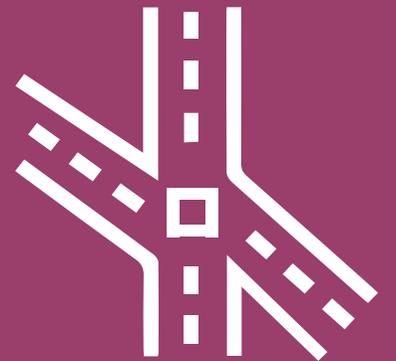


# CHAPTER 3 ROADWAY NETWORK



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### 3.1 - KEY ISSUES

Adams County has a well-connected roadway network that provides ties to the wider region while also providing both mobility and access within the County. As a major part of the Denver Front Range region, Adams County is home to a growing number of residents and employment hubs due to its relative affordability compared to the wider region and the amount of development potential. This chapter highlights the opportunities for both enhancing the existing roadway network and adding capacity where needed to serve future growth.

The existing conditions analysis that was conducted as part of *Advancing Adams* in **Appendix A** identified several key issues and opportunities for the existing roadway network:

1. Crash volumes on Adams County roadways have been consistently high in recent years, particularly in the southwest corner of the County where growth in traffic volumes has occurred.
2. There are a number of state-owned and managed highways that serve as key, high-capacity connections for travel with Adams County and for connections to the wider region. These highways include deficiencies that Adams County works to address (e.g., potholes and insufficient facilities for pedestrians and bicyclists), but the multi-jurisdictional nature of these roads presents challenges.

3. Adams County has a diverse mix of roadway infrastructure given the range of existing land uses, from urbanized areas with major arterials to rural areas with unpaved roads. More efficiently managing this range of facilities was identified as a key desired outcome of the transportation plan.

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### 3.2 - COMMUNITY INPUT AND FUTURE NEEDS

The Adams County community regularly cited transportation infrastructure as an area of concern during the *Advancing Adams* public outreach efforts. When asked to rank the biggest threats to quality of life in Adams County related to growth, respondents to the *Advancing Adams* Growth Scenario Survey indicated that traffic is the top significant threat and also cited “stress on public services/ infrastructure such as transportation” as a threat. When asked how much additional travel time respondents would be willing to incur to help achieve the County’s environmental, safety, and equity goals, the majority indicated they would not be willing to travel any additional time. This suggests that County residents value having a roadway system that provides adequate vehicular capacity and connectivity opportunities and that many community members plan to continue relying on vehicle travel for personal mobility.

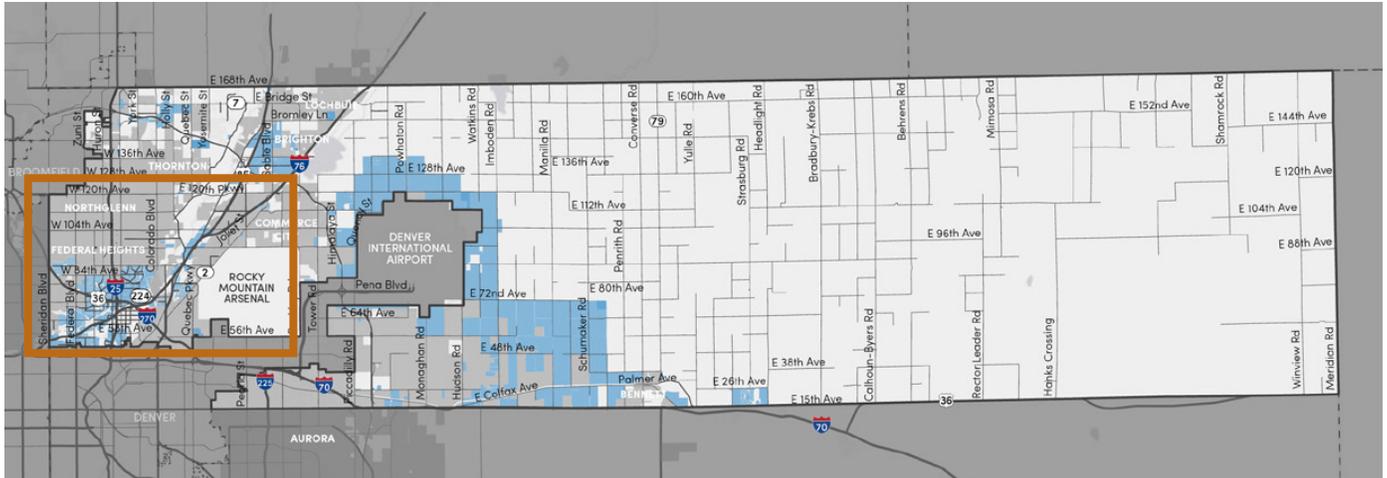


**Figure 3.1:** Aerial of Intersecting Roadways in Adams County (source: Design Workshop)

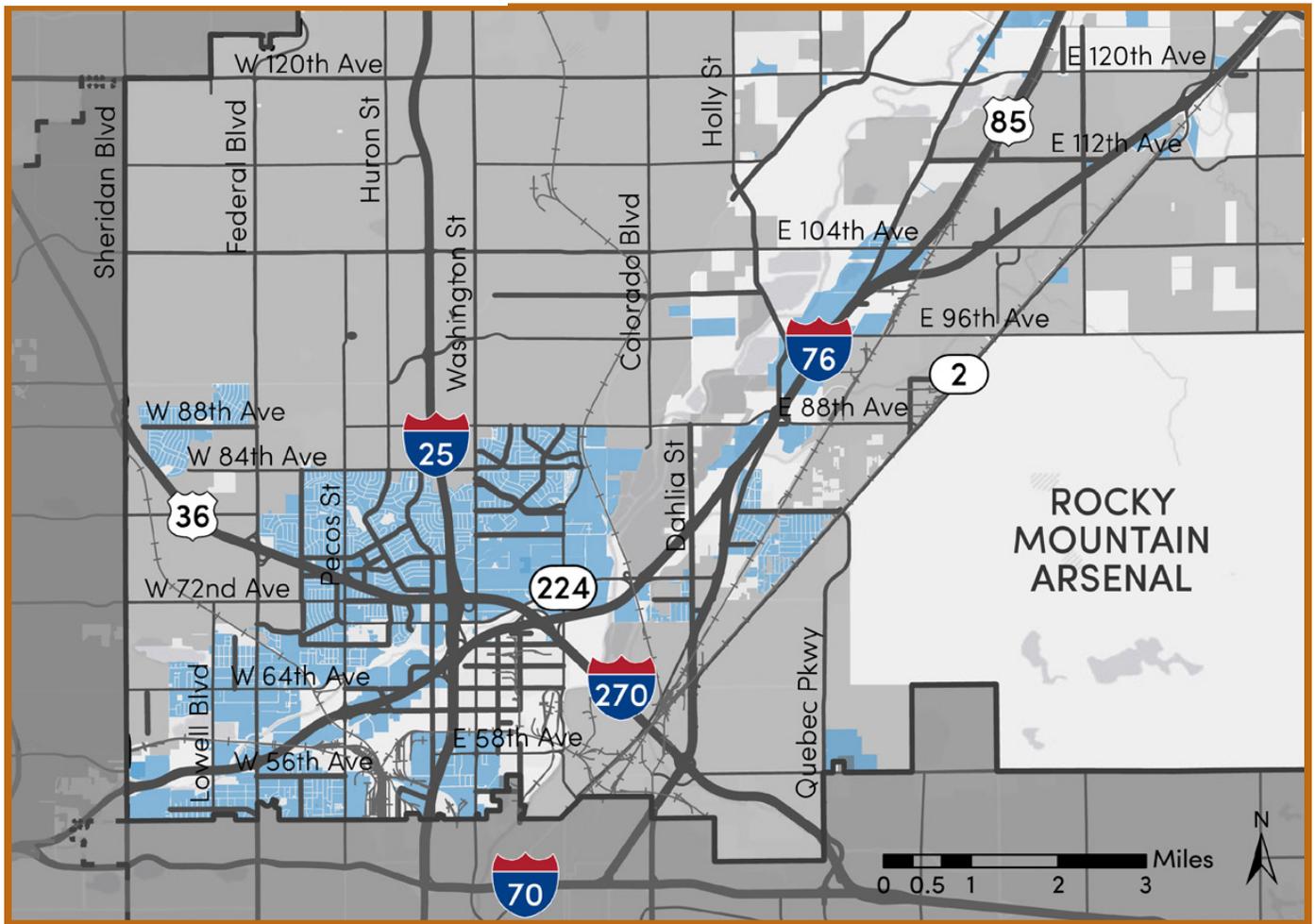
In addition, the *Advancing Adams* Comprehensive Plan identifies areas where future land uses will be modified from today. These changes may create a need to add roadway capacity that serves new development. Two updates to the County land use that will have implications for transportation demand are the increase in intensity of uses in certain portions of the County (e.g., changes in zoning from low to high density residential, or the addition of commercial land uses) as well as the addition of Town Centers, which will

be areas that promote a diversity of activity and support both residential and commercial land uses. Areas where new development will likely lead to increased travel demand are predominantly located in south central Adams County, just east of Denver International Airport (**Map 3.1**). This Transportation Master Plan considers the specific locations where additional roadway capacity will be needed in order to meet this demand.

