

Working Paper #1: Existing Conditions Report

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1 INTRODUCTION

1.1 Study Purpose

The Making Connections Plan focuses on formulating a sound and rational basis for guiding development, redevelopment, and supporting infrastructure in unincorporated Southwest Adams County, referred to as the “Triangle of Opportunity”. The “Triangle of Opportunity” will soon become apparent with construction of the RTD FasTracks Gold Line and Northwest Line. The Making Connections study area focuses on the unincorporated lands primarily between these new transit lines and includes six associated FasTracks stations. The study area focuses on the unincorporated lands within Southwest Adams County bounded by Sheridan Boulevard on the west, 96th Avenue on the north, Brighton Boulevard on the east, and 52nd Avenue or the Adams County boundary on the south (see Figure 1-1).

With the anticipated growth in the Denver metropolitan area and the advent of RTD’s FasTracks Expansion, many communities have witnessed increased interest in development and redevelopment opportunities. The same is anticipated of the Making Connections planning area. Figure 1-2 and 1-3 illustrates the Denver Regional Council of Governments (DRCOG) projected population increase between 2014 and 2040 within the study area. As illustrated in Figure 1-2 and 1-3 the greatest population density increases are anticipated to occur adjacent to the Clear Creek corridor within the planning area. Additionally, the concentration of planning and project activities around the future Pecos, Federal and Westminster transit stations, as well as the Federal Boulevard and Clear Creek corridors, indicate that the County is ready to make investments in the study area. These activities and trends create an ample opportunity for development, economic growth and a large demand for compact multimodal communities near transit. At the same time population growth and interest in redevelopment are anticipated to increase, Adams County government staff and residents have continuously expressed concerns about making investments “strategic” and “equitable” as to positively impact the quality of life for as many residents as possible and to consider the area’s many low and moderate income families. Figure 1-4 illustrates the concentration of low and moderate income families in the study area.

In addition to the anticipated population change, understanding the socioeconomic makeup of Adams County is important. According to the 2010 U.S. Census, in Adams County 62.5% of the population is employed with a median household income is \$56,270 and 14.2% of County residents are considered below the poverty level. Of the 166,243 housing units in Adams County, 65.6% are owner occupied and have a median home value of \$186,600. While 87% of Adams County is considered “white alone,” just 52% consider themselves, “white alone, not Hispanic,” leaving roughly 35% of the population as potentially Hispanic. Within Adams County 70.2% of the population speak only English where as 24.3% speak Spanish or Spanish Creole. The Federal Boulevard Health Impact Assessment included a documentation of income, race, ethnicity, language and age disparities in the Federal Boulevard Health Impact Assessment Study Area. Table 1-1 summarizes these statistics which indicate that portions of Southwest Adams County have more significant disparities than Adams County as a whole or the State of Colorado.

Through previous planning processes many recommendations were made for the study area. Some, but not all, have been implemented. This plan will summarize recommendations from the previous plans, studies and reports and will identify strategic infrastructure investments and land use objectives. The end



result will be a Master Plan document that includes a series of implementation-focused materials allowing Adams County to make more strategic investments and to leverage partnerships and resources to improve quality of life in Southwest Adams County, providing strategies that focus on the timing, scale and funding opportunities associated with prioritized projects.

Figure 1-1 | Planning Area (Source: Adams County)

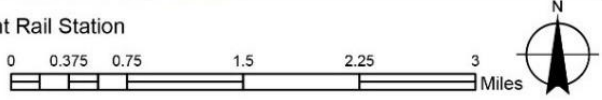
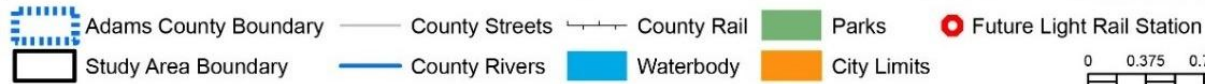
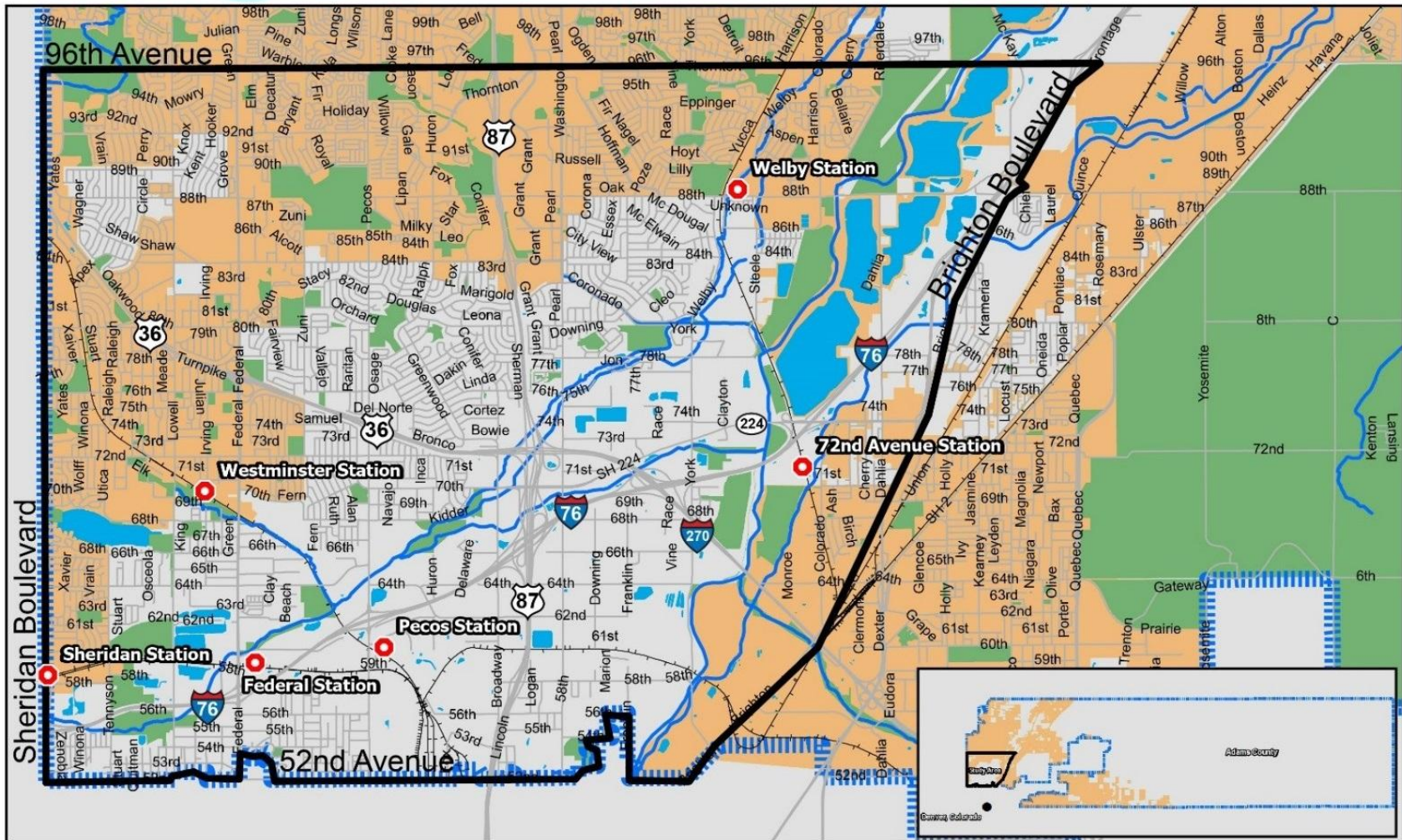


Figure 1-2 | 2014 Population Density (Source: Denver Regional Council of Governments)

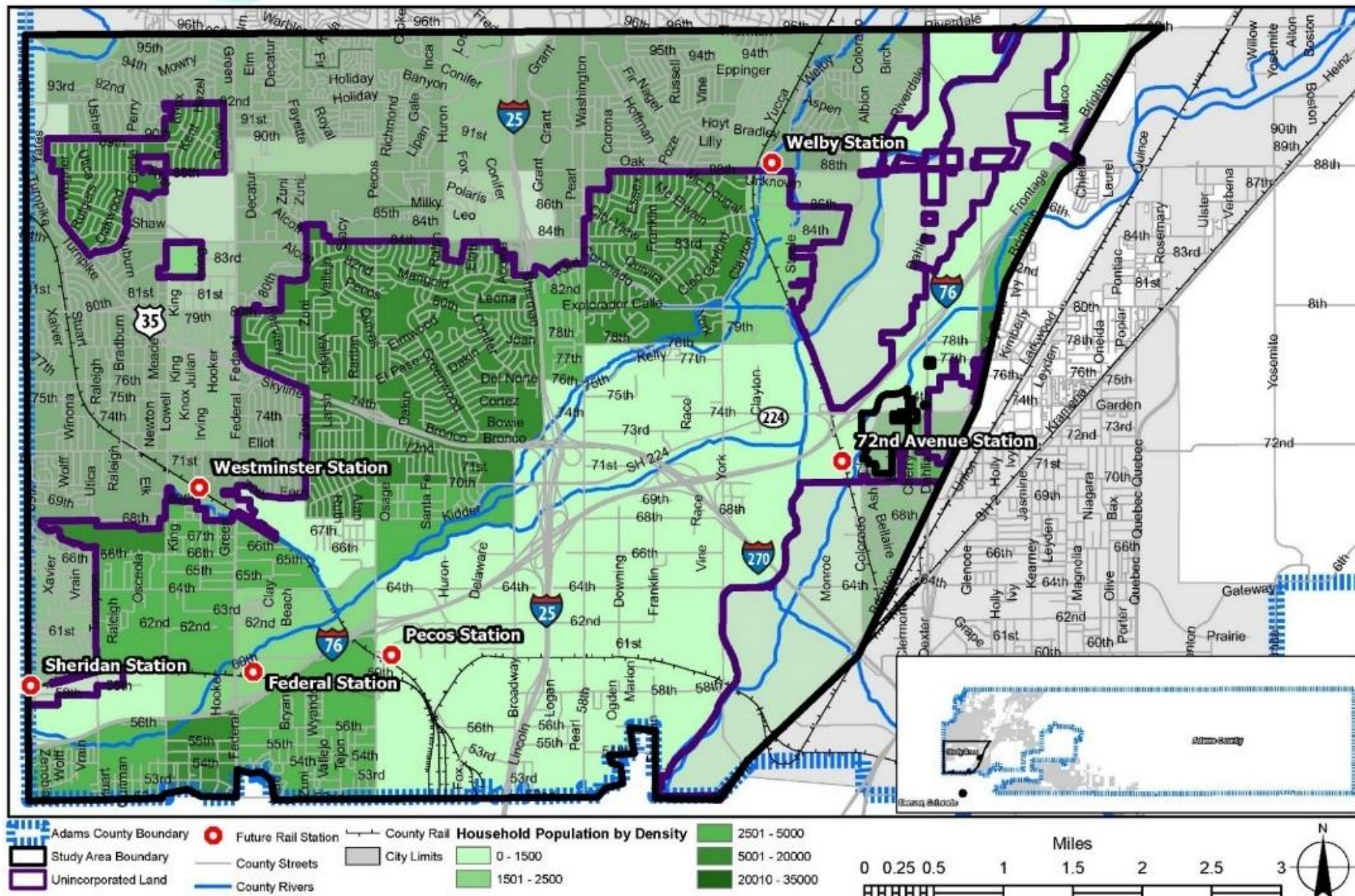


Figure 1-3 | 2040 Population Density (Source: Denver Regional Council of Governments)

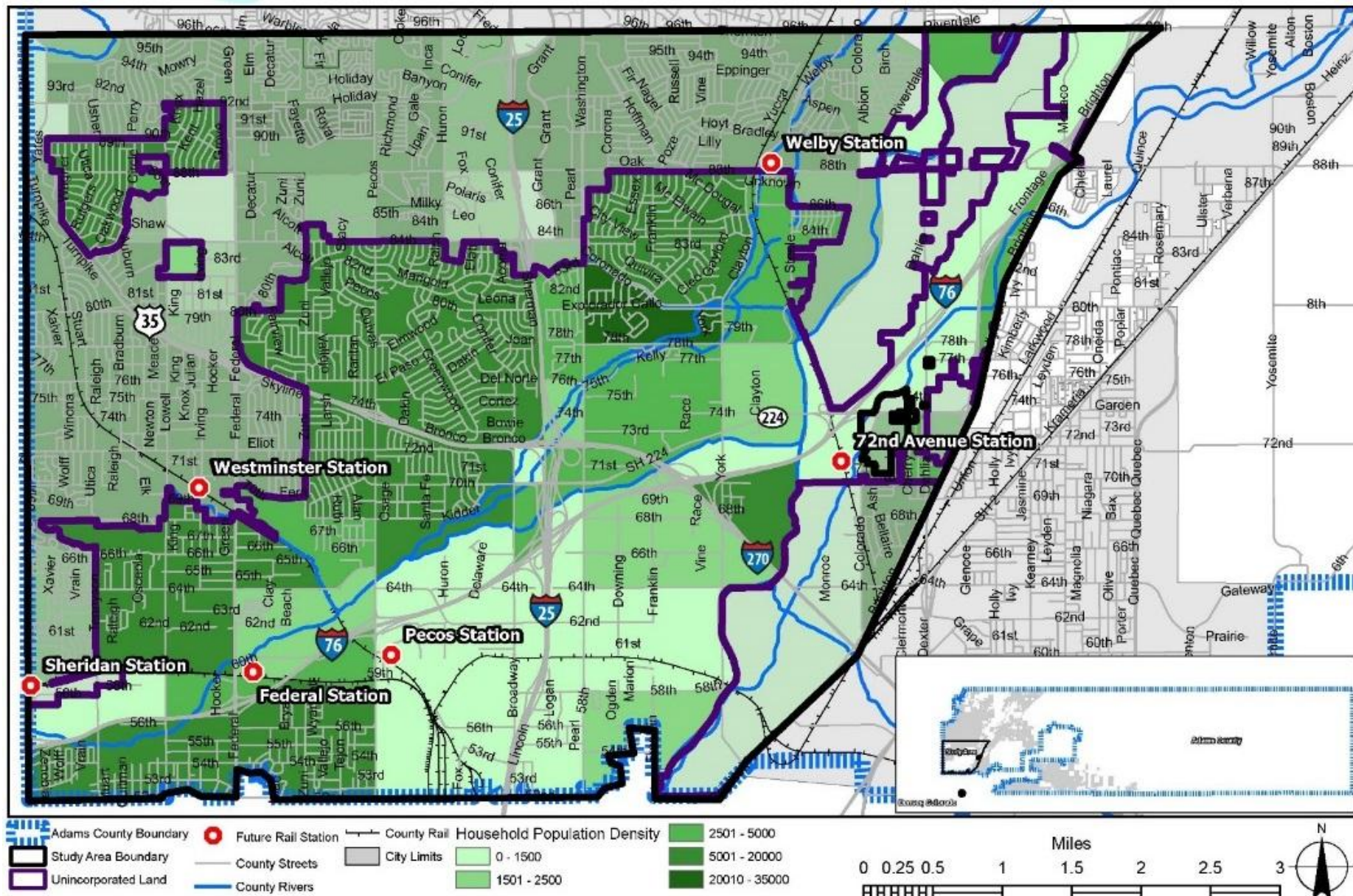


Figure 1-4| Percent Low and Moderate Income Households (Source: Denver Regional Council of Governments)

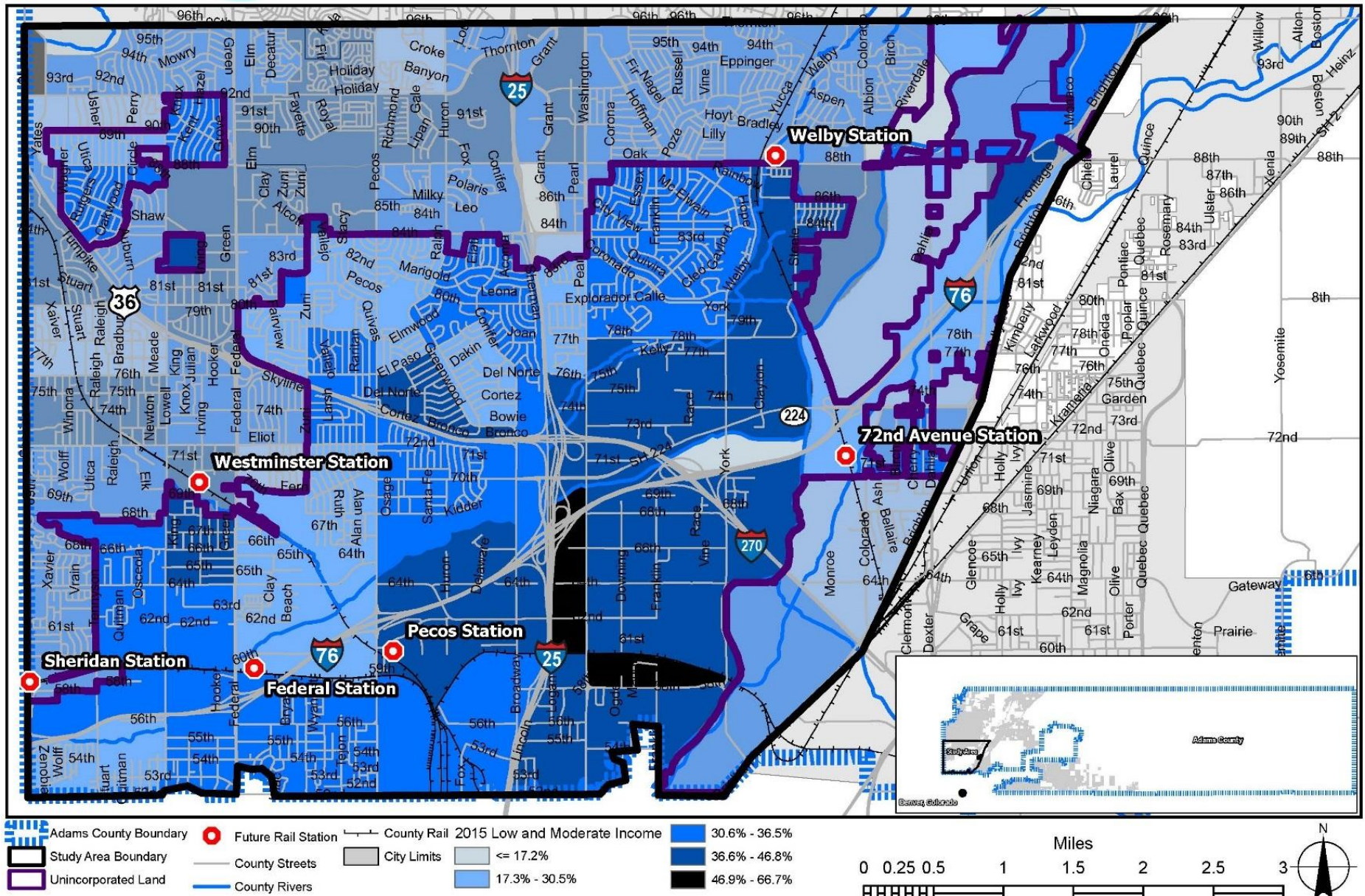


Table 1-1 | Disparities in the Community (Source: Federal Boulevard Health Impact Assessment, Tri-County Health Department)

	Study Area	Adams County	State of Colorado
% Living Below 200% of Poverty Level	32.5% - 71.9%	34.3%	29.6%
% Hispanic or Latino (any race)	57.1% - 67.1%	37.8%	20.6%
% Speak English Less Than "Very Well"	16.5% - 31.9%	13.5%	6.7%
% 65 years of age or older	9.0% - 19.1%	8.5%	11.1%

Source: American Community Survey 2008-2012

1.2 Planning Process

The Making Connections Plan goal of targeting strategic and equitable implementation strategies will be achieved through a review of existing and proposed infrastructure projects, as well as development criteria. Policies and programs will be considered where appropriate. In September 2015, the Project Team met with the Technical Advisory Committee (TAC) to develop a scope of work for the project. The work plan assigns tasks at different steps within the timeline for the four project phases to assist the Project Team in delivering recommendations and ultimately the final plan document.

The project will be grouped in four phases. The first phase will consist of gathering information relevant to the study area. This includes applicable plans, land parcels, right of ways, brownfields, special districts, housing, and infrastructure. The second phase lasts the full timeline of the project including public and stakeholder involvement activities. Each of these targeted audiences and meeting dates were identified in the Public and Stakeholder Involvement Plan (PSIP) at the beginning of the plan process. The objective of the PSIP is to gather the input of the residents, businesses, and government entities within the study area to help guide decisions throughout the planning process. The third phase includes a review of land use, zoning, and design components from relevant plans to create effective recommendations. The information collected in Phase 1 will be combined with the recommendations generated in Phase 3 and the feedback collected from the public and stakeholders throughout the process. Ultimately, the team will identify key challenges and opportunities to in turn draft solutions. The last phase will include the development of an implementation matrix and associated maps for the top 10 priority projects.

The anticipated schedule for this planning process is illustrated in Figure 1-5 and will occur over approximately a period of 15 months. The process has been constructed with Adams County staff and is designed to include opportunities for input from the public and stakeholders at strategic intervals in the planning process.

Figure 1-5 | Project Schedule (Source: Wilson & Company)



1.3 Primary Objectives

The following four objectives were identified during the conception of the project to guide the planning process.

1. **Identify Priority Projects** (land use, housing, brownfields, transportation, water, sewer, stormwater, etc.) that stimulate economic development whereby the improved infrastructure and funding opportunities increase the attractiveness for private developers and/or utility providers (i.e. sanitary and water districts). Rank projects based on potential project success, including potential return on critical public investments. This includes identifying Top 40 Priority Projects and Top 10 Priority Projects.

2. **Provide Transportation Recommendations** to improve multimodal connectivity between the station areas. Create a conceptual complete street design for Federal Boulevard between 52nd and 72nd Street including a planning-level cost estimate and phasing strategy.
3. **Provide Land Use and Development Regulation Recommendations** including reviewing existing development regulations within the Planning Area and regulations used in other transit station areas to determine their applicability within the planning area.
4. **Provide Infrastructure Recommendations** including examining existing infrastructure to determine if existing infrastructure can adequately support the development or redevelopment opportunities.

1.4 Intergovernmental Cooperation

Local governments often find that there are limited resources to handle the numerous problems within a community. Cooperation between government agencies, whether they be cities, counties, the state or other government agencies, provides an opportunity for a more efficient local government. The same is true for the Making Connections Plan. Before this planning process was initiated, County staff met to determine what agencies should be participating in this strategic planning exercise. A Technical Advisory Committee was formed, comprised of Tri-County Health Department, Adams County Housing Authority, and numerous departments or offices within Adams County including: Long Range Strategic Planning, Parks and Open Space, Emergency Management, Transportation Administration, Transportation Engineering, Finance, Budget, Community and Economic Development, Business Solutions Group, Public Involvement Office, and the County Managers Office. Additionally, throughout this planning process the project team held conversations with local non-profits, Colorado Department of Transportation, Colorado Department of Public Health and the Environment, and the various Water and Sanitation Districts that serve the planning area. Adams County recognizes that only in cooperation and collaboration with these various agencies, can the County be successful in executing and implementing this strategic plan.

