



WELCOME TO THE SNAPSHOT

Welcome to the Snapshot Report

The snapshot report is designed to provide an overview of the current conditions within the neighborhood. The snapshot is not exhaustive, but rather a foundation to engage in conversation about the existing and future plans to be developed.

The snapshots are divided and organized by the for major plan sections: Roads, Land Use, Utilities, and Drainage. Each report can be used as a stand-alone reference for understanding current conditions and challenges in the neighborhood. The Snapshots were developed through research of current data, previous planning actions, input from staff and technical advisors, and public input from the neighborhood.

Commerce City History

As the 1990's progressed and Commerce City began to grow more rapidly toward Denver International Airport (DIA) and E-470, the older neighborhoods of Commerce City were no longer the only focus for the City. Today the City is looking at historic neighborhoods like Irondale to address long standing concerns.

The Irondale Neighborhood History

The Irondale Neighborhood is an older part of the larger Commerce City community. The initial development being an the Kibler Stove Works plant. According to the 2015 Historic Preservation Plan, the neighborhood was originally "planned as a factory town."

Over time residences were built in the neighborhood as additional industrial uses cropped up. The mixture of uses and timing of development has created a unique environment. Infrastructure is a major challenge as accommodating these uses with distinct interests is needed.



The Irondale Neighborhood + Infrastructure Plan is made up of three major sections (below), with the Snapshot reports making up the Discover section in the written plan.



DISCOVER

A look at existing conditions and challenges.



EXPLORE + ASSESS

Working with the community and stakeholders, review and weigh the options to determine the best fit for Irondale.



IMPLEMENTATION

Putting together the steps to bring the vision forward through district action items.





Transportation within Irontdale consists of a network of roadways; sidewalks and bicycle facilities are nearly non-existent. The main traffic flow is between 88th accessing the interstate to the west, along Rosemary St through the neighborhood, and continuing beyond to the southeast on Quebec Parkway. There are several school bus routes that pass through the neighborhood, but no public transit stops. Many roadways have issues with construction standards, width, and maintenance. Much of this can be attributed to the varying ages of construction, going back further than other neighborhoods in the City, as well as jurisdictional complications. In addition, there are four at-grade rail crossings at the four points of the neighborhood. These further cut the neighborhood off from other areas and can become a safety concern with the additional traffic loads traveling through Irontdale.



Planned Improvements & Connections

- As part of the Instel development Ulster St. and 83rd Ave. will no longer connect. Both of these roadways will terminate in a cul-de-sac to accommodate a railroad spur.
- County staff has indicated that there are no short-term plans for improvement to the road network inside Irondale.
- County staff has indicated there are long term plans to widen both Rosemary St. and 88th Ave., but no funding source has been identified.
- Maintenance on potholes is an ongoing task.

Special Considerations

- The roadways inside Irondale do not meet either the Commerce City Department of Public Works Engineering Construction Standards – Typical Street Sections, nor the Adams County Development Standards and Regulations – Typical Cross Sections, - for width nor amenities such as curb, gutter and sidewalk.
- There are no existing public transit stops inside Irondale.
- Rosemary St. is heavily used by north-bound vehicles at the evening peak-hour as a route to 88th Ave. to access Interstate-76.
- Rosemary St. is the only continuous north-south street through Irondale with access to the east-west roadway network.

Roadway Jurisdictions & Responsibilities

(Details & map pending additional data)

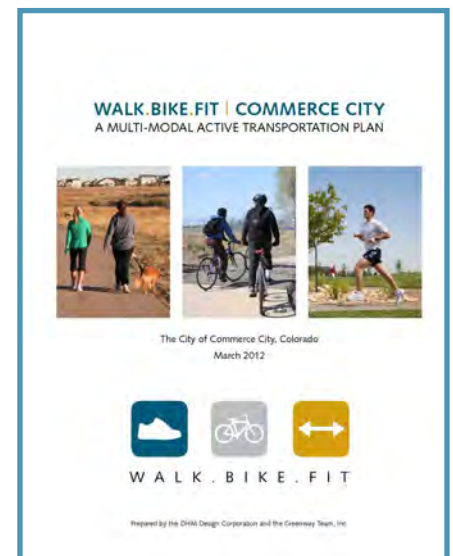


See
Roads Jurisdiction Map
on Page #

Previous & Related Plans

WALK BIKE FIT MULTIMODAL TRANSPORTATION PLAN (2012)

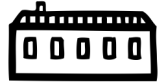
This city-wide plan looked to address the increasing traffic with swelling population and prepare and implement active transportation. The Irondale neighborhood appears in many of the maps in the document, but does not contain major destinations for active transportation, and is cut off from existing networks. The planned improvement according to this plan would be to create a multi-use path along Rosemary Street to provide access through the neighborhood for alternative transportation.



Perspectives

The comments heard from public meetings reflect differing concerns and opinions about the future of the neighborhood. These comments are illustrative of the four main perspectives and comments regarding Irondale.

Business



Due to heavy northbound traffic on Rosemary St. during the evening peak hour, making a left turn onto Rosemary St. is nearly impossible for customers and employees.

Resident



Roads are in bad condition, even the repairs don't last.

There are trees, mailboxes and utility poles in the roads.

Width of Ulster St. near 88th Ave. is narrow. Cars are forced off the road and into the ditch to allow trucks to turn here. Residents are concerned that an increase in truck traffic on Ulster St. due to the Instel business will accentuate this problem.

Transition from two lane to one lane on Rosemary St. from Quebec Pkwy. Is too short.

Vehicles drive too fast on Rosemary St.

Quebec St. is too narrow.

Official



School District 14 – Lack of sidewalks and poor street lighting impacts safety of bus stops for children.

South Adams County Fire Protection District –

- Fire Station #4 is on the southeast corner of Rosemary St. and E. 86th Avenue. During heavy traffic it is hard to get an engine out of the Fire Station and onto Rosemary St.
- Between Pontiac St. and the railroad tracks there is very little road access for fire engines to access a potential fire in that area.

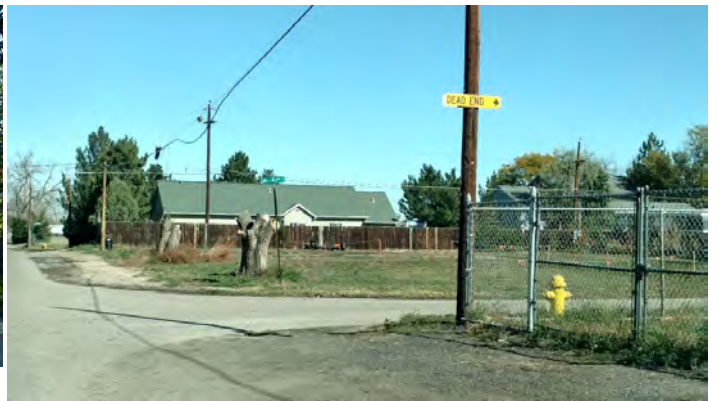
Visitor



Not enough parking at businesses on east side of Rosemary St., between 81st Ave. and 82nd Ave.



