

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.](#)

KERN COUNCIL OF GOVERNMENTS
Congestion Mitigation and Air Quality (CMAQ) Program
PROJECT APPLICATION INSTRUCTIONS
PROJECT # 3: Attachment 1 Item # 3 – BACKGROUND and JUSTIFICATION

PROJECT BACKGROUND AND JUSTIFICATION

Category: Category 4 - Discretionary Projects (PM10 Reduction)

Project Name/Location: Shoulder Improvements: Pave Unpaved Shoulders of Garces Highway between Melcher Road and Casey Avenue

Priority #: 1

Program Year: 2026-2027

Local Agency: City of Delano

MPO: Kern Council of Governments

Project Description: Shoulder Improvements on Garces Highway – The project will provide funding for the City of Delano to pave shoulders of Garces Highway on both sides of the road between Melcher Road and Casey Avenue in order to reduce the generation of PM10 or mitigate dust. This project includes the section of Garces Highway towards the west from Melcher Road to the west city limits. It serves as a direct route to the commercial activity centers on Woollomes Avenue from the Delano west side of town. The total length of the project is 1.5 centerline miles.

This project consists, in general, of paving the shoulders of Garces Highway between Melcher Road and Casey Avenue, a distance of 1,5 miles on each side of the road. Garces Highway has an average daily traffic of 4060.

This project will help alleviate the PM-2.5 problem in the area. As vehicles travel on paved roads adjacent to unpaved shoulders, they kick up the dust in the shoulder area. Garces Highway is the outer street in the City limits, two lanes roadway with a high volume of traffic. Paving the shoulders of Garces Highway will move traffic farther away from the unpaved area thereby reducing if not eliminating dust that was kicking up in the air.

This project will also increase safety on the roadway. Paving the shoulders will give the added benefit of offering motorists a paved surface to more safely elude a potential accident situation by maintaining better control of their vehicle. Pave shoulders also offer an additional correction area for inattentive drivers thus reducing run off road type accidents.

Although paving shoulders does not reduce vehicle trips, reduce congestion or resolve system preservation issues, it offers many benefits to the traveling public. First and foremost being PM-2.5 mitigation. Paving the shoulders of well-travelled roadways was one of the most effective BACM's that the City of Delano committed to in the PM-2.5 air quality process. The second benefit is safety.



Garces Highway Between Melcher Road and Casey Avenue

KERN COUNCIL OF GOVERNMENTS
Congestion Mitigation and Air Quality (CMAQ) Program
PROJECT APPLICATION

PROJECT # 3: Attachment 2 for Item #15 – LIVABILITY and SAFETY

15. Describe whether and how the project provides the four *Livability* benefits:

Category: Category 4 - Discretionary Projects (PM10 Reduction)
Project Name/Location: Shoulder Improvements: Pave Unpaved Shoulders of Garces Highway between Melcher Road and Casey Avenue
Priority #: 1
Program Year: 2026-2027
Local Agency: City of Delano

Project Description: This project consists, in general, of paving the shoulders of Garces Highway between Melcher Road and Casey Avenue, a distance of 1.5 miles on each side of the road. Garces Highway has an average daily traffic of 4060.

1. This project will improve travel between residential areas and commercial centers and jobs. Residents from the Westside part of Delano travel about 1 mile to this road to get to the school and shopping center at Walmart and Home Depot. This project will help alleviate the PM- 2.5 problem in the area. As vehicles travel on paved roads adjacent to unpaved shoulders, they kick up the dust in the shoulder area. Garces Highway is a two-lane roadway with a high volume of traffic. Paving the shoulders of Garces Highway will move traffic farther away from the unpaved area thereby reducing if not eliminating dust that was kicking up in the air.
2. This project will also increase safety on the roadway. Paving the shoulders will give the added benefit of offering motorists a paved surface to more safely elude a potential accident situation by maintaining better control of their vehicle. Pave shoulders also offer an additional correction area for inattentive drivers thus reducing run off road type accidents.
3. Although paving shoulders does not reduce vehicle trips, congestion and resolve system preservation issues, it offers many benefits to the traveling public. First and foremost being PM-2.5 mitigation. Paving the shoulders of well-travelled roadways was one of the most effective BACM's that the City of Delano committed to in the PM-2.5 air quality process. Second is to improve accessibility of the travelled roadway by eliminating hazards on the road and shoulders.

Project Description

Shoulder Improvements on Garces Highway - Pave Unpaved Shoulders of Garces Highway between Hiatt Ave and Casey Avenue.

Inputs to Calculate Cost-Effectiveness:

Total Project Cost	491,143	
CMAQ Dollars	434,809	
Effectiveness Period (Life):	20 yrs	
Days of Use/year (D):	365 days	
Length (L) of Curb and Gutter:	1.5 mile	Centerline miles
Annual Average Daily Traffic (ADT):	4060 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	4.54	← 1.58 for paved local roads 4.54 for rural local roads

Annual Emission Reductions (PM10 in pounds/year)

Daily PM10 Reductions (kg/day)	=	12.58
Annual Emission Reductions (lbs/yr)	=	10101.8

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

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

$$= 3.013$$

Thus,

$$\text{Calculated Cost - Effectiveness} = 3.01$$