2 LAND USE & DEVELOPMENT

2.1 Existing Land Use

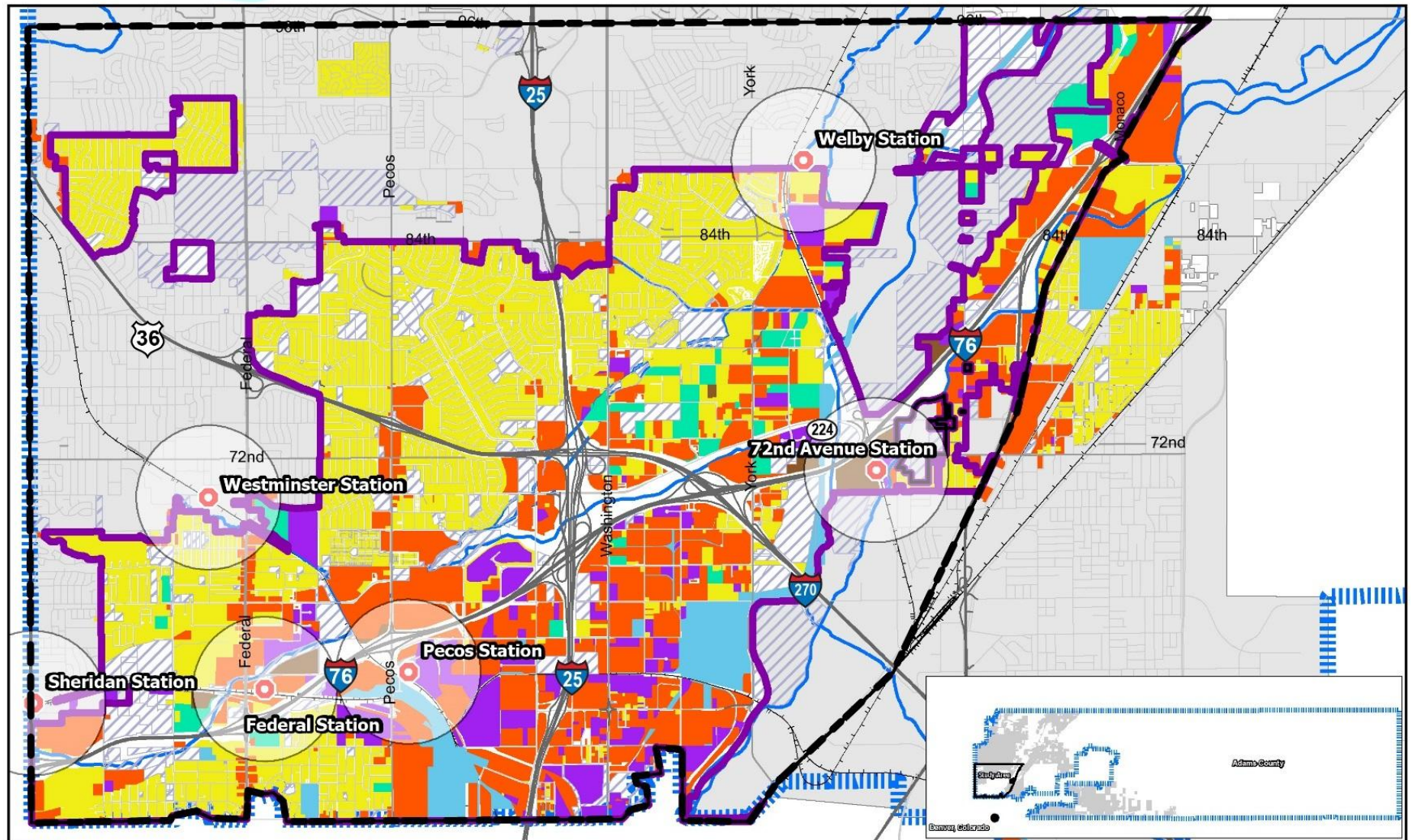
Existing land use is reviewed early in the planning process to develop a sense of how land is predominantly being used in a planning area. The unincorporated lands within the Study Area include 13,177 acres. Of this, 1,679 acres are within a half mile radius (10 minute walk) of future commuter rail stations. Existing land use in the unincorporated lands within the Study Area, as depicted in Figure 2-1, includes seven designations:

- Agricultural
- Commercial
- Industrial
- Producing Mine
- Residential
- State Assessed
- Exempt

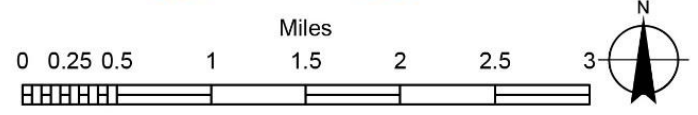
Residential lands appear to comprise about half of the unincorporated area. Housing typologies within the unincorporated areas of the Study Area consist of single family detached housing-including manufactured housing, duplexes, rowhomes, and apartments. Some future rail stations have virtually no housing within a half mile (10 minute walk) of the station. A significant portion of the existing housing stock within the unincorporated area is greater than 40 years old. All residential lands, whether single-family or multi-family, are identified in one land use district.

State Assessed and Exempt lands are located throughout the unincorporated area, with more clustering along I-76 and between I-76 and Clear Creek. Producing Mines exist in two primary locations, clustered within a half mile radius of either the Federal Station or 72nd Avenue planned RTD commuter rail stations. The remaining lands are primarily Commercial or Industrial, located in and around I-76, I-25, and I-270.

Figure 2-1 | Existing Land Use (Source: Adams County)



- | | | | | | |
|-----------------------|---------------------|---------------|--------------------|----------------|----------------|
| Adams County Boundary | Future Rail Station | County Rivers | Parcel Type | Exempt | Residential |
| Study Area Boundary | Half Mile Radius | County Rail | Agricultural | Industrial | State Assessed |
| Unincorporated Land | County Streets | City Limits | Commercial | Producing Mine | |



2.2 Zoning & Development Regulations

In addition to the early review of existing land uses, existing zoning is also reviewed to understand the regulatory framework that exists in a planning area. Figure 2-2 illustrates the existing zoning within the Study Area. Existing zoning within the unincorporated area includes agricultural land, industrial land, commercial, and residential land. Commercially zoned lands are notably adjacent to primary north-south transportation corridors. 50% of the Study Area is zoned industrial, 43% commercial, 34% residential, and 12% agricultural. Nine percent of land has specialized PUD zoning, less than a half of percent of the Study Area is commercial zoning, and just over 2% is parks, open space or conservation area. The most predominant zoning categories include:

A-1 and A-2: Most agriculturally zoned land is A-1 designated, which is described as "to provide a rural single-family dwelling district where the minimum lot area for a home site is intended to provide for a rural living experience. Limited farming uses are permitted including the keeping of a limited number of animals for individual homeowner's use. This district is primarily designed for the utilization and enjoyment of the County's rural environment." The locations of agriculturally zoned lands are mostly in Welby Neighborhood and along I-76/Brighton Boulevard area.

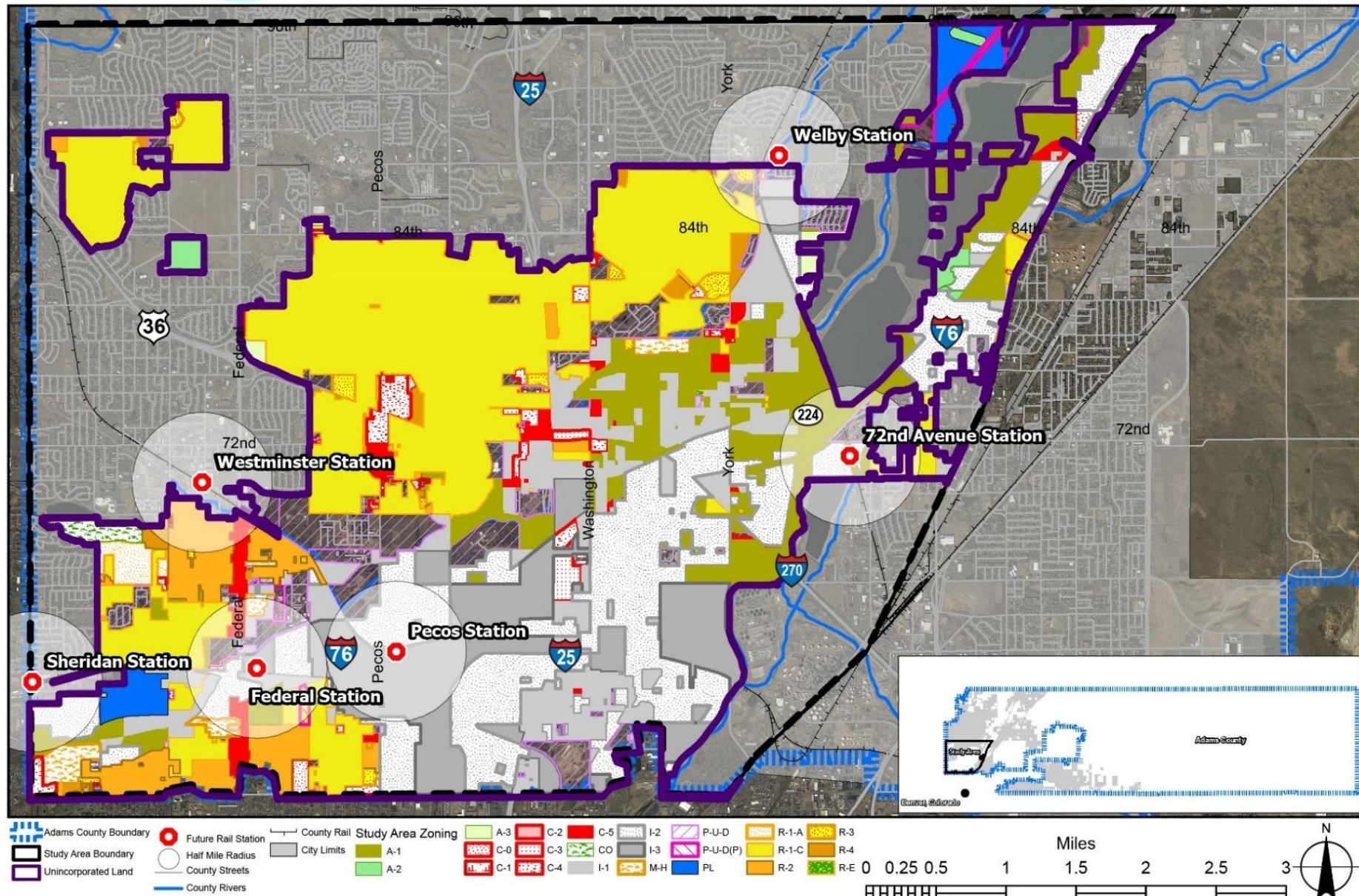
I-1, I-2, I-3: All three industrial zone districts are distributed fairly equally within the Study Area. The I-1 district is more of a mixed "flex" district that allows commercial uses, agricultural uses, limited residential uses, and lighter industrial uses. The I-2 district allows the basic commercial, agricultural, limited residential uses while permitting more intense, yet "non-hazardous and/or non-obnoxious materials and products" industrial uses. I-3 accommodates heavy industry, with specific exclusions.

R-1-C: Predominantly an existing residential zone district, notably utilized in the post WWII subdivisions that exist primarily in the northern portions of the study area, but also a few locations near the Federal and Sheridan Stations. This district "serve(s) exclusively as a single-family district for smaller home sites and smaller homes." This is defined as a minimum 7,000 square foot lot on a 65' wide lot.

R-2: This zone district is currently applied predominantly within a half mile radius of Federal Boulevard. This district allows for two-family dwellings. Here, size requirements are the same for a single-family lot, and are defined as 4,500 square feet per dwelling unit for a two-family lot.

PUD: A P.U.D. allows greater flexibility in the design of a development, more variety and diversification in the relationships between buildings, open spaces and uses, and conservation and retention of historical and natural topographic features while meeting the goals, policies and objectives of the comprehensive plan.

Figure 2-2 | Existing Zoning (Source: Adams County)



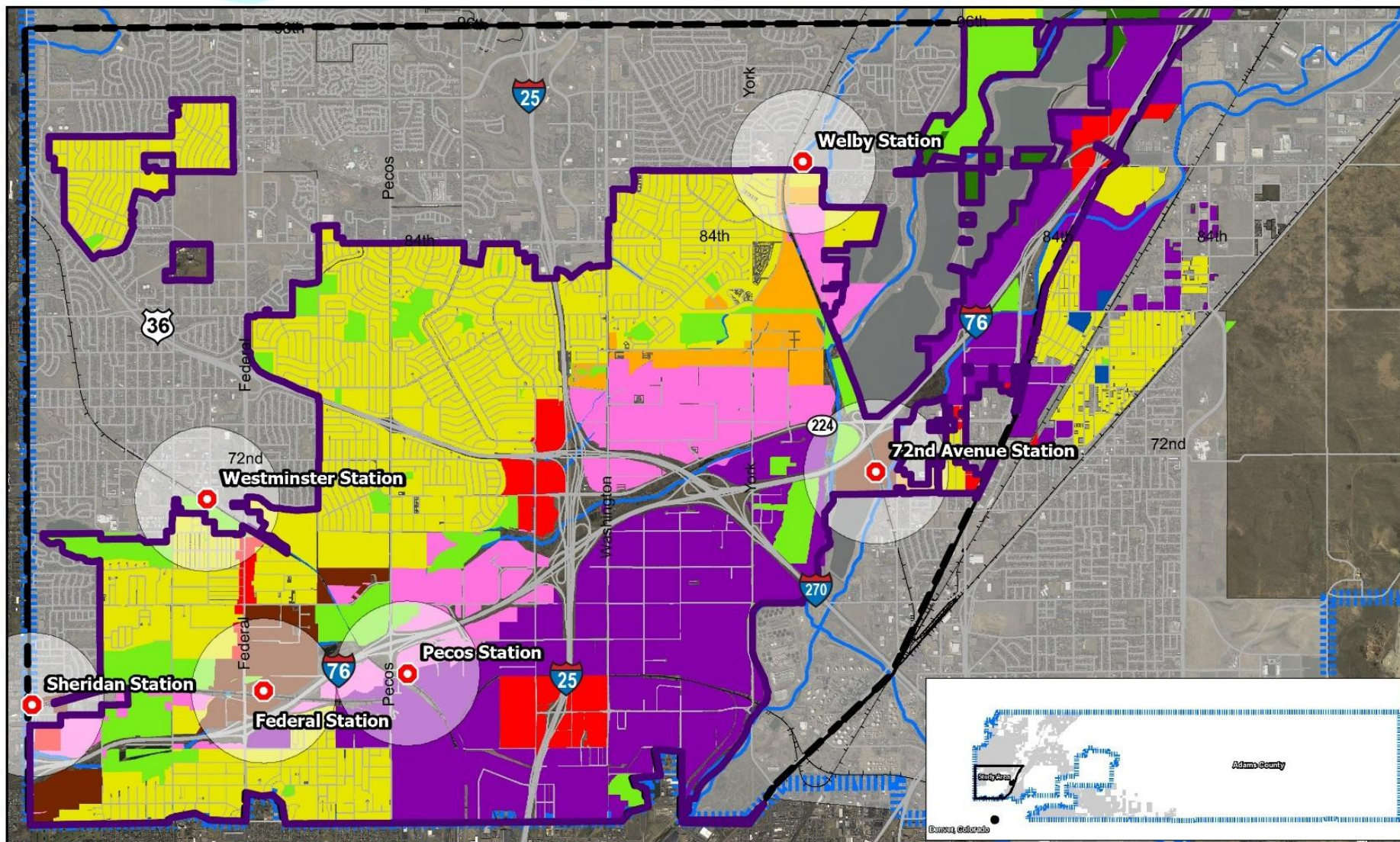
2.3 Future Land Use

The Adams County's Comprehensive Plan, completed in 2012 and titled "Imagine Adams County", formally designated a vision for future land uses in the Study Area. Per the County, the Comprehensive Plan "(it) is an advisory document that provides broad-based policy guidance and a physical framework for decision-making within the county on a range of growth-related issues. (It) establishes goals, policies, and strategies to assist the Planning Commission, Board of County Commissioners, and staff in day to day decision-making regarding land use applications, capital improvement planning, and regional coordination efforts with other jurisdictions and agencies. (It) provides increased predictability for Adams County residents, property owners and business owners, school districts, and others regarding the county's future." Future Land Use in the unincorporated lands within the Study Area, as depicted in Figure 2-3, includes 11 designations:

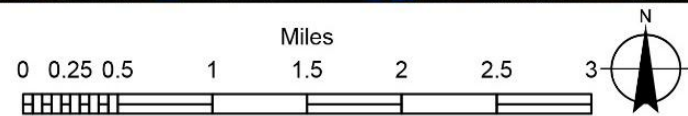
- Urban Residential
- Estate Residential (meant to focus on single family housing no greater than one unit per acre)
- Mixed Use Neighborhood
- Activity Center
- Commercial
- Mixed Use Employment
- Industrial
- Agricultural
- Parks and Open Space
- DIA Reserve
- Public

In addition, there is one overlay district that is within the Study Area: Natural Resource Conservation. The Natural Resource Conservation is an overlay designation for areas of particular environmental sensitivity. This includes areas that should not be developed because they are of exceptional environmental value, such as wildlife habitat areas, or are hazardous for development, such as floodplains. This designation also applies to areas that might develop, but should be treated in a particularly sensitive manner in order to ensure that the natural resources are protected.

Figure 2-3| Future Land Use (Source: Adams County)



- | | | | | | |
|-----------------------|------------------|----------------------|------------------------|----------------------|--------|
| Adams County Boundary | Half Mile Radius | City Limits | Mixed Use Neighborhood | Industrial | Public |
| Study Area Boundary | County Streets | Future Land Use-2012 | Activity Center | Agriculture | |
| Unincorporated Land | County Rivers | Urban Residential | Commercial | Parks and Open Space | |
| Future Rail Station | County Rail | Estate Residential | Mixed Use Employment | DIA Reserve | |



Of the land use designations included in the 2012 Comprehensive Plan, four relevant categories were added in the 2012 Comprehensive Plan and are important to note for this project. As described in the Plan, they include:

MIXED USE NEIGHBORHOOD

The Mixed Use Neighborhood category allows for a range of urban level residential uses, including single and multi-family housing combined with compatible and supporting uses and activities that serve the neighborhood and are developed and operated in harmony with the residential characteristics of a neighborhood. New Mixed Use Neighborhoods should only be located in areas with adequate public infrastructure and services, schools, and access to transportation. Existing Mixed Use Neighborhoods generally feature a combination of existing residential and some limited neighborhood scale non-residential development. Future development in these areas should complement and minimize impacts to existing residential development.

ACTIVITY CENTER

This land use category is characterized by its high intensity, mixed-use character, and high quality. The primary uses will be offices, hotels, retail, high-density residential and clean, indoor manufacturing and warehousing. Activity Centers are designated for areas that will have excellent transportation access and visibility, particularly along the FasTracks corridors. Development in Activity Centers must contain a sufficient intensity and mix of uses to create a pedestrian environment and support transit service. These centers may be especially suitable for providing a variety of housing or should be planned with due consideration of accessibility between residences and places of employment.

MIXED USE EMPLOYMENT

This land use category allows a mixture of employment uses, including offices, retail, and clean, indoor manufacturing, distribution, warehousing, and airport and technology uses. New Mixed Use Employment areas are designated in locations that will have excellent transportation access and visibility, but are not suitable for residential uses. Large swaths of properties around Denver International Airport, Front Range Airport, and the I-70 corridor are designated for future Mixed Use Employment to preserve future long-term opportunities for employment growth in these areas, but any future development in these areas should be phased and concentrated around where urban services and infrastructure are most readily available. Some existing Mixed Use Employment Areas, such as the Welby area, contain pockets of existing residential and agricultural uses. In these locations, some additional residential may be appropriate. Nonresidential development in these locations should incorporate buffering and other mitigation tools to reduce impacts between dissimilar uses.

URBAN RESIDENTIAL

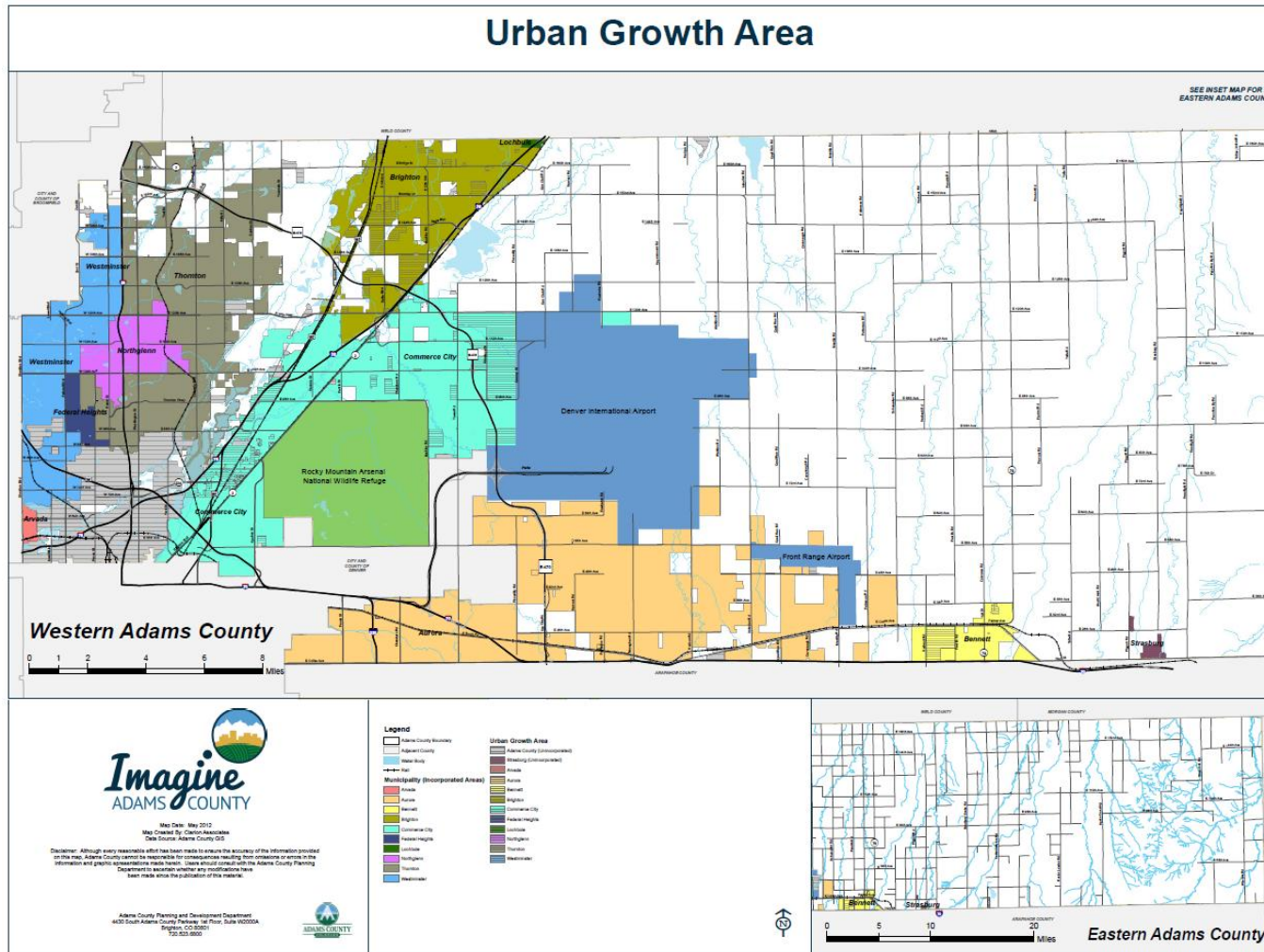
Urban residential areas are designated for single and multiple family housing, typically at urban densities of one dwelling per acre or greater. These areas are intended to provide for development of residential neighborhoods with a variety of housing types, with adequate urban services and transportation facilities. Urban residential areas may include supporting neighborhood commercial uses designed to serve the needs of nearby residents.

