



APPENDIX H

Rocky Mountain Metropolitan Airport Environs Land Use Plan 2011

Rocky Mountain Metropolitan Airport Environs Land Use Plan 2011

Prepared for

JEFFERSON COUNTY

By

**JEFFERSON COUNTY PLANNING & ZONING
&
ROCKY MOUNTAIN METROPOLITAN AIRPORT**

With Input From

REYNOLDS SMITH AND HILLS, INC.

Table of Contents

Rocky Mountain Metropolitan Airport Environs Land Use Plan 2010	1
1.1 Introduction	1
1.1.1 Intent.....	1
1.1.2 Boundary.....	1
1.1.3 Relationship of Airport Environs Land Use Plan to Other Plans.....	2
1.2 Existing Conditions and Analysis of Issues.....	3
1.2.1 Land Use.....	3
1.2.2 Transportation.....	4
1.2.3 Services and Utilities.....	5
1.2.4 Utilities	5
1.2.5 Physical Features.....	5
1.3 Policies	6
1.3.1 Surrounding Land Use	6
1.3.2 Transportation.....	8
1.3.3 Coordination.....	9
1.3.4 Site Design.....	10
1.3.5 Airport Critical Zones.....	11
1.4 Glossary.....	13
1.5 Additional Resources:	15

Appendices

- Appendix A - Notice of Proposed Construction or Alteration Form 7460-1
- Appendix B - Sample Avigation Easement
- Appendix C - Boundary Map
- Appendix D - Existing and Potential Land Uses Map

ROCKY MOUNTAIN METROPOLITAN AIRPORT ENVIRONS LAND USE PLAN 2010

1.1 INTRODUCTION

The Rocky Mountain Metropolitan Airport (RMMA) began operations in 1960. When constructed, the airport had little to no surrounding development, as the area existed primarily as farm land. Over time, Jefferson County, the City and County of Broomfield, the City of Louisville, the Town of Superior, and the City of Westminster have grown in and around the Airport. The jurisdictions all acknowledge the importance of the Airport to the area and have worked to create this Plan to identify the existing and future land uses in each jurisdiction. Aviation and its related industries are vital to the area's economic growth. Therefore, careful planning must occur to allow the Airport to continue serving its vital role, while protecting citizens from impacts of the Airport.

1.1.1 Intent

This Plan was initially developed in 1988 as a way to recognize the surrounding land uses and activities adjacent to the Rocky Mountain Metropolitan Airport. Since the inception of the Environs Land Use Plan, terminology, proposed land uses, FAA regulations, neighboring entities, etc. have evolved and an update to the original Plan has become a necessity.

As each jurisdiction continues to grow and consider future development, this Plan encourages compatible land uses and design around the airport. This document does not change the land use control or decision making authority of any jurisdiction. The intent of the document is to function as a collaborative guide defining the land uses surrounding the Airport, and their relationship with the Airport. To achieve consistent and compatible land uses, each government agreed to share information for current and future land uses. This Plan includes that mapping information, as well as identifies goals and policies to protect the viability of the Airport into the future.

1.1.2 Boundary

The boundary of the plan is the Airport Influence Area shown in the attached maps. The Airport Influence Area is that property within the environs of the Airport, where particular land uses either are influenced by or will influence the operation of the airport, in either a positive or negative manner. This area takes into account Runway Protection Zones, Approach Zones, Traffic Pattern Areas, and Airport noise contours down to 65 Day/Night Level (DNL) and then establishes a buffer around those features that extends to prominent geographic features and roads.

1.1.3 Relationship of Airport Environs Land Use Plan to Other Plans

This Plan serves as an advisory document only, and may be used in conjunction with applicable local Comprehensive or Master Plan documents when reviewing new land use cases within the Airport Influence Area. Where conflicts exist between this Plan and other local jurisdictional plans, the local jurisdictional plan will govern, unless inherent conflicts exist under Federal Aviation Administration (FAA) and/or applicable aviation regulations.

This Plan differs from the Rocky Mountain Metropolitan Airport Master Plan in that the Airport Master Plan forecasts aviation activity and determines the ability of the airport to safely and efficiently meet the needs associated with those forecast. This Plan maps the land use issues that impact not only the property owned by the Airport, but also properties surrounding the Airport.