ROADS: CHARACTER IMAGES





SNAPSHOT REPORT: LAND USE

The Snapshot Report

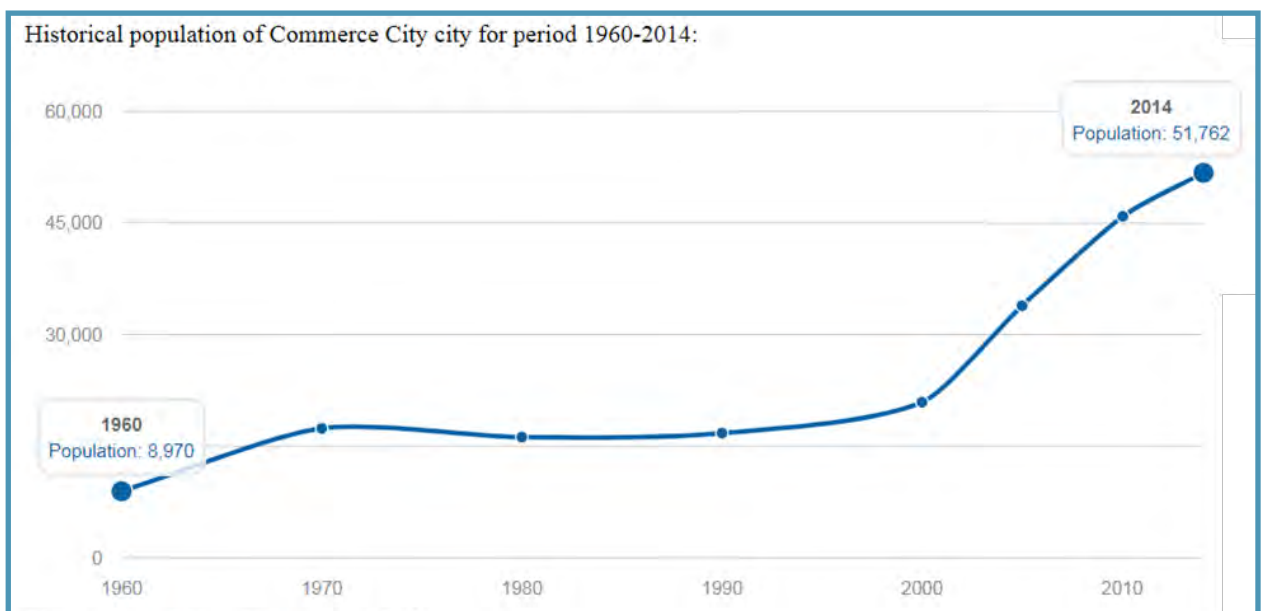
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Demographic Snapshot

As shown in the table below left, Irondale has a unique set of characteristics when compared to Commerce City as a whole. The neighborhood has experienced a slight decline in population in the past 15 or so years, while the City has over doubled. Income is lower and poverty rate higher in the neighborhood. However, the rate of unemployment is low; this could be indicative of underemployment or represent unreported incomes. The Hispanic Latino population makes up the majority of neighborhood residents, nearly double the population percentage of the City. Another interesting item to note is that nearly half of all homeowners in the neighborhood own the property outright.

	Irondale	Commerce City
Population (2015)	816	50,346
Population (2000)	821	20,991
Median Household Income	\$23,472	\$66,053
Poverty Rate	48.5%	15.6%
Unemployment	5.83%	6.82%
Median Year Home Built	1963	2001
Median Gross Rent	\$635	\$973
Homes with Debt (mortgage, equity loan, etc.)	54.5%	85%
Percent Hispanic / Latino	84.3%	45.6%

Source: US Census & US Census American Community Survey



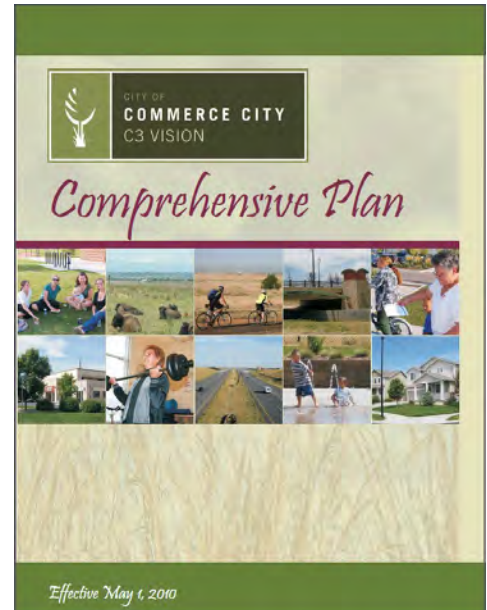
Data Source: <http://population.us/co/commerce-city/#1>



Previous & Related Plans

THE COMMERCE CITY COMPREHENSIVE PLAN (2010)

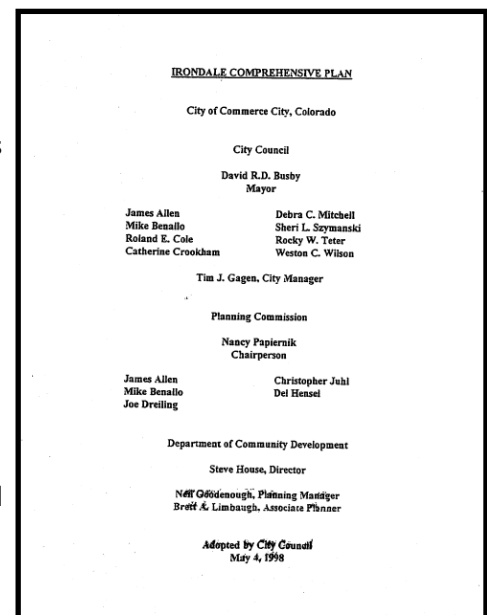
An update to the 1998 plan, the 2010 document featured a visioning component, as well as chapters on: future land use, economic development, fiscal sustainability, housing and neighborhoods, redevelopment and reinvestment, transportation, safety and wellness, parks, open space and recreation, public facilities and infrastructure, appearance and design, cultural facilities and tourism, environmental conservation and stewardship, and implementation. This massive document aligned the many silos of the community into one major plan and set of goals to move toward. It also calls out the Irondale Neighborhood as one of the five original City neighborhoods with goals for better connectivity of public infrastructure of all types, improving the image of the area through new policies and enforcement, and encouraging lighter industrial and commercial uses while preserving the existing residential pockets. Future land uses for the area include: Low density residential, Industrial / Distribution, General Industrial, embedded commercial, and more. Goals for Irondale include strengthening industrial areas, new employment opportunities, rezoning and annexation, encourage infill development, maintaining effective emergency services, creating clinics and programs, improving the overall appearance, and increasing connectivity within and outside the neighborhood. The focus of Irondale planning efforts should be on job creation through redevelopment of the district as a whole.



Full Plan available online at: <http://www.c3gov.com/home/showdocument?id=798>

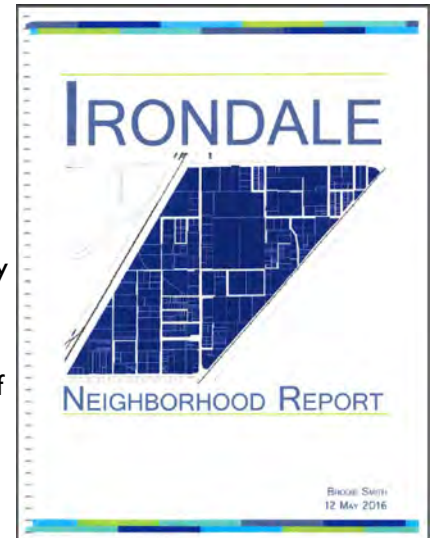
THE IRONDALE COMPREHENSIVE PLAN ADDENDUM (1998)

This nearly 20 year old plan addresses land use, transportation, and utilities for the Irondale neighborhood. The plan was developed to address concerns from the Commerce City Comprehensive Plan of 1995 where the neighborhood was identified as industrial but little else was discussed in terms of mitigation of impacts or intensity of uses. Three residential areas within Irondale were identified and can be protected through regulating the commercial and industrial development impacts in the plan. The transportation section of the plan discusses the creation of the full street grid system in the neighborhood; certain roadway improvements were also called out. Conveyance systems for water, sewer and storm water and missing links highlight the need for better connections in the neighborhood. Finally, maps of the different land uses, roadway networks, drainage, and utilities are found in this plan. These goals and future improvement maps are referenced in this new document and can be used as a starting point for discussion of current plans and goals for the Irondale neighborhood.