It doesn't appear that any "Urban Residential" lands are mapped within the Study Area. The term Urban Residential is utilized frequently in the Comprehensive Plan as a way to plan for new growth. Specifically, it speaks of this land use category being applied in "County identified infill areas and/or municipal and county growth areas." The Plan states that this type of development (minimum one du/acre and above) should only occur if adequate municipal services can be

provided. The Plan identifies nearly the entire Study Area as a County Urban Growth Area according to *Imagine Adams County Appendix A: County Profile – Urban Growth Area Map*, as depicted in Figure 2-4.

Most notably, the Future Land Use as identified in the 2012 Adams County Comprehensive Plan does not specifically take into account the future six commuter rail stations that are planned to open in 2016 and 2018.

Figure 2-4 | Urban Growth Area (Source: Adams County)



2.4 Housing & Neighborhoods

A review of existing housing and development patterns in the Study Area neighborhoods was also conducted to gain an understanding of existing formal neighborhoods or other policy-guiding geographic designations. This provides an understanding of the type, age, general intensity, and location of housing within the unincorporated areas of the Study Area.

The Denver Region Council of Governments (DRCOG) has one designated Urban Center within the Study Area. This is the South Westminster Activity Center, identified as an Emerging Urban Center. This is located at Westminster Station at 70th Street between Federal and Lowell Boulevards. The formal Urban Center boundary as currently defined by DRCOG is north of the planned rail line in incorporated Westminster. DRCOG's Infill and Redevelopment Issues Paper published March 2014 (as part of Metro Vision 2035 plan update process) identifies the Midtown Development in the Study Area as one Denver region example of a successful project.

Figure 2-5 provides an overview of neighborhoods identified within the Study Area. There are approximately fifteen named neighborhoods within the unincorporated area of the Study Area. These vary in geographic size from a few blocks to large post WWII subdivisions, but cover nearly the entire unincorporated area. The primary geographic zones not currently included in an official neighborhood are: a) in and around the planned Pecos Station and east to I-25; and b) lands straddling I-76 from 70th to 95th Streets. The geographically largest existing neighborhood is the Welby Neighborhood.

Housing in the Study Area includes single family detached homes (including manufactured housing), townhomes, and two- to three- story apartment buildings. Generally, the housing stock in the unincorporated area is more than 40 years old, as illustrated in Figure 2-6. The single family homes are primarily front loaded ranch homes built between 1946 and 1975 in post-WWII suburban development patterns. These homes are predominately located north of 70th Street. Most housing built before 1946 is located south of 60th Street and west of Pecos Street. The relatively small amount of construction built after 1975 is located close to previously constructed residential development. The Midtown Development by Brookfield Residential Co. is an example of new for sale housing being constructed. This is located at 67th and Pecos Streets. Minimal housing is located between Clear Creek and the Platte River as this historically was, and currently is, predominately agricultural and industrial in use.

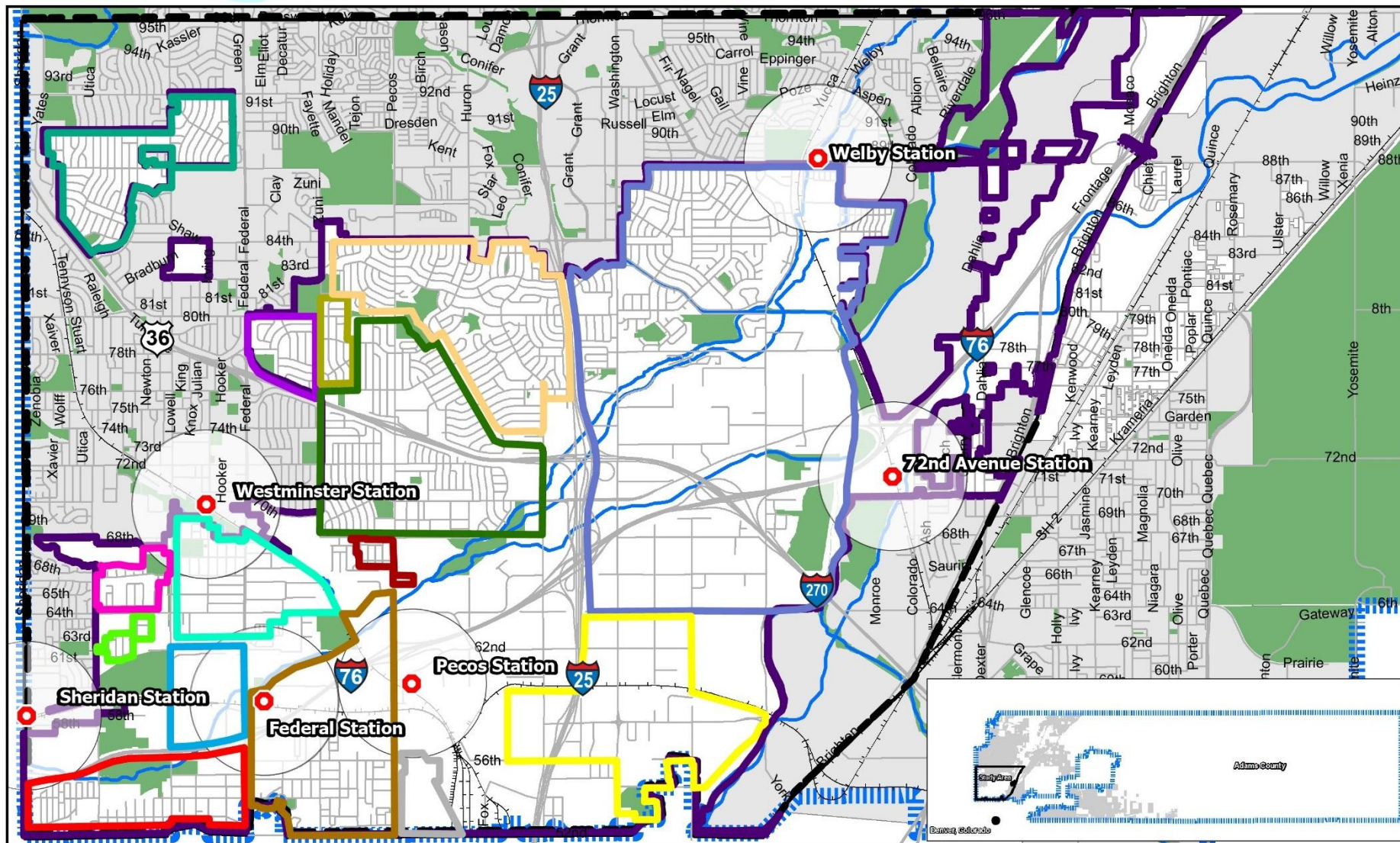
Barriers to affordable housing noted by the Adams County Housing Authority for this area include:

1. Costs
 - a. Land – it is a large upfront cost that is not eligible for Low Income Housing Tax Credits (LIHTC).
 - b. Infrastructure – depending on local requirements can be costly, especially stormwater detention and fire standards.
 - c. Off-site improvements – these costs are not eligible for LIHTC and add significant cost.
2. Insufficient zoning – current zoning is geared more towards suburban development and does not allow for higher density urban/TOD development. This makes affordable housing more difficult to develop (loses economies of scale, increases overall costs, and requires rezoning).
3. Unpredictable rezoning/permitting process – review procedures and timelines fluctuate adding uncertainty to the development.

4. Access to funding (gap funding) – projects funded with LIHTC equity and debt typically face gaps. More gap funding tools would increase the amount and quality of affordable housing development.

Figure 2-7 illustrates an analysis of Improvement to Land Value Ratio, which is one tool to identify propensity for new investment (the lower the ratio, the higher the propensity). Figure 2-8 provides a photo depiction of the typical housing typologies surrounding each of the six stations areas.

Figure 2-5 | Housing and Neighborhoods (Source: Adams County)

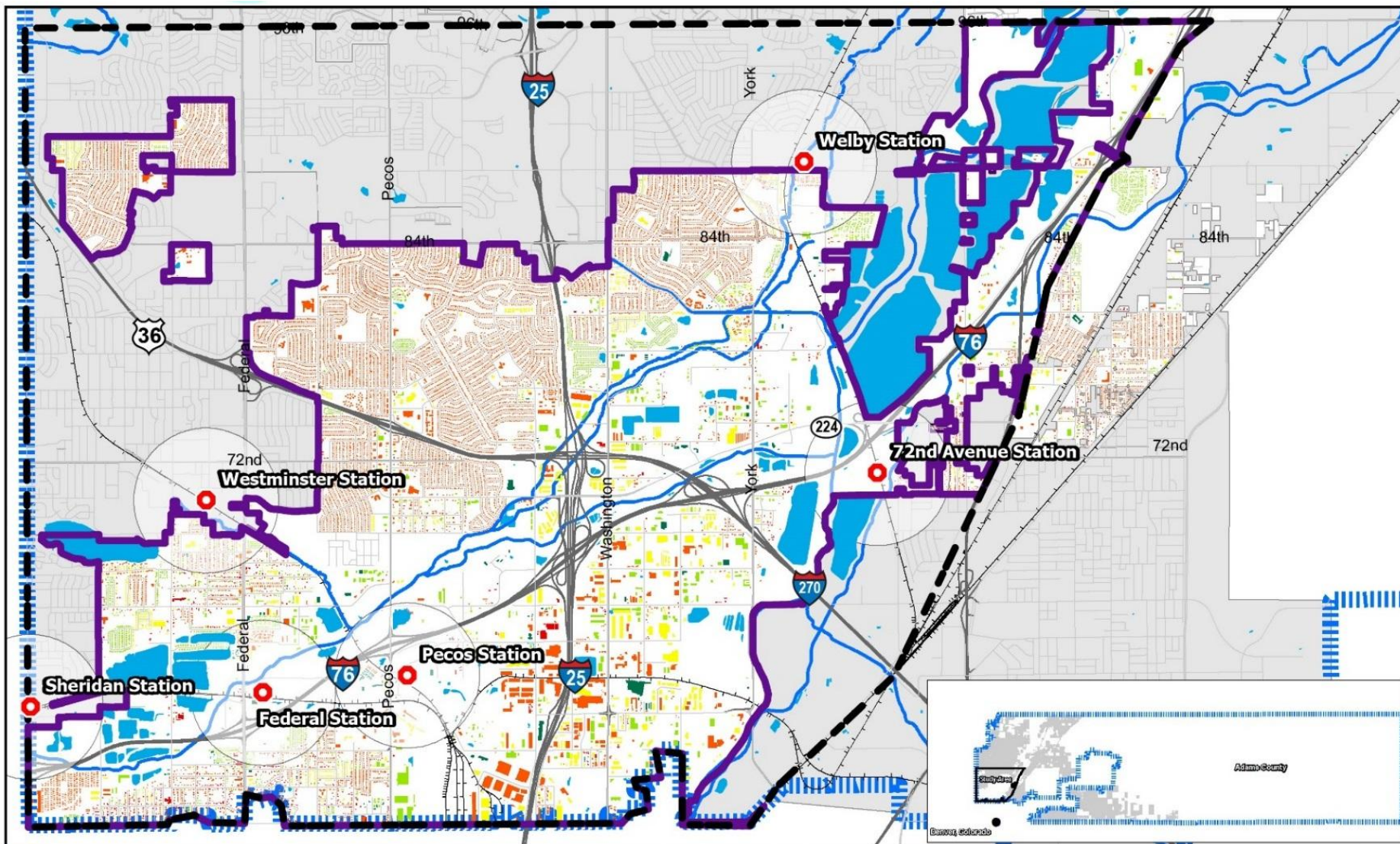


Adams County Boundary	Half Mile Radius	City Limits	Unincorporated Community	Fairview	Mapleton	Shaw Heights
Study Area Boundary	County Streets	Parks	Aloha Beach	Florado	Midtown at Clear Creek	Sherrelwood
Unincorporated Land	County Rail	Arlington Meadows	Goat Hill	Lakeshore Estates	North Pecos	Utah Junction
Future Rail Station	Waterbody	Berkeley	Lakeshore Estates	Lakeshore Estates	Peri Mack	Welby

Miles

0 0.25 0.5 1 1.5 2 2.5 3

Figure 2-6 | Age of Structures (Source: Adams County)



Adams County Boundary	Future Rail Station	Waterbody	City Limits	1946 - 1975	1991 - 2005
Study Area Boundary	Half Mile Radius	County Rivers	Building Footprints by Year	1976 - 1990	2006 - 2015
Unincorporated Land	County Streets	County Rail	1945 or before		

Miles

0 0.25 0.5 1 1.5 2 2.5 3

Figure 2-7| Improvement to Land Value Ratio (Source: Adams County)

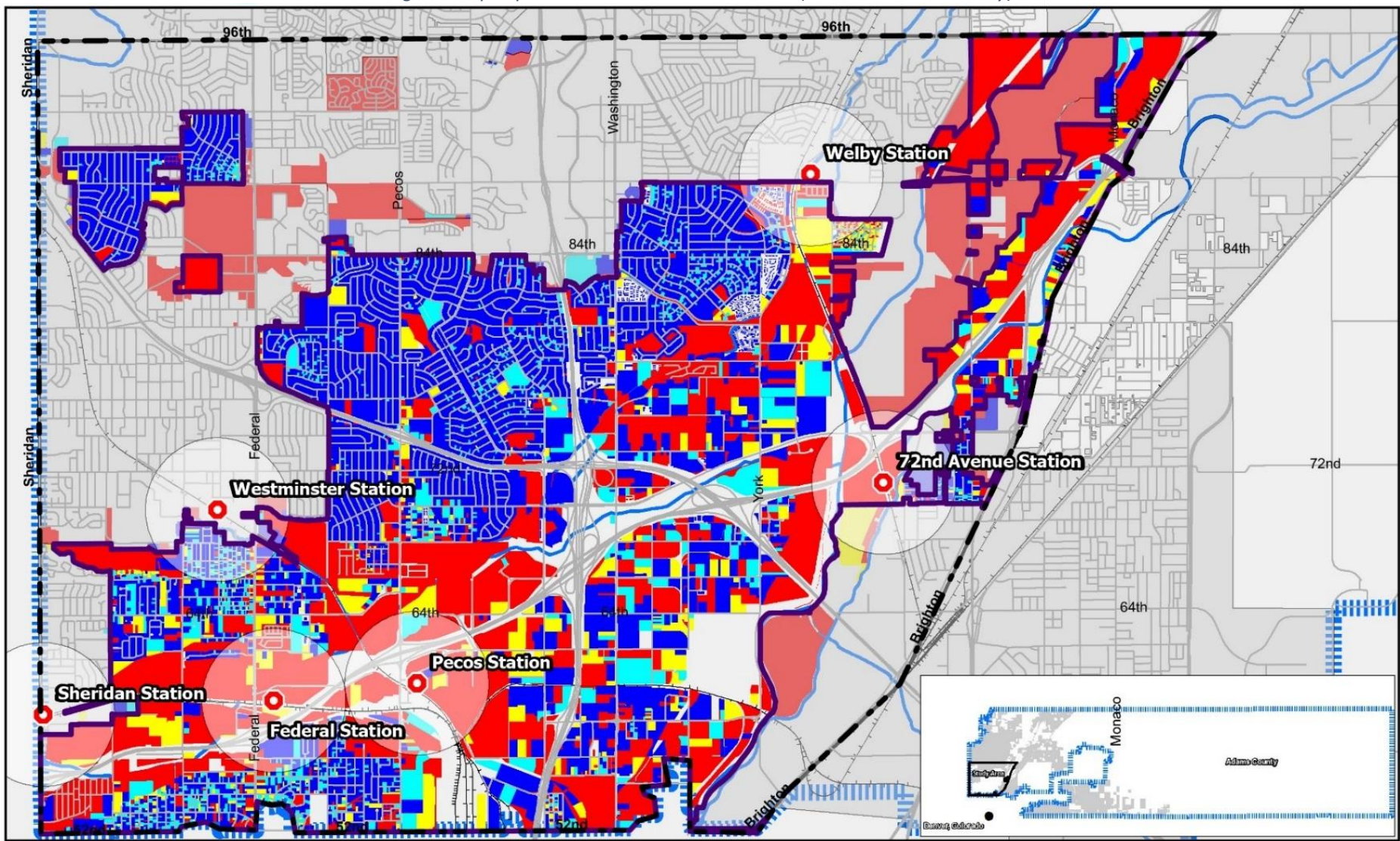


Figure 2-8| Housing Typologies in Station Areas

Westminster Station Area



Primarily single family detached homes or duplexes currently exist here.

Welby Station Area

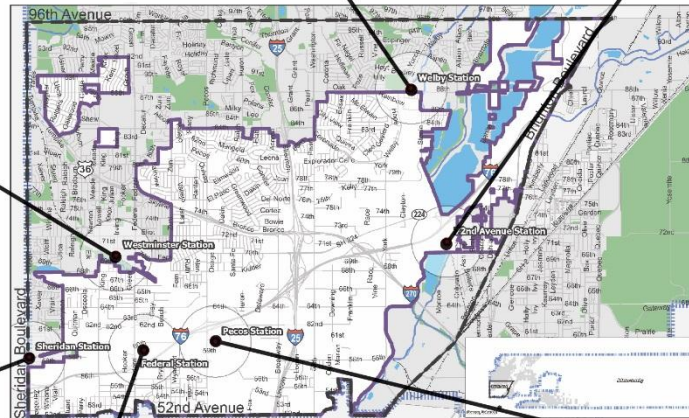


Manufactured housing and rowhomes are the predominant existing housing stock here.

72nd Station Area



The only housing here is along Colorado Boulevard, mixed in with commercial uses.



Sheridan Station Area



Single family mid-century homes are located north of the station.

Federal Station Area



Manufactured housing exists north and southwest of the station. Single family homes built in the past 15 years exist southeast of the station.

Pecos Station Area



Housing that is about 3/4 of a mile from the station includes mid-century ranch homes.

3 TRANSPORTATION

Transportation, or how people and goods move about, is key to a vibrant community. Understanding how and where people walk, drive, bike, or ride transit is important in understanding how our communities operate. Additionally, understanding how goods move about is important in establishing or maintaining a vibrant local economy.

3.1 Roadway Facilities

Data was collected from various agencies, including Colorado Department of Transportation (CDOT), Adams County, and RTD within the planning area, to define the physical and operational conditions of the existing roadway circulation network.

The existing roadway network, depicted in Figure 3-1, contains a variety of different street classifications, but predominantly includes local level streets. The majority of the locally classified streets within the Study Area are “county road assets” indicating the County owns and maintains those roadways. The County Road Assets are illustrated in Figure 3-2. Nearly all the collector classified streets are concentrated either in the central commercial district or in the north or southwest neighborhoods. Figure 3-3 indicates that most collector streets within the unincorporated boundary have speed limits that range from 20-30 miles per hour indicating that many streets may be conducive to multimodal trips. However, signed speed limits are not the only factor to evaluate ideal multimodal routes.

Figure 3-1 illustrates that the principal and minor arterial streets within the planning area primarily run north-south. These roadways include Sheridan Boulevard, Federal Boulevard, Pecos Street, Washington Street, and York Street. However, only sections of 58th Avenue, 64th Avenue, 72nd Avenue, 80th Avenue, and 84th Avenue run east-west, with Thornton / 96th Avenue, 70th Avenue, and 88th Avenue the only arterial classified streets that provide a significant east-west arterial connection. In fact, Thornton / 96th Avenue are the only streets that completely cross through the Study Area without any physical barriers. Pecos, Washington and York have some of the study area’s higher speed limits including 35 and 40 miles per hour, which can generally still be conducive to multimodal activity with accommodating design features.

Figure 3-1 also includes Interstate Highways I-25, I-76, I-270 and US highway 36 as the four major interstate corridors within the planning area. Interstate Highway I-25 runs north and south through the study area providing a direct connection to downtown Denver to the south. Interstate Highway I-76 crosses diagonally southwest-northeast across the study area. Interstate 270 (I-270) runs from the southwest corner to intersect with I-25, and turns into US Highway 36 which acts as a direct connection to Broomfield and Boulder, Colorado. These four highways extend beyond the entire planning area providing connectivity to a larger regional network and destinations beyond the study area.

