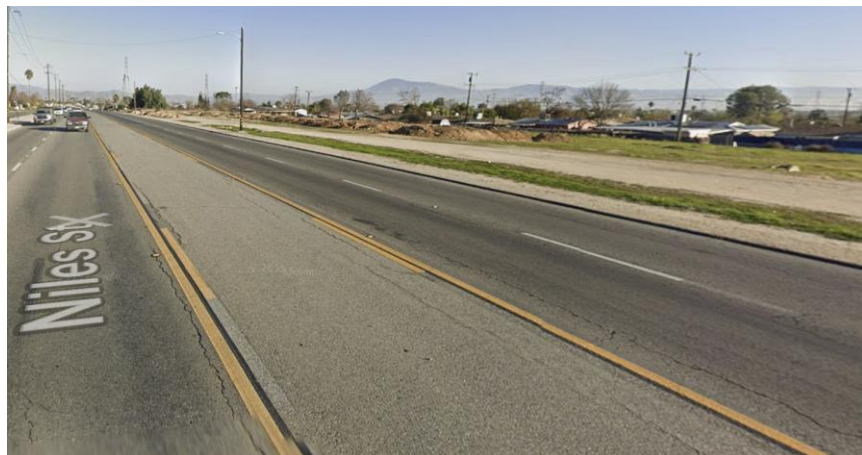
The portion of Niles Street, between the project limits of Lynwood Street and Morning Drive, is located within the unincorporated Metropolitan Bakersfield area. The proposed project will construct improvements which include surfacing unpaved shoulders, curb, gutter, and sidewalk along the south side of Niles Street beginning at Lynwood Street and ending at Morning Drive (see attached location map), totaling an approximate 0.48-miles in length. All work will be completed according to Kern County, California Department of Transportation (Caltrans), and Americans with Disabilities Act (ADA) design standards.

Project Justification

The community immediately within the proposed project vicinity area is located within various disadvantaged communities ranging from the 45th – 50th and 75th – 80th percentiles of environmentally and economically disadvantaged communities in California based on the Cal Enviroscreen 4.0 website (see Disadvantaged Communities Map). The proposed improvements will significantly improve the quality of life for residents in these communities.

The purpose of surfacing an unpaved dirt shoulder is to help decrease Particulate Matter (PM) in compliance with the Kern Council of Government's Sustainable Community Strategy. Traveling along roads with dirt shoulders result in greater particulate matter (PM₁₀) emissions than complete paved neighborhood streets. PM₁₀ has been linked to premature death, respiratory and cardiovascular disease, lost workdays, school absences and reduced activity, all of which translates into increased health costs. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is currently in **non-attainment** for PM₁₀ under state and federal clean air guidelines. The anticipated reduction in emissions will help the San Joaquin Valley Air Pollution Control District meet its air quality goals. The anticipated reduction in emissions from this project totals over 3,432 pounds of PM₁₀ per year locally in Kern County.

Installation of paved shoulders will reduce the amount of dust particulate matter created when vehicles park along dirt shoulders and installing curb, gutter, and sidewalk will increase and enhance the number of modes accommodated on this facility by creating an even and accessible road for pedestrians, seniors, students, and persons with disabilities. In addition to the proposed sidewalks providing a safe mode of travel for pedestrians, the placement of gutters will provide a place for rainwater to drain where it will not conflict with pedestrians or other motor vehicle traffic.



Niles Street



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, the project will reduce the average cost of user mobility by reducing the maintenance and fuel costs and will create a new, more convenient route for residents in this area to travel within their community. The surfacing of unpaved surfaces and dirt shoulders, in addition to the construction of sidewalks will allow for easier connections for pedestrians and cyclists from their homes to schools, markets, and public amenities and facilities in the area. Paving the dirt shoulders and constructing curb and gutter will mitigate mud during the rainy/wet seasons within Kern County, which creates difficulty for residents who do not own a vehicle to traverse and travel safely. The surfacing of unpaved shoulders will reduce the airborne dust caused by vehicle traffic during dry seasons.

