

***Commercial  
Plan  
Submittal***

***PATH 2***

***EXTERNAL DEPARTMENT  
REVIEW PACKET***

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# Development Review Enterprise

# COMMERCIAL PLAN REQUIREMENTS

The following items must be provided to obtain final plan approval.

## ZONING/PLANNING

Please attach or provide the following:

- Description of the Request
- Development Plan (*approved and stamped*) and/or site plan including:
  - Property's owner name
  - Applicant's name, address, and telephone number
  - Bar and numeric scale
  - North arrow
  - Vicinity map
  - Legal description
  - Site address
  - Project type (*i.e., commercial interior remodel, etc.*)
  - Tax schedule number
  - Zoning district classification
  - Development plan name and number
  - Square footages of existing and proposed structures
  - Required and provided parking with ratios. *Including location and dimension of all parking areas, number of parking stalls, all driving or maneuvering lanes.*
  - Site land use and specific unit use. *Including use of all new and existing buildings and proposed remodeled areas.*
- Recorded Plat or Proof of Legal Lot
- Floor Plan
- Elevations
- A Final Landscape plan and Irrigation plan (*if applicable – Irrigation plans may be deferred up to 90 days*)

## FIRE

Please attach or provide the following for Commercial and Multi-Family Plans:

- City Approved Development Plan as noted above (*if applicable*)
- City Approved Civil/Water Plans (*if applicable*)
- Initial Review by the RBD construction review division
- Construction Drawings that contain the following:
  - Site Plan
  - Elevations
  - Floor Plan
- Completed CSFD NO STACKING ABOVE 12-FEET agreement where storage potential exists (*if ceiling height exceeds 12-feet*). Reference: <http://www.springsgov.com/units/fire/packets/HiPile1.pdf>
- CSFD High Pile Storage Review (*if applicable*)
- Completed CSFD Haz-Mat Permit Amount Certification Form  
Reference: [http://www.springsgov.com/units/fire/packets/IFC2003\\_Hazmat.pdf](http://www.springsgov.com/units/fire/packets/IFC2003_Hazmat.pdf)
- CSFD Haz-Mat Review (*if applicable*)

## ZONING/FIRE PERSONNEL

Brett Veltman	385-5088	DRE Manager
Denise Tortorice	385-5099	Planner II
Dave Willard	385-5354	Planner I
Beth Diana	385-5072	Planner I
Vacant	385-5079	Planner I
Jason Oldham	385-5074	Landscape Architect I
Kathy Magargal	385-5060	Engineering Technician II
Lydia Mallory	385-5065	Senior Office Specialist
Michael Maloney	385-5080	Planning Assistant
Naomi Gadson	385-5026	Planning Assistant
Sharon Robinson	385-5086	Land Use Inspector/Sign Specialist
Tom Bonifas	385-5056	Engineering Specialist

## FIRE PERSONNEL

Dee Withee	385-7361	Fire Protection Engineer II
Kristen McClellan	385-7347	Fire Protection Engineer I
Jon Milam	385-7324	Fire Code Examiner
Rhonda Embres	385-7369	Fire Code Inspector II
Kris Johnson	385-7257	Fire Code Inspector II
Jeff Hanenberg	385-7359	Fire Code Inspector I
Rhona Dasserero	385-7352	Office Specialist

## FEES COLLECTED

- New Commercial Buildings (*retail, wholesale, office, industrial and multi-family apartments and condominiums*)
- Additions and Remodels to Commercial Buildings
- Fixed Fire Reviews
- Sprinkler Reviews
- Fire Alarm Reviews
- Sign Permit Application Reviews
- Final Landscape/Irrigation Plan Reviews (*along with Final Landscape/Irrigation Plan Minor Amendments*)
- Minor Amendment Plan Reviews
- Information Technology Fee

**HAZARDOUS MATERIALS  
COLORADO SPRINGS FIRE DEPARTMENT**

Does the building or facility store, dispense, transport on site, use or handle hazardous materials?  
 YES       NO

**ATTACH A HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS), AS DECLARED.**

**CONTROL AREAS AND OCCUPANCY**

The 2003 IFC defines a 'Control Area' as "Spaces within a building that are enclosed or bounded by exterior walls, fire walls, fire barriers and roofs, or a combination thereof". Please note that fire walls and fire barriers are considered to have a minimum rating of not less than 1-Hour, with any door or other penetration also not rated less than 1-Hour.