THE IRONDALE NEIGHBORHOOD REPORT (2016)

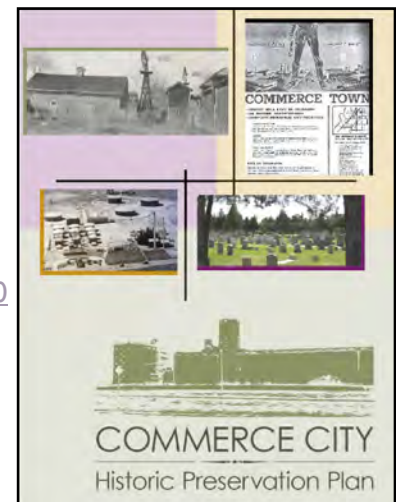
Developed as a CU-Denver planning graduate student capstone project, the Report recounts the Irondale neighborhood area development relative to the rest of Commerce City, inventories infrastructure, land use, and zoning, and provides recommendations to assist with future redevelopment efforts. Major recommendations included, generally, improving the infrastructure, creating priorities and guidelines for development, and incentivizing the development the City wants to see. The report compares a snapshot of land uses to zoning, as well as City versus County jurisdictions. A significant correlation appears to lie in the pockets of County parcels and non-conforming uses. Further, a statistical analysis of the population and economic indicators highlight the disparity between Irondale and the larger City. This report provides a snapshot into current conditions and a basis for understanding the neighborhood.



THE COMMERCE CITY HISTORIC PRESERVATION PLAN (2015)

This document is the first major historic preservation plan for the City. It outlines the history of the area and original neighborhoods, including Irondale. Additionally, a SWOT analysis and implementation strategies make up the remaining portion of this plan.

Full document available online at: <http://www.c3gov.com/home/showdocument?id=2000>



CITY COUNCIL GOALS (2016)

Commerce City Council uses an annual workplan that details individual steps to reach their major goals. To stay on track with the plans for the community, each step is broken down further into actionable items.

Full document available online at: <http://c3gov.com/index.aspx?NID=924>

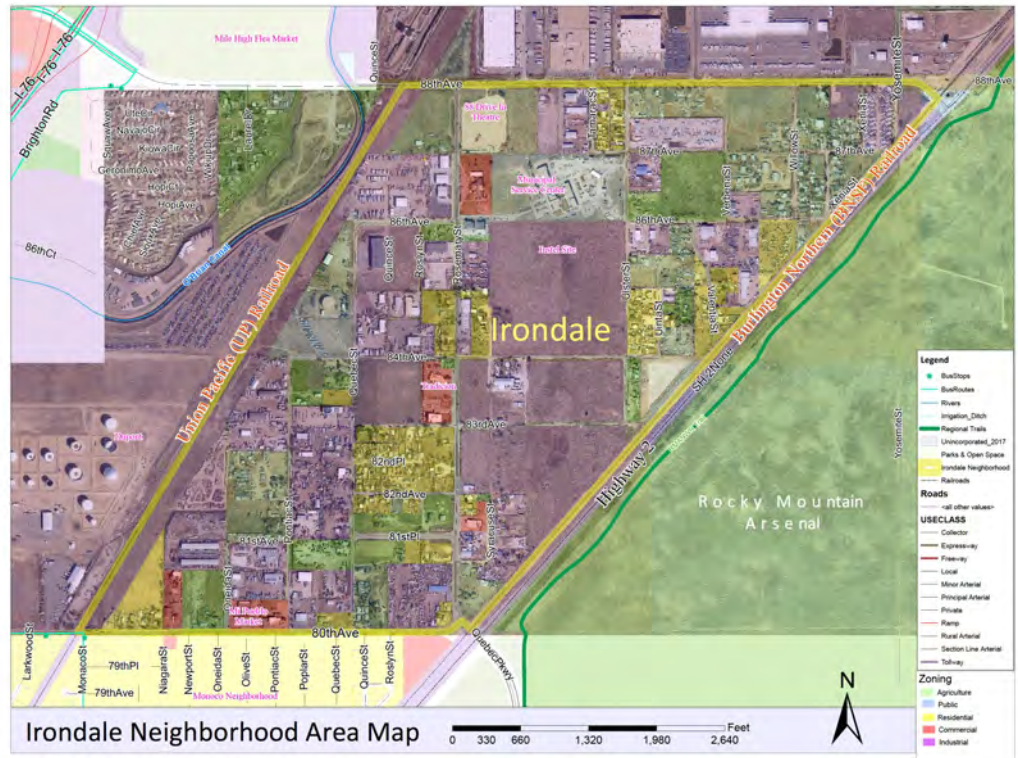
CITY COUNCIL GOAL #1		Develop a balanced and vibrant economy to improve socioeconomic status	Notes
1.1	Midwest role of land uses	<ul style="list-style-type: none"> Adopt the Irondale Neighborhood Plan by December 31, 2017. Increase the number of income restricted units by 200 in 2017. Increase in the available commercial and industrial flex space options by 4% in 2018. Increase amount of water available for increased growth and development. Increase in the total number of businesses by 1% by 2018. 	<ul style="list-style-type: none"> Current LTFC matches have dropped dramatically over the past 6-12 months, which makes the Center Project financially difficult. Owners are advised waiting until LTFC pricing stabilizes to maximize funding gap. City for consultant assistance to assist city with creating a neighborhood and infrastructure plan for the Irondale neighborhood advertisement initiative and requires needed in March. Next steps are to interview the finalist and make a selection over the next month. Funding secured for Downtown affordable housing project at 10th and 14th. Breaking ground summer 2017. January 2017 Economic Activity Report shows 1,500 square feet of commercial real estate added in the city. Marketing and outreach efforts included: (Sponsoring ONE) Development/Construction Society, no meetings with developers. Working with SAC WCD on trying to get water, enhancing availability of developers and interested parties to develop buy water from the water district, and working for additional water sources. January 2017 Economic Activity Report shows business growth up 1.5% from previous year. Announcements: Tattler Expressions, Rock River Ranches and Model Street locations by the city. (PMA activity: 89 new projects and retention efforts. - Next Business Appreciation Awards. Established housing seven companies. About 120 attendees, paid members after hour with over 100 attendees, visit with CC Chamber staff). January 2017 Economic Activity Report shows all growth up 1% from previous year. This is a longer term objective and hasn't captured future job growth from Intel/Steel and Milane projects yet. Need employee focus group to discuss water training and workforce needs.
1.2	Location of choice for primary residence	<ul style="list-style-type: none"> Increase in the total number of primary jobs by 5% by 2018. 	<ul style="list-style-type: none"> Performing market research and identifying diversification strategies.
1.3	Diverse mix of businesses	<ul style="list-style-type: none"> Increase the overall percentage of companies within targeted industries by 2% over the next three years. Attract at least one new 50+ seat restaurant in 2017. Attract at least one new hotel in 2017. 	<ul style="list-style-type: none"> New restaurant openings in CC: Don's Diner, Royal Nepal Restaurant, Popcorn Louisiana, 100% Use Variables. Three active hotel prospects. Hotel study research.