Figure 3-1 | Roadway Classifications (Source: Adams County)

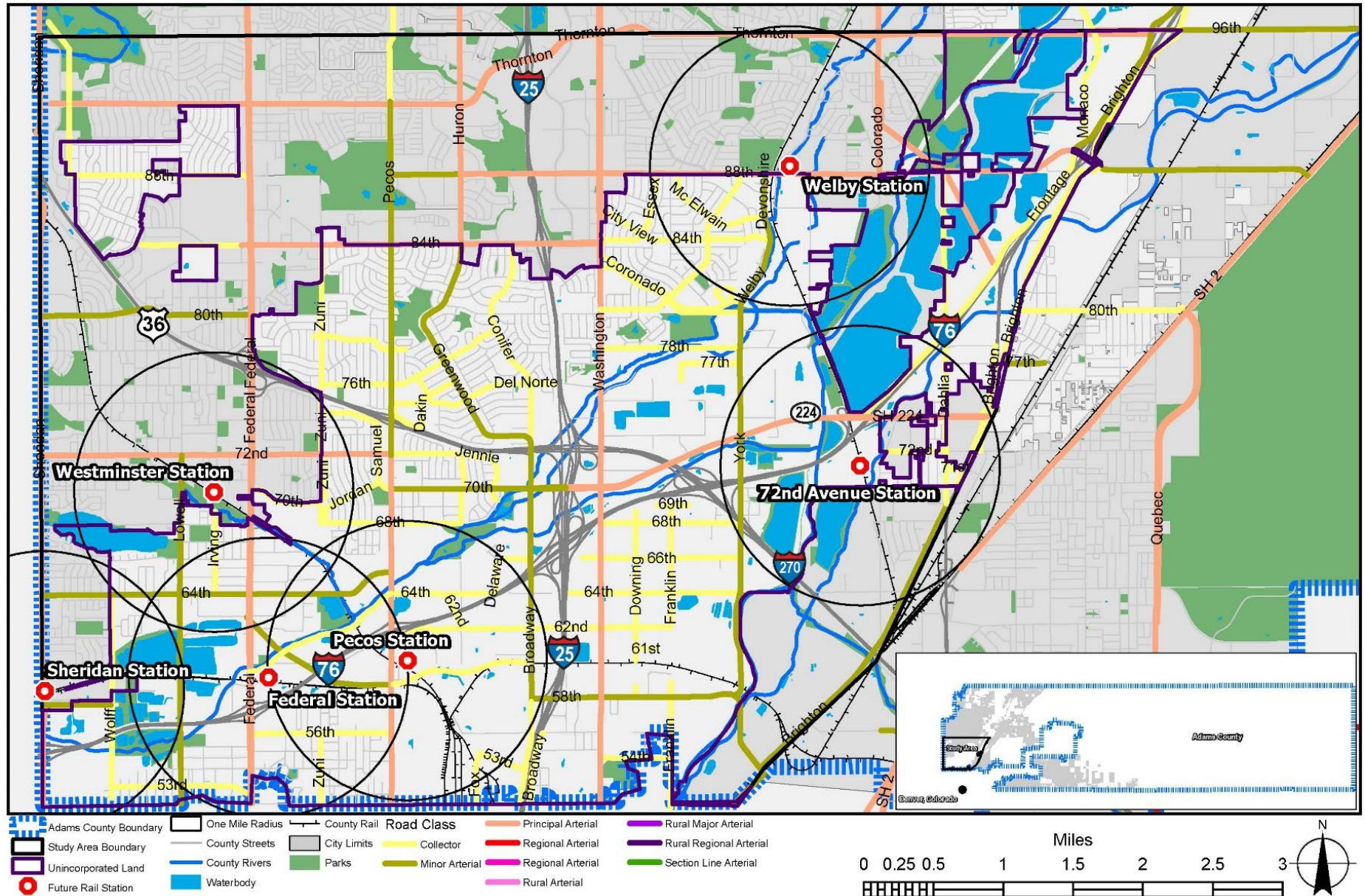


Figure 3-2 | County-Owned Roads (Source: Adams County)

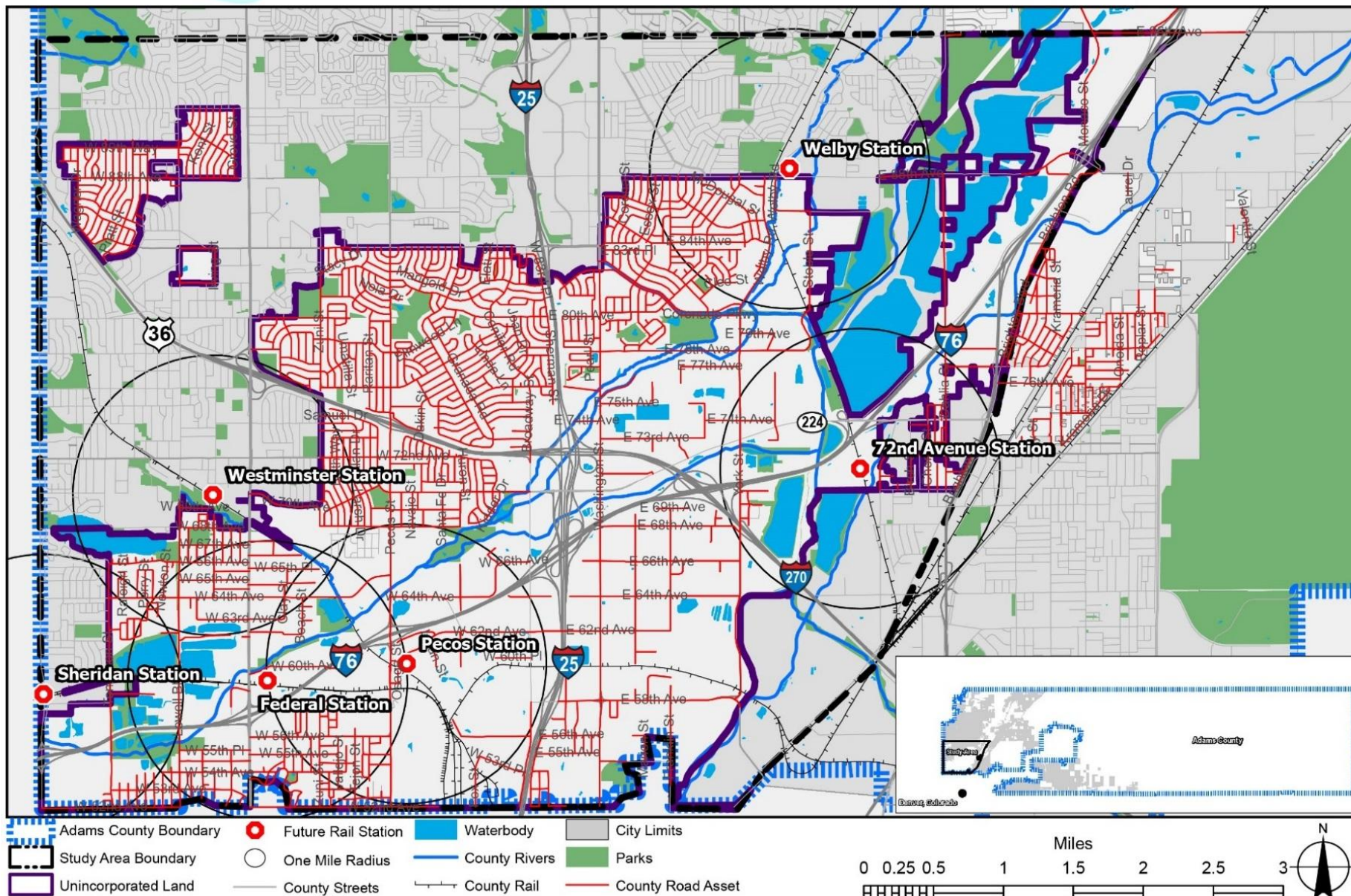
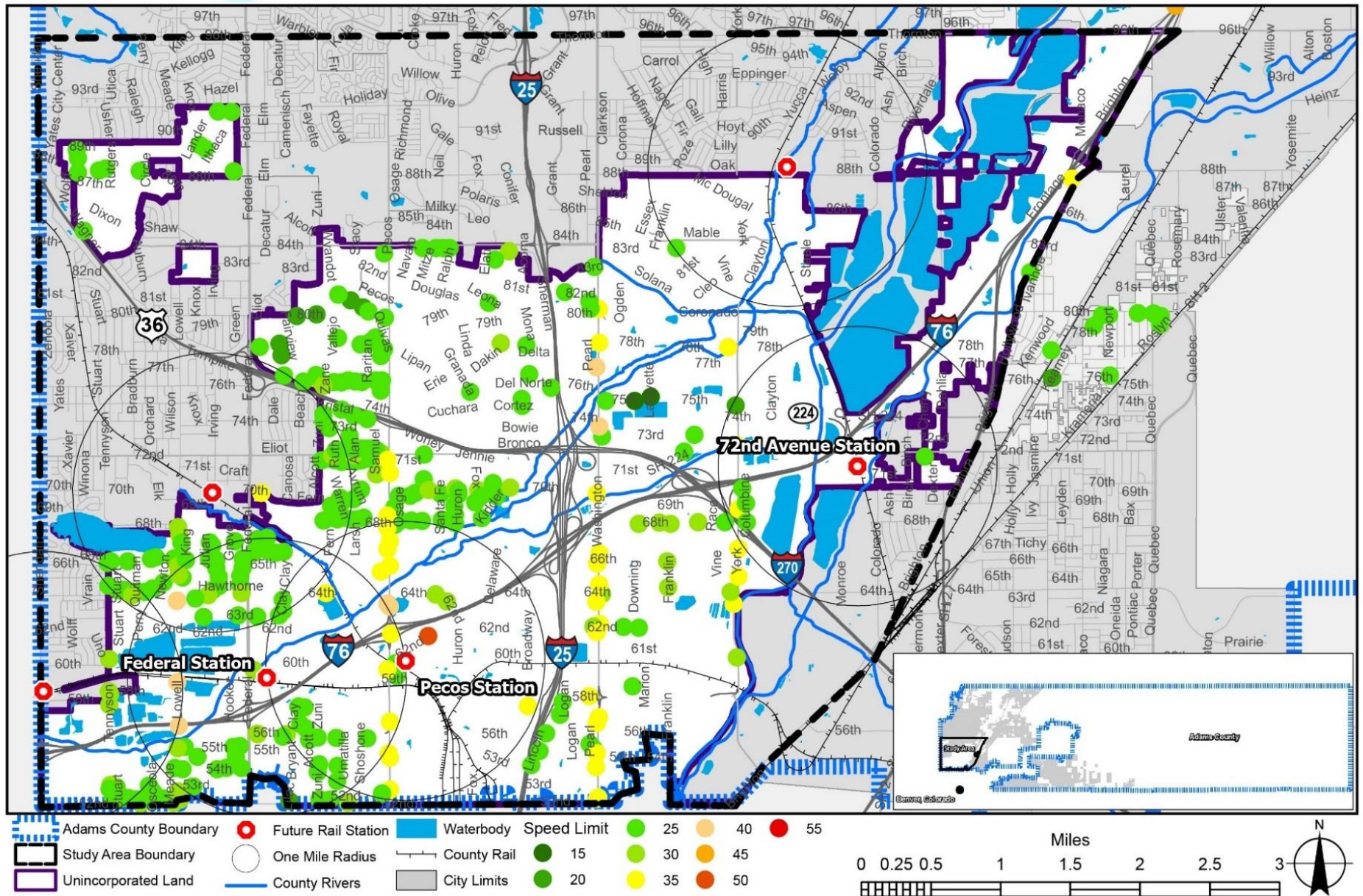


Figure 3-3 | Speed Limits (Source: Adams County)



3.2 Pedestrian Facilities

Figure 3-4 illustrates the known pedestrian infrastructure within the study area through the display of sidewalks, paths and multi-use paths. The data received from Adams County shows a concentration of sidewalks on local and collector classified streets primarily in the neighborhoods. These existing sidewalks in the neighborhoods provide residents with a walking route to nearby parks, schools or other amenities. The arterial roads within the unincorporated land that provide county sidewalks include Pecos Street, Washington Street and segments of Tennyson Street, Lowell Boulevard and York Street. The existing network of multi-use and other paths provide a different purpose by linking distant parks and neighborhoods, while also providing pedestrian corridors for recreational hiking along the various routes. It is well-documented from previous planning efforts that significant portions of Federal Boulevard and some of the connecting corridors have little to no sidewalks and that of what sidewalks are present, much is in disrepair. Through the Health Impact Assessment conducted during the Federal Boulevard Framework Plan process, Tri-County Health Department completed a comprehensive sidewalk inventory for the area bounded by Lowell Boulevard, Zuni Street, 52nd Avenue and 72nd Avenue. In addition to a sidewalk inventory, Tri-County Health Department engaged community members in two walkability assessments. The summary of findings from the sidewalk assessment and community walkability assessments can be found in the *Federal Boulevard Framework Plan Health Impact Assessment Report*, April 2015.

A vast network of pedestrian facilities is key to offering a walkable community; however, the presence of pedestrian paths and sidewalks is not the only element to making walking a desirable mode of transportation. Other important factors include safe crosswalks at intersections, attractive streetscapes and easy access to closely adjacent transit facilities, stores, parks, and other destinations. Additionally, offering a pedestrian environment that is accessible by all users, regardless of age and disability, is essential to achieving a walkable community. Completed in 2015, the *Americans with Disabilities Act (ADA) Transition Plan for Public Right-of-Way in Unincorporated Adams County, Colorado* identifies facilities, guidelines, standards, policies, procedures or practices currently utilized or recommended for use to reduce accessibility barriers in unincorporated Adams County. This document provides a criteria to use in prioritizing ADA improvements. The Plan also indicates the County's legal authority to require property owners to pay for repair or remediation to sidewalks or ramps when adjacent to the owner's property and within public right-of-way. The Plan anticipates most ADA repair or replacement will occur in conjunction with other projects and activities occurring within the County. At the time of this report, the geographic locations of ADA deficiencies were being mapped to determine locations for needed improvements which can then be incorporated in Phase 3 and 4 activities.

3.3 Bicycle Facilities

Figure 3-5 identifies the existing network of bicycling facilities based on data collected from Adams County, Colorado Department of Transportation (CDOT), and Denver Regional Council of Governments (DRCOG). The figure illustrates multiple types of bicycling pathways including on- and off-street bikeways, bicycle corridors, and multi-use paths. The bicycle facilities within the study area are maintained by various agencies as illustrated in Figure 3-5; this figure illustrates which public agency is responsible for the operation and maintenance of the identified bicycle facilities.

Multi-use paths, off-street facilities, and regional bicycle corridors are significantly more prevalent than on-street bicycle facilities. In fact, Figure 3-5 only identifies ten on-street bikeways, with just five designated bike lane corridors. The identified Adams County bike lanes are present on 64th Avenue, Sheridan

Boulevard, Federal Boulevard, Dahlia Street, and only small segments of 86th and 88th Avenue. The remaining existing bicycling infrastructure exist on regional corridors like the US Highway 36 route, and multi-use paths including Clear Creek, Colorado Front Range, South Platte River, and the Little Dry Creek trails.

Figure 3-4 | Pedestrian Facilities (Source: Adams County)

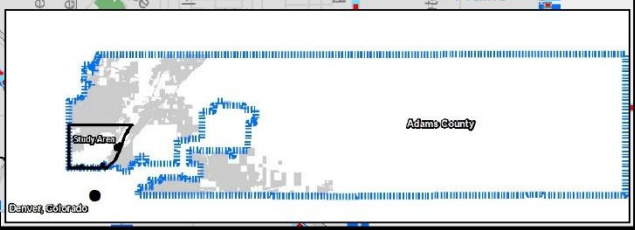
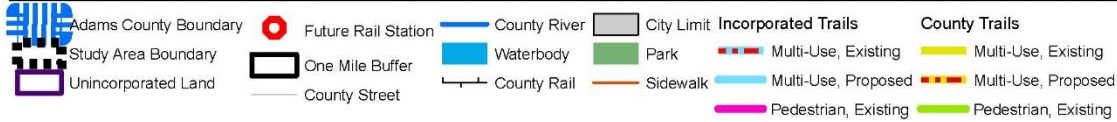
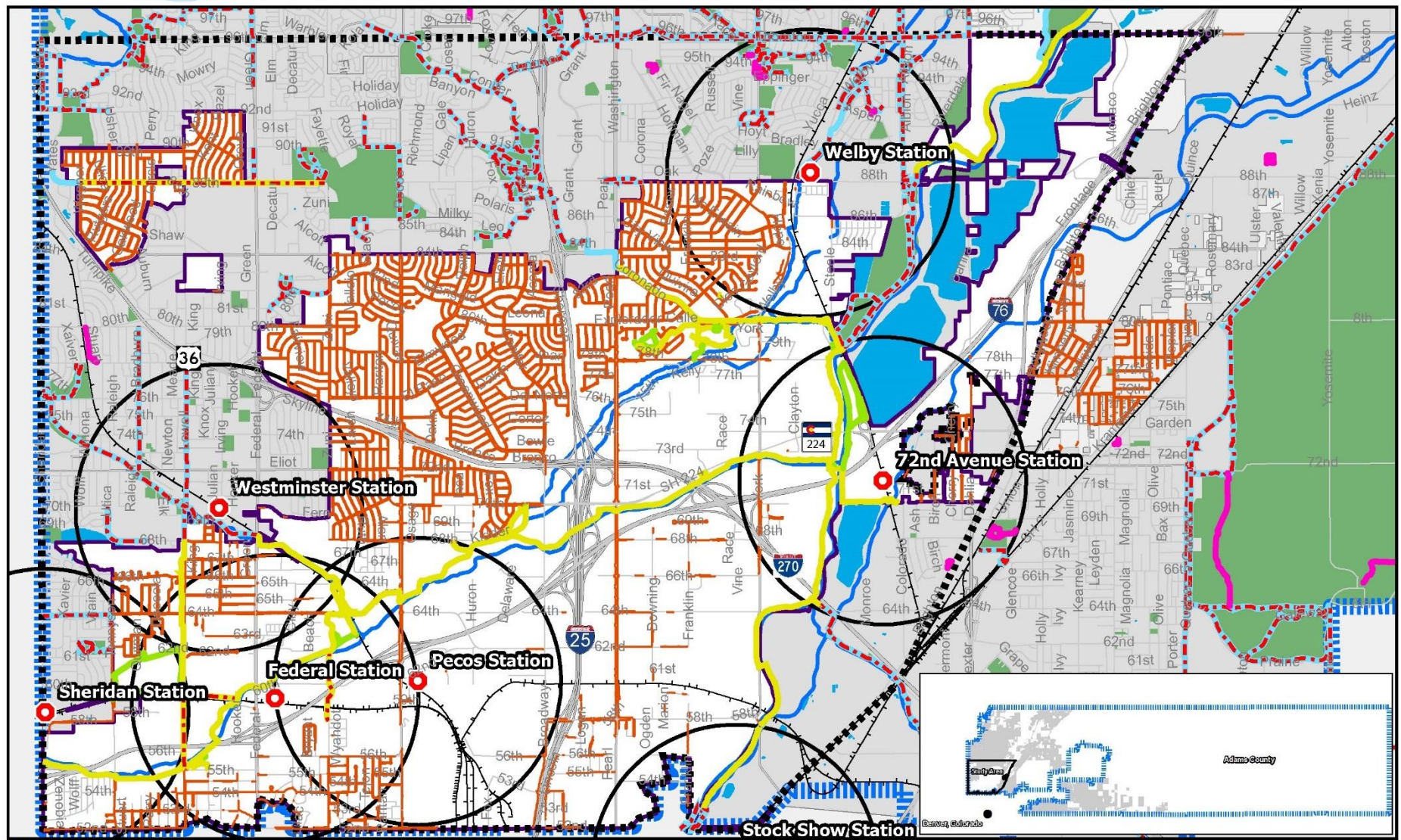
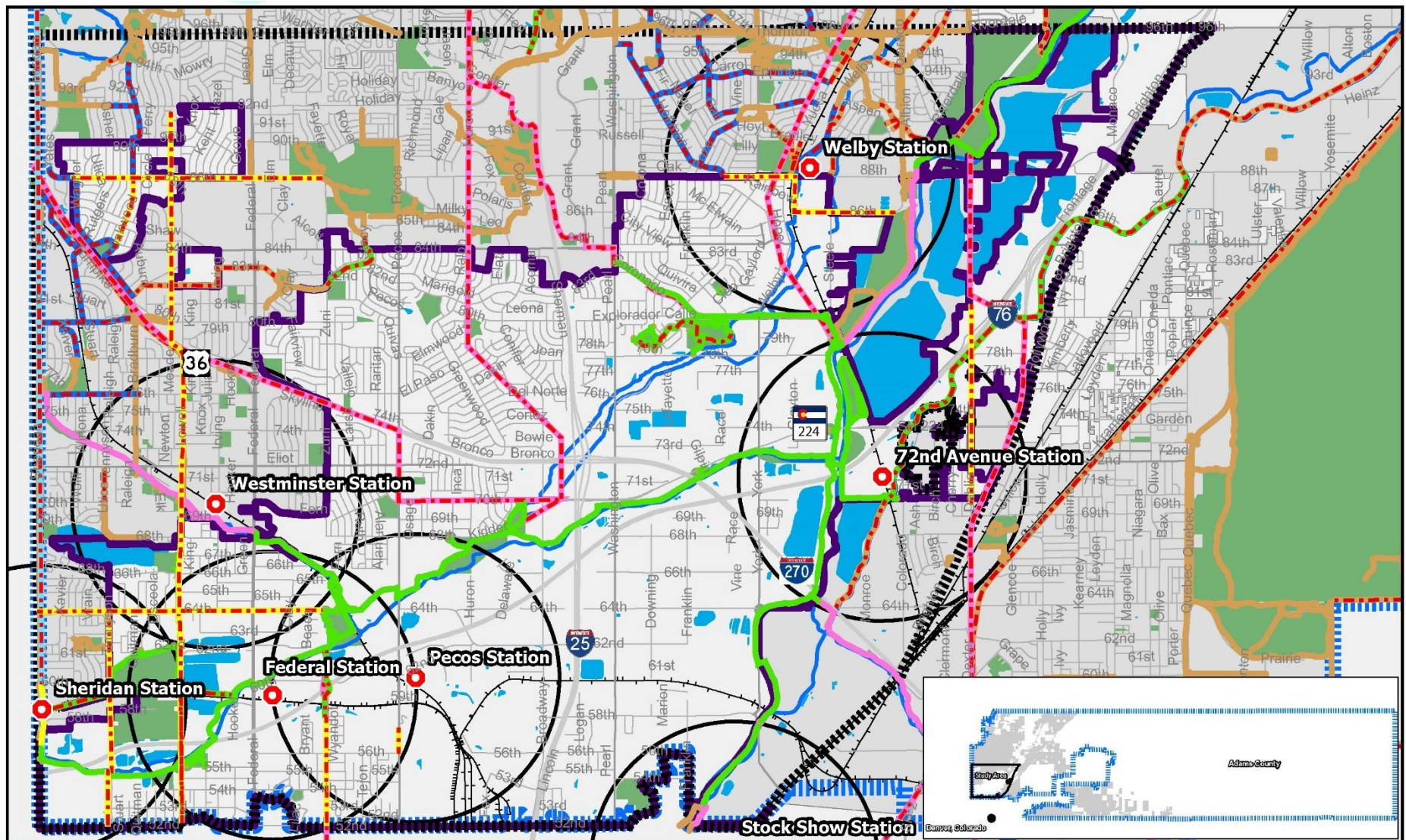
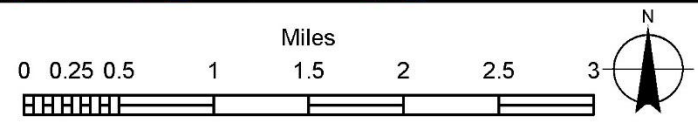


Figure 3-5 | Bicycle Facilities (Source: Adams County)



- | | | | | | | |
|-----------------------|---------------------|---------------|-------------|-------------------------------|---------------------------|-------------------------------|
| Adams County Boundary | Future Rail Station | County Rivers | City Limit | Adams County Bicycle Facility | Regional Bicycle Facility | Incorporated Bicycle Facility |
| Study Area Boundary | One Mile Buffer | Waterbody | County Rail | Off-Street, Existing | Off-Street, Proposed | Off-Street, Proposed |
| Unincorporated Land | County Street | Park | | On-Street, Existing | On-Street, Existing | On-Street, Proposed |



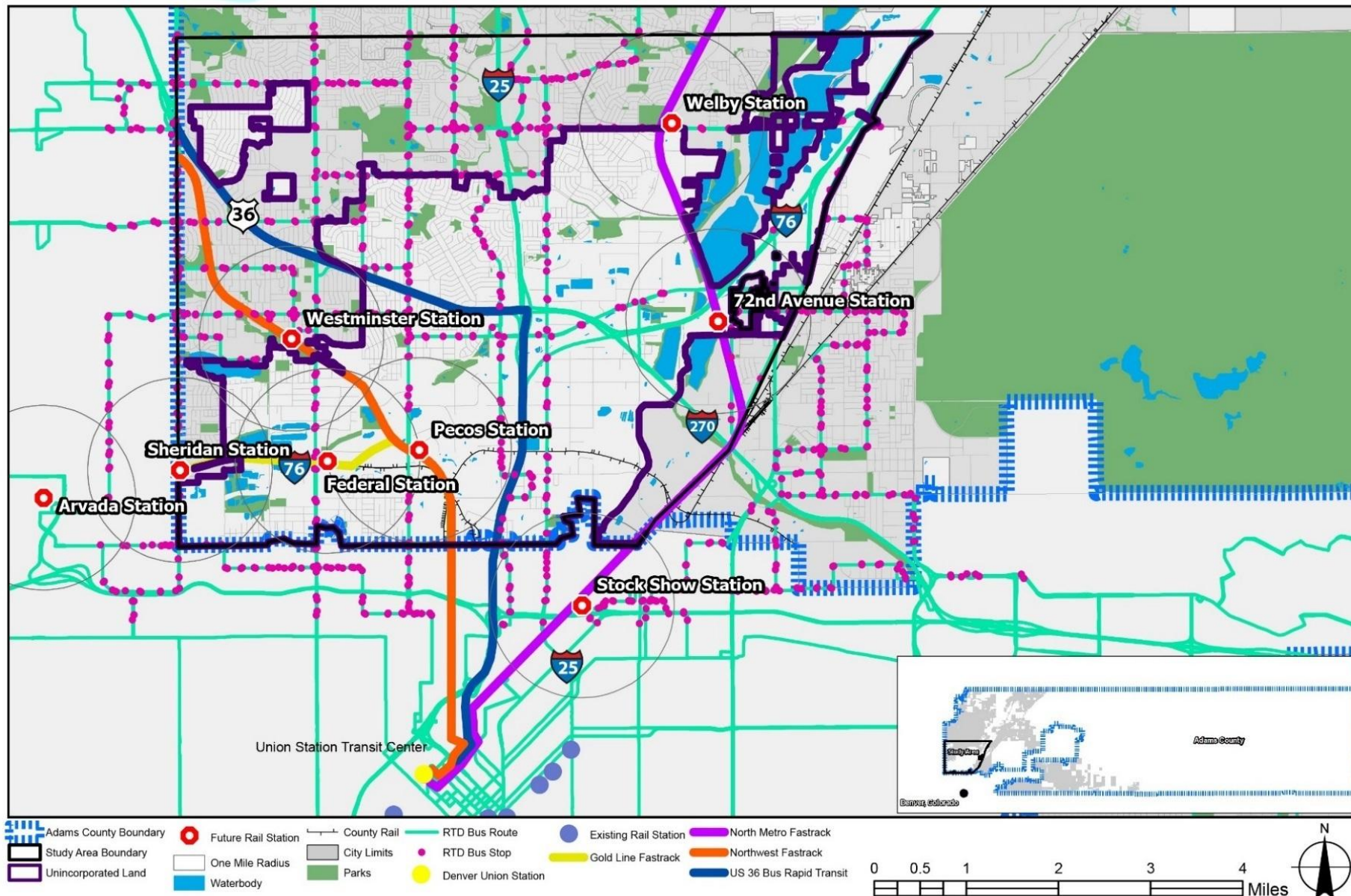
3.4 Transit Facilities

Figure 3-6 illustrates the public transportation network within and around the study area. The Regional Transit District (RTD) is currently operating bus service routes that offer both countywide and regional public transportation options. The major north-south bus routes are on Sheridan Boulevard, Federal Boulevard, Pecos Street, Broadway Street, and Washington Street. There are no east-west bus routes within the Study Area that run completely through without any physical barriers. The predominant east-west bus routes include 88th Avenue, 84th Avenue, 80th Avenue, 72nd Avenue and 70th Avenue, which is the longest east-west route. The southern portion of the Study Area does not have an east-west RTD bus route. RTD also provides bus routes on highways, including along I-25, I-76, I-270 and US 36; all of which offer the community regional public transit options.