**Establish building/area Occupancy Classification.**

- The Occupancy Classification determines the standard to which your plans are designed and will be reviewed.
- Complete a separate inventory for each control area (or a single inventory for the entire building if control areas are not established). Group materials within each room by their primary hazards, then indicate additional physical and health hazards. Where several classes are given (e.g. Oxidizer 1,2,3,4), please indicate the appropriate one.

**H Occupancy: Use Maximum Allowable Quantity per Control Area Tables.** The maximum allowable quantity per control area shall be as specified in IFC 2003, as Amended, Tables 2703.1.1(1) through 2703.1.1(4).

Hazardous Material use and storage are found on Plan Set Pages: \_\_\_\_\_

Are there areas within this building or is this facility an H Occupancy?  YES       NO

How many Control Areas are within this building or facility? \_\_\_\_\_

Control Areas as shown on this submittal are: \_\_\_\_\_  
\_\_\_\_\_

Control Areas are found on Plan Set Pages: \_\_\_\_\_

I certify the HMIS Inventory, as declared, is below the allowable thresholds for all materials, as defined by 2003 IFC, Tables 2703.1.1(1) through 2703.1.1(4) per control area.

I certify the HMIS Inventory, as declared, exceeds the allowable thresholds for (list each material hazard type) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ as defined by 2003 IFC, Tables 2703.1.1(1) through 2703.1.1(4) per control area.

**PERMITS**

**Establish if a Hazardous Materials Permit(s) is required.**

- For all CSFD hazardous materials permits see International Fire Code (IFC 2003, as Amended) Sections 105.6.3 and Table 105.6.3.
- For hazardous materials Permit *quantity* amounts, see IFC 2003, as amended, Tables 105.6.3 HP4, 105.6.3 HP5 and 105.6.3 HP13.
- For the Hazardous Materials Operational (annually renewed) Permit Amounts refer to the Hazardous Materials Permit Amount Certification Form (next page) for a list of material type and permit quantities.
- If hazardous materials exceed the amounts listed on the Certification Form, a Hazardous Materials Management Plan (HMMP) must be developed, submitted, and continuously maintained for this location. **The information contained within the HMMP is required in order to complete the project plan review.**

\*The HMMP Packet is available at Office of the Fire Marshall front deck or on our web at:  
[http://www.springsgov.com/units/fire/packets/IFC2003\\_Hazmat.pdf](http://www.springsgov.com/units/fire/packets/IFC2003_Hazmat.pdf)



# Hazardous Materials Permit Amount Certification Form

Colorado Springs Fire Department, Office of the Fire Marshal  
375 Printers Parkway, Colorado Springs, Colorado 80910

http://www.springsgov.com/units/fire/packets/ IFC2003\_Hazmat.pdf



A permit shall be obtained to store, transport on site, dispense, use or handle hazardous materials, when amounts **exceed** the following