1.2 EXISTING CONDITIONS AND ANALYSIS OF ISSUES

1.2.1 Land Use

As of the publication of this Plan, allowed land uses on the property owned by the Airport include:

- Aircraft operations, per Federal Aviation Regulations (FAR)
- Airport control towers, maintenance, operations, and support facilities
- Aircraft Management
- Aircraft part(s) sales
- Flight instruction and flight simulator training
- Air charter/air ambulance
- Aircraft detailing, cleaning and interior design
- Air cargo and support operations
- Aircraft maintenance, repair, and manufacture
- Avionic sales and rentals
- Food services, preparation, and distribution
- Retail gift and pilot supply stores
- Fixed base operators
- Automobile rental and leasing
- Airport related structures and improvements including, but not limited to, aircraft hangars with support and office space, aircraft related service and maintenance, aviation related manufacturing centers with support and office space, general aviation support facilities, aircraft related fueling facilities
- Fueling storage and distribution facilities
- Airport security building support facilities, and operations
- General office and retail service establishments
- Hotels, including short-term living quarters for aviation uses
- Other similar aviation uses
- Research and development facilities
- Business and professional offices
- Medical and dental offices, urgent care facilities, and emergency care facilities
- Hospitals, including a heliport in conjunction with hospital operations
- Laboratories, except those involved in any process producing or emitting noxious fumes, smoke, dust, odor, noise, or other detrimental by-product
- Banks and similar financial institutions
- Restaurants, including drive through, taverns, and lounges
- State licensed daycare center or preschool or nursery
- Recreational facilities, including but not limited to swimming, tennis, health, and sport court facilities
- Public and private colleges and schools including: trade, vocational, and professional schools

The Airport Influence Area is 12,637 acres. Rocky Mountain Metropolitan Airport ownership makes up approximately 1,830 acres or 14 percent of the area. Properties outside of the Airport ownership are outlined in Table 1.

Table 1
PROPERTIES OUTSIDE OF THE AIRPORT OWNERSHIP

Land Use	Acreage
Commercial	1,994 acres
Industrial	29 acres
Mixed use	12 acres
Multifamily residential	198 acres
Single family residential	2,487 acres
Agricultural	455 acres
Community use	417 acres
Open space	3,035 acres
Vacant	1,118 acres

Of the vacant properties surrounding Rocky Mountain Metropolitan Airport:

- 836 acres represent potential commercial
- 50 acres have potential industrial uses
- 54 acres could be used as potential residential development
- 7 acres is potentially exempt or community use
- 171 acres are some other type of potential use

If RMMA is included in these numbers it increases the industrial and potential industrial acreage from 29 acres or 0.2 percent of the area to 1,859 acres or 15 percent of the area.

The largest percentage of land use by type is open space at 24 percent, with commercial or potential commercial coming in a close second at 22 percent. Residential uses are third with 20 percent of the area.

Generally, commercial and industrial uses are located closer to the airport with residential uses at the edges of the Airport Influence Area.

1.2.2 Transportation

RMMA is well connected to the Denver Metro area. Three major arterials, US Highway 36, State Highway 121 (or Wadsworth Parkway), and State Highway 128 provide connections to Denver, Boulder, and Metro Area suburbs. Proposed transportation improvements that will improve

connections in the area include the Jefferson Parkway, Bus Rapid Transit (BRT) along US Highway 36, and commuter rail via the Northwest Rail Corridor.

The Jefferson Parkway will complete the beltway around the Denver Metropolitan Area and three interchanges are proposed within this area. These interchanges have been conceptually identified as follows: one near the western edge of the airport property, one within State Highway 128, and one within US Highway 36.

Public transit will be enhanced through the US 36 Bus Rapid Transit and the Northwest Rail Corridor. Both projects have three stops within the Airport Influence Area. Park-n-Rides for the US 36 Bus Rapid Transit Corridor are proposed at US 36 and Church Ranch, West 120th Avenue, and Flatirons Mall. The Northwest Rail Corridor stations proposed include the Walnut Creek Station near Lower Church Lake, the Broomfield/116th Station near Wadsworth Boulevard and 116th Avenue, and the Flatirons Station near US 36 and Flatirons Circle.

1.2.3 Services and Utilities

City of Broomfield provides water and sanitation services to the Rocky Mountain Metropolitan Airport. Other water and sanitation providers in the area include Countrydale Metropolitan District, City of Louisville, Town of Superior, Superior Metro District, and Westminster Public Works and

1.2.4 Utilities

Fire protection is provided by the Louisville Fire Protection District, the North Metro Fire District (serves unincorporated Jefferson County and Broomfield), the Westminster Fire Department, and the Rocky Mountain Fire District (serves Superior).