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. Currently, the road has sections of unpaved dirt shoulders, deterring many travelers from walking or biking on it. Residents must make the choice to either walk in the street, on the dirt shoulders, or attempt to cross Niles Street to the sections which have curb, gutter, and sidewalk. The paving of these dirt shoulders will be designed to be compliant with the Americans with Disabilities Act (ADA) standards and will increase active forms of transportation, walkability, and bike access on existing modal assets. Lastly, the installation of the proposed paving of the unpaved dirt shoulder areas along Niles Street, will further enhance, accommodate, and provide a safer mobility option along this major thoroughfare.

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

Yes, providing improvements along Niles Street will improve user mobility between neighborhood residents and commercial centers and jobs in both the incorporated and unincorporated areas of Metropolitan Bakersfield. Niles Street, from Lynwood Street to Morning Drive (Project Limits) provides access to various local roads that provide access to residential properties, religious places of worship, businesses, commercial shopping centers, and schools. The proposed project will allow pedestrians to safely travel between residential areas and commercial centers along Niles Street, resulting in safer, cleaner, faster, and more accessible trips.

4. Will improve accessibility and transportation services for economically disadvantaged populations, nondrivers, senior citizens, & 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 location is within Census Tracts No. 9.07 and No. 11.01, which are also located within the 45th – 50th and 75th – 80th percentiles of environmentally and economically disadvantaged communities in California based on the Cal Enviroscreen 4.0 website (see Disadvantaged Communities Map). Improved road access and pedestrian safety will allow goods, commodities, and services to be more readily available.

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.

Yes, the existing Accident Rate is higher than the statewide average.

No, the project will not reduce the Accident Rate to the statewide average, however, it does reduce the existing Accident Rate (see attached Traffic Collision Map).

Livability and Safety

- 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.**

Yes, the existing Fatality Rate is higher than the existing statewide average rate.

No, the project will not reduce the Fatality Rate to the statewide average, however, the project will reduce the existing Fatality Rate to a lower rate (see attached Traffic Collision Map).