**MAP 3.1: FUTURE LAND USES THAT WILL GENERATE ADDITIONAL TRANSPORTATION DEMAND**



-  Adams County Boundary
-  Incorporated Places Adams County
-  High Intensity Land Use





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## 3.3 - BIG IDEAS

As Adams County grows, there will be a need to reevaluate existing roadway standards and to begin aligning roadway cross sections with new travel patterns. In the interim, Adams County can accommodate growth by upgrading arterials in the eastern portion of the County, as noted in this plan. In areas that are already urbanized or are poised for growth in the short-term, the County should pursue road diets that will open opportunities for residents and visitors to travel by their preferred mode.

### 3.3.1 - ENSURE THE ROADWAY NETWORK KEEPS PACE WITH DEVELOPMENT

As discussed in the Comprehensive Plan, Adams County has the potential to add population and employment through development in the eastern portion of the County, particularly southeast of Denver International Airport. To serve this growth, *Advancing Adams* proposes new two-lane arterials traveling north-south in areas east of the airport. These corridors will serve as connections between new development and the I-70 corridor. In addition, it is recommended that gravel roads in areas of anticipated growth be upgraded to paved two-lane arterials. These recommendations are shown in **Map 3.3** at the conclusion of this chapter.

### 3.3.2 - EXPLORE OPPORTUNITIES FOR IMPLEMENTING ROAD DIETS

As noted in the operational analysis on the five strategic corridors in **Chapter 2**, there are corridors in Adams County where existing vehicle volumes do not result in congested conditions due to the ample right-of-way dedicated to vehicle throughput. Additionally, preliminary future travel demand forecasts on some corridors have shown that even with some growth in traffic volumes, there will be sufficient capacity to accommodate demand without leading to peak hour congestion. On these corridors, road diets should be considered in order to foster more opportunities for multimodal travel. Road diets are the reallocation of vehicle travel lanes to other uses such as enhanced bicycle or pedestrian facilities. Corridors serving the future Town Centers should be considered as top priority for road diet implementation to provide walk and bicycle friendly environments where connectivity and multimodal travel opportunities are elevated over vehicle throughput.

### 3.3.3 - ESTABLISHING IMPROVED PARTNERSHIPS FOR MANAGING STATE HIGHWAYS

In the case of multijurisdictional corridors like Federal Boulevard or 104th Avenue, Adams County can coordinate with local governments and CDOT to establish unified

maintenance protocols and to regularly reach consensus on how to meet the mobility needs of users on each corridor. This can be accomplished through a variety of mechanisms, ranging from informal working groups to formal intergovernmental agreements (IGAs).

### 3.3.4 - GRAVEL ROAD PAVING

As the County grows, it is anticipated that the need to pave gravel roadways in order to accommodate development or growth in traffic volumes will increase. To streamline the County's decision-making process regarding managing and paving gravel roads, this chapter provides a set of inputs that should be considered when assessing paving needs.

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## 3.4 - ROADWAY FUNCTIONAL CLASSIFICATIONS

Adams County uses a set of roadway functional classifications that are intended to promote a range of transportation needs on a spectrum

from mobility to access. Mobility is a priority in locations where there are higher traffic volumes, greater distances of travel, and limited need to access destinations along the corridor. Access is a greater concern in locations with a density of destinations travelers are attempting to reach; in these locations, speed is a lower priority. **Table 3.1** lists the Adams County roadway classifications and describes the main function of each roadway type. The full functional classification map is shown in **Map 3.2**.

### 3.4.1 - CROSS SECTIONS

Standard cross sections for each roadway functional classification are currently documented in the Adams County Engineering Road Standards. These cross sections have not been modified as a part of the Transportation Master Plan, but additional cross sections were added for locations near transit stations. These cross sections in addition to the cross sections from the existing Road Standards, are shown in the following sections.

**TABLE 3.1: ADAMS COUNTY ROADWAY FUNCTIONAL CLASSIFICATIONS**

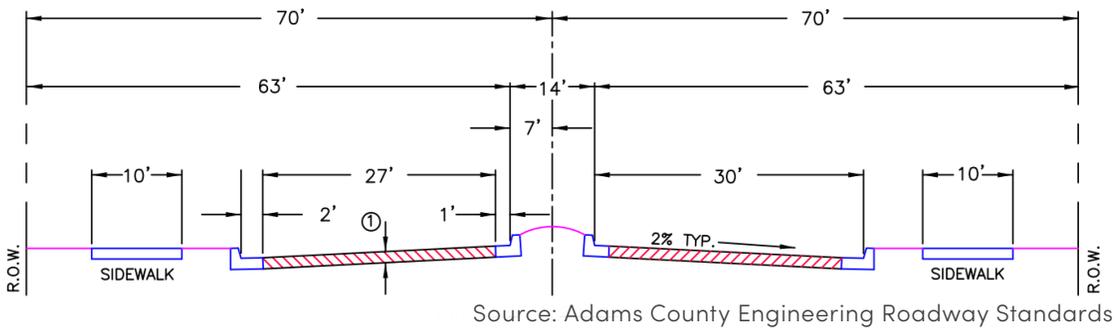
FUNCTIONAL CLASSIFICATION	DESCRIPTION
<b>Freeway</b>	Freeways and tollways are intended only for providing mobility. Traffic is unimpeded, the corridor provides full regional connectivity, and access is provided only through interchanges with no direct parcel access
<b>Regional Arterial</b>	The only function of regional arterials is to provide mobility between Adams County and neighboring counties. Access points are only at signalized intersections or at interchanges, with no direct parcel access, and are spaced 0.5-1 mile apart. The right-of-way width is 140 feet.
<b>Principal/Major Arterial</b>	Principal arterials are primarily intended to provide mobility, though can also provide direct access when no other option exists. Otherwise, access is limited to signalized intersections that are spaced 0.5-1 mile apart. The right-of-way width is 140 feet.
<b>Rural Regional/Major Arterial</b>	Rural Regional or Major Arterials provide access in the more low-density areas of the County. Access spacing will generally be allowed at ¼ to ½-mile spacing, with shared access between parcels encouraged on a case-by-case basis. For purposes of rights-of-way dedications, the typical cross sections for rural Major or Regional Arterials and Rural Arterials are 140-feet.
<b>Minor Arterial</b>	Minor arterials primarily provide mobility with access a secondary function. Accesses are spaced at 0.25-0.5 intervals and are primarily signalized, though stop signs are used in some circumstances. The right-of-way width is 120 feet.
<b>Rural Arterial</b>	Rural arterials function similarly to minor arterials. Traffic controls are primarily stop signs, which are configured for side streets so as to minimally impede the flow of vehicles. The right-of-way width is 120 feet.
<b>Collector</b>	Collector roadways emphasize access with mobility as a secondary function. Vehicle speeds are intended to be slower, access points are spaced at 1/8th mile intervals, and the right-of-way width is 80 feet.
<b>Local</b>	Local streets are intended to serve access needs only with unrestricted access to all parcels along the corridor. The right-of-way width is up to 60 feet and traffic.

### 3.4.1.1 - Major Arterial

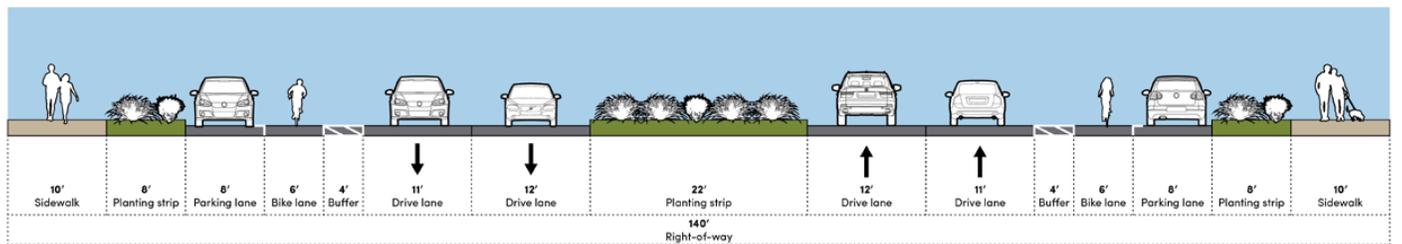
The Major Arterial cross section shown in **Figure 3.2** also applies to Regional Arterials. In urban areas, the cross section includes a wide detached sidewalk for bicycle and pedestrian travel, whereas on a rural arterial there would be an unpaved shoulder (**Figure 3.4**). On arterials within a half-mile of an RTD commuter rail station the Enhanced Multimodal Corridor cross section for arterials should be considered (**Figure 3.3**). The Enhanced Multimodal Corridor cross section

is appropriate in locations where land use along the corridor is transit supportive. Examples include mixed use development, medium to high density residential, and commercial land uses. In addition, the extent of the Enhanced Multimodal Corridor cross section should be determined based on logical gateways into the half-mile buffer surround a commuter rail station. Examples include major intersections within the buffer or at the edge of a corridor with transit supportive land uses.