Current Zoning

Irondale zoning is primarily a mixture of industrial and residential districts. Agricultural, Commercial, and Public zones are also present within the neighborhood. The map to the right shows the mixture of uses. A full size map is available in Maps Index. While a mixture of land uses within an area can be a positive attribute in creating live-work neighborhoods, the blend seen in Irondale is causing conflict with the major disparities of intensity. Grouping the zones together to step down intensities would allow for more natural buffers between conflicting uses. Blending and stepping down

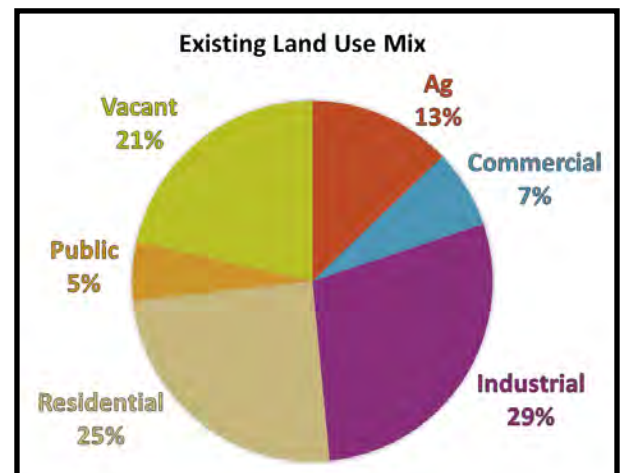
intensities could address major impacts in viewsheds, noise, roads and utilities. Current zoning regulations require buffering between incompatible uses, with exact requirements determined by the abutting districts. For example, the industrial and residential uses together would require the highest buffer distance, number of trees and shrubs. Within the district, the buffering is not consistently implemented, largely due to the pre-existence of incompatible uses in the district and their establishment prior to buffering requirements. Few areas in Irondale meet the current set of city requirements.



Current Land Uses

Current land uses are predominantly residential and industrial. The map also indicates a large amount of agricultural land; however, this generally indicates undeveloped property rather than actual farm uses. It should be noted that a number of the residential properties have associated uses of either agricultural, with a number of farm animals, or industrial, with outdoor storage.

Locations of these uses are not well defined pockets within the neighborhood, but rather mixed throughout. Residential uses include a mobile home park as well as single family and multifamily units. Some of the units are at the end of dead end roads where less heavy traffic is present; however, a fair amount of these uses also lie along higher use corridors. Industrial uses are visually separated between the newer uses with a higher level of site design than established uses, permitted or not.



Jurisdictions

Providing an additional layer of confusion are the different jurisdictions within the neighborhood. A majority of the properties are within Commerce City; however, a number of Adams County enclaves exist. The mixture of the two jurisdictions causes confusion regarding different standards and enforcement, responses to incidents, and providing continuity of service. Addressing these pockets through strategic discussions and working with both jurisdictions to provide guidance on standards of development for these parcels to create a better understanding for residents and smooth transition in the neighborhood.

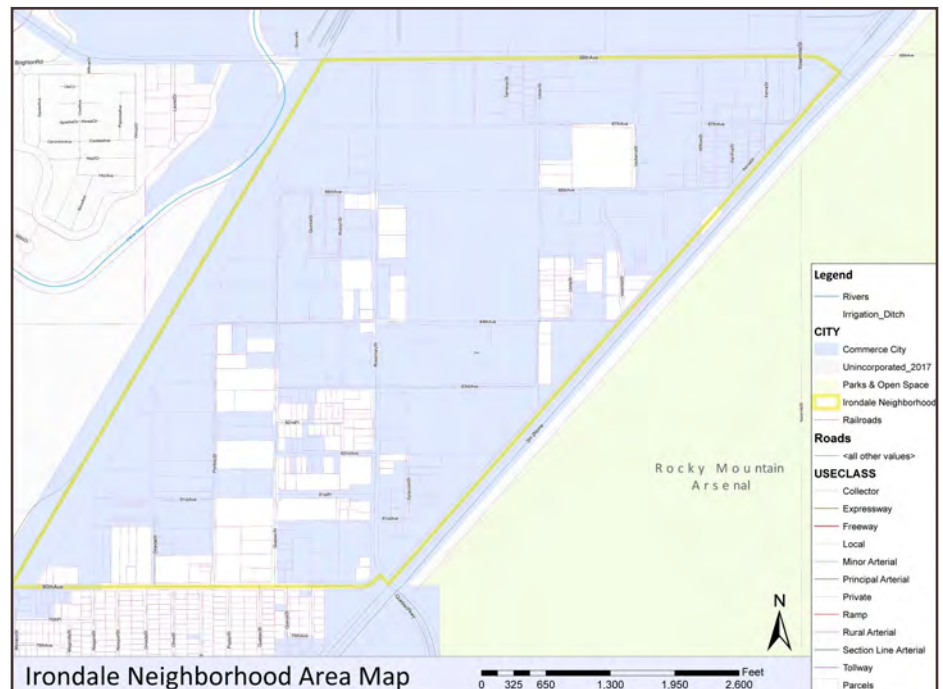
The land area and percent of residential properties in the City versus the County in the table to the right are particularly interesting. They indicate the preference of prior governmental bodies to annex commercial property. However, certain items will necessitate annexation into the City. For example, water tap when higher than a low use threshold will require annexation for services. Residential properties are provided with trash service by the city. From the property owner's perspective, the City has more regulations and higher taxes.

The map depicts areas in blue as Commerce City jurisdiction with areas in white as Adams County jurisdiction. The pocket to the lower center of the neighborhood includes a large number of residential units.

In 2007 a portion of the area was annexed. There were concerns from the residents at the time which have led to a decision not to forcibly annex. The 9 State or Exempted parcels would be a good target for annexation since property taxes wouldn't be affected by the change.

	Adams County	Commerce City	Total
Parcels	130	287	417
% Parcels	31.2%	68.8%	-
Acres	88.89	355.82	444.71
% Land Area	20%	80%	-
Assessed Residential	103	141	244
Residential Acres	53.65	94.31	147.96
% Residential Area	60.4%	25.5%	33.3%
Assessed Commercial or Industrial	18	63	81
Commercial—Industrial Acres	33.73	136.33	170.06
% Commercial—Industrial Area	37.9%	38.3%	38.2%
Assessed Ag	0	2	2
Exempt or State	9	38	57
Not Available	-	43	43