Type of Material	Class	Amount	Type of Material	Class	Amount
• <b>Carcinogens</b> (solid)		10 pounds	• <b>Oxidizing Solids</b>	Class 4	Any amount
	Liquid	1 Gallon		Class 3	10 pounds
• Cellulose Nitrate ( <i>Pyroxylin</i> )		25 pounds	Class 2	100 pounds	
			Class 1	500 pounds	
• Combustible Fiber		100 cubic feet	• <b>Organic Peroxides</b>	Class I	Any amount
• Combustible Liquids	Class II, IIIA, IIIB	25 gallons inside, 60 gallons outside	( <i>Solids and Liquids</i> )	Class I	Any amount
• <b>Corrosive Materials</b>			Class III	10 pounds (1 gallon)	
Gases		200 cubic feet	Class IV	20 pounds (2 gallon)	
Liquids		55 Gallons	Class V	No Permit	
Solids		1000 Pounds			
• <b>Explosive Materials</b>			• <b>Other Health Hazards</b>	Liquids	55 gallons
Fireworks,		Any Amount	Solids	500 pound	
Pyrotechnic,			<b>Refrigerants</b>	A1	30 pounds
Small Arms Ammunition,			(Quantities per circuit)	All Other	220 pounds
• <b>Cryogenic Fluids</b>			• <b>Pyrophoric Materials</b>		Any amount
Cryogenics	Flammable	1 gallon inside, 60 gallons outside	( <i>Gases, Liquids, Solids</i> )		
(Including hydrogen, methane, carbon monoxide)			• <b>Radioactive Materials</b>	Alpha, Beta, Gamma emitters	1 micro curie (not contained in sealed source. 1 milli curie (contained in sealed source)
Cryogenics	Oxidizing	10 gallons inside 50 gallons outside	( <i>Gases, Liquids, Solids</i> )		
(Including Oxygen)			• <b>Sensitizer Liquids</b>		55 gallons
Cryogenics	Physical / Health	Any Amount	• <b>Sensitizer Solids</b>		500 pounds
not otherwise indicated	Hazard		• <b>Toxic Materials</b>		
Cryogenics	Inert	60 gallons inside, 500 gallons outside	Gases		Any amount
(Nitrogen, helium, argon)			Liquids		10 gallons
• <b>Flammable Gases</b>		200 cubic feet	Solids		100 pounds
(Except LPG & cryogenic)			• <b>Unstable Liquids</b>	Class 4	Any amount
• <b>Flammable Liquids</b>	Class IA, IB, IC	25 gallons inside, 60 gallons outside	( <i>Reactive</i> )	Class 3	Any Amount
• <b>Flammable Solids</b>		100 pounds	Class 2	5 gallons	
• <b>Highly Toxic Materials</b>			Class 1	10 gallons	
(Including Pesticides & Fumigants)		Any Amount	• <b>Unstable Solids</b>	Class 4	Any amount
Gases, Liquids, Solids			( <i>Reactive</i> )	Class 3	Any amount
• <b>Inert and Simple Asphyxiant - Gas</b>		6,000 cubic feet	Class 2	50 pounds	
• <b>Irritant Liquids</b>		55 gallons	Class 1	100 pounds	
• <b>Irritant Solids</b>		500 pounds	• <b>Water-Reactive Liquids</b>	Class 3	Any amount
• <b>Liquefied Petroleum Gas</b>		125 gallons (530 lbs.)	Class 2	5 gallons	
• <b>Magnesium</b>		10 pounds	Class 1	55 gallons	
• <b>Oxidizing Gases (Including Oxygen)</b>		504 cubic feet	• <b>Water-Reactive Solids</b>	Class 3	Any Amount
• <b>Oxidizing Liquids</b>	Class 4	Any amount	Class 2	50 pounds	
Class 3	Class 3	1 gallon	Class 1	500 pounds	
Class 2	Class 2	10 gallons	• <b>Lead-Acid Batteries</b>	Liq. Electrolyte	100 gallons
Class 1	Class 1	55 gallons			

## PERMIT AMOUNT CERTIFICATION FORM

- I certify this building or facility **does not** store, dispense, use, handle or transport any material listed above. If submitting plans, submit plans with this **signed** form attached to the plans.
- I certify this building or facility stores, dispenses, uses, handles or transports materials listed above, but **does not** exceed the amounts listed above. No hazardous materials permit is required. If submitting plans, submit plans with this **signed** form attached to the plans and an HMIS Inventory.
- I certify that this building and/or facility **does** exceed one or more of the above amounts. If this building **does** exceed the above amounts, a Hazards Materials Management Plan/Inventory Statement Forms and Permit Application must be completed and attached to the plans before being submitted.