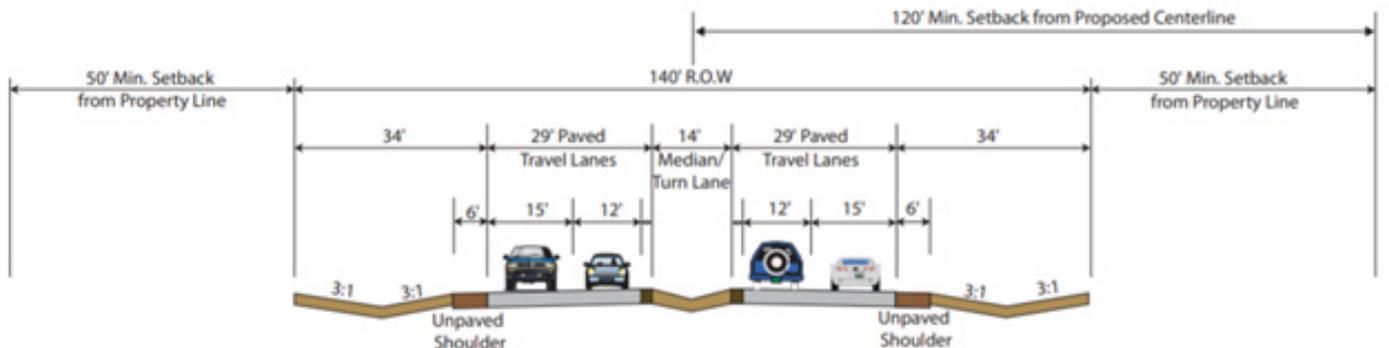
**Figure 3.2:** Major Arterial Cross Section



**Figure 3.3:** Enhanced Multimodal Corridor Arterial Cross Section



**Figure 3.4:** Rural Arterial Cross Section

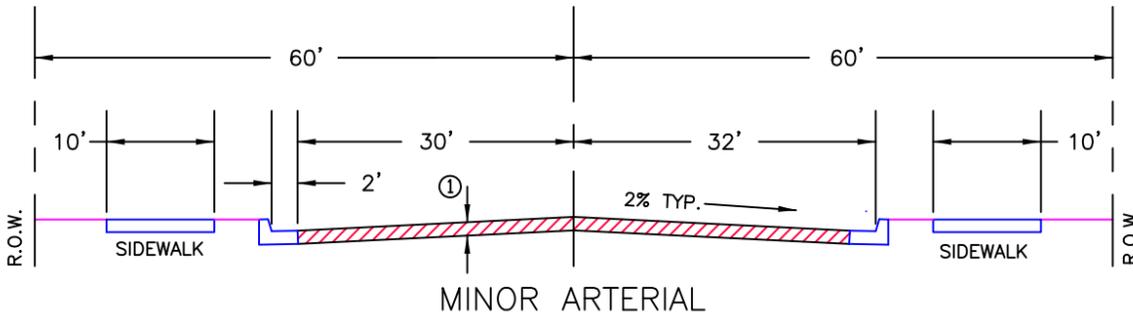


### 3.4.1.2 - Minor Arterial

The Minor Arterial cross section features detached sidewalks that are sufficiently wide to accommodate bicyclists and pedestrians (**Figure 3.5**). In rural locations, the cross section is modified to feature paved shoulders in lieu of sidewalks (**Figure 3.6**). In instances where an urban minor arterial falls within a half-mile of an RTD commuter rail station, the arterial

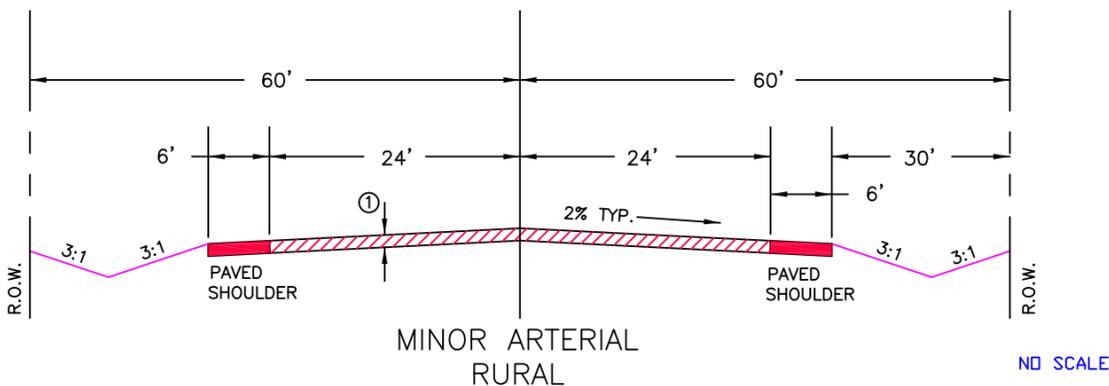
Enhanced Multimodal Corridor cross section should be considered if the corridor meets the criteria described for the major arterial TOD cross section (**Figure 3.3**). If the Enhanced Multimodal Corridor cross section is being considered on a minor arterial, the landscaped median cannot be included in the design due to insufficient right of way.

**Figure 3.5:** Minor Arterial Cross Section



Source: Adams County Engineering Roadway Standards

**Figure 3.6:** Rural Minor Arterial Cross Section



Source: Adams County Engineering Roadway Standards

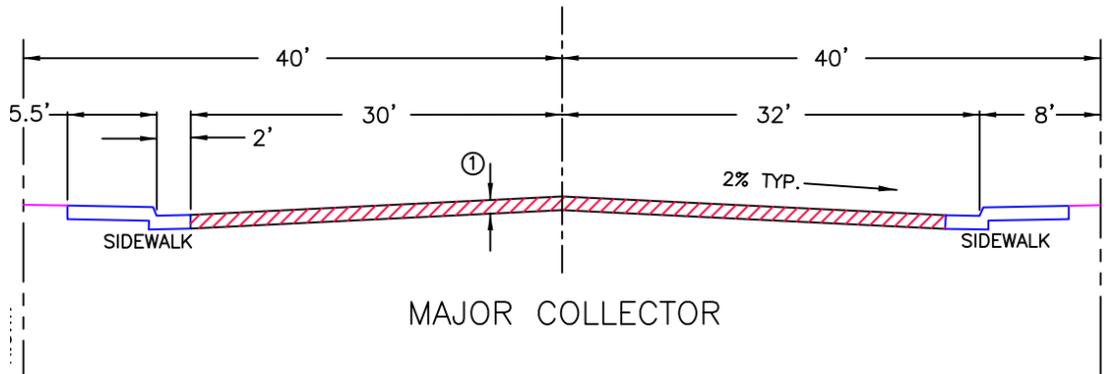
### 3.4.1.3 - Major Collector

The Major Collector cross section allows sufficient room for a 12-foot travel lane in each direction with 11 feet on both sides that can be dedicated to a bicycle lane, parking lane, or turn lane (Figure 3.7). Where feasible, a median can be included. The major collector cross section features attached 5.5-foot wide sidewalks.

On collectors within a half-mile of an RTD commuter rail station the Enhanced Multimodal Corridor cross section for collectors should be

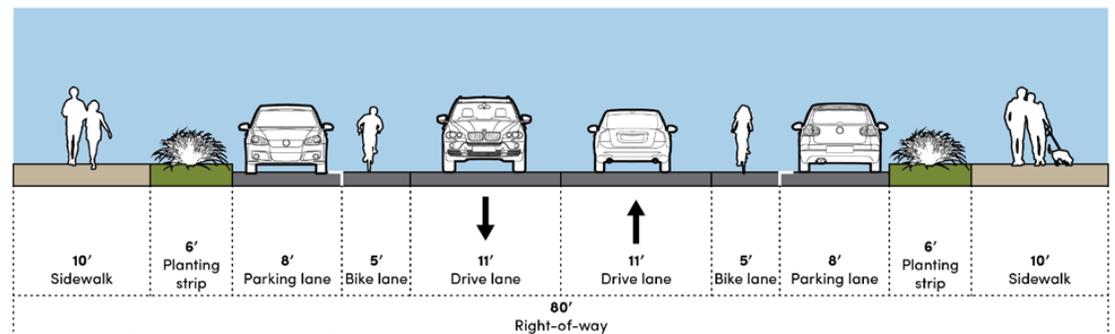
considered (Figure 3.8). The Enhanced Multimodal Corridor cross section is appropriate in locations where land use along the corridor is transit supportive. Examples include mixed use development, medium to high density residential, and commercial land uses. In addition, the extent of the Enhanced Multimodal Corridor cross section should be determined based on logical gateways into TOD zones. Examples include major intersections with the half-mile station area buffer or at the edge of a corridor with transit supportive land uses.