Source: Commerce City Planning & Adams County Assessor GIS Data



Valuation Comparison

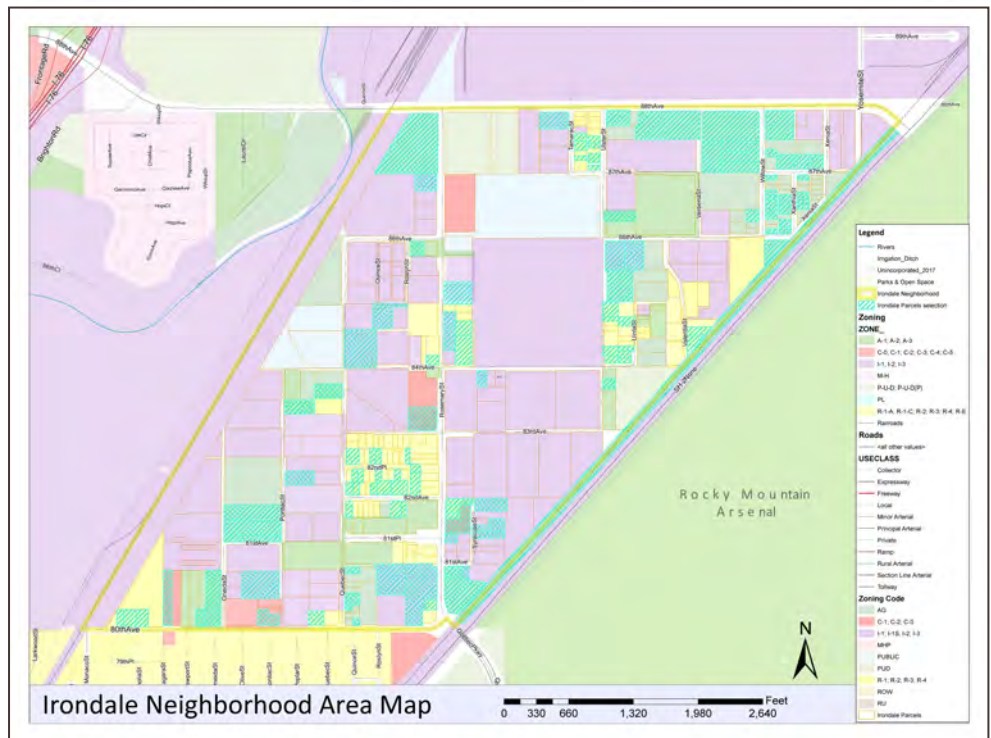
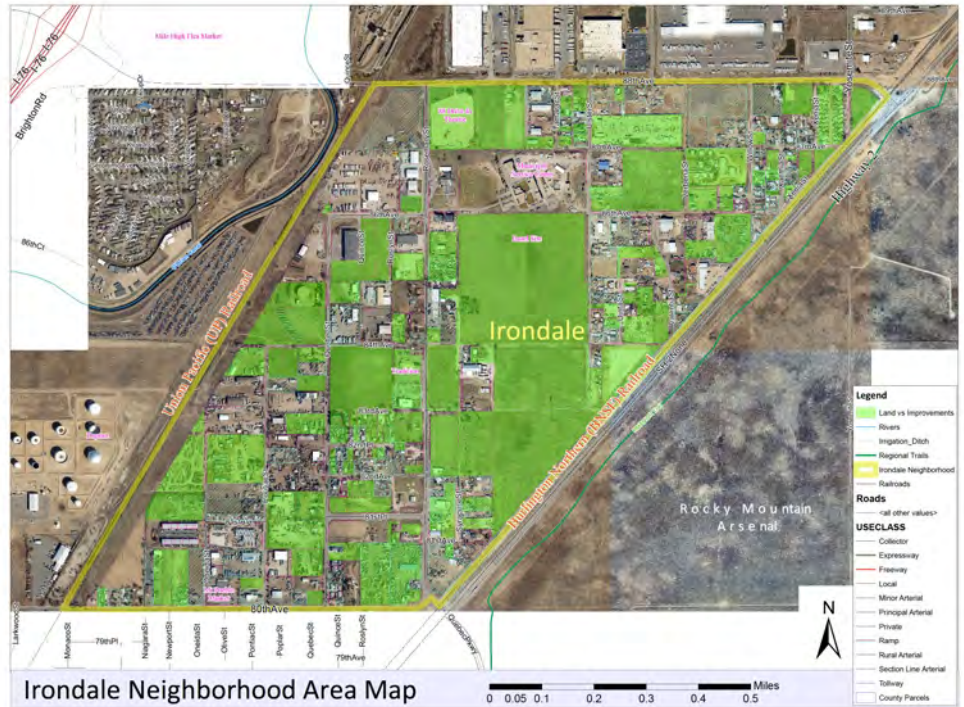
A good indicator of properties that are more likely to sell for redevelopment are those on which the underlying land value is greater than the improvements. In many cases this is vacant property, or a larger parcel with limited use. Looking at Irondale, a significant portion of properties fall into this category. This condition indicates areas where possible change might occur in the future through reinvestment.

Ownership Patterns

Roughly 30% of the parcels within the Irondale Neighborhood are owner occupied. However, as visible from the map, the total area of these parcels makes up a much smaller percentage of the neighborhood. These properties complicate the future discussions because owner occupied units tend to be well-maintained and have been well cared for.

Special considerations

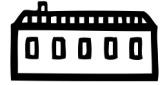
The importance of the brownfields within the Irondale neighborhood cannot be overstated. As redevelopment pressures mount, these properties may become more apt to change. However, the lack of infrastructure within the area creates an added layer of difficulty to improving the area by creating major financial hurdles. Looking at the future of the district, redevelopment of industrial uses into other industrial uses will be difficult without coordinated efforts and priorities for public infrastructure.



Perspectives

The comments heard from public meetings reflect differing concerns and opinions about the future of the neighborhood. These comments are illustrative of the four main perspectives and comments regarding Irondale.

Business



Business owners expressed concerns with cost of development and requirements in the neighborhood for business uses. They would like to see additional industrial uses permitted in the neighborhood. One meeting attendee discussed requirements like setbacks and shielding from Rights of Way for a new industrial storage type use. He believed it wasn't fiscally possible to move forward with a new site given these concerns.

Another meeting attendee shared that Irondale was a "Great location for Industrial with transportation proximity."

Resident



Resident comments varied from impacts of trucks to roads and associated noise, animal impacts, and questions of future uses—should the area remain mixed, increase in residential or turn to commercial and industrial over time? A major theme during the first public meeting was a desire to know the future plan for the area so investment decisions could be made.

One person asked "Which is more valuable as a future use - Industrial or Residential?"

Another cited the "poor image of the area."

Official



The public officials include elected representatives and the City and County staff. From an elected perspective, there is little political will to forcibly annex property with concerns from previous actions still high in residents' minds. From a City perspective, the mixture of uses and jurisdiction creates additional challenges for enforcement and can be a concern with residents as the different regulations and requirements come in to play.

Visitor



A significant amount of visitor traffic to the neighborhood was pass-through along Rosemary. Exceptions include business patrons and employees. For example, someone may come to Irondale from the neighborhood to the south to visit the restaurant or market. The visitor is only seeing a quick view of the neighborhood. To improve the Irondale image the main corridors for visitor traffic could be looked at for improvements as funds are available and development occurs.



LAND USE: CHARACTER IMAGES





SNAPSHOT REPORT: DRAINAGE

Waterways and waterbodies

The Irondale neighborhood is located near the downstream end of the Irondale Gulch Watershed. This watershed encompasses 23.4 square miles (14,979 acres) in total, compared to 556 acres for the Irondale neighborhood. The watershed begins upstream in the City of Aurora, near I-70, where it drains northwesterly through the City of Denver, Rocky Mountain Arsenal National Wildlife Refuge (RMA), and Commerce City before ultimately discharging into the South Platte River near 88th Avenue.

The Snapshot Report

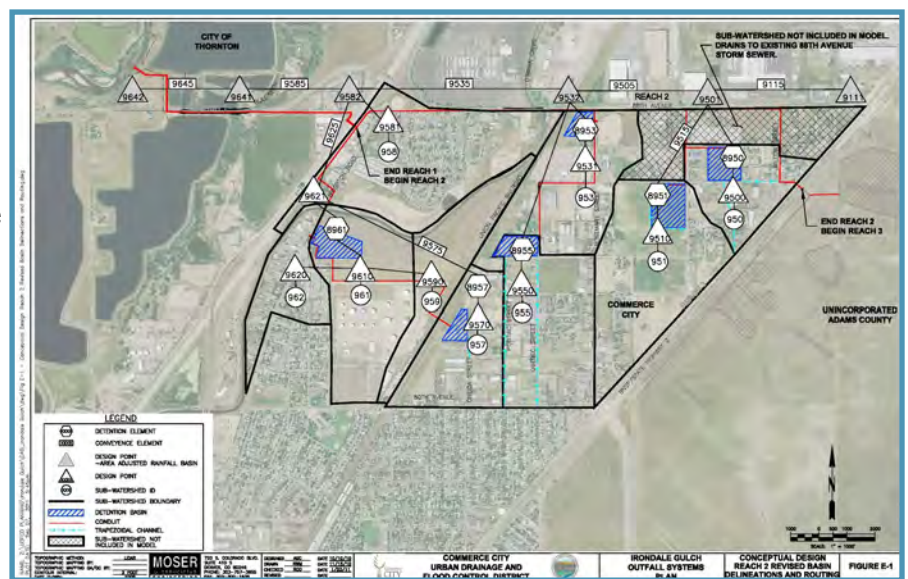
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Drainage from the upper watershed comes from three different tributaries – named Irondale Gulch, Tributary A, and Tributary B. These flows cross northwesterly into Irondale by crossing over State Highway 2 and ponding behind the BNSF Railroad embankment. If the storm event is large enough, these flows could overtop the railroad tracks and flood into the Irondale neighborhood.

Between Irondale and the South Platte River, the overall flow pattern is northwest towards 88th Avenue and the Union Pacific Railroad crossing, then directly west towards the river. In general, there are no defined flow paths here; flows from upstream and runoff generated in the Irondale area move towards the river as shallow flooding and sheet flow. In the current condition, these flows are prevented from reaching the South Platte by the UPRR embankment, the O'Brian Canal, and Interstate Highway 76.