Additionally, Figure 3-6 identifies the currently under construction RTD FasTrack routes and stations that will dramatically expand transit service in the study area and the Denver region. FasTrack is projected to begin operating in 2016 and will include six stations, three commuter rail routes and a Bus Rapid Transit (BRT) route within the study area. The Gold Line (G Line) and Northwest Line (B Line) run north from Denver, Colorado, where they split at Pecos Street. The G Line then runs west through Federal Boulevard and Sheridan Boulevard towards Arvada. The B Line runs northwest after Pecos Street through Westminster. The North Metro route runs northeast from Denver along the east side of the study area and then heads north through the planning area through the Welby neighborhood. The BRT route, also known as the Flatiron Flyer, is planned to come from Denver through the planning area and then head northwest along US 36 towards Boulder, Colorado.

As Figure 3-6 illustrates, transit investments will greatly improve transportation options, connections to major job centers and surrounding communities, and provide for location trip opportunities connecting residents to destinations within their community. This figure illustrates a 1-mile radius of the RTD station locations. This radius is used to identify target areas for “first and last mile” multimodal connections. Most of the study area falls within these 1-mile radii; however, a large portion within the north and central portions of the study area does not fall within the 1-mile radii.

Figure 3-6 | Transit Facilities (Source: Adams County)



4 DRAINAGE & UTILITIES

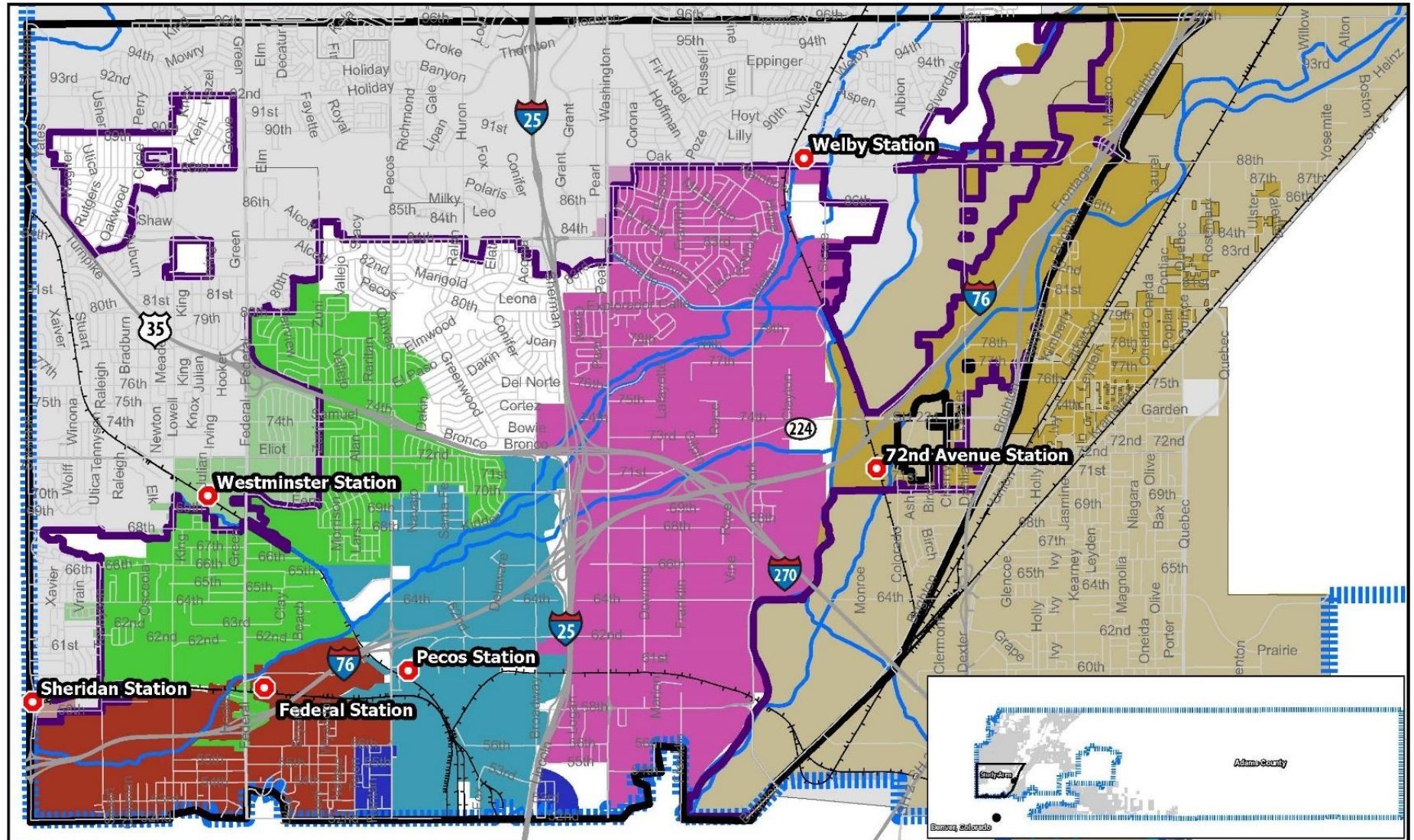
Public utilities are the backbone of what makes communities operate efficiently. Provision of water, wastewater, stormwater, electricity, gas, and even cable and fiber services is often viewed as a necessity of typical 21st Century cities. A summary of the readily available data related to these essential community services is provided below.

4.1 Water & Sanitation

Within the Making Connection study area water and wastewater (sewer/sanitation) services are provided by private/quasi-public entities. Figure 4-1 illustrates that there are at least six different water and sanitation districts within the study area. Areas surrounding the Sheridan Station are served by the Berkeley Water and Sanitation District. Areas surrounding the Westminster Station are served by the Crestview Water and Sanitation District. Areas surrounding the Federal Station are served by the Berkeley, Crestview, and North Lincoln Water and Sanitation Districts. Areas surrounding the Pecos Station area are served by the Berkeley, North Lincoln, and North Pecos Water and Sanitation Districts. Areas surrounding the Welby Station are served by the North Washington Water and Sanitation District. Areas surrounding the 72nd Avenue Station are served by the North Washington and South Adams County Water and Sanitation Districts. The latest County data does not indicate what water and sanitation district serves the properties in the northern sections of the study area; however, when compared against data illustrated in Figure 4-2, much of this remaining area appears to be served by the Thornton Water and Sanitation District. Figure 4-2 illustrates the latest available data related to water distribution pipes in the study area. Figure 4-3 illustrates the latest available data related to sanitary sewer pipes in the study area. In addition to information displayed on Figures 4-2 and 4-3 the project team has assembled information related to other water and sanitary distribution networks within the study area; however, much of this information is only provided as static map images and was not provided in a format that could be readily mapped. This additional information will be used in future phases of the project after identifying priority areas.

Within the planning area there are several areas that are currently served by On-Site Wastewater Systems (OWTS) and private wells. In order to protect water supplies, the goal with these facilities is to ultimately have properties connected to central water and wastewater services and to properly “plug” and “abandon” these on-site and private systems. Once properties migrate to a central water and wastewater service and if the private well will not be used, the private well should be plugged and abandoned in accordance with Rule 16 of the Colorado Water Well Construction Rules, 2 CCR 402-2. The Colorado Department of Natural Resources provides a water resources “AquaMap” that illustrates locations of Water Well Applicants which includes locations of both in-use and abandoned wells. The proper abandonment of OWTS ensures that existing sewer in the system is disposed of safely. In accordance with TCHD Regulation O-14 Tri-County Health Department should be notified when a property owner will be abandoning an OWTS system.

Figure 4-1| Water and Sanitation Districts (Source: Adams County)



- | | | | |
|-----------------------|----------------|------------------------------------|--|
| Adams County Boundary | County Streets | Water Sanitation District | North Pecos Water and Sanitation |
| Study Area Boundary | County Rivers | Berkeley Water and Sanitation | North Washington Water and Sanitation |
| Unincorporated Land | County Rail | Crestview Water and Sanitation | South Adams County Water and Sanitation District |
| Future Rail Station | City Limits | North Lincoln Water and Sanitation | |

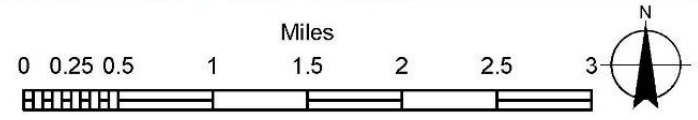


Figure 4-2 | Water Distribution (Source: Adams County)

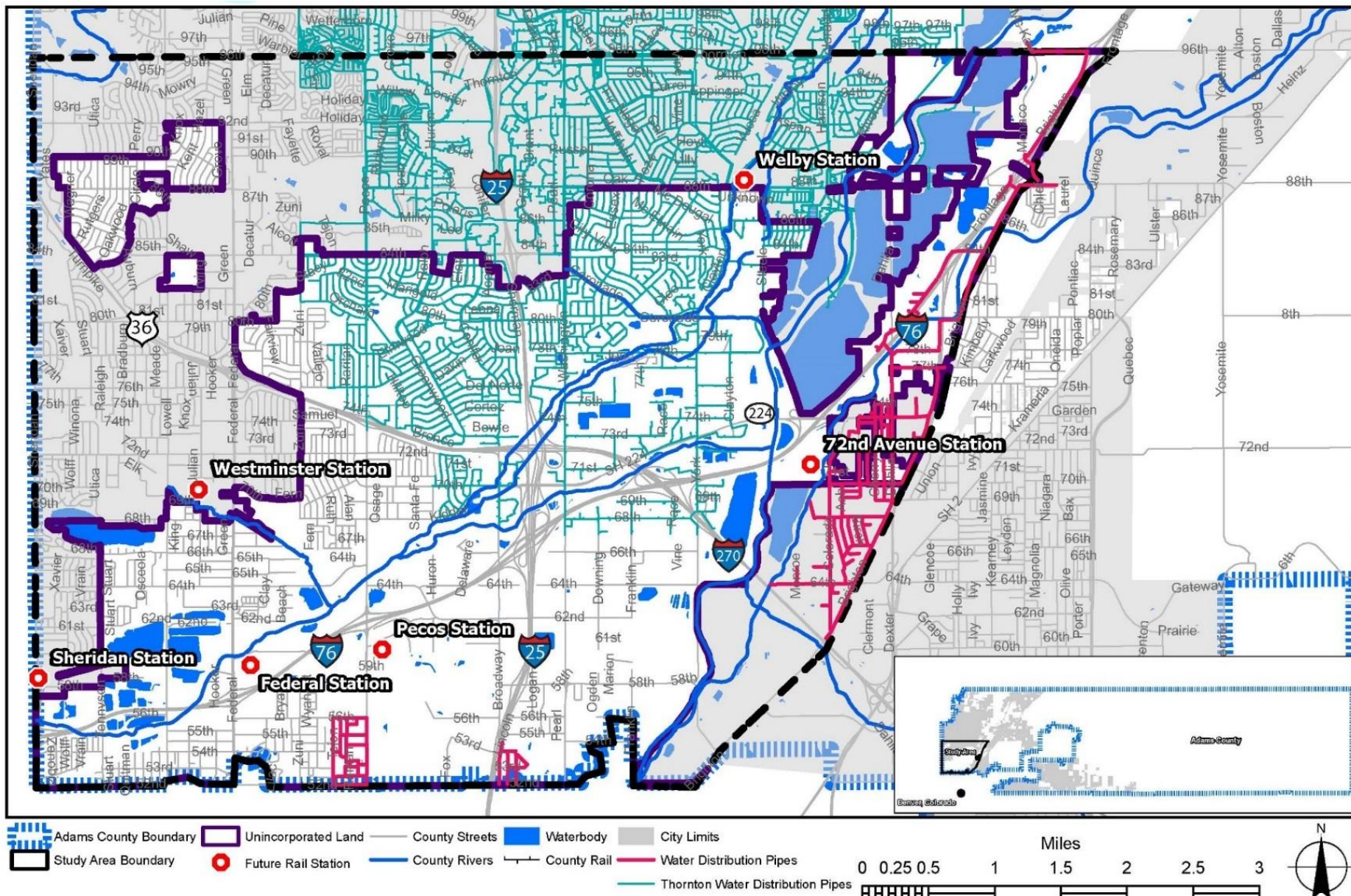
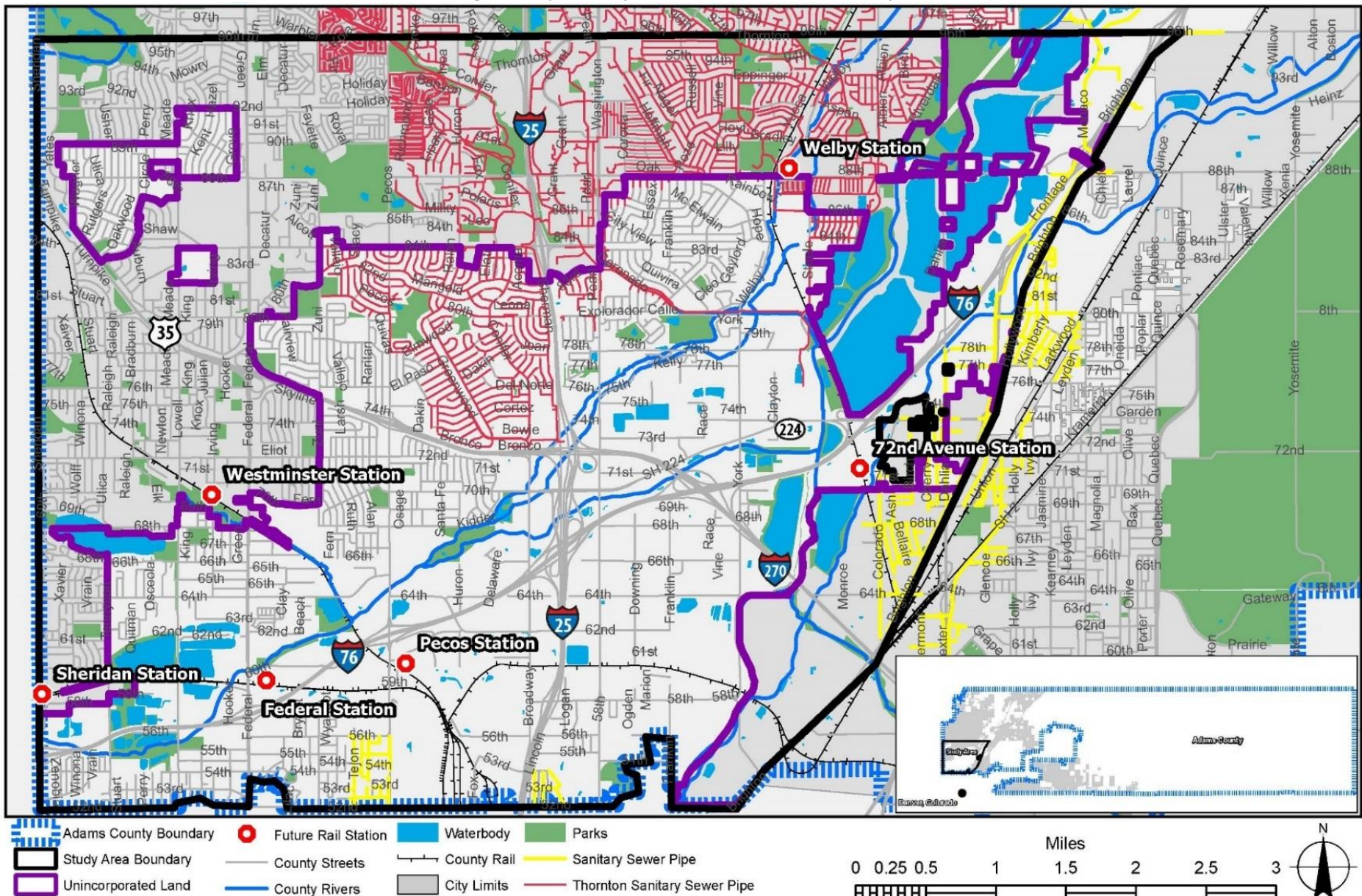


Figure 4-3| Sanitary Sewer (Source: Adams County)



4.2 Floodway & Floodplain

Waterways, including streams, rivers and creeks, provide a natural system for stormwater collection. Clear Creek is the largest waterway traveling through the study area. Under its current conditions Clear Creek cannot adequately accommodate all storm events, resulting in flooding in the study area. Figure 4-4 illustrates areas that fall within these flood hazard zones. According to the Federal Emergency Management Agency (FEMA), the authority in floodway and floodplain management:

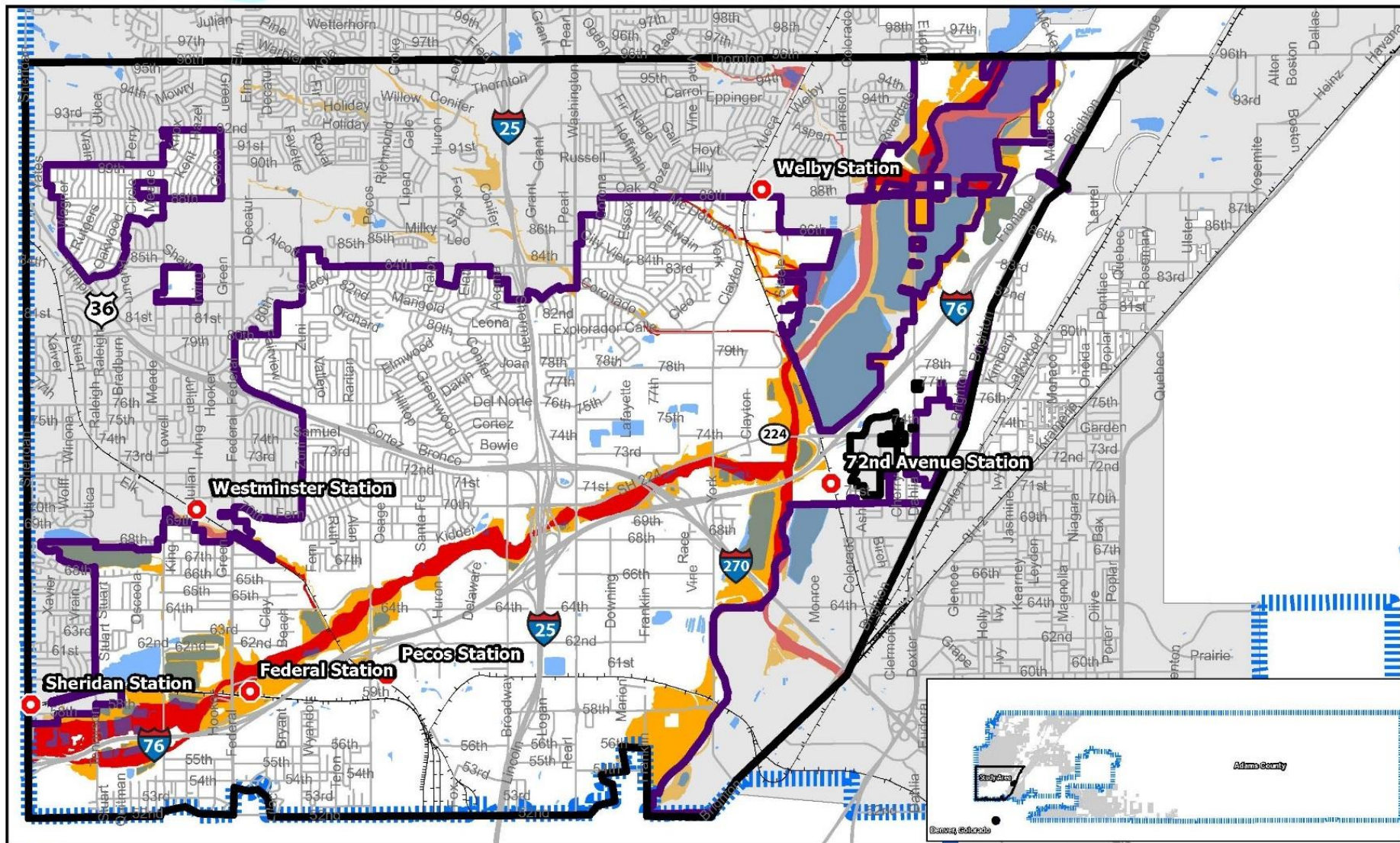
A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. For streams and other watercourses where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

With few exceptions, areas that fall within a Floodway should not allow for construction or development activities, areas that fall within the 100 year floodplain should have limited development which is reviewed on a case-by-case basis. When waterways do not have enough capacity to move surface stormwater, flooding will occur. In these situations, engineering solutions are needed to improve the movement of stormwater and reduce the potential for flooding.

4.3 Stormwater

The provision for efficient stormwater infrastructure is important to alleviate safety and property damage concerns. Data related to this essential infrastructure network is displayed in Figures 4-5. This figure illustrates the location of known stormwater infrastructure within the study area. The City of Thornton operates a handful of stormwater mains in the northern section of the study area. The remaining infrastructure is operated by Adams County and includes pipes, culverts, channels, and ditches. Mains, pipes, and culverts are typically embedded structures that allow water to flow under barriers including roads, railroads, trails, or similar water barriers. Channels and ditches are typically non-embedded or open man-made water courses used to redirect water flows. The majority of this stormwater infrastructure is located within road rights-of-way. Chapter 6 of this report provides a mapping of known stormwater issues and concerns within the planning area.