Business Name:	Owner/Tenant Name:
Business Address:	Telephone #: Cell Phone #
Plan Submitted By:	Date:

### BILLING ADDRESS

Business Name:	Owner/Tenant Name:
Business Address:	Telephone #: Cell Phone #
Email Address:	Date:
Plan Submitted By:	

**HIGH PILE / STORAGE OF COMUSTIBLE COMMODITIES (IFC Ch. 23)**  
**COLORADO SPRINGS FIRE DEPARTMENT**

**Commodity Classifications (IFC 2303)** (check all that apply)

I    II    III    IV    High Hazard

Description of commodities \_\_\_\_\_

**Maximum Storage Heights**

For Class I-IV commodities: \_\_\_\_\_ Ft

For High Hazard commodities: \_\_\_\_\_ Ft

**Method of Storage** (check all that apply)

Encapsulated in plastic    Non-encapsulated    Bin box    On racks **without** solid shelves

On wooden pallets    On plastic pallets    Solid pile    On racks **with** solid shelves

Other (describe) \_\_\_\_\_

**Rack Storage Information (IFC 2308)** (Fill out following only if utilizing rack storage, check all that apply)  N/A

Type of racks:  Single rows    Double rows    Multiple rows

Height of racks: \_\_\_\_\_ Ft   Depth of racks: \_\_\_\_\_ Ft   Width of racks: \_\_\_\_\_ Ft

Minimum aisle width between racks: \_\_\_\_\_ Inches   Longitudinal flue space: \_\_\_\_\_ Inches   Transverse flue space: \_\_\_\_\_ Inches

**Size of Storage Areas (IFC 2304 and 2306)** (Actual floor space of all racks/piles plus required aisles)

Storage Area 1 \_\_\_\_\_ sq. ft   Highest Commodity Classification in this storage area \_\_\_\_\_

Storage Area 2 \_\_\_\_\_ sq. ft   Highest Commodity Classification in this storage area \_\_\_\_\_

Storage Area 3 \_\_\_\_\_ sq. ft   Highest Commodity Classification in this storage area \_\_\_\_\_

Storage Area 4 \_\_\_\_\_ sq. ft   Highest Commodity Classification in this storage area \_\_\_\_\_

**Storage Area Separation (IFC 2306.3)**

Storage areas are separated by \_\_\_\_\_ hour walls - partitions   with \_\_\_\_\_ hour - minute openings

**Pile Storage Information (IFC 2307)** (does not apply to rack storage)  N/A

Maximum Cubic feet per pile \_\_\_\_\_ Cubic ft   Maximum pile dimension (any direction) \_\_\_\_\_ Ft

Maximum height of pile(s) \_\_\_\_\_ Ft   Minimum aisle width between piles: \_\_\_\_\_ Inches

**Plastics Information (IFC 2303.7.4)** (check all that apply)

Plastic group type:  A    B    C    Unknown

The plastic is:  Expanded    Non expanded    Free flowing

How is the plastic packaged?    Exposed    Cartoned

How is the plastic piled?    Stable piles    Unstable piles

**For Group A Plastics Only**   Percent by weight of expanded plastic: \_\_\_\_\_ % (based either per pallet or per carton)

**OR**   Percent by volume of expanded plastic: \_\_\_\_\_ % (based either per pallet or per carton)

**AND**   Percent by weight of unexpanded plastic: \_\_\_\_\_ % (based either per pallet or per carton)

**Smoke Removal (IFC 2306.7 and IFC 910)**

Is a mechanical smoke removal system required?    Yes    No

Are smoke vents required?    Yes    No

If yes, what is the vent to ceiling area ratio proposed? \_\_\_\_\_   What is the total square footage of vents required? \_\_\_\_\_

Are draft/curtain boards being proposed?    Yes    No

**Fire Department Access Doors (IFC 2306.6.1)**

Are FD access doors provided as required?    Yes    No   Are these access doors keyed as required?    Yes    No



**Development Services and Customer Contract Administration are units within the Planning and Engineering Division-System Extensions Department of Colorado Springs Utilities that review plans, collect development fees and contract recovery agreements. See below for services rendered and requirements for submittal.**