Existing Network

The 2011 Irondale Gulch Outfall Systems Plan by Moser & Associates Engineering (Irondale OSP) explained that “the main flood hazard in the study area is the absence of conveyance in Commerce City west of SH 2.” There are no culverts under major roadways or railroads with significant embankments and there are no storm water detention or retention facilities within Commerce City. Last, the upper watershed and Irondale neighborhood area do not have a formal or informal outfall to the South Platte River.



There is an existing 48-inch drainage pipe on the north side of 88th Avenue and an existing 18-inch drainage pipe along Ulster Street. However, this storm system empties into a retention basin at the northeast corner of 88th Avenue and the UPRR and does not have a direct connection to the river. This retention basin has a capacity of 15.3 acre-feet.

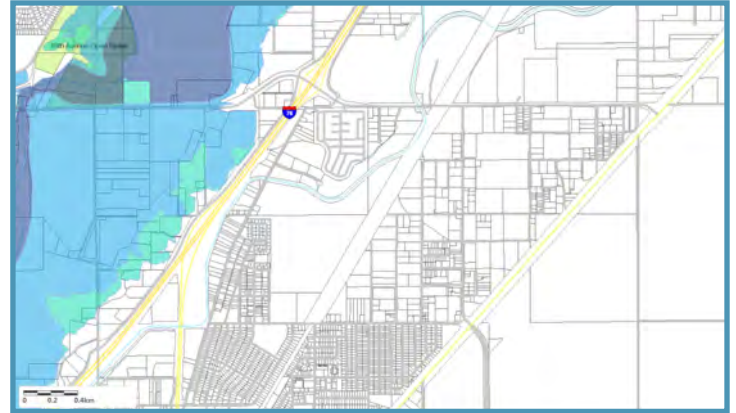


Floodplains

The Irondale neighborhood is not located inside of a FEMA designated regulatory Special Flood Hazard Area (SFHA) or a Flood Hazard Area Delineation (FHAD) by Denver UDFCD. The Irondale area can be found on four (4) FEMA Flood Insurance Rate Map (FIRM) panels 08001C 0606H - 0609H.

Planned Upgrades & Extensions

The 2011 Irondale OSP and Conceptual Design Report evaluated existing and proposed drainage conditions throughout the Irondale Gulch watershed – of which the Irondale neighborhood is a smaller portion closer to the outlet of the watershed, through which the upstream flows would naturally pass to reach the South Platte River.



Above map image from Adams County GIS interactive flood-plain viewer available at: <https://gisapp.adco.gov/Html5Viewer/index.html?viewer=FEMA.FEMA>

The OSP divided the watershed into three geographic groups of similar nature:

- 1) The area from I-76 to the South Platte River (Reach 1);
- 2) The area from SH 2 to I-76, including the Irondale neighborhood (Reach 2); and
- 3) The upper portions of the watershed east of SH 2, including the Rocky Mountain Arsenal National Wildlife Refuge (RMA).



October 9, 2017

Watershed Delineation

Override 1

Grade Control Structure

Pipe Appurtenances

Special Item Point

Special Item Linear

Special Item Area

Channel Improvements Linear

Channel Improvements Area

Removal Line

Removal Area

Storm Drain

1:18,056

0 0.15 0.3 0.6 m

0 0.175 0.35 0.7 km

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, IGN, G-OpenStreetMap contributors, and the GIS User Community

Web App Builder for ArcGIS

City and County of Denver, Esri, HERE | City of Commerce City, County and City of Denver, Esri, HERE, Garmin, INCREMENT P, NGA, USGS



For each of the three geographic areas, the OSP evaluated 8 categories of alternatives – or different combinations of detention and conveyance. This resulted in a selected plan, with conceptual design, for a 100-year conveyance system to reconnect the watershed with the South Platte River. Since there is no existing outfall path to the South Platte River, and since the lower areas of the watershed are mostly developed, the OSP selected plan relied heavily on detention/ retention in the RMA to lower peak flow rates and the size of the needed downstream conveyance system. However, even with significant amounts of detention, the selected plan proposed a large diameter concrete pipe/ concrete box culvert outfall system for approximately 1,200-feet along 88th Avenue, beginning just west of SH2 and proceeding west to the South Platte River.

Details of the OSP Selected and Conceptual Improvement Plans are summarized in the following list:

Reach 1 – South Platte River to I-76 at 88th Avenue:

Three (3) 48-inch reinforced concrete pipes (RCP) jacked under I-76;
 One (1) 10'x3' reinforced concrete box culvert (approximately 4,600 feet);
 Grading required along 88th Avenue, near the Bull Seep, to raise the roadway;
 OSP Conceptual Design Improvement Cost of \$9.1 million (2011).
 (Commerce City, City of Thornton and Unincorporated Adams County)

Reach 2 – 88th Avenue between I-76 and 88th Avenue (Including Irondale neighborhood):

76- x 48-inch HERCP jacked under the O'Brian Canal
 60-inch RCP jacked under the UPRR
 60-inch RCP along Willow Street, 88th Avenue, Brighton Road and I-76 ROW;
 60-inch RCP jacked under SH 2 and the BNSF to convey flows from the RMA;
 Six (6) Regional Detention/ Retention Basins (5 inside of Irondale neighborhood);
 Engineered channels and smaller drainage pipes along minor roadways to convey runoff to the detention basins;
 OSP Conceptual Design Improvement Cost of \$31.9 million (2011).
 (Commerce City and Unincorporated Adams County)

Reach 3 – State Highway 2 between 88th Avenue and 80th Avenue:

An engineered channel along the east side of SH2 to convey 100-year storm runoff to a proposed crossing under SH 2 and the BNSF Railroad.
 OSP Conceptual Design Improvement Cost of \$620,000 (2011).
 (Rocky Mountain Arsenal and Unincorporated Adams County)

Reach 4/ Tributary A/ Tributary B:

Irondale Gulch – Reach 4: Construct Detention Basin 209 (“Railroad Detention”);
 Tributary A - formally recognizing the five (5) natural depressions as regional retention basins for flood control and constructing Detention Basin 8911;
 Tributary B - formally recognizing the two (2) natural depressions as regional retention basins for flood control and constructing one spillway from a natural depression;
 OSP Conceptual Design Improvement Cost of \$5.1 million (2011).
 (Rocky Mountain Arsenal and Unincorporated Adams County)

To reduce flows in major and minor storm events, the OSP report says that all future detention basins should incorporate “full spectrum detention” as requested by the UDFCD.