Figure 4-4 | Floodplains (Source: Adams County)

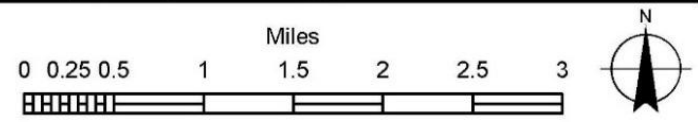
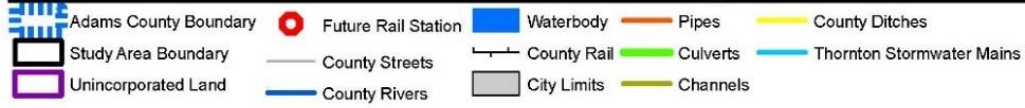
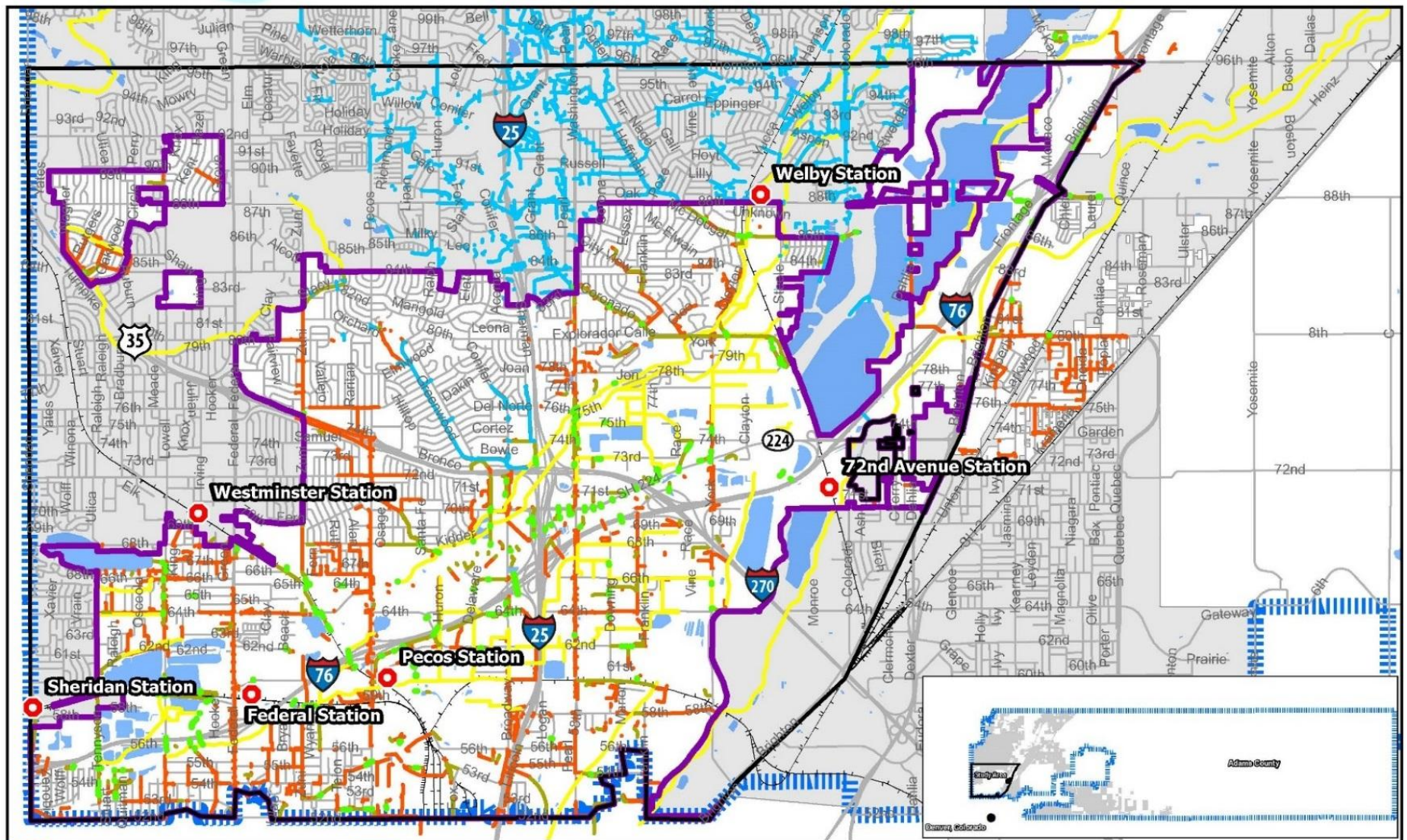


- Adams County Boundary
- Future Rail Station
- City Limits
- Hazard Zone Subtype**
- Study Area Boundary
- County Streets
- Waterbody
- 100 Year Floodplain
- Unincorporated Land
- County Rail
- Floodway

Miles

0 0.25 0.5 1 1.5 2 2.5 3

Figure 4-5| Storm Sewer (Source: Adams County)



4.4 Power & Fiber

The provision of power is an essential component of 21st century communities including electric and gas power. Within the study area much of the electrical grid is constructed with overhead power lines. Gas lines are placed underground and are typically within road rights-of-way. The Colorado Oil & Gas Conservation Commission (COGCC) governs the permitting and regulation of oil and gas wells throughout the state. Adams County has limited authority when it comes to the oversight of oil and gas operations within unincorporated areas of the county. Within the project study area there is one oil or gas operator near 94th Avenue and High Street, within the City of Thornton. There are an additional six operators located outside the study area northeast of 92nd Avenue and Brighton Boulevard. Additionally, many cable companies manage underground networks of cable and fiber infrastructure used to boost internet speeds for all residences and businesses. Due to the numerous operators of underground utilities and because of public safety concerns with providing information publicly, there is no readily available data that can be easily mapped to determine locations of these infrastructure networks. However, information was collected to determine the number of and names of underground operators within the study area. The following list of facility owners are registered with UNCC-Colorado811 as having underground facilities in the study area:

- Adams County (communications and traffic)
- Adams County District 12
- Altus Environmental LLC
- City of Arvada
- ATT Transmission
- Colorado Agricultural Ditch Company
- CDOT (Region 1 and Fiber Optic Backbone)
- Comcast
- City of Commerce City
- City of Federal Heights
- Denver (Water, Parks and Recreation, Traffic Engineering Operations)
- Fisher Ditch Company (XCEL Energy)
- Gardeners' Mutual Ditch Co
- Hyland Hills Park & Rec
- Level 3 Communications
- Lower Clear Creek Ditch Company
- MCI
- Magellan Midstream Partners LP
- Natural Fuels Corporation
- New Century Energy – Fiber
- City of Northglenn
- Nustar Logistics
- XCEL Energy (Water, North Denver, HI Pressure Gas)
- Phillips 66 Pipeline LLC
- Plenary Roads Denver LLC
- Century Link (Communications)
- Suncor Energy USA (Pipeline Co, Refinery)
- City of Thornton
- Unite Private Networks
- United Water Company (XCEL Energy)
- US Sprint
- City of Westminster (Electric and Fiber, Parks)
- Zayon Bandwidth (360 Networks)

This listing excludes water and sanitation districts who also have underground facilities within the study area.

5 ENVIRONMENT, HEALTH, PARKS & TRAILS

Understanding infrastructure and policies that affect public health is important to long range planning. This includes understanding locations of properties with environmental health concerns, understanding public health policies and access to healthy foods, and understanding the network of parks and trails that are throughout the study area.

5.1 Environment

Figure 5-1 illustrates the locations of “landfills” in the study area. This information was provided from a data set that dates back to 1985. The database includes numerous types of “landfilling operations”. Adams County staff has indicated that none of these locations are actively receiving landfill debris. The predominant number of facilities are Solid Waste (SW) and Construction Debris (CD) operations; however, facilities permitted for disposal of Coal Ash, Inert Fill and Sludge/Liquids are also included. The majority of permitted facilities included in the database are primarily operated by private-sector companies in accordance with state and Federal regulations; many shown are CD facilities. In addition, public-sector SW landfills operated by Adams County, City of Thornton and City & County of Denver are also shown. Adams County Office of Emergency Management publishes an *Emergency Operations & Recovery Plan* including a *Debris Removal Annex (RSF 1) – 2015 Version*. This plan is used in response to an Adams County disaster declaration for any large scale event that creates significant amounts of debris on both public and private lands and facilities.

As landfill operations are permitted to receive regulated non-hazardous wastes or general construction debris, the type of facility is important when assessing the potential for environmental impacts to soil and groundwater. Environmental regulations vary by the type of wastes received, with public-sector SW landfills typically handling more sensitive regulated materials (Non-Hazardous Wastes) under requirements of the Federal Resource Conservation and Recovery Act (RCRA) regulations. Construction, operation, monitoring and closure of RCRA SW facilities are highly regulated to mitigate the potential for adverse effects to the environment. Conversely, CD facilities have less stringent regulations as they receive materials not expected to significantly impact the subsurface. The overall environmental condition of a specific property is most accurately evaluated by conducting a Phase II Environmental Site Assessment (ESA). The site-specific ESA is designed to assess the condition of soil and groundwater by considering the types of contaminants that could be present in the landfill waste streams received.

During the first phase of this project, the County was notified of being awarded an Environmental Protection Agency (EPA) Brownfields Grant. The intent of the grant is to conduct an inventory of the brownfields in southwest Adams County and to conduct several Phase I and Phase II ESAs. There is potential for information collected through the inventory process could inform this planning process. The project team will continue to communicate in an attempt to collection information that could potentially inform brownfield sites that could be catalysts for redevelopment opportunities.

In addition to mapping known “landfill” locations, Figure 5-1 illustrates known locations that are monitored by the County’s Emergency Management Office, also known as Tier II facilities. Table 5-1 lists known locations of superfund sites, sites with environmental covenants, and voluntary clean-up (VCUP) sites provided by the Tri-County Health Department via the Environmental Protection Agency (EPA) and Colorado Department of Public Health and the Environment (CDPHE).

Figure 5-1 | Environment - Landfills and Emergency Management Inventory (Source: Adams County)

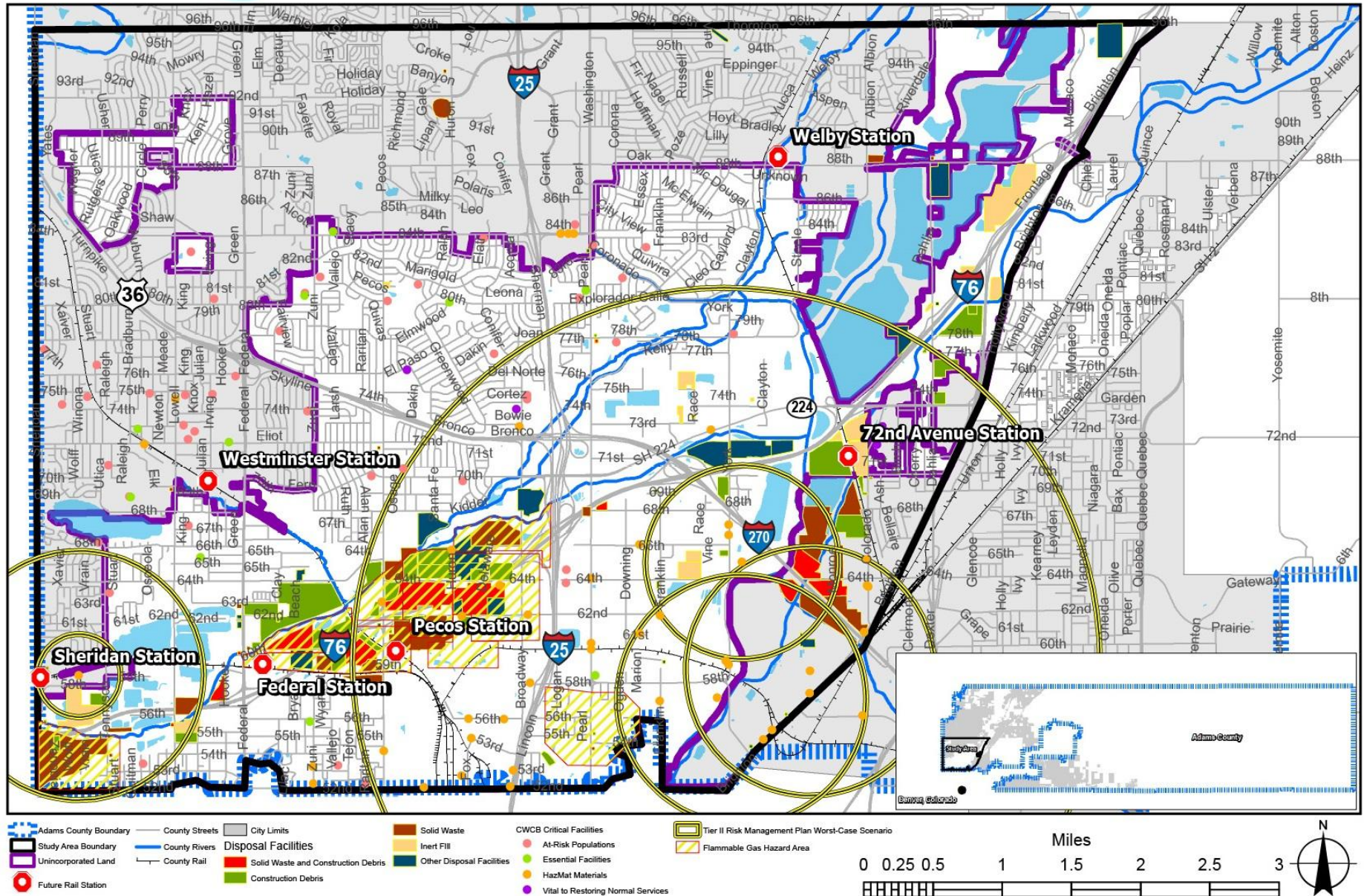




Table 5-1 | EPA & CDPHE Listing of Superfund Sites, Sites with Environmental Covenants and Voluntary Cleanup Sites (Source: Tri-County Health)

Category	Company	Address	Notes
Superfund Site	Asarco, Inc.	495 E 51st Ave. Denver, CO 80216	Withdrawn from the Proposed NPL/ Active. Mines/Tailings
Superfund Site	Broderick Wood Products	5800 Galapago St. Denver, CO 80221	Property Restrictions. NPL Final/ Operation & Maintenance Activities Ongoing No Residential, Public, or Agricultural use. No Excavation of soils. Groundwater treatment system and monitoring groundwater throughout the site.
Superfund Site	Chemical Sales Company	4661 Monaco St. Denver, CO 80216	NPL Final/ Operation & Maintenance Activities Ongoing. Soil and Groundwater Contamination, and Vapor Extraction
Superfund Site	Woodbury Chemical Company	5400 Jackson St. Commerce City, CO 80022	Deleted From NPL/ No Additional Cleanup Required. Cleaned up: Took off NPL List in 1993
Site with Environmental Covenants & Use Restrictions	Koppers, Inc	465 W 56th Ave. Denver, Co 80216	Environmental Covenant November 14, 2007. No Residential, Public, or Agricultural Use
Site with Environmental Covenants & Use Restrictions	Skelly Oil Refinery	7170 Dahlia St. Commerce City, Co 80022	Property Restrictions; VCUP. Remains Light Industrial or Commercial. No Soil Disturbances
Voluntary Cleanup and Redevelopment Program	ACME Industrial Center	6501,6521-45 N Washington	961113-1 Apostolopoulos 12/18/1996 NAD APPROVAL
Voluntary Cleanup and Redevelopment Program	Amerivest Broadway Properties	5961-5975 N Broadway	950907-1 Walker 11/15/1995 NAD APPROVAL
Voluntary Cleanup and Redevelopment Program	BBJW Associates	5470 Valley Highway	960229-1 Walker 5/31/1996 NAD APPROVAL
Voluntary Cleanup and Redevelopment Program	Clear Creek Industrial Park	2500-2700 W 64th AVE	021230-2 Walker 2/27/2003 NAD WITHDRAWN
Voluntary Cleanup and Redevelopment Program	Plaza 70 Interiors	5440 N Valley Hwy	971017-2 Deckler 2/19/1998 NAD APPROVAL
Voluntary Cleanup and Redevelopment Program	Softball Field	2101 W 64th	990609-1 Walker 7/21/1999 NAD APPROVAL

5.2 Health

There is a direct correlation between the personal health of community residents and the quality of life in that community. The topic of public health touches the environment, active transportation (walking and biking), access to parks and healthy foods. This point was clear in the creation of the *Federal Boulevard Framework Plan Health Impact Assessment*. There is a vital link between the health of community members and the sense of place that a community provides. Vibrant neighborhoods are often characterized by the pedestrian friendly features and attributes built in the urban design. Multimodal communities encourage its members to live a healthier lifestyle by providing the trails, paths, and walkways to popular destinations. Adams County inherently has an array of multiuse, bike, and pedestrian paths that can be improved. To create the most value from the existing multimodal transportation network, it is imperative to understand the existing landscape and what it has to offer.

Adams County will face the same challenges that most communities face when creating walkable and pedestrian oriented places. The necessary design, planning, and policies have to be in place to properly promote healthier transportation options such as walking and biking. When each of these vital items are given priority, walking and biking become a viable transportation option. The design features of trails and paths plays a large role in how the public perceives the facility. One of the key areas that Adams County can improve on is making major trails and paths more pedestrian oriented. Many of the corridors in Southwest Adams County lack the design features that are desirable to pedestrians. Statistics show that community members are more likely to walk and bike when the trails contain both an aesthetic and functional quality. The functionality of the trail and path not only resides in the physical design but also comfort features as well.

Multimodal transportation planning is also another critical aspect of health. Effective planning drives the demand for sustainable transportation. With the addition of new transit lines and stations, and through proper planning, Adams County can capitalize on multimodal transportation systems. Currently Adams County needs to improve upon certain planning aspects to make this happen. Along existing trails and paths, accessibility to transit, connectivity, a mix of land uses, and zoning to encourage greater density. A rich mix of land uses along existing corridors provides access to parks, schools, institutions, and many other sought after destinations.

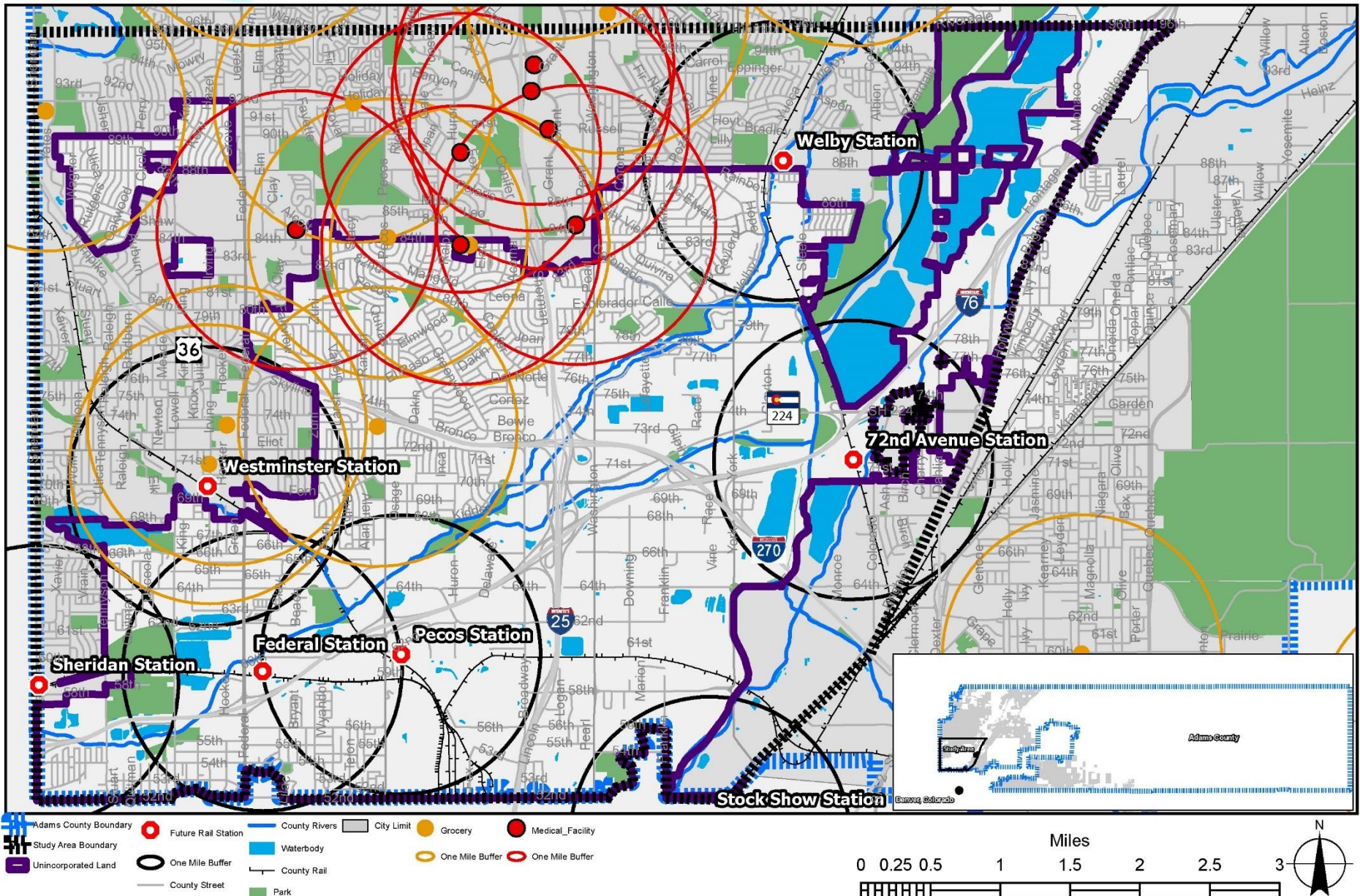
Policy is a macro force that shapes the guidelines and criteria pertaining to the built environment. Policy and regulations provides the groundwork for communities to thrive. With the proper policies in place, community identity is developed, existing culture is preserved, and a community brand is made. Public Policy is responsible for zoning, sustainable codes, and criteria that allow for walkable and pedestrian oriented development. This in turn has a direct impact on the health of the community. Planning and policy go hand in hand. Collaboration with RTD, sustainable building codes, transit zoning, educational outreach and guiding density will encourage the use of multimodal transportation. This will greatly improve the health and quality of life community members.

Health is a fundamental element of quality of life. The policies, planning, and urban design define the physical environment we live in which promotes physical activity. This is where health fits in into the Making Connections Plan. The challenges that Adams County faces are not unique to any other community implementing changes. The investment in transit in the Federal Boulevard Framework Plan area of 2 new stations will be a catalyst for change. Before this change occurs, a strategic plan needs to be in place. Below are some of the issues that have been identifies as improvement areas which will improve the existing parks and trails system.