Figure 3.7: Major Collector Cross Section



Source: Adams County Engineering Roadway Standards

Figure 3.8: Enhanced Multimodal Corridor Collector Cross Section



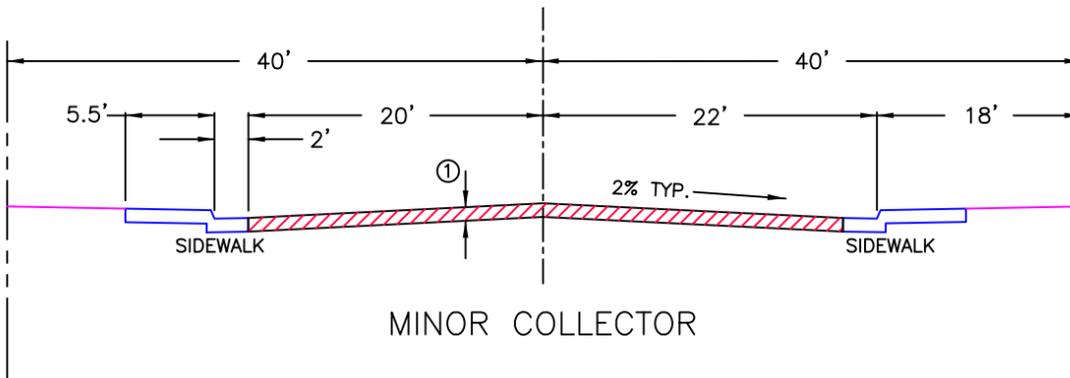
Source: Fehr & Peers

### 3.4.1.4 - Minor Collector

The Minor Collector has the same right-of-way width as a major collector but with no median or center turn lane (Figure 3.9). Minor Collectors feature a larger setback from property lines to allow for future

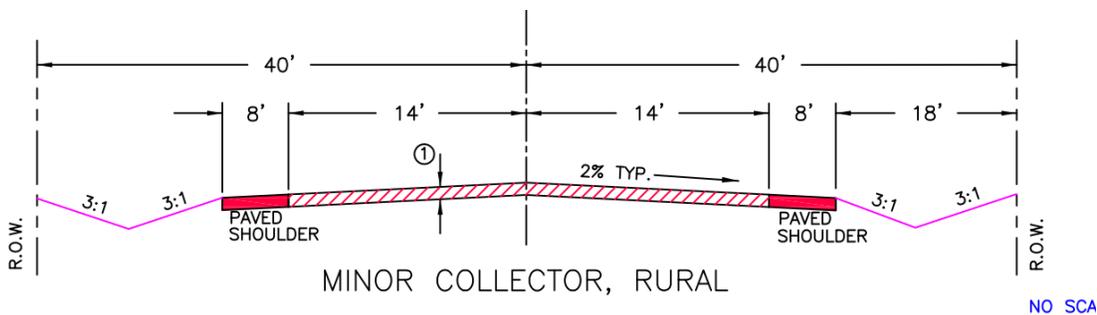
right-of-way expansions that may be needed upon development. In rural areas, the cross section changes slightly to feature an eight-foot paved shoulder in lieu of a sidewalk (Figure 3.10).

Figure 3.9: Minor Collector Cross Section



Source: Adams County Engineering Roadway Standards

Figure 3.10: Rural Minor Arterial Cross Section



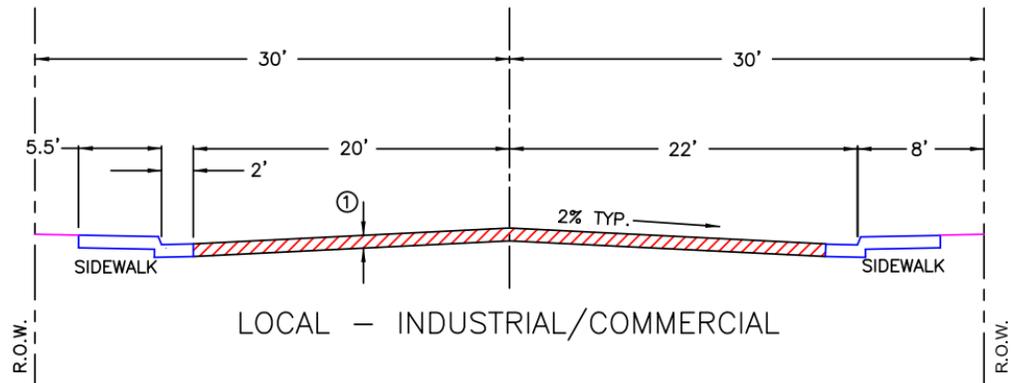
Source: Adams County Engineering Roadway Standards

### 3.4.1.5 - Local Streets

Local Street cross sections range from 60 feet wide for industrial/commercial and rural residential streets (**Figure 3.11 and Figure 3.15**) to 55-feet for local residential streets (**Figure 3.13**). With the exception of rural areas, all local streets feature a 5.5-foot wide attached sidewalk. On local streets within a half-mile of an RTD commuter rail station the Enhanced Multimodal Corridor cross section for collectors should be considered (**Figure 3.12 and Figure 3.14**). The Enhanced Multimodal Corridor cross section is appropriate in locations where land use along the corridor is transit

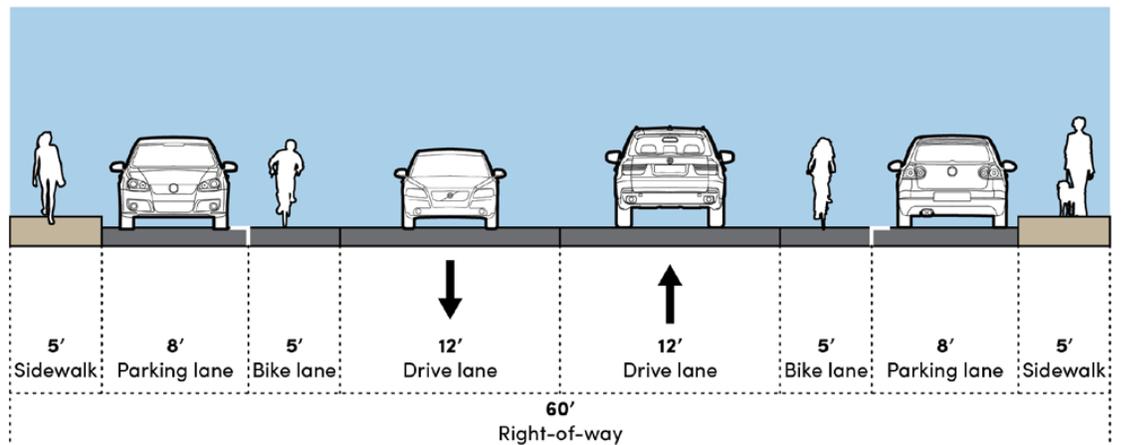
supportive. Examples include mixed use development, medium to high density residential, and commercial land uses. In addition, the extent of the Enhanced Multimodal Corridor cross section should be determined based on logical gateways into rail station areas. Examples include major intersections with the half-mile station area buffer or at the edge of a corridor with transit supportive land uses. Local commercial streets in the transit station buffer should have a striped bicycle lane while local residential streets should have shared lanes.

**Figure 3.11:** Local Street Cross Section (Industrial/Commercial)

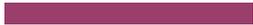


Source: Adams County Engineering Roadway Standards

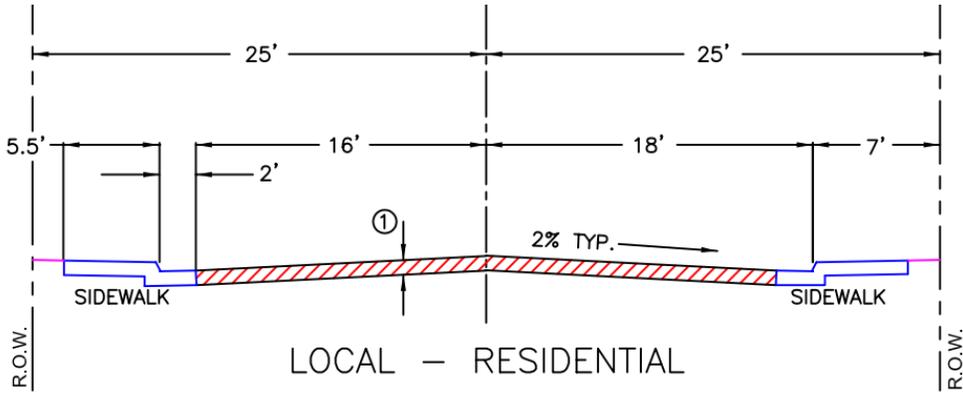
**Figure 3.12:** Enhanced Multimodal Corridor Local Street Cross Section (Commercial)