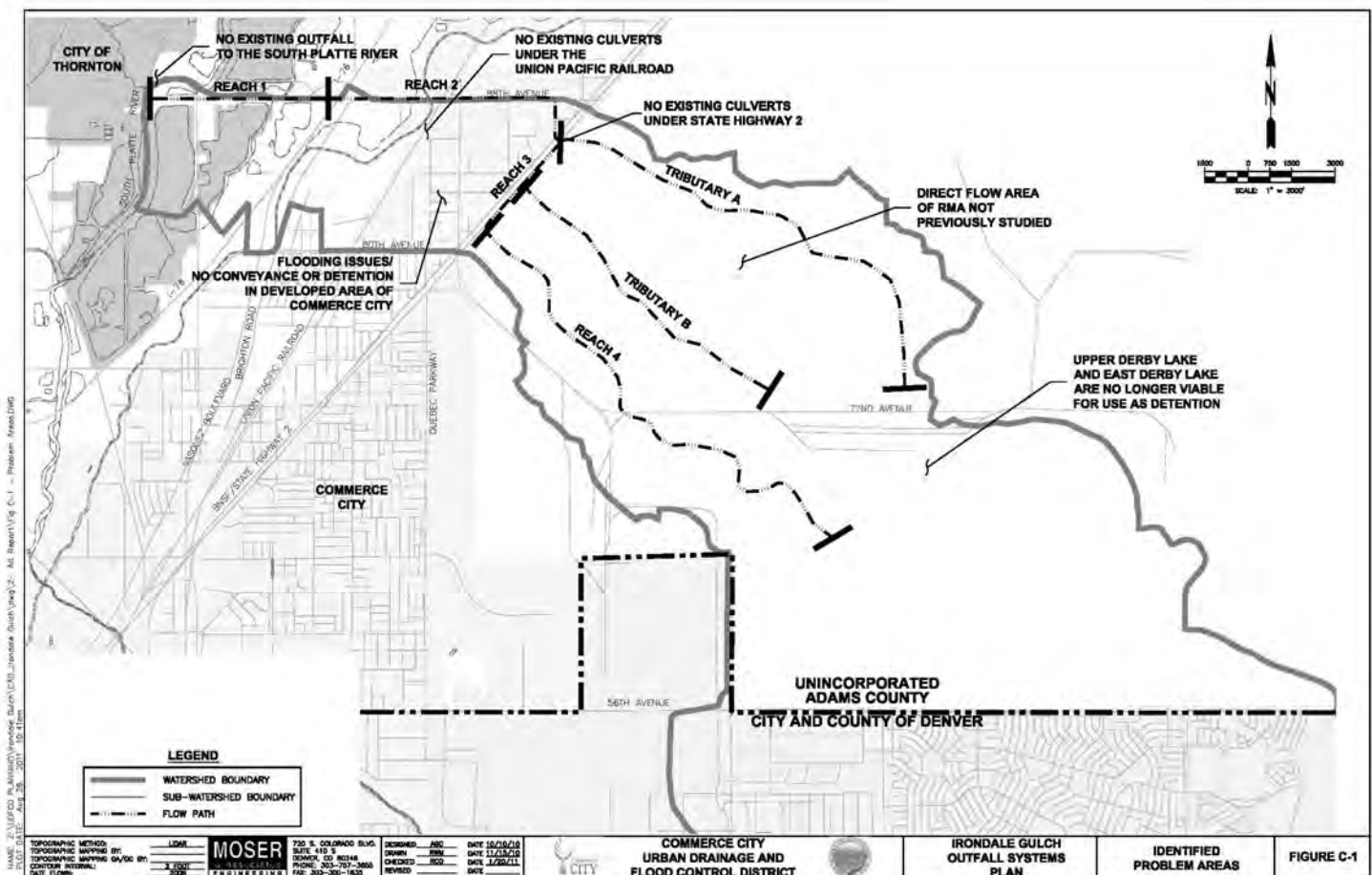


Previous & Related Plans

In 2011 the Denver Urban Drainage and Flood Control District (UDFCD) finished a hydrology and master plan study for the Irondale watershed. This study was entitled Irondale Gulch Outfall Systems Plan (OSP) and was performed by Moser & Associates Engineering. This study reviewed the hydrology and drainage patterns of the watershed and proposed solutions to improve existing drainage problems.

Special Considerations

The OSP report recommends that the selected plan improvements may be constructed in two phases, Phase 1: Detention and Phase 2: Outfall System. These phases may overlap with each other, but the biggest impact to minimizing flooding would be to construct the detention and retention basins in Reach 4, Tributary A, and Tributary B first. Then followed by the six (6) full spectrum detention ponds in Reach 2, of which five (5) are within the Irondale neighborhood. The OSP report also explains that the Reach 2 ponds (Irondale) may be constructed as retention ponds as areas redevelop and later converted to detention ponds when the 88th Avenue outfall system is built.



[The information presented and summarized here was obtained from the 2011 Irondale Gulch Outfall Systems Plan Conceptual Design Report by Moser & Associates Engineering. Referred to as the 2011 Irondale OSP]

DRAINAGE: CHARACTER IMAGES





SNAPSHOT REPORT: UTILITIES

The Snapshot Report

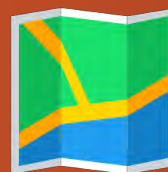
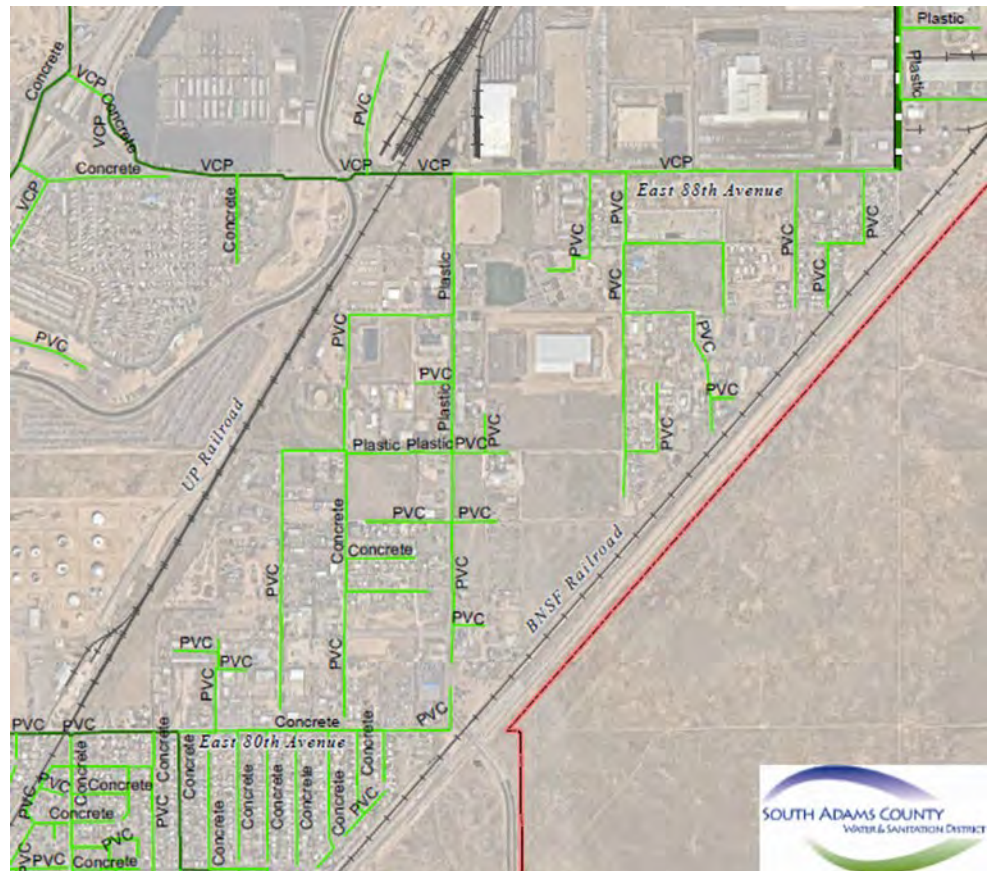
The snapshot report is designed to provide an overview of the current conditions within the neighborhood. The snapshot is not exhaustive, but rather a foundation to engage in conversation about the existing and future plans to be developed.

Existing Network: Sanitary Sewer

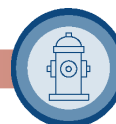
The Irondale neighborhood receives sanitary sewer service from South Adams County Water and Sanitation District (District). The majority of the Irondale neighborhood's wastewater system flows north to East 88th Avenue and heads west. The remaining small area, including the pipe in Oneida Street and the south half block of Rosemary Street, flows south to the sewer line in East 80th Street. The existing sewer system reaches most of properties in Irondale. The few remaining parcels without an adjacent sewer main would need minor sewer extensions to be served.

According to District staff, much of the system on the east side of Rosemary is less than 15 years old, and the gravity main in Rosemary Street is deep and in good condition. The District is currently updating the water and sewer master plan based on land uses in the City's 2010 Comprehensive plan. At this time, there are no short-term improvements identified for this neighborhood, however the master plan update should identify priority improvements to enhance the sewer system.