N



0 0.05 0.1 Miles

 PROJECT LOCATION






 HIGHWAY

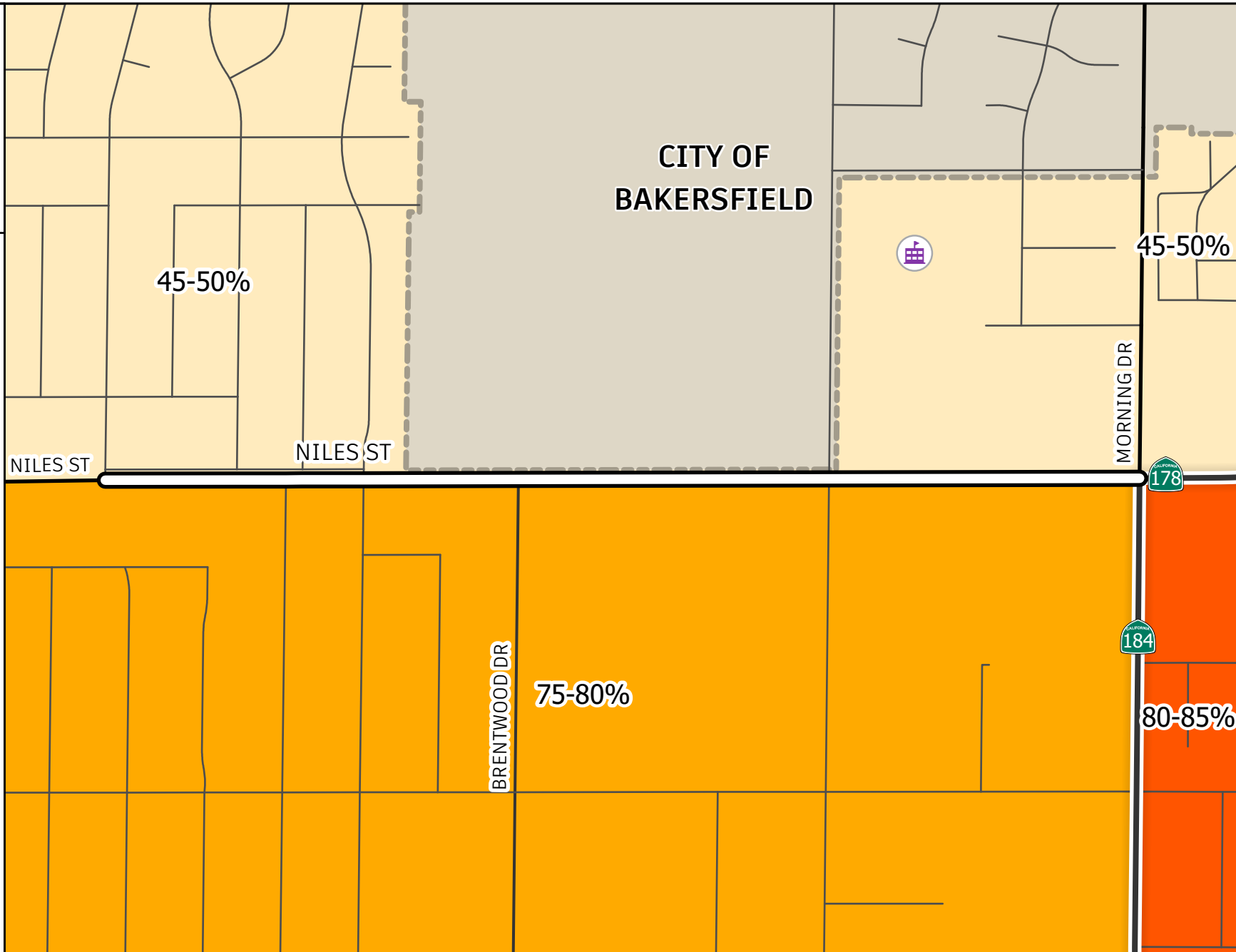
 CITY LIMITS

 SCHOOL

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

NILES ST
LYNWOOD ST - MORNING DR
COMPLETE STREETS

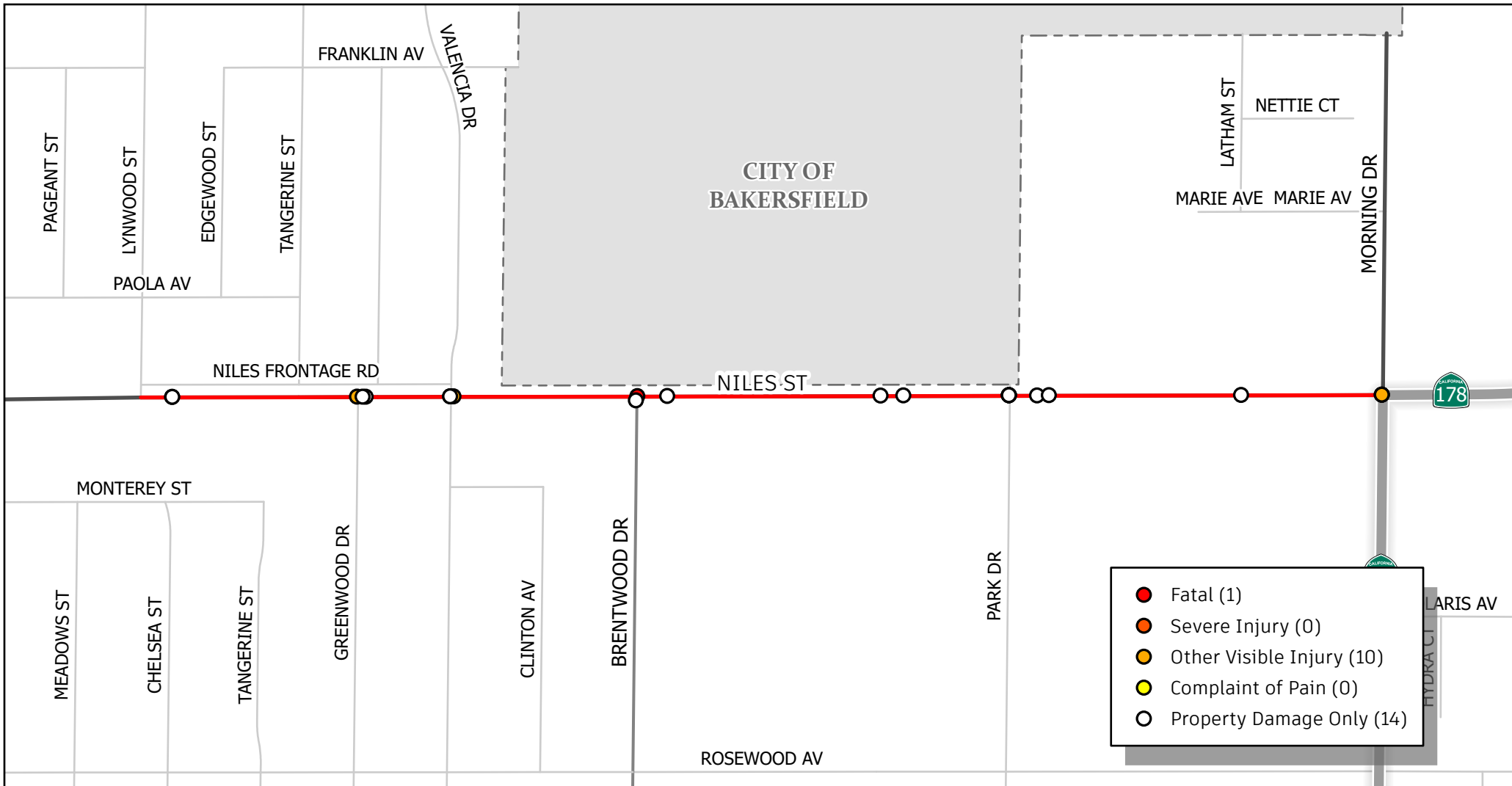


TRAFFIC COLLISION MAP

NILES ST (LYNWOOD ST - MORNING DR)

JANUARY 2022 - DECEMBER 2024

LOCATION: METRO BAKERSFIELD



— PROJECT LOCATION
--- CITY LIMITS

Total Collisions: 25
Fatalities: 1
Injuries: 10

Collision Rate (c/mve)

Statewide Average: 0.66
Before Rate: 2.25
After Rate: 1.37

Fatality Rate (c/mve)

Statewide Average: 0.009
Before Rate: 0.09
After Rate: 0.054

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

C/MVE: Collisions per mile vehicles
entering intersection

ADT: Average Daily Traffic Volume

0 0.1 0.2
Miles



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



EMISSIONS BENEFIT & COST EFFECTIVENESS

Project Description

The portion of Niles Street, between the project limits of Lynwood Street and Morning Drive, is located within the unincorporated Metropolitan Bakersfield area. The proposed project will construct improvements which include surfacing unpaved shoulders, curb, gutter, and sidewalk along the south side of Niles Street beginning at Lynwood Street and ending at Morning Drive (see attached location map), totaling an approximate 0.51-miles in length. All work will be completed according to Kern County, California Department of Transportation (Caltrans), and Americans with Disabilities Act (ADA) design standards.

Inputs to Calculate Cost-Effectiveness:

Total Project Cost	1,156,273	
CMAQ Dollars	1,023,649	
Effectiveness Period (Life):	20 yrs	
Days of Use/year (D):	365 days	
Length (L) of Curb and Gutter:	0.487 mile	Centerline miles
Annual Average Daily Traffic (ADT):	12208	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)	=	4.27
Annual Emission Reductions (lbs/yr)	=	3432.1

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

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

$$= 20.878$$

Thus,

$$\text{Calculated Cost - Effectiveness} = 20.88$$



LEVEL OF SERVICE



Niles Street (Lynwood Street - Morning Drive)