Police protection is provided by the Boulder County Sheriff's Department, the Broomfield Police Department, the Jefferson County Sheriff's Office, the Louisville Police Department, and the Westminster Police Department.

Parks and Recreation are provided by the various cities and Apex Park and Recreation District.

1.2.5 Physical Features

The property in the area consists of rolling terrain with several drainage features. Biological communities are typical of the high plains. Grasslands predominate, although much of the area has been converted from native to introduced grasses. Lakes and reservoirs in the Airport Influence Area include Autrey Reservoir, Hodgson-Harris Reservoir, Ketner Reservoir, and Lower Church Lake. Waterways traversing the area include Big Dry Creek, Rock Creek, Walnut Creek, Dry Creek Valley Ditch, and Upper Church Ditch.

1.3 POLICIES

1.3.1 Surrounding Land Use

These policies should not prohibit any uses that are currently permitted or recommended by jurisdictional planning documents. However, this guide encourages development that helps to preserve the viability of the Airport. Failure to protect the airspace around the Airport can compromise the Airport's eligibility for federal funding assistance.

Many things need to be considered when developing properties surrounding an airport. These include airspace, noise, and areas of frequent overflight.

Goal: Preserve airport uses by planning for compatible land uses around the Rocky Mountain Metropolitan Airport.

Objective A: Maintain airspace around the Rocky Mountain Metropolitan Airport.

Policies:

1. The height of new development should be in compliance with Federal Aviation Regulations regarding 14 Code of Federal Regulation (CFR) Part 77 – Objects Affecting Navigable Airspace.
2. New development within the Airport Influence Area should grant an aviation easement to the Rocky Mountain Metropolitan Airport. The aviation easement should address:
 - a. the right of flight in the airspace above the property,
 - b. the generation of noise and other impacts associated with aircraft overflight,
 - c. the height of structures,
 - d. landscaping (wildlife attractants),
 - e. access to the property for the removal or aeronautical marking of objects exceeding the established height limit,
 - f. potential electrical interference,
 - g. glare, and
 - h. other hazards to flight being created on the property.
3. Land uses within the Airport Influence Area that produce hazards to aircraft in flight should be discouraged. Characteristics to be avoided include:
 - a. glare or distracting lights which could be mistaken for airport lights,
 - b. sources of dust, steam, or smoke which may impair visibility,
 - c. sources of electrical interference with aircraft communications or navigation, and
 - d. any use which may attract additional concentrations of wildlife at the Airport.

Objective B: Plan for land uses that are compatible with the noise associated with an airport.

Policies:

1. Encourage commercial, industrial, agricultural, and golf course uses near the airport.
2. Discourage residential uses, schools, libraries, and hospitals within the Airport Critical Zones.

Objective C: Carefully consider land uses in Airport Critical Zones.

Policies:

1. Within Airport Critical Zones, limit uses that would allow large numbers of people to gather in a concentrated area such as amphitheaters, religious assemblies, event centers, etc.

1.3.2 Transportation

These policies help set a standard for both existing and future roadway development and/or expansion surrounding the Airport and nearby jurisdictions. Alignment of the proposed Jefferson Parkway will have long-term implications on traffic movement and activity in the area. In addition, the Airport continues to see an increase in aviation activity. The Airport has the capability of handling over 1,000 flights each day.

Goal: Support a safe and efficient transportation system in and around the Airport.

Objective A: Maintain and enhance the existing road network near the Airport.

Policies:

1. Ensure the proposed Jefferson Parkway interchanges near the Rocky Mountain Metropolitan Airport are located to meet the needs of travelers to and from the Airport.
2. Ensure arterial roads in the Airport Influence Area are improved and maintained.
3. Explore new arterial road connections that would improve access to and from the airport.

Objective B: Encourage connections to transit options near the Airport.

Policies:

1. Promote local bus service that connects the Airport to the proposed light rail and bus rapid transit stations.
2. Coordinate with other jurisdictions to explore new transit connections.

1.3.3 Coordination

Coordination and communication between jurisdictions near the airport is very important. There are various regulations that apply and many jurisdictions that are impacted by airport activities. Additionally, activities proposed in other jurisdictions around the airport can impact the future viability of the airport.

Goal: Promote open communication between the airport, surrounding jurisdictions, and the federal regulatory agencies.