- Lack of Pedestrian Design Features on Federal Boulevard and Study Area
- Incorporating the policies, planning, and design with the existing demographic
- Issue w/ Federal Boulevard Framework Plan Recommending Redevelopment in an area With Affordable Housing
- Converting Brownfields to Development Rather than Negatively Impacting Existing Neighborhoods and Residences
- Redevelopment can be frightening to the community
- Preserving Affordable Housing
- Landfills/Brownfields & Floodplain Adjacent to Trails
- Minimal Access to Trails and Paths
- Pollution from Industrial Land Uses

Each of these issues directly impacts the health of the community. Trails and paths are not utilized if the public has a difficult time with access, does not feel safe along corridors that are multi use, areas along the path that are next to Brownfields and dead zones, and lack of connectivity. Planning needs to incorporate a mix of land use, increase connectivity, provide catchments around schools, parks, and institutions. Figure 5-2 displays the location parks within the study area. A one-mile radius was displayed around the grocery stores, to generally determine residents' proximity to healthy food options. This figure indicates there are only seven grocery stores in the Study Area, which are heavily concentrated in the northwest, leaving only one of the identified grocery stores inside the unincorporated focus area. The figure shows that the east and south extents of the study area are largely underserved by healthy food options. Even though the unincorporated land and the southeastern corner of the Study Area are predominately commercial and industrial land uses, the lack of grocery stores leaves unincorporated neighborhoods like Aloha Beach, Berkeley, Utah Junction and most of Welby without immediate access to healthy foods. This figure also illustrates that there are a total of seven medical facilities within the study area which are primarily concentrated along I-25 and north of 83rd Avenue.

Figure 5-2 | Health - Grocery Stores, Medical Facilities and Parks (Source: Google Earth and Adams County)



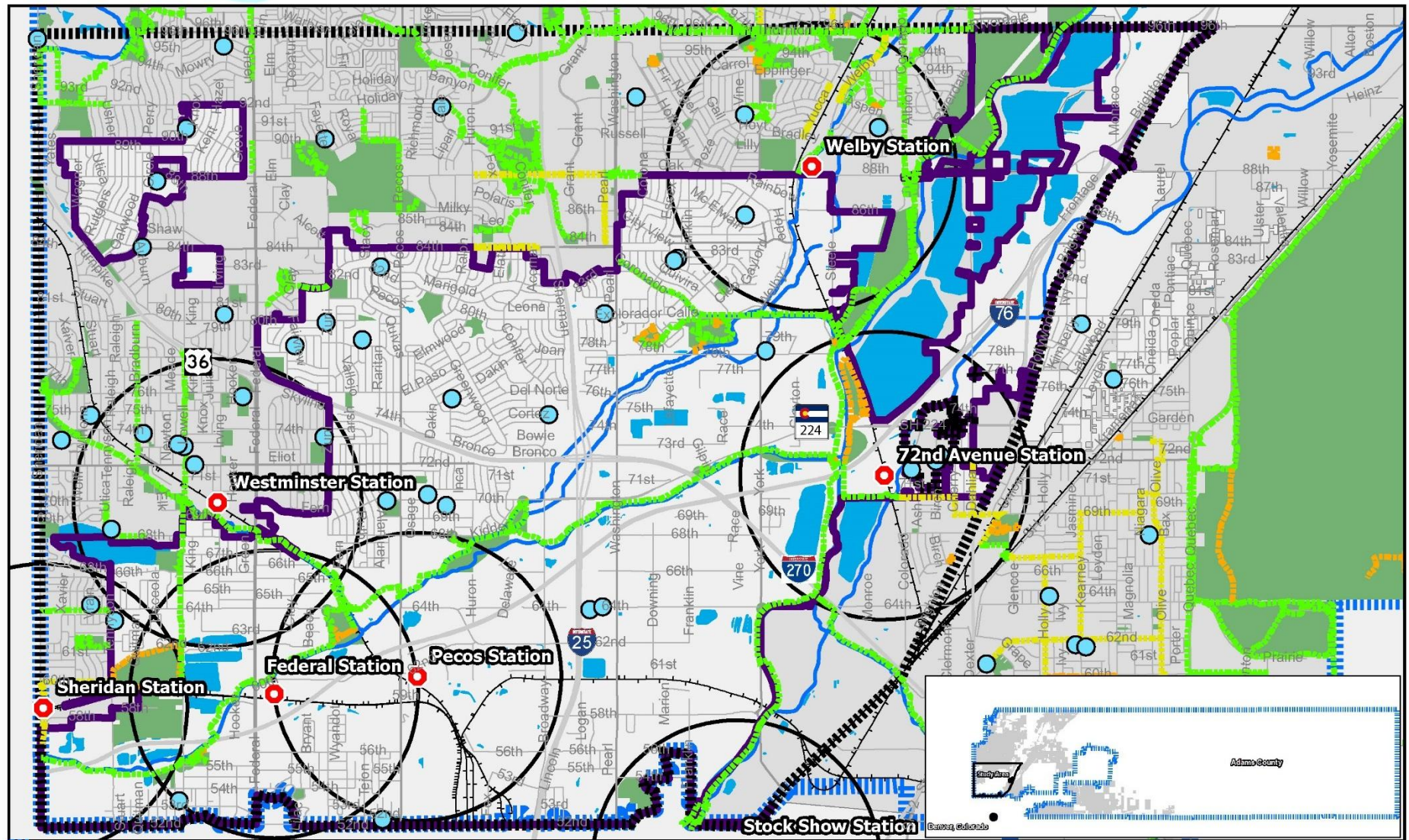
5.3 Parks & Trails

Figure 5-3 illustrates the locations of parks and trails collected from Adams County Open Space, Parks and Trails GIS database. There are several types of county trails including on-street bike facilities, paths, multi-use paths, and pedestrian paths that all serve different geographies and likely different user types (i.e. bike commuter v. recreational rider). Additionally, schools were mapped as previous plans and studies indicated much of the community uses school playgrounds as park facilities.

Public access to open space, parks and trails proximate to where people live, work, or attend school is vital to a healthy community so these amenities can be conveniently and frequently used. Multi-use trails are the most common type of existing county trail within the Study Area. Multi-use trails are commonly used as short and long distance corridors for recreational activities, primarily serving as a link between parks and open space. However, these multi-use trails can often provide non-motorized commuters an additional outlet for off-street commuting. Furthermore, the multi-use trails and some on-street bike facilities directly adjacent to educational facilities may offer a safe route to school for children. The base mapping data for parks locations may appear as though the area is well served by parks; however, previous plans and studies indicate that some of these parks may not be programmed and may be strictly conservation parcels or provide only passive recreation options.

Between Spring 2013 and Fall 2015 the Open Space Sales Tax Program allocated \$2,250,000 to open space projects in Adams County. A listing of these projects is provided in Table 5-2.

Figure 5-3 | Parks, Trails, and Schools (Source: Google Earth and Adams County)



- Adams County Boundary
- Study Area Boundary
- Unincorporated Land
- Future Rail Station
- One Mile Buffer
- County Street
- County Rivers
- Waterbody
- County Rail
- Park
- Educational Facility
- Adams County Trail
 - Bike
 - Multi-Use
 - Path





Table 5-2 | Open Space Sales Tax Program, Adams County Projects 2013-2015 (Source: Adams County)

Project	Project Summary	Grant Award
Rotella Park Master Plan Improvements	Adams County plans to improve Rotella Park, located at York Street and Coronado Parkway South. This project implements recommendations made in the Rotella Park Master Plan and includes redesign and construction of a parking lot and storm drainage system, new picnic shelters, a new restroom enclosure on the west side of the park, playground equipment for children from 2-5 years old, irrigation, new landscaping, parking lot lighting, a new entrance sign, and new site furnishings.	\$600,000
Big Dry Creek Greenway Acquisition	Adams County purchased a 13-acre property along Big Dry Creek just south of 144 th Avenue at Washington Street. The County is seeking reimbursement for a portion of this purchase which preserves natural resource habitat, floodplain, and scenic views, and provides a trail corridor for the future Big Dry Creek Trail.	\$110,000
Clear Creek Trailhead Reconstruction	Adams County plans to improve the current Clear Creek trailhead by addressing the current drainage and flooding problems, and redesigning the 16,500 square foot parking lot with a concrete curb, gutter and asphalt paving. They also plan to install an entrance sign, port-o-let enclosure and lighting to improve security issues. The Clear Creek Trailhead is located at 2100 State Highway 224.	\$200,000
Regional Park Open Space Acquisition	Adams County plans to purchase 61 acres of farmland and associated Brantner Ditch Company water shares. The land is adjacent to the Regional Park on the north and will be preserved as open space. It provides a buffer to the Regional Park, protects wildlife habitat, and has significant agricultural values. The property is located at 10365 E 136 th Avenue.	\$1,250,000
Trailhead Kiosk and Trail Map Fabrication	Adams County plans to construct a new trailhead kiosk at the 55 th Avenue and Lowell Street trailhead and replace trail maps on kiosks throughout the trails system. New signs will also be placed at sites currently being developed.	\$5,000
Twin Lakes Park Mile High Youth Corps Russian Olive Removal	This project will help Adams County hire a Mile High Youth Corps Sawyer Crew to remove invasive Russian olive trees near Twin Lakes Park at Broadway and 70 th Avenue along Clear Creek.	\$5,000
Twin Lakes Park Mile High Youth Corps Russian Olive Removal	The purpose of this project is to hire the Mile High Youth Corps: Sawyer Crew to remove invasive Russian olive on open space, publicly- owned lands in Adams County. Russian olive is a non-native plant that disrupts the natural vegetation, competes against native riparian vegetation, and consumes water at a much higher rate than native trees, and is therefore listed as a class B invasive noxious weed in Colorado. Twin Lakes Park is located at 200 West 70 th Avenue along the south end of the park along Clear Creek.	\$5,000
Twin Lakes Park Mile High Youth Corps Russian Olive Removal Project	This project proposes to hire the Mile High Youth Corps (MHYC): Sawyer Crew to aid in the removal of the invasive Russian Olive on open space; publicly-owned lands in Adams County. This grant will help fund the use of the MHYC for one week with a wood chipper. Twin Lakes Park is located at 200 West 70 th Avenue.	\$5,000
Clear Creek Recreation Master Plan	Adams County desires to create a master plan for the Clear Creek Trail. This will provide the framework for identifying issues and community preferences in an effort to improve trail facilities, recreational opportunities and environmental conditions. The Clear Creek Trail is located between Sheridan Boulevard and the confluence with the South Platte River.	\$70,000

6 LITERATURE REVIEW

6.1 Previous Plans, Studies and Reports

This section identifies and outlines the previous plans, studies and reports that were collected to influence the Making Connections Plan. Prior to this planning effort, many different studies, plans and policies have been developed in response to community needs. These documents have been reviewed to assemble the relevant projects and policies to be considered in the Recommendations phase of the project (Phase 3). Table 6-1 lists the many agencies that were considered for the literature review effort. Figure 6-1 illustrates the study area boundaries for each of the plans within the unincorporated areas of Adams County. Figure 6-2 illustrates the study area boundaries that fall within adjacent city limits but have impacts within the Making Connections study area.

Table 6-1 | Publishing Agencies

Adams County	Arapahoe County (Collaboration)	Berkeley Neighborhood Association
City of Arvada	City of Commerce City	City / County of Denver
City of Federal Heights	City of Northglenn	City of Thornton
City of Westminster	Colorado Department of Transportation (CDOT)	Denver Regional Council of Governments (DRCOG)
Elyria / Swansea Neighborhood	Regional Transportation District (RTD)	Transit Oriented Development Group
Urban Drainage & Flood Control Group	Welby Community	Welby County (Collaboration)
Tri-County Health Department		

The review of these existing plans, projects and policies is a crucial step in the planning process. Appendix A includes a summary table of this effort and includes a summary description of the relevance of each document that was reviewed. In addition to base data collected for each of the project categories (Land Use and Development, Transportation, Drainage and Utilities, and Environment, Health, Parks and Trails), the Literature Review work celebrates the work that has been accomplished and carries the remaining ideas forward into Phases 3 and 4 of this planning process. Of all the studies reviewed some of the more relevant information was collected from the Clear Creek Valley Transit Oriented Development Plan, the Federal Boulevard Framework Plan (including the Federal Boulevard Framework Plan Health Impact Assessment), and the Adams County Comprehensive Plan. Each of which provides guidance, criteria and major themes that the County has previously adopted as guiding documents for the area. The Making Connections Plan will build upon the information collected through this effort to identify priorities and associated implementation strategies.

Figure 6-1| Previous Study Boundaries in Unincorporated Adams County (Source: Wilson & Company)

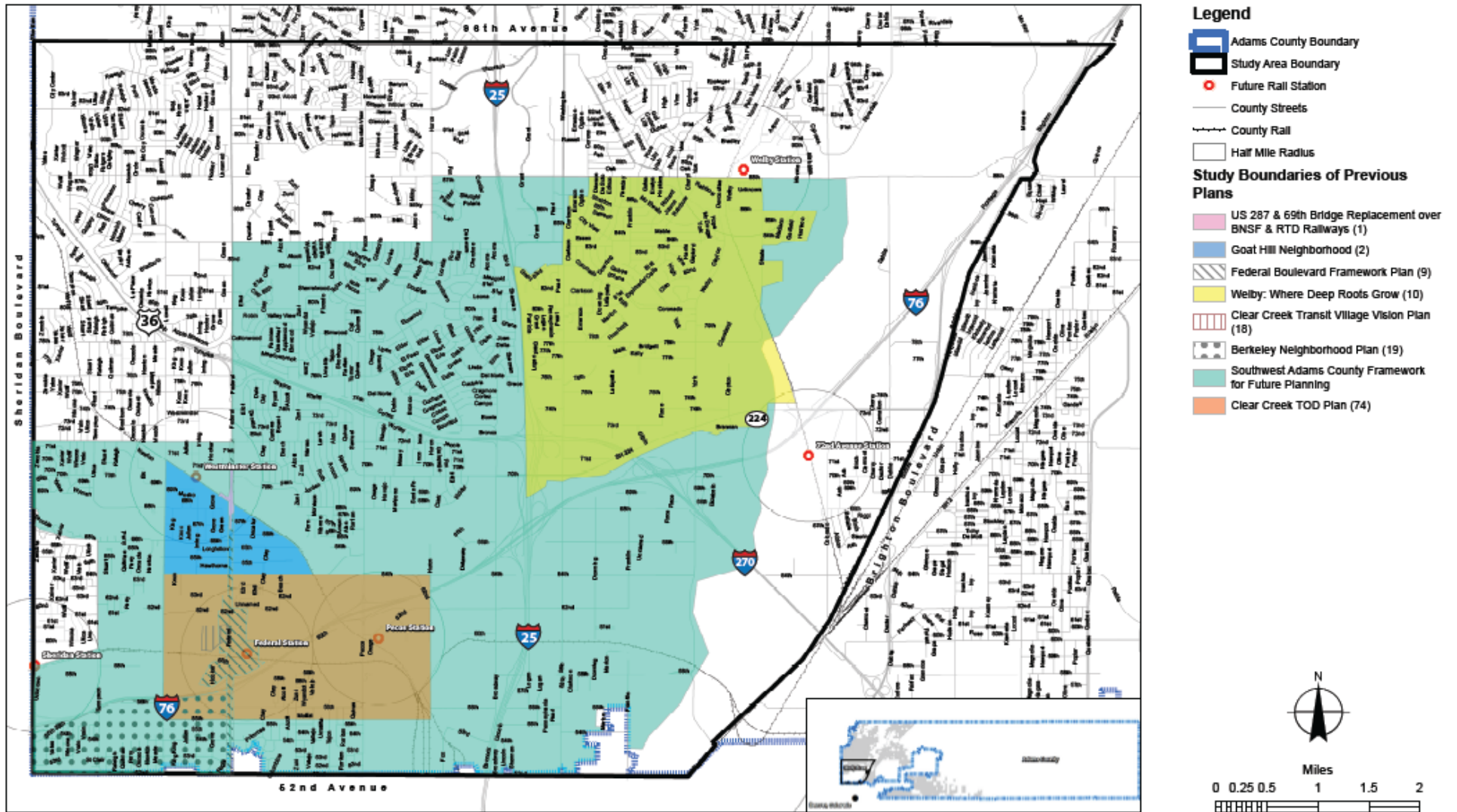
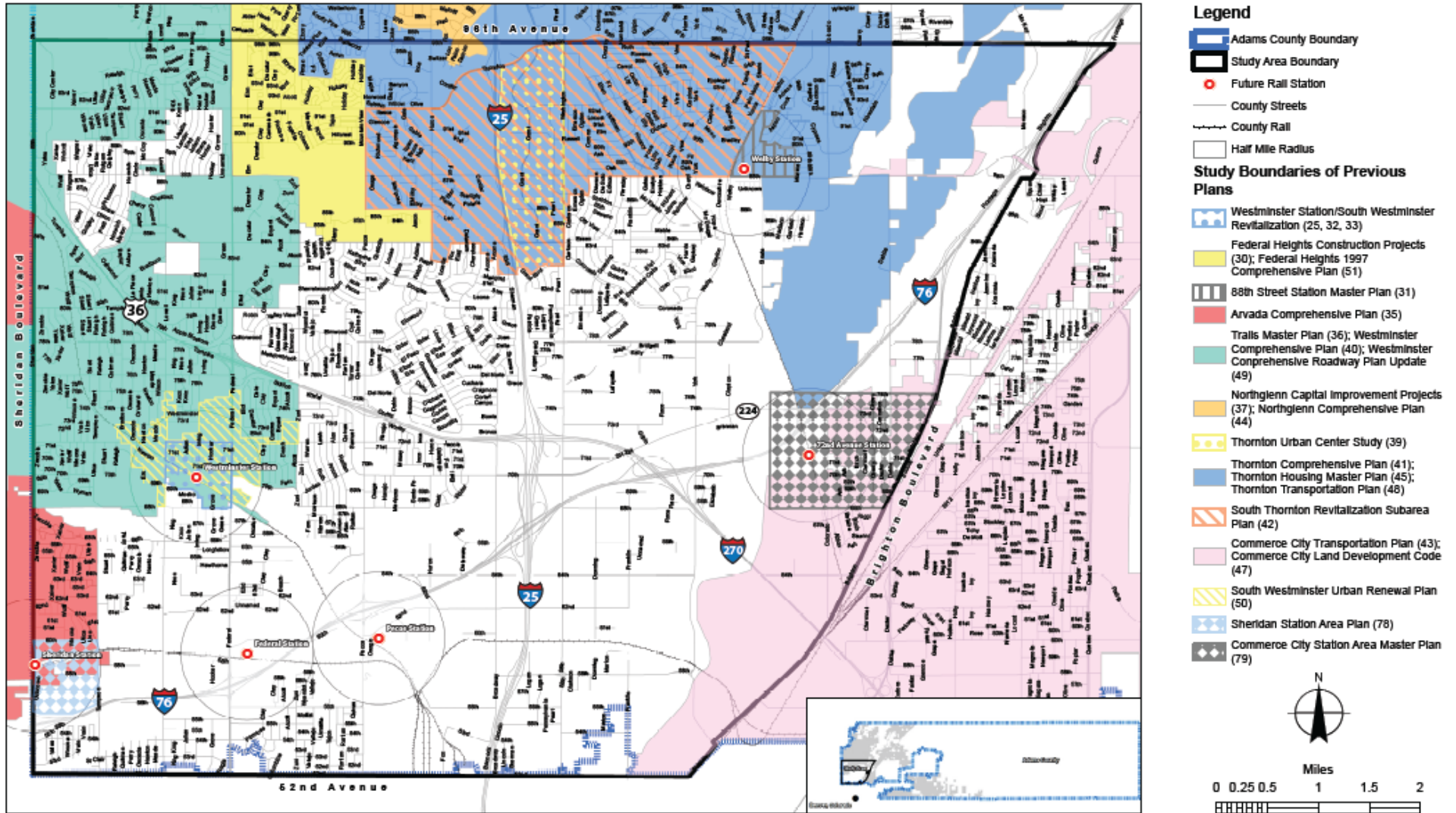


Figure 6-2 | Previous Study Boundaries from Adjacent Cities (Source: Wilson & Company)



6.2 Identified Projects

The intent of this section is to provide a summary of the city, county and regional projects and policies affecting the planning area that were identified from the plans, studies and reports collected from the different local agencies. All of the projects were characterized and mapped in five different categories: Land Use & Economic Development, Transportation, Neighborhood & Housing, Drainage & Utilities, and Environment, Health, Parks & Trails.

The identified projects and policies suggest potential solutions in response to existing community needs and issues. For instance, future land use is largely addressed with a projected growth due to the anticipated launch of the FasTrack routes and stations in 2016. Specific locations directly adjacent to FasTrack routes and stations have been identified as catalyst zones for expected high growth. Figures 6-3 and 6-4, the Land Use & Economic Development and Neighborhood & Housing Maps, show the identified projects and policies that are intended to guide development and redevelopment within the study area, particularly adjacent to public transit facilities. These figures also include point locations where Adams County staff has previously conducted development reviews. The importance of identifying previous development review locations provides some insight into the private development activities that have occurred within the study area. On the other hand, designating land for conserving open space and natural resources is equally important to maintain character and a healthy environment within an urban area. Figure 6-5 illustrates the previously identified Environment, Health Parks & Trails recommendations including locations of projects associated with preserving open space and parks throughout the planning area.

Figure 6-6 includes a significant amount of transportation projects identified from previous planning efforts. In addition to the four transit routes and six stations associated with the FasTrack project, the map identifies numerous roadways linked with various types of projects. The projects identified include the addition of transit routes and amenities, roadway widening for additional lanes, incorporation of non-motorized modes (pedestrian and bicycle facilities), and streetscape enhancements. The majority of these roadway improvements include more than one transportation mode, indicating they are multi-modal recommendations. In addition to route recommendations, some plans identified improvements at point locations including intersection and safety enhancements. Lastly, this figure illustrates the sites directly adjacent to future transit stations where Transit Oriented Development (TOD) and supporting multimodal transportation improvements were identified. The result of these transportation projects will lead to increased connectivity and provide enhanced mobility by offering multi-modal transportation options; however, with so many recommendations being proposed valuing and weighing the improvement options will be a difficult challenge for Phase 3 and 4 activities. In addition to the projects referenced in Figure 6-6, additional information was collected from Colorado Department of Transportation (CDOT) in January 2016. CDOT is currently undergoing two transportation projects on Federal Boulevard: the first of which is a bridge replacement project from 67th to 71st Avenues; the second project is a corridor safety project between 52nd and 67th Avenues.

Figure 6-7 illustrates locations where drainage or utility improvements were identified in previous efforts. In comparison to literature review conducted for the other categories, few drainage and utility improvements were identified in the previous, plans, studies and reports. However, a significant amount of information has been collected by Adams County staff related to known needs for stormwater improvements.

In addition to collecting and compiling information from all of the previous plans, studies and reports within the project area, a review was conducted of the current five-year capital improvements program. Projects that fall within the planning area are provided in Table 6-2. Additionally, some projects or line items

did not indicate a specific location for the project but may be programmed for the planning area. These projects are listed in Table 6-3. Additional information will be collected from the County in future phases of the project to determine which of these projects are identified for the planning area.