Source: Fehr & Peers

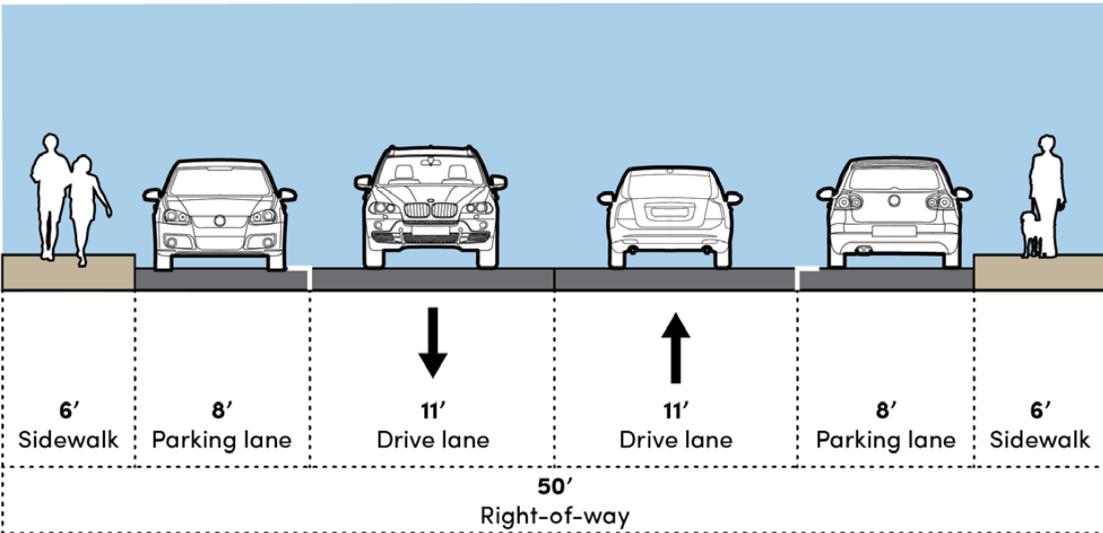


**Figure 3.13:** Local Street Cross Section (Residential)



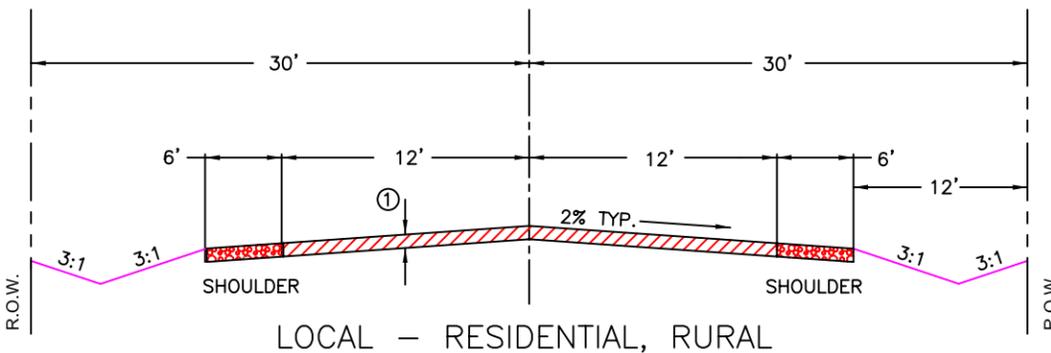
Source: Adams County Engineering Roadway Standards

**Figure 3.14:** Enhanced Multimodal Corridor Local Street Cross Section (Residential)



Source: Fehr & Peers

**Figure 3.15:** Local Street Cross Section (Residential - Rural)



Source: Adams County Engineering Roadway Standards



### 3.4.2 - REVISING FUNCTIONAL CLASSIFICATIONS

While the Adams County functional classification system for roadways does not change with *Advancing Adams*, it is anticipated that there may be a future need to revisit the functional classifications as the County grows. Roadways will likely be reclassified on a case-by-case basis when significant development occurs. In these instances, the County can evaluate the need for a roadway reclassification based on the following criteria:

#### **Traffic Volumes:**

Current and forecasted average daily traffic. A significant increase in traffic volumes can merit a reclassification to a design that can accommodate heavier volumes.

#### **Spacing:**

The spacing between the candidate roadway and adjacent roadways with the proposed functional classification. The Adams County Development Standards and Regulations state that major arterials should be spaced one mile apart, minor arterial

spacing should be ½ to one mile apart. The Development Standards and Regulations do not list specific spacing requirements for collectors, though typically collectors are spaced depending on land use context. In the more densely developed areas of Adams County, collector spacing should be at a minimum of ¼ mile.

#### **Access Management:**

Evaluation of whether a reclassification may trigger the need to have enhanced access management. If for example, a roadway is to be reclassified from a collector to an arterial, the number of driveways and left turns should be inventoried to determine whether the volume of turning movements can be accommodated on a roadway with higher design speeds.

#### **Traffic Controls:**

Inventory of existing and planned traffic signals and stop sign controls. Generally, traffic control treatments become less frequent from local to collector to arterial to freeway classifications.

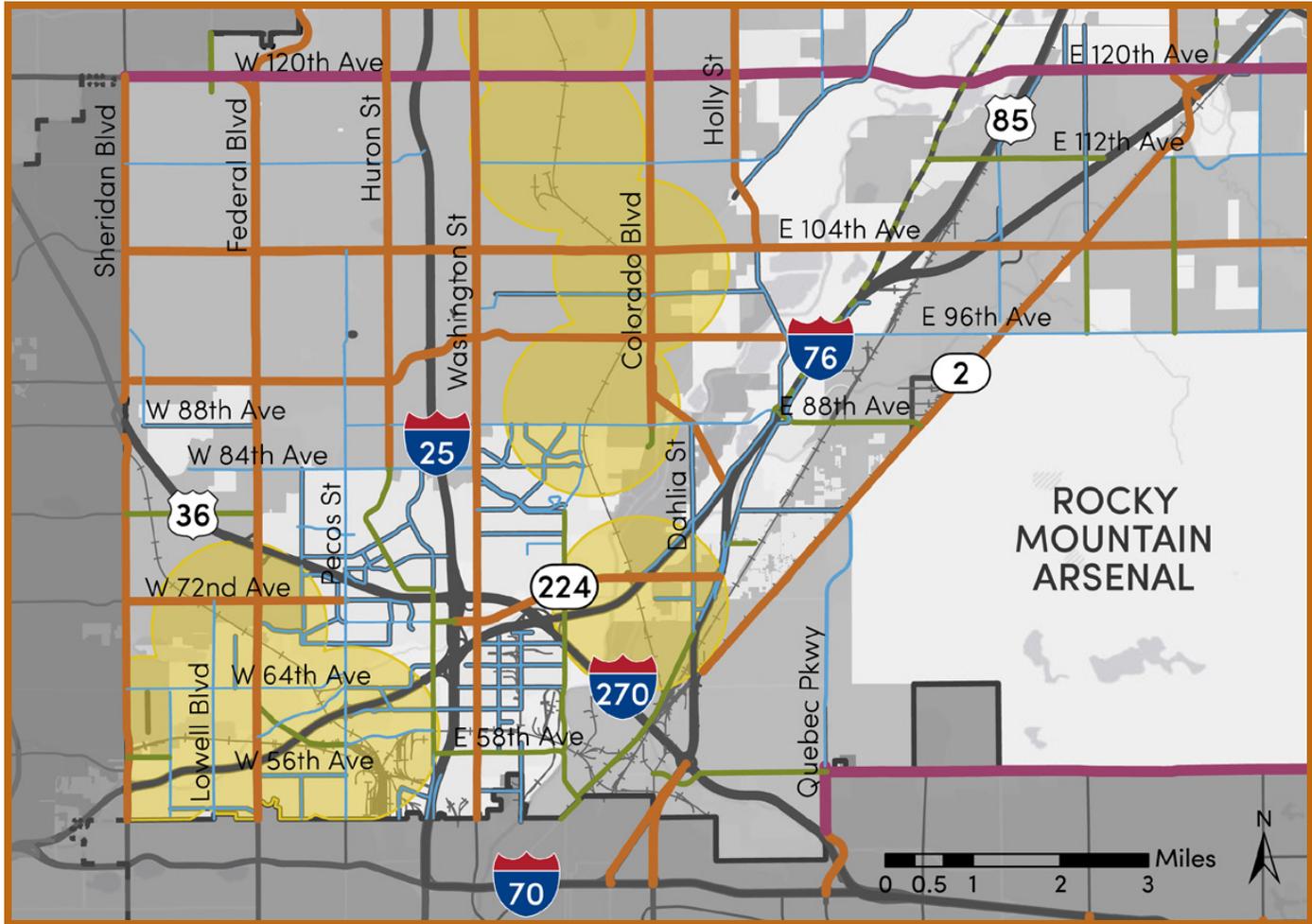
#### **Local Support:**

The County should determine the affected neighborhood is supportive of the reclassification.

# MAP 3.2: ROADWAY CLASSIFICATIONS



- Adams County Boundary
- Incorporated Places Adams County
- TOD Cross Section Considered 1 Mile Around Commuter Rail Stations
- Regional Arterial
- Rural Regional Arterial
- Principal Arterial
- Rural Major Arterial
- Minor Arterial
- Rural Arterial
- Collector



### 3.5 - GRAVEL ROAD PAVING PRIORITIZATION

When considering whether to pave a roadway that currently has a gravel surface, the Adams County Public Works Department can assess the set of corridors that are potential candidates for paving based on the quantitative and qualitative factors listed in this section. In some instances, there are specific thresholds that can be set for determining whether a roadway should be paved (e.g., traffic volume). In other instances, the factor must be considered on a case-by-case basis. The Adams County Public Works Department can make a determination on whether a gravel roadway should be paved by answering the questions following for each roadway that is under consideration for paving. Roadways that meet the greatest number of criteria listed should be prioritized for paving.

#### Existing Demand

- How many vehicles and what types of vehicles are using the corridor?
- Do volumes exceed 500 Average Daily Traffic (ADT)?
- Are there more than 50 heavy vehicles utilizing the roadway each day? Gravel roadways with a low subgrade support condition can require 14.5 inches on gravel to support truck volumes of 25-50 vehicles per day. Volumes in excess of 50 heavy vehicles will cause accelerated degradation (FHWA).