Objective A: Coordinate with jurisdictions identified within this Plan when a new development is proposed within the Airport Influence Area.

Policies:

1. Application information for development proposals within the Airport Influence Area should be sent to the Airport and adjacent jurisdictions as early in the planning process as feasible.
2. Adjacent jurisdictions should be included in future Airport Master Plan updates and future updates to this Plan.

Objective B: Create awareness of federal regulations that may apply to developments near an airport.

Policies:

1. Local jurisdictions should inform developers to complete form 7460-1, Notice of Proposed Construction or Alteration, and submit to the FAA.
2. Developers should coordinate with the FAA when a proposal may exceed the requirements set out in Part 77-Objects Affecting Navigable Airspace of the Code of Federal Regulations (CFR) to ensure compatibility.
3. Local jurisdictions should inform developers of constraints that may be applicable during construction or for temporary structures. (See Appendix)

1.3.4 Site Design

Site design within the Airport Influence Area is critical to airport operations. Certain site design elements need to be considered when developing within the Airport Influence Area.

Goal: Ensure the designs of new developments are considered compatible with the Airport.

Policies:

1. Landscape plans for development within Airport Critical Zones should be reviewed by the Rocky Mountain Metropolitan Airport.
2. Building heights shall be compliant with local municipal zoning codes/regulations or Part 77- Objects Affecting Navigable Airspace of the CFR. See Appendix A for more information.
3. New buildings and remodeled buildings should use materials with low-reflectance to reduce potential of glare that could interfere with airport operations.
4. Lighting should be downcast and shielded and should not cause glare or otherwise affect navigation in and out of the airport.
5. Lighting and signs should be designed so that they are easily distinguished from airport lights and signs.

1.3.5 Airport Critical Zones

Certain areas around Airports have the potential to be more impacted by and have more impact on airport activities. These areas are called Critical Zones and include Runway Protection Zones (RPZ) and Approach Zones.

According to the Model Land Use Regulations published by the Colorado Land Use Commission, Critical Zones are:

- a) Areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways.
- b) Areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways.

Runway Protection Zones represent the most important type of critical zone at the Airport. The purpose of Runway Protection Zones, as defined by the FAA, is to enhance the protection of people and property on the ground. They are also identified to protect airport approaches. Acquisition of Runway Protection Zones is eligible for state and federal funding programs. The FAA prefers that control of the Runway Protections Zones is achieved through ownership. The Rocky Mountain Metropolitan Airport currently owns the majority of the Runway Protection Zones.

Approach Zones represent an imaginary obstruction limiting surface defined in CFR Part 77 – Objects Affecting Navigable Airspace, which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance based upon the type of available or planned approach by aircraft to a runway.

Goal: Protect the Airport Critical Zones at the Airport.

Objective A: Consider land use options to minimize the impacts of and to Airport Critical Zones.

Policies:

- 1. Structures that accommodate large gatherings of people, such as schools, churches, etc., should not be placed in Airport Critical Zones.
- 2. Large structures that accommodate people, such as shopping centers, stadiums, etc., should not be placed in the Runway Protection Zones.
- 3. Where acquisition cannot occur, avigation easements should be obtained from the property owners within the Runway Protection Zones.
- 4. Within the Runway Protection Zones residences, schools, day care centers, or other similar uses are prohibited, in accordance with the Federal Aviation Regulation (FAR).

5. Within the Airport Critical Zone residences, schools, day care centers, or other similar uses are not recommended and strongly discouraged.
6. Smoke generating activities within the Runway Protection Zone are prohibited, in accordance with the FAR.
7. Fuel handling or storage facilities may not be located within the Runway Protection Zones, in accordance with the FAR.
8. No building or structure that creates glare or misleading lights, or is hazardous to air navigation, shall be placed in the Runway Protection Zone, in accordance with the FAR.
9. Where possible, the Rocky Mountain Metropolitan Airport should obtain aviation easements to protect current and future development needs for the Approach Zone within the Airport Influence Area.

1.4 GLOSSARY

Airport Influence Area – a planning boundary around an airport which includes property within the environs of the Airport, where particular land uses either are influenced by or will influence the operation of the airport, in either a positive or negative manner. The boundary considers factors such as noise contours, traffic pattern areas, approach zones, and runway protection zones. The boundary line is defined by natural and man-made linear features (i.e. highways, roads, riverbeds, canals, etc.) and is large enough to accommodate all of the above factors and land use compatibility considerations.