Vicinity Before Level of Service

BLOS and PLOS for the following road segment

Lanes per direction:	2
Outside lane width:	12 ft
Paved shoulder/bike lane/marked parking width:	0 ft
Bidirectional ADT traffic volume:	12208 (veh/day)
Posted speed limit:	45 mph
Heavy vehicle percentage:	3%
FHWA's pavement condition rating:	4
% of segment with occupied parking:	0%
% of segment with sidewalks:	40%
Sidewalk width:	5 ft
Sidewalk buffer/parkway width:	10 ft

	Score	Level-of-service	Compatibility Level
BLOS:	4.2	D (3.51-4.50)	Moderately Low
PLOS:	3.87	D (3.51-4.50)	Moderately Low

Niles Street (Lynwood Street - Morning Drive)

Vicinity After Level of Service

BLOS and PLOS for the following road segment

Lanes per direction:	2
Outside lane width:	12 ft
Paved shoulder/bike lane/marked parking width:	0 ft
Bidirectional ADT traffic volume:	12208 (veh/day)
Posted speed limit:	45 mph
Heavy vehicle percentage:	3%
FHWA's pavement condition rating:	4
% of segment with occupied parking:	0%
% of segment with sidewalks:	100%
Sidewalk width:	5 ft
Sidewalk buffer/parkway width:	10 ft

	Score	Level-of-service	Compatibility Level
BLOS:	4.2	D (3.51-4.50)	Moderately Low
PLOS:	2.91	C (2.51-3.50)	Moderately High

**Niles Street
(Lynwood Street to Morning
Drive)**

Annual Automobile VMT Reduced =

Where,

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

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)

Niles Street Annual VMT Reduction:

$$(365) * (12208) * (0.0019 + 0.0015) * (.48) =$$

7272.06

Automobile VMT Reduction Calculations

CARB's current method estimates the annual VMT reductions from new pedestrian facilities using Equation 1 (CARB, 2016 [B-1], 2018 [26], 2019 [16]):

Equation 1: Auto VMT Reductions (current method)

$$\text{Auto VMT Reduced} = (D) * (ADT) * (A + C) * (L)$$

Where,

		Units
D	= days of use per year (default is 200 days)	Days
ADT	= annual average two-way daily vehicular traffic on parallel road (project-specific data, with a maximum of 30,000)	Trips/day
A	= adjustment factor (table lookup value)	-
C	= activity center credit (table lookup value)	-
L	= walking trip length (1.0 miles/trip in one direction)	Miles/trip

The adjustment factor and activity center credit tables from CARB's 2016 report are replicated below in Tables 1 and 2. The multi-component adjustment factor uses mode share and facility-level bicycle ridership change data¹ and assumptions to estimate how much of the measured ADT would be converted to walking trips after pedestrian facility

Table 1. Adjustment Factor (A) Lookup Table

Average Daily Traffic (ADT)	Pedestrian Project Length (one-direction)	A (for cities with population >250,000 and non-university towns <250,000)	A (for university towns with population <250,000)
ADT ≤12,000 vehicles per day	≤1 mile	.0019	.0104
	>1 mile & ≤2 miles	.0029	.0155
	>2 miles	.0038	.0207
12,000<ADT ≤24,000 vehicles per day	≤1 mile	.0014	.0073
	>1 mile & ≤2 miles	.0020	.0109
	>2 miles	.0027	.0145
24,000<ADT≤30,000 vehicles per day (max is 30,000)	≤1 mile	.0010	.0052
	>1 mile & ≤2 miles	.0014	.0078
	>2 miles	.0019	.0104

Table 2. Activity Center Credit (C) Lookup Table

Count Your Activity Centers if There Are...	Within ½ Mile of the Project Area	Within ¼ Mile of the project Area
3	.0005	.001
>3 & <7	.0010	.002
≥7	.0015	.003

The adjustment factors in Table 1 "were derived from a limited set of bicycle commute mode split data for cities and university towns in the southern and western United States,"² then multiplied by 0.7³ to "estimate potential auto travel diverted to bikes" (same factor assumed for auto-walking substitution) and again by a 0.65 "growth factor" to "estimate the growth in bicycle trips from construction of the bike facility"⁴ (same