Figure 6-3| Land Use & Economic Development (Source: Wilson & Company and Adams County)

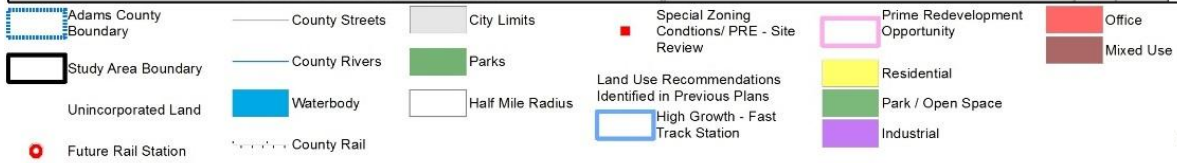
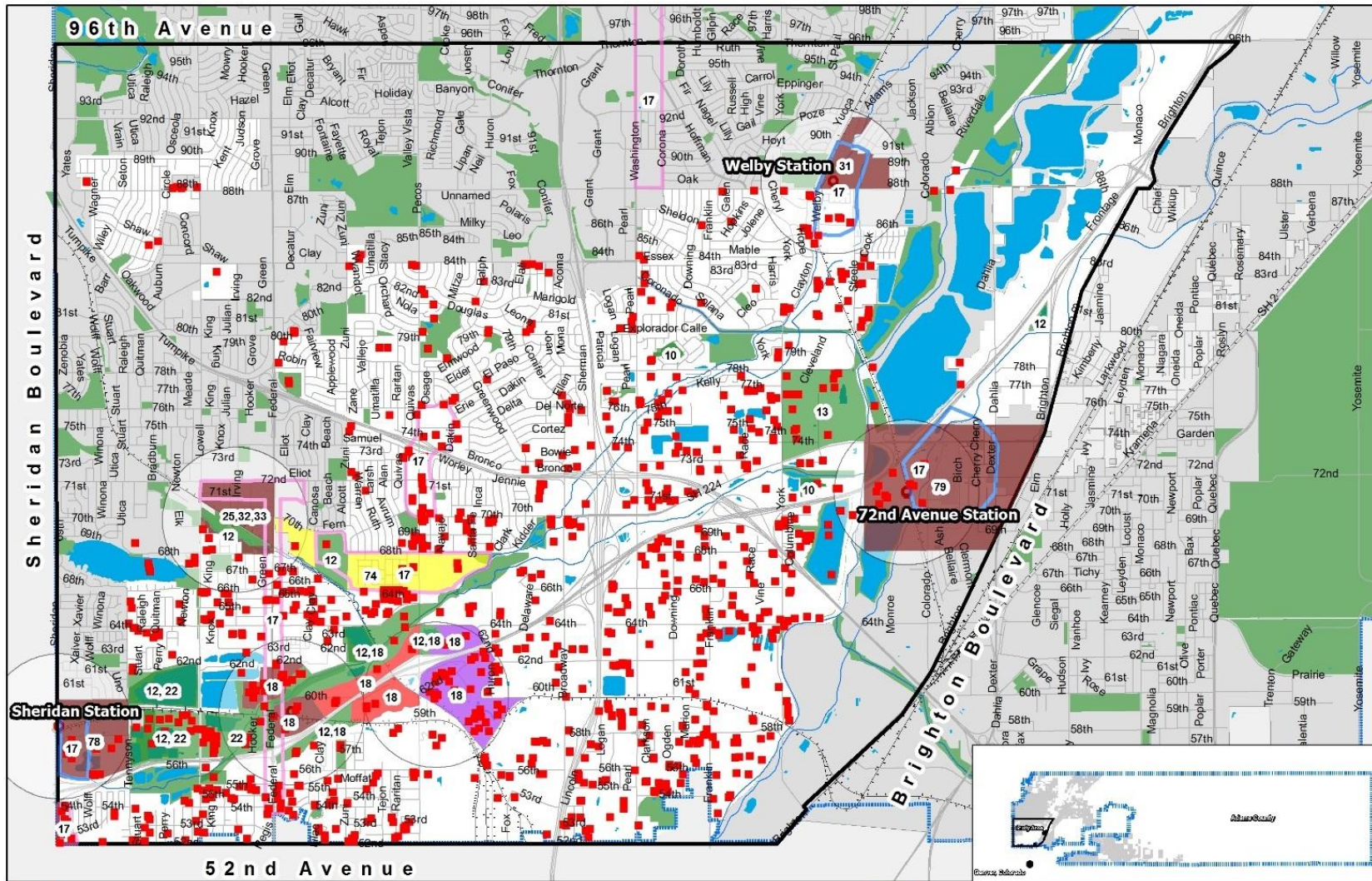
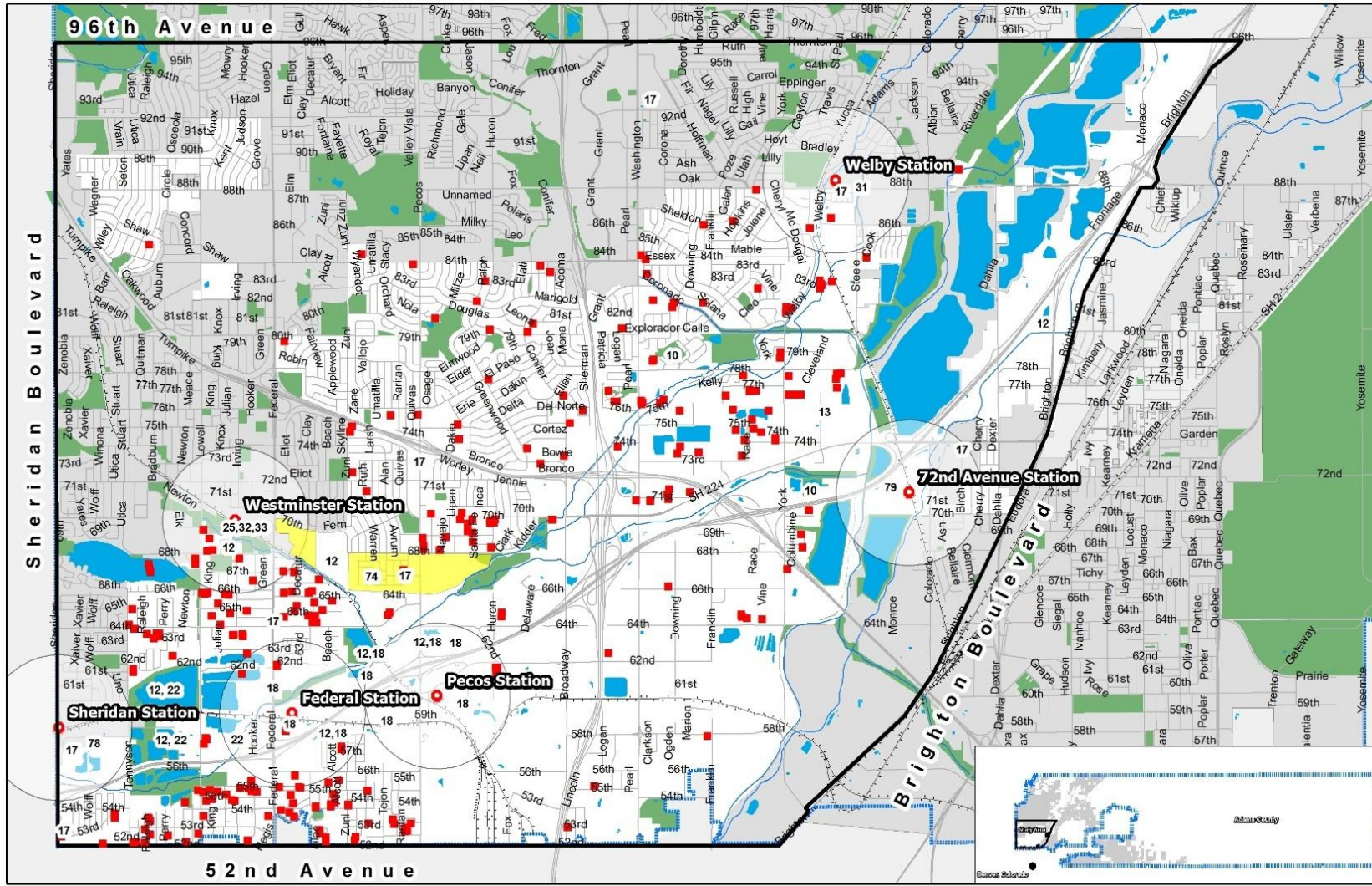


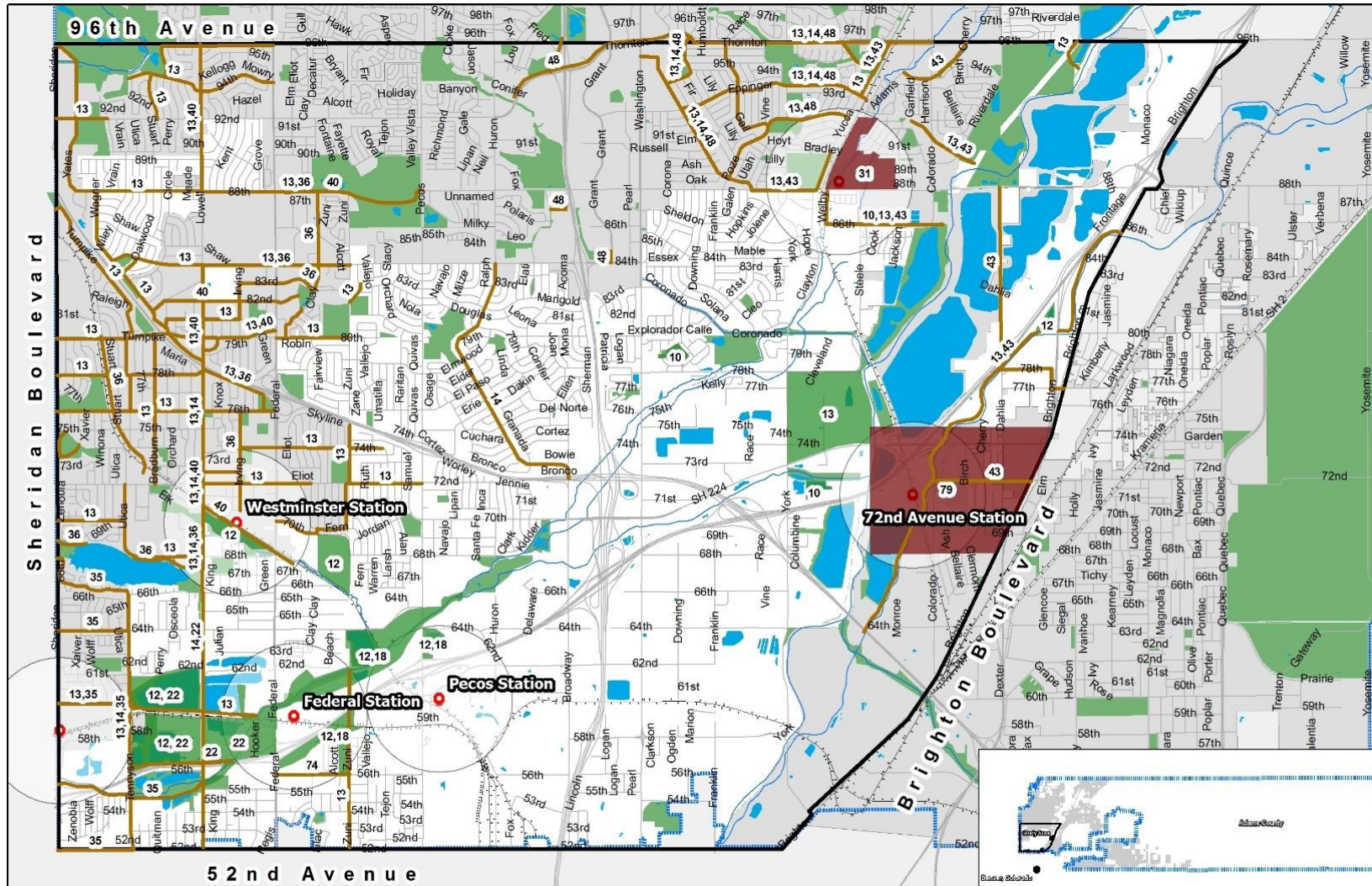
Figure 6-4 | Housing and Neighborhoods (Source: Wilson & Company and Adams County)



- Adams County Boundary
- Study Area Boundary
- Unincorporated Land
- Future Rail Station
- County Streets
- County Rail
- County Rivers
- Waterbody
- Parks
- Half Mile Radius
- City Limits
- Residential Land Use Recommendations
- PRE/Site Review



Figure 6-5| Environment, Health, Parks and Trails (Source: Wilson & Company)



- Adams County Boundary
- Future Rail Station
- Waterbody
- Parks
- Non-Motorized Transportation Facilities
- Parks and Open Space
- Study Area Boundary
- County Streets
- County Rail
- Half Mile Radius
- City Limits
- Mixed Use with Open Space Element
- Unincorporated Land
- County Rivers

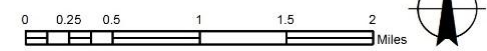
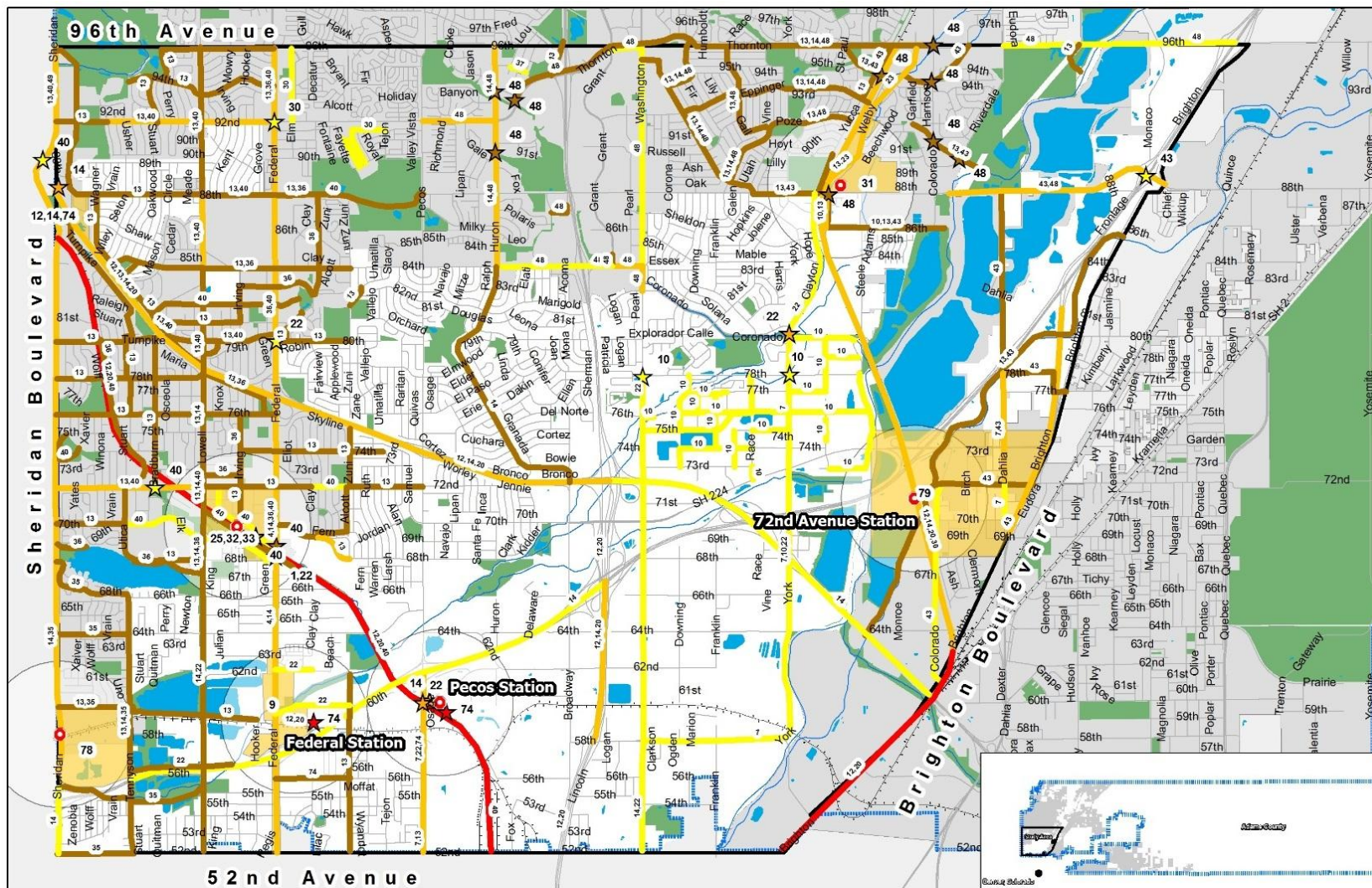


Figure 6-6| Transportation (Source: Wilson & Company)



- | | | | | | | |
|-----------------------|----------------|-------------|----------------------------|---------------|---------------|---------------|
| Adams County Boundary | County Streets | County Rail | Half Mile Radius | Non-MotORIZED | Non-MotORIZED | Non-MotORIZED |
| Study Area Boundary | County Rivers | City Limits | Identified Projects | Roadway | Roadway | Roadway |
| Unincorporated Land | Waterbody | Parks | Mode | Transit | Transit | Transit |
| | | | Multimodal | Multimodal | Multimodal | |



Figure 6-7| Drainage and Utilities (Source: Wilson & Company and Adams County)

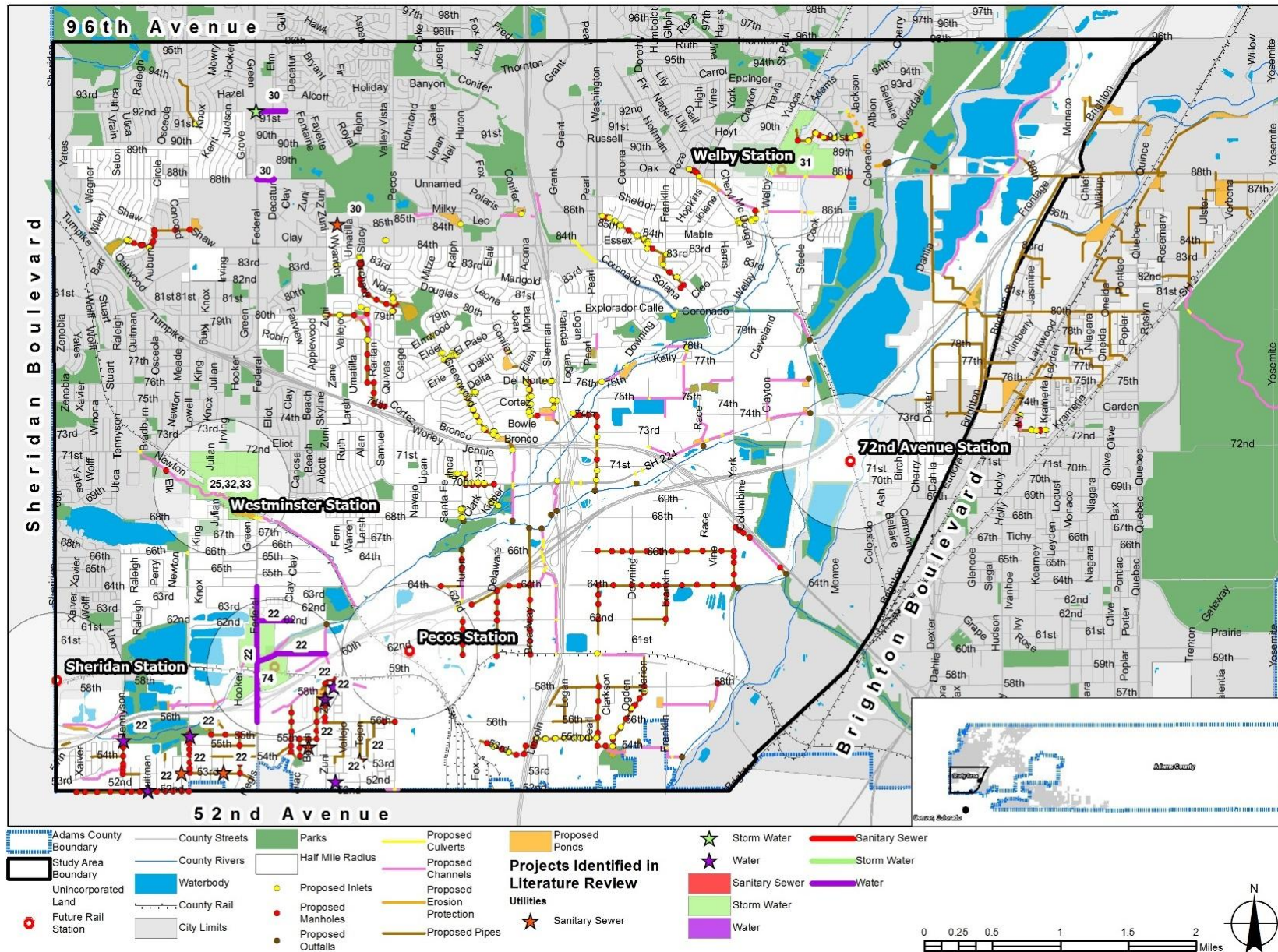


Table 6-2 | Projects within Planning Area in the 5-Year CIP (Source: Adams County)

2016 5-Year Capital Improvement Plan - Recommended within Making Connections Planning Area

Department - Division	Description	2016	2017	2018	2019	2020	Total
Stormwater Utility Fund							
Storm Water CIP	Neighborhood Curb and Gutter (2016 - Berkeley Neighborhood, 2017- unknown)	900,000	900,000				
Storm Water CIP	Hoffman Drainage Improvements	2,033,000	915,938	-	-	-	2,948,938
Storm Water CIP	Kalcevic Gulch	-	-	1,828,506	2,418,569	2,121,437	6,368,512
Road & Bridge Fund							
Transportation CIP	York Street Hwy 224 to 78th	2,000,000	6,000,000	-	-	-	8,000,000
Transportation CIP	York Street 78th to 88th	-	500,000	2,000,000	4,000,000	4,000,000	10,500,000
Transportation CIP	58th Ave Washington to York	500,000	1,000,000	4,000,000	3,000,000	-	8,500,000
Transportation CIP	Dahlia St Asph SW SH 224 I-76	500,000	2,100,000	-	-	-	2,600,000
Transportation CIP	Dahlia St Asph SW SH 224 70th	-	-	500,000	100,000	1,000,000	1,600,000
Transportation CIP	Pecos St 52nd Ave to 58th Ave	-	-	300,000	1,000,000	4,000,000	5,300,000
Transportation CIP	York Street 58th to Hwy 224	-	300,000	500,000	3,000,000	3,000,000	6,800,000
Transportation CIP	Federal Blvd Landscaping (52 nd to 62 nd Ave)	250,000					
Open Space Projects Fund							
Open Space Projects	Clear Creek Trail Replacement (900 ft along Clear Creek from Kalcevic Gulch to the LCC/COAG Ditch)	450,000					
Open Space Projects	Twin Lakes Park Renovations	-	750,000	-	-	-	750,000
Open Space Projects	Clear Creek Trail Access (Lafayette Park along Hwy 224 at the US 36 overpass)		1,500,000				
Open Space Projects	Jim Baker Res Renovations	-	-	1,000,000	-	-	1,000,000

Table 6-3 | Potential Additional Funds or Projects in 5-Year CIP (Source: Adams County)

2016 5-Year Capital Improvement Plan - Recommended and May Be Relevant to Making Connections Planning Area							
Department - Division	Description	2016	2017	2018	2019	2020	Total
Road & Bridge Fund							
Transportation CIP	ADA Transition Plan Implementation	1,000,000	1,000,000	-	-	-	2,000,000
Transportation CIP	I-25 Sound Walls	342,776	342,776	342,776	342,776	342,776	1,713,880
Transportation CIP	I-270 EA	300,000	-	-	-	-	300,000
Transportation CIP	Industrial Area Study	200,000	-	-	-	-	200,000
Open Space Projects Fund							
Open Space Projects	Open Space Projects	2,500,000	2,000,000	2,000,000	2,000,000	2,000,000	10,500,000