Airport Critical Zones – areas around the Airport with the potential to be more impacted by and have more impact on airport activities. The Critical Zones consist of the Runway Protection Zones and Approach Zones. According to the Model Land Use Regulations published by the Colorado Land use Commission, Critical Zones are:

- a. Areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways.
- b. Areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways.

Approach Zones – an imaginary obstruction limiting surface defined in CFR Part 77 – Objects Affecting Navigable Airspace, which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance based upon the type of available or planned approach by aircraft to a runway.

Avigation Easement – the right of passage of aircraft over a particular piece of property and the right to make noise, vibration, and other effects normally associated with the flight of aircraft.

dBA – decibels

Code of Federal Regulations (Title 14 CFR Part 77) – Title 14 is the Aeronautics and Space section of the Code of Federal Regulations. Part 77 comprises Objects Affecting Navigable Airspace. See Appendix A for 7460-1 form.

DNL – day/night noise level; an expression of averaged noise level generated by noise modeling software such as the FAA's Integrated Noise Model (INM) as a measure of noise impact on an area.

Federal Aviation Administration (FAA) – the governmental agency that regulates air traffic within the United States of America.

Federal Aviation Regulations (FAR) – regulations that apply to aviation activities within the United States.

Imaginary Surface – the surfaces defined in FAA Title 14 CFR Part 77, relative to a runway, as a standard for determining whether any natural or manmade object or terrain is or will be an obstruction to the flight of aircraft.

Instrument Approach – a type of approach to an airport that allows the pilot to land an aircraft in reduced visibility or instrument meteorological conditions (IMC), or reach visual conditions permitting a visual landing.

Landscape – decorative or ornamental vegetation for utility, agriculture, non-residential, or residential uses. Anything that is potentially a wildlife attractant.

Noise Contours – lines of equal averaged noise value, expressed in DNL around an airport, normally determined by noise modeling software.

Precision Approach – standard instrument approach procedure in which both vertical and horizontal guidance is provided.

Primary Surface – an imaginary obstruction limiting surface defined in CFR Part 77 – Objects Affecting Navigable Airspace, longitudinally centered on a runway and extends 200 feet beyond each end of that runway; the width of the primary surface varies depending upon the type of available or planned approach by aircraft to a runway.

Runway Protection Zone (RPZ) – an area at the end of each runway which is intended to enhance the protection of people and property on the ground through the preclusion of any structure within its boundaries. The dimensions of the RPZ vary with the type of approach to the runway and the type of aircraft the runway is intended to serve.

Schools – or the purpose of this document schools are defined as public, private or charter schools that teach students in pre-kindergarten, elementary, middle, junior, and high schools. This also includes public or private colleges or universities. This does not include flight instruction, flight simulator training, or other aviation-related schools.

Traffic Pattern Areas – a standardized, rectangular pattern of flight for aircraft arriving and departing a particular runway prescribed and defined in Title 14 CFR Part 91, General Operating and Flight Rules, and the Aeronautical Information Manual.

Visual Approach – an approach wherein an aircraft having an air traffic control authorization may deviate from the prescribed instrument approach procedure and proceed to the airport of destination, served by an operational control tower, by visual reference to the ground.

1.5 ADDITIONAL RESOURCES:

These resources are current as of July 1, 2010. Updates to these resources occur on a regular basis.

- Rocky Mountain Metropolitan Airport Environmental Assessments
- Rocky Mountain Metropolitan Airport Master Plan Update
- FAA Advisory Circular 150/5300-13, Airport Design
- Airport Sponsor Grant Assurances
- 14 CFR Part 77 – Objects Affecting Navigable Airspace
- 14 CFR Part 150 – Airport Noise Compatibility Planning
- FAA Order 5100.38C, Airport Improvement Program Handbook
- Colorado Land Use Commission - House Bill 1041, Model Land Use Regulations
- www.faa.gov provides additional references and links to all cited documents and forms
- For additional information on existing land uses, zoning, and future land use recommendations, please contact one of the following:
 - Jefferson County Planning & Zoning Division - 303-271-8700
 - Boulder County Land Use Department - 303-441-3930
 - City of Louisville Planning Department - 303-335-4592
 - City of Westminster Planning Division - 303-685-2092
 - Town of Superior Planning Department - 303-499-3675
 - City and County of Broomfield Planning Department - 303-438-6284