**Development Services**

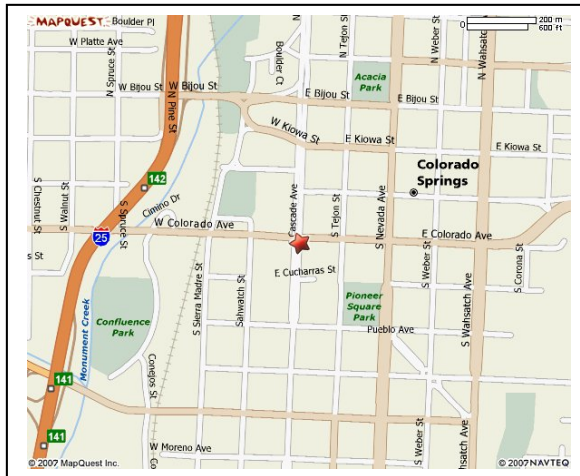
Location:

Colorado Springs Utilities’  
Customer Service Center  
111 S. Cascade Avenue, Suite 105  
Colorado Springs, CO 80947

Contact:

Main – (719) 668-8259  
Ann Werner – (719) 668-8262\*  
Matthew Williams – (719) 668-7211\*  
(719) 668-8276 fax

*\*See map last sheet for plan reviewer areas.*



Hours:

Monday-Friday  
8:00 AM – 5:00 PM\*\*

*\*\*Plan drop-off required. Plans will be returned within one business day from time of drop-off.*

**Water/Wastewater Approval**

Required documents for review:

- Vicinity map
  - Site Plan and Landscape Plan from the approved Development Plan
  - Approved Civil Construction Plans including Utility Service Plan (USP) for new buildings\*
  - USP for alterations to service line\* (i.e. tenant finish)
  - Plumbing plans/kitchen plans
- \* USP and Civil Construction Plans must be submitted separately to Utilities Development Services for their approval and is an entirely separate process from the RBD permit process. The Utility Plan in the approved Development Plan will not suffice as a substitute.*

Interdependencies:

- \*\* Fire Department approval before water can be approved
- \*\* Plumbing Department at RBD to ensure proper routing of drains for fixtures

Check for:

- ✓ Property is within service territory
- ✓ Approved USP for any new building
- ✓ Fire Department signature before approval of water



- ✓ If there are changes to an existing service line then a USP must be approved before water or wastewater will be approved
- ✓ No structures over service lines or within easements
- ✓ No trees or other encroachments in utility easements
- ✓ Use and connections to determine if a grease interceptor or sand/oil interceptor is required and confirm proper sizing of the device
- ✓ Consistency between USP and plumbing plans regarding routing of fixtures
- ✓ Any change in usage (including interior remodel) where a grease interceptor or sand/oil interceptor is required, if so then the sizing of the device shall be confirmed to meet current standards
- ✓ Proper water meter orientation and location including use of backflow prevention device (reduced pressure)

Signature Approves:

- › Connection of water and wastewater services to mains
- › Water meter configuration

**Gas/Electric Approval**

Required documents for review:

- Vicinity Map
- Site Plan and Landscape Plan from the approved Development Plan
- Plumbing plans (to check gas meter location)
- Electric plans (to check electric meter location)
- Architectural plans (check for meter location in relation to openings on bldg)
- Plat- required for multi-family permits

Interdependencies:

\*\* None

Check for:

- ✓ Property is within service territory
- ✓ Conflicts with security lighting
- ✓ Proper separation from other utilities
- ✓ Proper clearance and access from/to substations
- ✓ Proper clearance and access from/to electric transmission lines
- ✓ Grade changes over or under existing facilities
- ✓ Special clearance required for 150 psi gas mains
- ✓ Overhead Electric Lines- Ensure there is safe clearance to structures including vertical and horizontal separations, no hazardous operations under lines (i.e. trash dumpsters), access is maintained and no grade changes
- ✓ Underground Electric Lines- Ensure proper clearance from transformers, vaults, access is maintained, no hazardous operations over lines, no changes to grade
- ✓ Electric meter location shown
- ✓ Gas meter location shown
- ✓ No openings on structure within 3' of gas meter
- ✓ No structures over service lines
- ✓ Foundation footing and overdig would be outside easements
- ✓ Townhomes- meters not banked unless service lines remain outside property lines
- ✓ No trees or other encroachments in utility easements