The sewer pipes within Irondale are between 8 and 16 inches and consist of the following materials: PVC, VCP, concrete and plastic. The existing sanitary sewer system reaches most of the parcels within the neighborhood. Wherever a parcel is not adjacent to a public sewer main, an extension is required per District standards. There are several properties connected to septic systems. These systems are located _____.



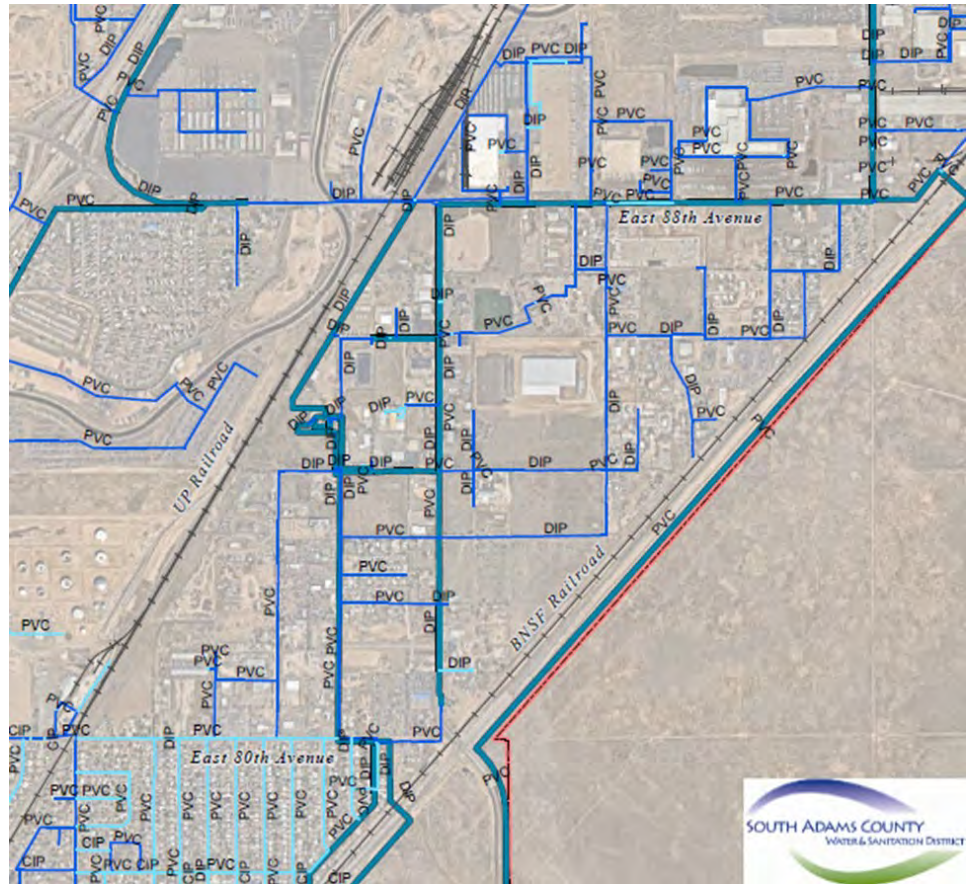
See
Existing Utilities Map
on Page #



Existing Network: Water System

Irondale's water is provided by South Adams County Water and Sanitation District (District). Most of the water lines in Irondale meet current standards regarding size and material type. However, the District is currently updating their water and sewer master plan to identify priority improvements to enhance the water system.

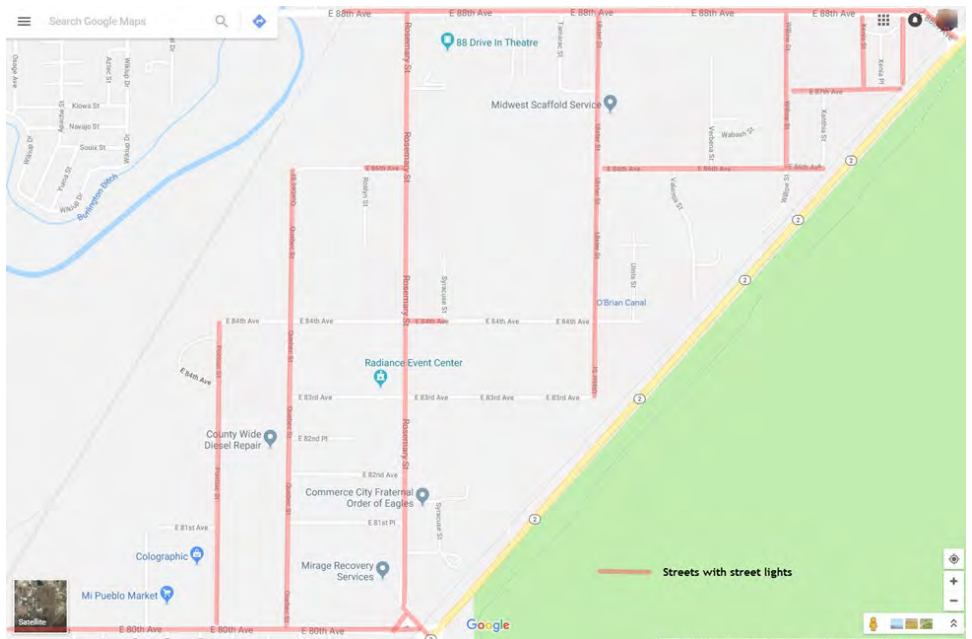
Water lines currently run beneath most of the streets in Irondale. Transmission mains run north and south underneath Rosemary and Pontiac Streets, while small lines (8-15") lines serve the remaining areas.



Existing Network: Gas & Electric

Xcel Energy provides natural gas and electric service to Irondale. Street lighting is limited in the neighborhood, with facilities on sections of the following streets: 88th Ave, 87th Ave, 86th Ave, 84th Ave, 80th Ave, Pontiac St, Quebec St, Rosemary Street, Ulster St, Willow St, Xenia St, and Yosemite St.

Xcel has existing gas facilities in Irondale, including a 16-inch high pressure main running along East 88th Avenue and a 24-inch high pressure pipe running along the E. 84th Avenue alignment. Xcel is prepared to serve gas customers in this neighborhood. Depending on the loading requested, extra cost and system upgrades may be required.



Existing Network: Telecommunications

The following utility companies provide some form of telecommunications (telephone, internet, television) in Irondale: CenturyLink, Comcast, DirecTV, Dish/Dish Latino, and HughesNet.

CenturyLink has provided information on their system. They have both aerial and buried infrastructure adjacent to and within the Irondale neighborhood, providing service to existing and future development. A schematic map shows the existing (blue) and proposed/under construction (red) facilities.



Planned Upgrades & Extensions

Currently there are no known planned upgrades for the sanitary sewer, water system, telecommunications, gas or street light facilities. The District is underway on an update to their water and sewer master plan, out of which will likely come proposed priority improvements for both systems. In general water improvements identified by the District include looping existing dead-end mains and providing a water connection to the west under the UP Railroad tracks to the system west of the tracks. Telecommunications, Gas and Electric extensions and upgrades are typically driven by development and customer needs.

Special Considerations

When roadway improvement projects and heavy rail spur construction is identified, all underground utilities will need evaluation to determine if they need to be rehabilitated, replaced, relocated or in the case of railroad tracks, sleeved where they may cross underneath the tracks.

Water facility sizing is driven primarily by fire flow demands. Depending on the type of facility, building construction materials, fire flow demands will be important to evaluate to determine if any water system improvements are needed to meet the pressure and flow requirements. Certain industrial development uses, such as a bottling plant or brewery, may require improvements to the water system to meet their potable water demand.

Previous & Related Plans SOUTH ADAMS COUNTY WATER & SANITATION DISTRICT MASTER PLAN