#### Roadway Classification

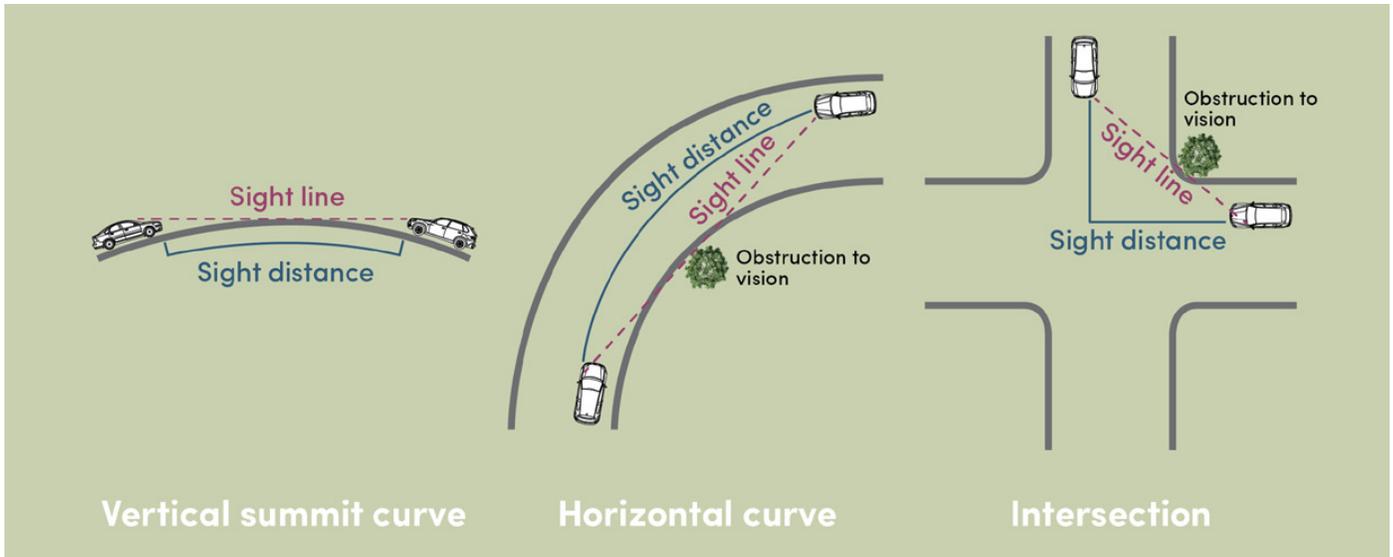
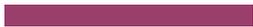
- Is the roadway classified as an arterial or collector?
- If not, is the roadway due to be reclassified to an arterial or collector per the Transportation Master Plan or through development?

#### Connectivity

- Does the roadway border neighboring jurisdictions (either communities outside Adams County or incorporated municipalities within the County)?
- If so, does it connect to roadways on the other side of the County boundary that are currently paved? In these instances, paving should be considered to establish a consistent roadway surface.

**Figure 3.16:** Washboarding (source: Landlock Paving)





**Figure 3.17:** Sight Distance

- Is the roadway an emergency access route?

**Maintenance**

- How often does the existing gravel surface require maintenance? How often are erosion, drainage, washboarding, etc. issues being addressed?
- Would the cost of maintaining the same roadway as a paved facility be lower in the long term?

**Design Speed**

Gravel roads are intended to operate at low or moderate speeds due to the fluctuating surface conditions and relatively low traffic, hence these corridors typically have a design speed of 45 mph or less. The gravel roads are also designed with minimal design criteria due to the low-speed environment.

Paving a road can increase vehicle speeds.

- In the event that a road becomes paved, are the safety inadequacies and roadway geometrics like sight distance and horizontal and vertical alignments that are dependent on the design speed met with the existing design speed or should they be increased?

**Sight Distance**

Sight distance is the length of roadway ahead that is visible to the driver. The available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path, as shown in **Figure 3.17**.

- With the paving surface and new design speeds (i.e., in the paved condition), would the sight distance requirements be met?



- If not, what type of obstructions must be removed to meet the requirements?

### Alignment and curves

When upgrading a gravel roadway to paved, the horizontal and vertical alignment should be compatible to the anticipated traffic speeds. It becomes necessary to address the safety problems created by the higher speeds and side friction factors that result from paving.

- How sharp are the curves in the roadway?
- Is the alignment, both vertical and horizontal, adequate for the established design speed?

If the realignment costs prohibit the upgrading of all substandard sections, then paving should be reconsidered

or warning devices should be placed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

### Surface friction

Surface friction is the force that resists the relative motion between a vehicle tire and a road surface. It plays a vital role in keeping a vehicle on the road and giving drivers the ability to control/maneuver their vehicles in a safe manner. Higher surface friction equates to more control over the vehicle. The coefficient of friction on gravel surfaces varies at a range from 0.40 to 0.70, which is much lower than on paved surfaces. The coefficient of friction is used to calculate the stopping sight distance for a given design speed.

- Is the stopping sight distance adequate with the paved surface friction characteristics?

### Lane width

Wider, unpaved roads encourage higher speeds, thereby increasing the potential for accidents. Unpaved roads that are narrow tend to be driven at low speeds and thus have a lower risk of crashes. NCHRP Report 362 found crash rates on unpaved roads to be lower on roadways with a total width of less than 18 feet compared to roadways of 20 feet to 22 feet or greater.

- For the current roadway with the gravel surface, is the width greater than 18 feet?

**Figure 3.18:** Curved Gravel Road (source: EMTSP)



## Superelevation

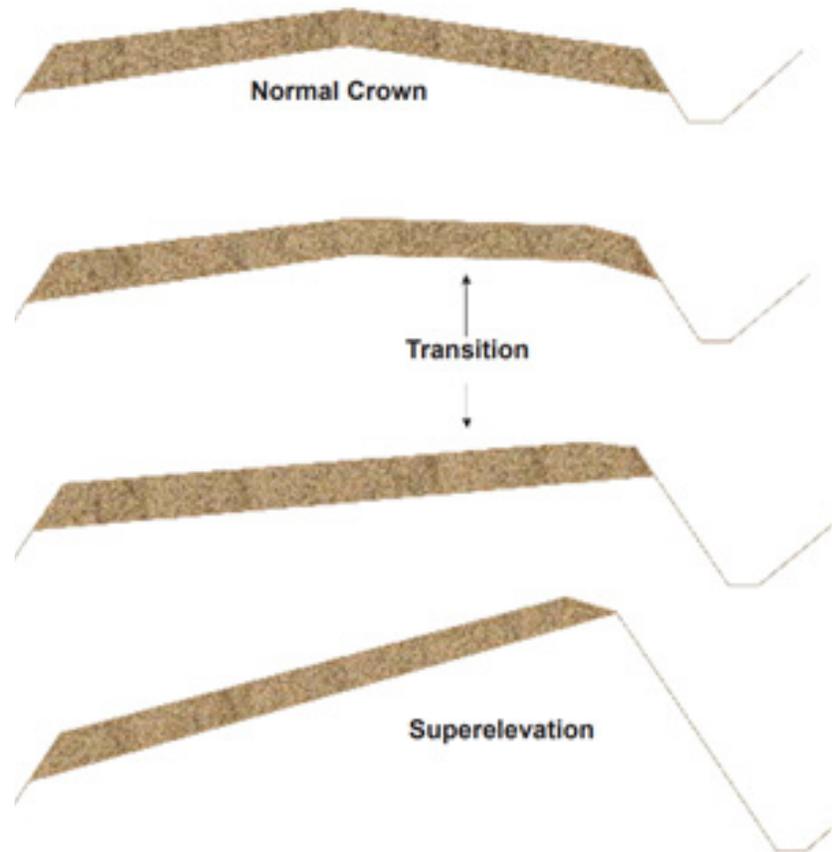
Superelevation is the banking of a roadway along a horizontal curve so motorists can safely and comfortably maneuver the curve at reasonable speeds, as conveyed in **Figure 3.19**. A steeper superelevation rate is required as speeds increase, or horizontal curves become tighter. One of the biggest challenges in gravel road maintenance at curves is that the traffic will tend to displace the gravel towards the upper end of the road and the inside of the curve will become lower. As a result, curves can very easily go out of proper shape and requires constant attention during each maintenance cycle.

- For the current roadway with the gravel surface, is there a lack of superelevation that requires constant attention to maintain the uniform shape throughout the curves?

If so, paving the roadway may result in lower maintenance costs in the long-term.

## Bridge deficiencies

As the gravel roads have smaller lane widths, the bridges and culverts at the approach roadways also tend to be narrower. If the gravel roadway is to be paved, would the bridges along the roadway require widening? This can be a very costly investment and will impact the total cost of paving and maintenance.



**Figure 3.19:** Superelevation for Maintaining Safe Turning Movement as a Roadway Curves (source: FHWA)

## Soil condition and drainage improvements

Paving a road with poor base or with inadequate drainage can lead to continual maintenance problems. If the foundation fails or the water is not drained properly from the road, the pavement is bound to fail. It is helpful to have a basic knowledge of the soil characteristics in the area and the type of gravel used for the road surface versus the base for pavement. The gravel road surface needs to

have more fines plus plasticity to bind it together, make it drain quicker and create a hard riding surface. Such material is an inferior base for pavement. If pavement is laid over such material, water can become trapped in the base. The high fines and the plasticity of the material make the wet base soft resulting in premature pavement failure.