Signature Approves:

- › Gas and electric service can be provided to the structure, but does not approve the meter location or routing of the gas and electric lines as this is confirmed or designed by the Utilities Field Engineer

## **Customer Contract Administration**

### Location:

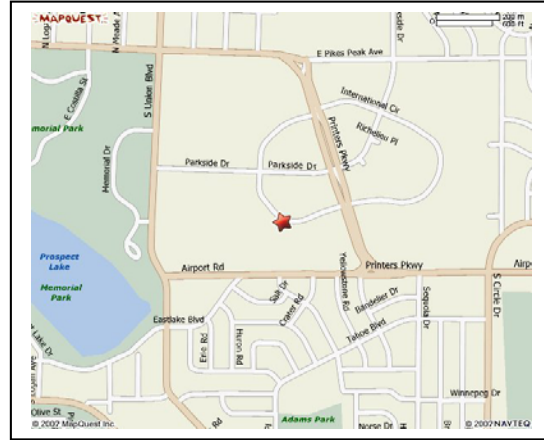
Pikes Peak Regional Development Center  
2880 International Circle, Suite 210  
Colorado Springs, CO 80910

### Contact:

(719) 668-8111 phone  
(719) 668-8130 fax

### Hours:

Monday-Friday  
7:30 AM – 4:30 PM



## **Fees Collected**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Electric Line Extension Design Fee</li> <li>• Electric Inspection and Connection Fee</li> <li>• Electric Temporary Service Fee</li> <li>• Electric Joint Trench Fee</li> <li>• Electric Underground Residential Fee</li> <li>• Electric Extension Contract Fees</li> <li>• Gas Inspection and Connection Fee</li> <li>• Gas Line Extension Design Fee</li> <li>• Gas Joint Trench Fees</li> <li>• Gas Extension Contract Fees</li> <li>• Water Development Fees</li> <li>• Water Recovery Agreement Contract Fees</li> <li>• Water Recovery Agreement Contract Application Fee</li> <li>• Water Recovery Agreement Process Fee</li> </ul> | <ul style="list-style-type: none"> <li>• Inactive Water Service Development Fee</li> <li>• Water Tap Fee</li> <li>• Temporary Water Fire Hydrant Use Permit Fee</li> <li>• Wastewater Development Fee</li> <li>• Wastewater Inspection and Connection Fee</li> <li>• Wastewater Recovery Agreement Contract Fees</li> <li>• Wastewater Recovery Agreement Process Fee</li> <li>• Wastewater Recovery Agreement Contract Application Fee</li> <li>• Public Works (Parks) Fees</li> <li>• Public Works (Schools) Fees</li> <li>• Utility Disconnect Permit Application Fee</li> </ul> |
|--|---|

## **Commercial Plan Review Requirements**

- Tax Schedule Number
- Legal Description
- Enumeration Assigned Address
- Acreage of Property
- Type of Building Use
- Utility Service Plan
- Water Meter Size
- Irrigation Water Meter Size (If Separate)
- Wastewater Service Line Size
- Owner Name
- Contractor Name (If Known)
- Architect Name
- Commercial Water Meter Sizing Form\*