- Would the gravel road require strengthening and drainage work prior to paving?
- If so, what are cost estimates of the new materials?

### 3.5.1.1 - QUALITATIVE CONSIDERATIONS

There may be instances where additional considerations beyond the data-driven factors should be considered. The following factors can be assessed on a case-by-case basis when the County is making determinations on paving needs and priorities.

#### Overall Condition

- Will resurfacing a gravel roadway that has deteriorated due to severe weather events or other contributing factors beyond the control of the Adams County maintenance department represent a high enough level of cost that paving the roadway will be relatively less costly?

A second financial consideration is to compare maintenance costs of a

paved road to maintenance costs of a gravel road.

#### Future Demand

- Is the roadway serving an area where development is set to occur shortly?
- If so, will the development add a high enough volume of vehicle traffic to merit paving?
- Is the roadway located in a section of the County that may redevelop to a higher intensity of residential use or to an industrial use per the future land use plan?

As additional roads become paved, Adams County Public Works will take on maintenance of more lane miles of paved roadways. The overall capacity to maintain the newly paved roads to a state of good repair should be considered first and foremost when making road paving decisions.

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## 3.6 - FUTURE ROADWAY NETWORK

The future roadway projects for Adams County were determined based on a combination of inputs including: the roadway plan outlined in the 2012 Transportation Master Plan; accommodating future land uses in the preferred land use plan; forecasted traffic growth and volume to capacity ratios; community input; and coordination with investments by neighboring jurisdictions. Projects from the 2012 Transportation

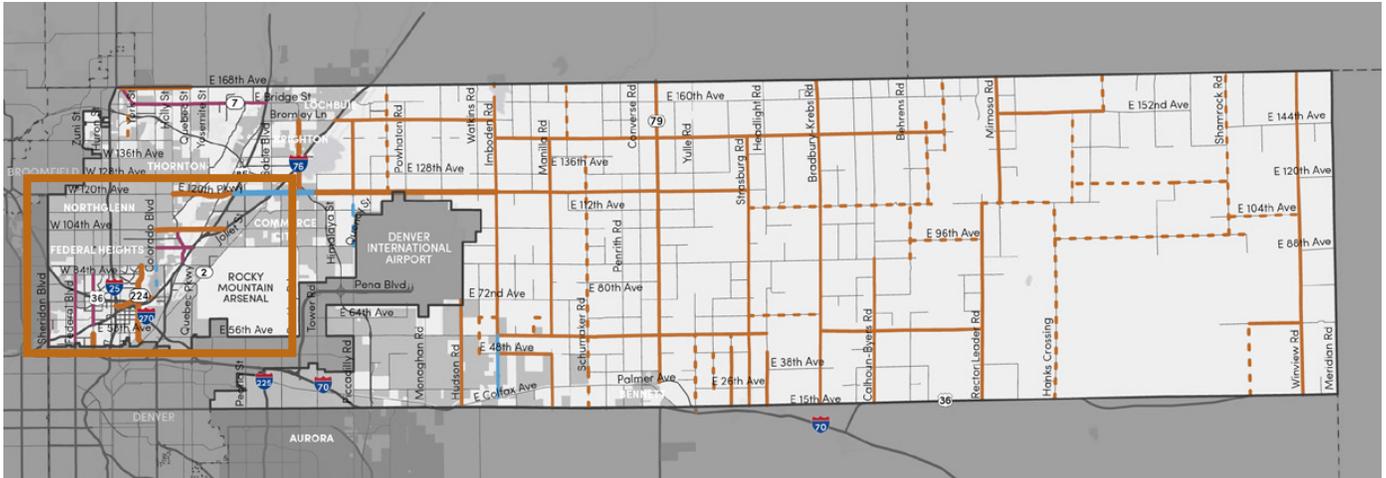
Master Plan that have not yet been implemented were evaluated for continued need. Additional projects were added based on results from community outreach and based on future need as determined by an assessment of planned land uses.

**Table 3.2** shows the project details for each proposed project, along with the lead agency. **Map 3.3** displays the project locations. **Chapter 8** offers a prioritized list of the roadway projects the County can use when making decisions on which items to move forward into planning and design phases and earmark in the Capital Improvements Program (CIP).

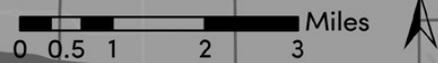
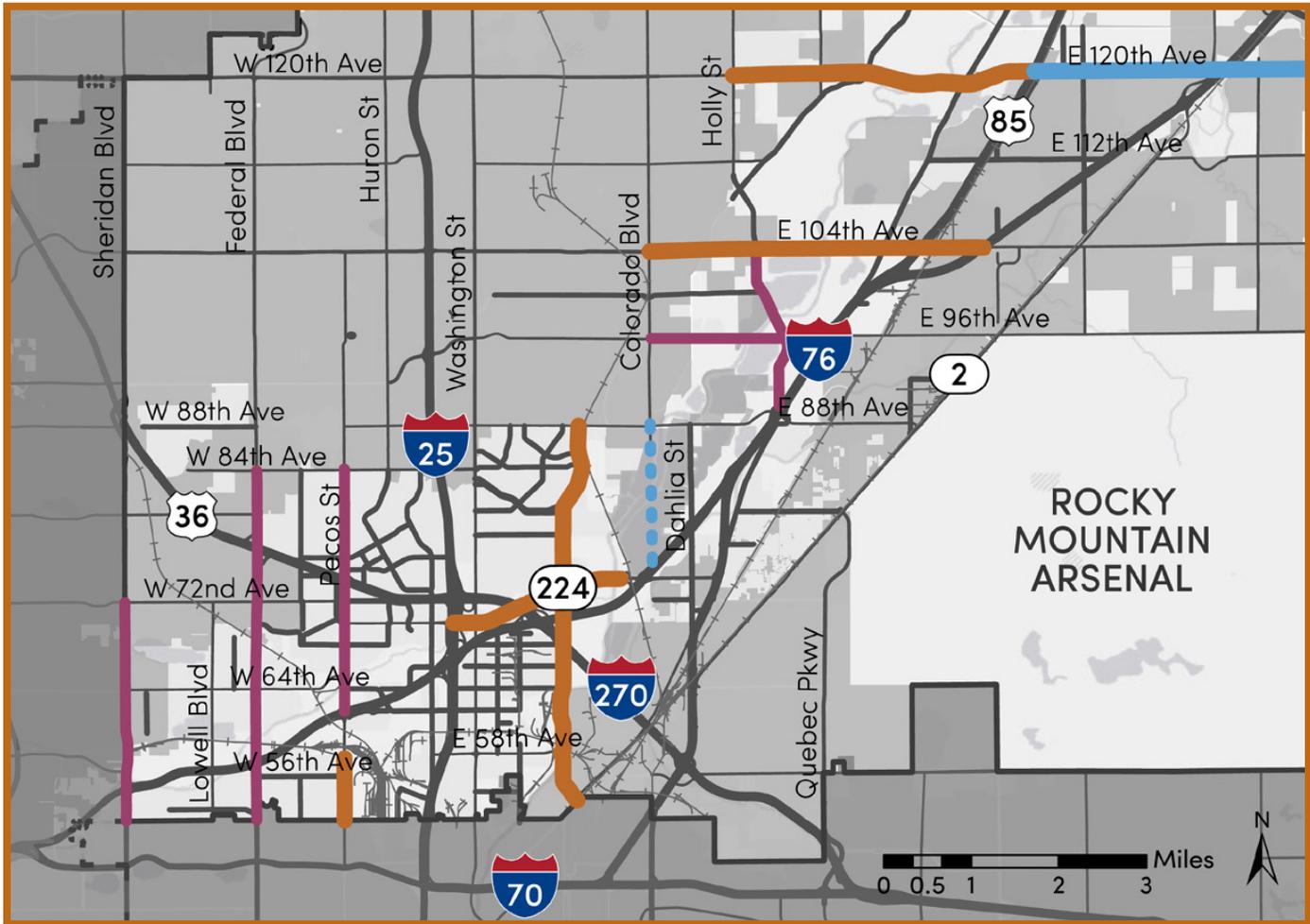
Adams County is also supportive of potential improvements to state-managed freeways within the County. Specifically, Adams County would like a widening of E-470 evaluated, addition of managed lanes on I-25, and a study of potential improvements to I-270, which is one of the most heavily traveled corridors in the County and is a critical freight corridor. Should the Colorado Department of Transportation explore opportunities to improve key interstate and US highway corridors in Adams County, the County can serve as a stakeholder for establishing needs and opportunities on the corridors.



# MAP 3.3: PROPOSED ROADWAY PROJECTS



- Adams County Boundary
- Incorporated Places Adams County
- New 2 Lane Roadway
- New 4 Lane Roadway
- Paved 2 Lane Roadway
- Paved 4 Lane Roadway
- Widen by 2 Travel Lanes
- Widen by 4 Travel Lanes
- Study Improvements



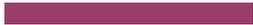
**TABLE 3.1: PROPOSED ROADWAY PROJECTS**

NAME	EXTENTS	EXISTING	PROPOSED	PROJECT TYPE	MILES	PLANNING LEVEL COST ESTIMATE	LEAD
Behrens Rd	88th Ave to 112th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	3.0	\$19,649,000	Adams County
Bradbury-Krebs Rd	US 36 to 168th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	18.1	\$117,924,000	Adams County
Buckley Rd	120th Ave to 136th Ave	2 Lanes	4 Lanes	Widen by 2 travel lanes	4.0	\$12,383,000	Adams County
Calhoun-Byers Rd	US 36 to 88th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	8.1	\$52,553,000	Adams County
CO-224	Broadway St to US 85	2 to 4 Lanes	4 Lanes	Widen by 2 travel lanes	2.0	\$6,184,000	CDOT
CO-7	I-25 to US 85	2 to 4 Lanes	Study Improvements	Study improvements	8.8	\$2,200,000	CDOT
CO-79	I-70 to 168th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	17.9	\$116,775,000	CDOT
Colorado Blvd	88th Ave to I-76	None	4 Lanes	New 4 lane roadway	1.6	\$16,078,000	Thornton
CO-24	Watkins Rd to E 48th Ave	None	2 Lanes	New 2 lane roadway	2.0	\$12,987,000	Adams County
Deter-Winters Rd	112th Ave to 152nd Ave	Unpaved Road	2 Lanes	New 2 lane roadway	5.1	\$33,035,000	Adams County
E 104th Ave	Shamrock to Winview	Unpaved Road	2 Lanes	New 2 lane roadway	3.9	\$25,370,000	Adams County
E 104th Ave	Colorado Blvd to I-76	2 Lanes	4 Lanes	Widen by 2 travel lanes	3.8	\$11,796,000	CDOT
E 112th Ave	Rector to Deter	Unpaved Road	2 Lanes	New 2 lane roadway	4.0	\$26,241,000	Adams County
E 112th Ave	Strasburg to Horrogate	Unpaved Road	2 Lanes	New 2 lane roadway	10.3	\$67,450,000	Adams County
E 120th Ave	SH 79 to Strasburg	Partially Paved Road	2 Lanes	New 2 lane roadway	5.0	\$32,753,000	Adams County

NAME	EXTENTS	EXISTING	PROPOSED	PROJECT TYPE	MILES	PLANNING LEVEL COST ESTIMATE	LEAD
E 120th Ave	Imboden to SH 79	Partially Paved Road	2 Lanes	New 2 lane roadway	8.9	\$58,230,000	Adams County
E 120th Ave	Holly St to US 85	4 Lanes	6 Lanes	Widen by 2 travel lanes	7.6	\$23,548,000	Adams County
E 120th Ave	Deter to Shamrock	Unpaved Road	2 Lanes	New 2 lane roadway	8.7	\$56,501,000	Adams County
E 120th Ave	US-85 to Tower	Partially Paved Road	6 Lanes	Widen by 4 travel lanes	4.6	\$21,408,000	Adams County
E 120th Ave	Tower to Imboden	Partially Paved Road	4 Lanes	Widen by 2 travel lanes	10.0	\$30,837,000	Adams County
E 144th Ave	Imboden to Peoria Crossing	Partially Paved Road	2 Lanes	New 2 lane roadway	25.0	\$162,938,000	Adams County
E 152nd Ave	I-76 to Imboden	Partially Paved Road	2 Lanes	New 2 lane roadway	8.9	\$58,363,000	Adams County
E 152nd Ave	Mimosa to Philmay	Partially Paved Road	2 Lanes	New 2 lane roadway	5.9	\$38,677,000	Adams County
E 168th Ave	I-25 to Quebec St	2 Lanes	4 Lanes	Widen by 2 travel lanes	3.8	\$11,892,000	Adams County
E 48th Ave	Imboden Rd to Manilla Rd	Partially Paved Road	2 Lanes	New 2 lane roadway	3.0	\$19,574,000	Colorado Air and Space Port
E 56th Ave	Imboden to SH 79	Partially Paved Road	2 Lanes	New 2 lane roadway	15.0	\$97,946,000	Adams County
E 56th Ave	East Rd to Winview	Partially Paved Road	2 Lanes	New 2 lane roadway	2.9	\$19,118,000	Adams County
E 56th Ave	Bradbury to Rector	Partially Paved Road	2 Lanes	New 2 lane roadway	9.0	\$58,789,000	Adams County
E 64th Ave	Strasburg to Bradbury	Unpaved Road	2 Lanes	New 2 lane roadway	4.0	\$26,337,000	Adams County
E 64th Ave	E 56th Ave to E 64th Ave	None	2 Lanes	New 2 lane roadway	1.4	\$8,871,000	Adams County

NAME	EXTENTS	EXISTING	PROPOSED	PROJECT TYPE	MILES	PLANNING LEVEL COST ESTIMATE	LEAD
E 96th Ave	Colorado Blvd to I-76	None	Study Improvements	Study improvements	2.4	\$424,000	Adams County
E 96th Ave	Behren to Rector	Unpaved Road	2 Lanes	New 2 lane roadway	4.0	\$26,152,000	Adams County
E 96th Ave	Hanks to East Rd	Unpaved Road	2 Lanes	New 2 lane roadway	10.7	\$69,650,000	Adams County
East Rd	US 36 to 56th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	4.0	\$26,343,000	Adams County
Federal Blvd	52nd to 72nd Ave	4 to 6 Lanes	Study Improvements	Study improvements	4.0	\$699,000	CDOT
Hanks Crossing	US 36 to 112th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	10.9	\$71,425,000	Adams County
Harvest Rd	120th Ave to 168th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	6.0	\$38,913,000	Adams County
Headlight Rd	US 36 to 48th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	3.0	\$19,446,000	Adams County
Horrogate Rd	112th Ave to 148th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	4.6	\$30,230,000	Adams County
Hudson Rd	US 36 to 72nd Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	5.9	\$38,478,000	CDOT
Imboden Rd	56th Avenue to 160th	Partially Paved Road	2 Lanes	New 2 lane roadway	13.0	\$84,911,000	Adams County
Imboden Rd	I-70/Quail Run Rd to 56th Ave	Partially Paved Road	4 Lanes	New 4 lane roadway	3.5	\$34,947,000	Adams County
Imboden Rd	160th to 168th	None	2 Lanes	New 2 lane roadway	1.1	\$6,886,000	Adams County
Manilla Rd	I-70 to 48th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	3.0	\$19,484,000	Colorado Air and Space Port
Manilla Rd	56th Ave to 144th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	11.0	\$71,813,000	Adams County

NAME	EXTENTS	EXISTING	PROPOSED	PROJECT TYPE	MILES	PLANNING LEVEL COST ESTIMATE	LEAD
Mimosa Rd	112th Ave to 168th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	7.1	\$46,018,000	Adams County
Monaco St	104th Ave to 88th Ave	2 Lanes	Study Improvements	Study improvements	1.9	\$191,000	Adams County
Pecos St	I-76 to 84th Ave	4 Lanes	Study Improvements	Study improvements	2.8	\$485,000	Adams County
Pecos St	52nd to 58th	2 Lanes	4 Lanes	Widen by 2 travel lanes	0.7	\$2,179,000	Adams County
Peoria Crossing Rd	136th Ave to 168th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	4.0	\$26,315,000	Adams County
Petterson Rd	144th Ave to 168th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	3.0	\$19,745,000	Adams County
Philmay Rd	152nd Ave to 168th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	2.0	\$13,164,000	Adams County
Piccadilly Rd	120th Ave to 152nd Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	4.0	\$26,126,000	Adams County
Piccadilly Rd	96th Ave to 120th Ave	None	4 Lanes	New 4 lane roadway	3.0	\$29,947,000	Adams County
Piggott Rd	US 36 to 48th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	3.0	\$19,619,000	Adams County
Piggott Rd	48th Ave to 56th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	1.0	\$6,487,000	Adams County
Rector Leader Rd	US 36 to 112th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	11.0	\$71,681,000	Adams County
Schumaker Rd	I-70 to 136th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	14.0	\$91,286,000	Adams County
Shamrock Rd	96th Ave to 168th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	9.0	\$59,032,000	Adams County
Sheridan Blvd	52nd to 72nd Ave	4 Lanes	Study Improvements	Study improvements	2.5	\$438,000	CDOT
Strasburg Rd	48th Ave to 144th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	12.0	\$78,412,000	Adams County



NAME	EXTENTS	EXISTING	PROPOSED	PROJECT TYPE	MILES	PLANNING LEVEL COST ESTIMATE	LEAD
Strasburg Rd	US 36 to 48th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	5.9	\$38,500,000	Adams County
New Roadway	E-470 to E 152nd Pkwy	None	2 Lanes	New 2 lane roadway	1.4	\$9,066,000	Adams County
Watkins Rd	Watkins Rd to Imboden Rd	None	2 Lanes	New 2 lane roadway	1.0	\$6,678,000	Adams County
Winview Rd	US 36 to 56th Ave	Partially Paved Road	2 Lanes	New 2 lane roadway	18.0	\$117,767,000	Adams County
Wolf Creek Rd	26th Ave to 48th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	2.0	\$12,920,000	Adams County
York St	58th Ave to 88th Ave	2 to 4 Lanes	4 Lanes	Widen by 2 travel lanes	4.4	\$13,633,000	Adams County
Yulle Rd	I-70 to 56th Ave	Unpaved Road	2 Lanes	New 2 lane roadway	4.4	\$28,610,000	Adams County