## **\*Commercial Water Meter Sizing Form Requirements**

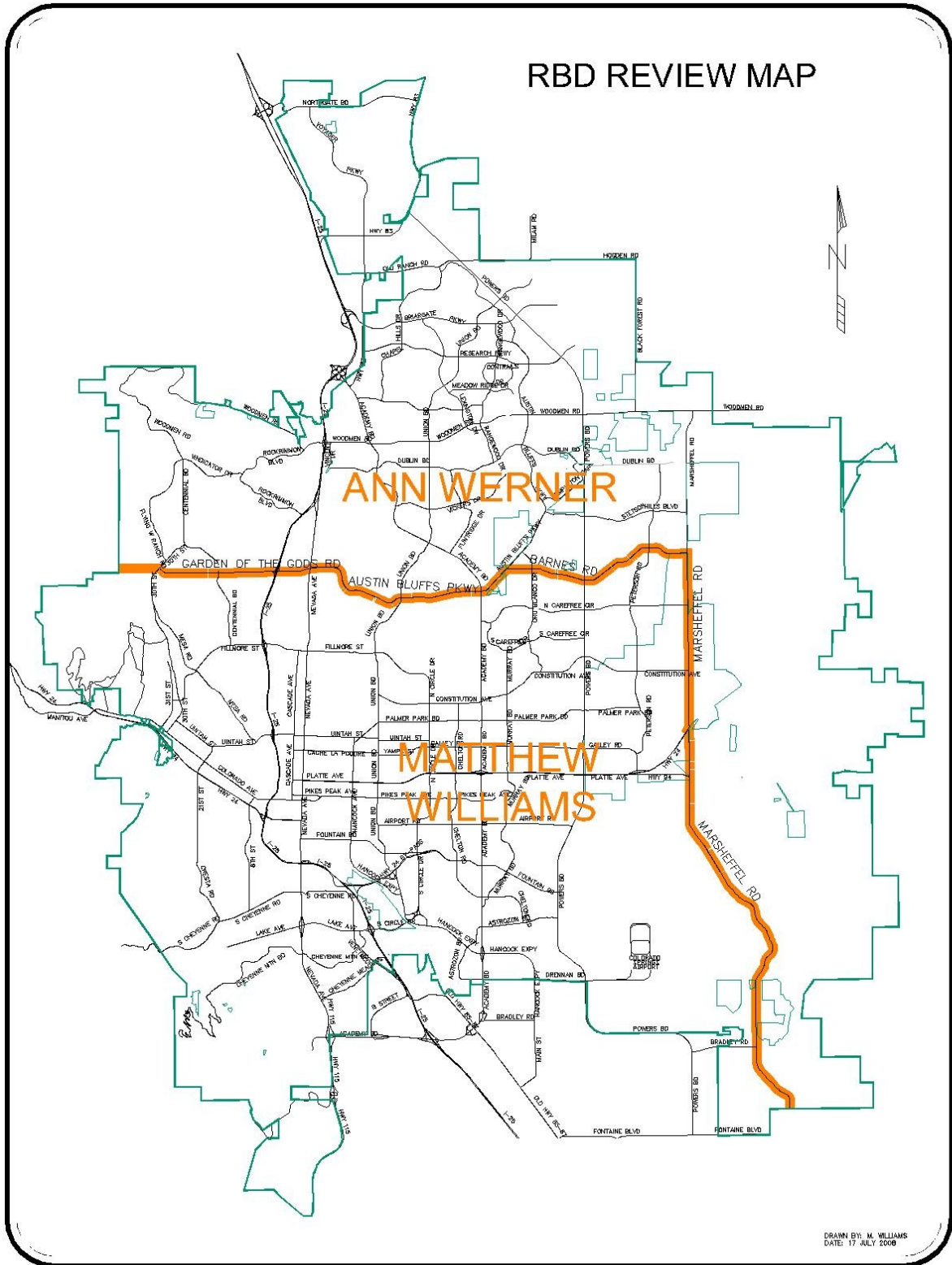
Developer submits the Water Meter Sizing Form(s) with one set of drawings of the proposed Mechanical/Irrigation plan showing the water fixtures and piping.

## **Water/Wastewater Recovery Agreement Requirements**

*Please Note: Not all line extensions may qualify for Recovery, it is recommended that one contact Customer Contract Administration for a preliminary determination of eligibility.*

- Approved Plans / Record Drawings
- Completed Water/Wastewater Recovery Agreement Application  
(Available on-line at <http://www.csu.org/business/development/index.html>)
- Application for Water/Wastewater Recovery Agreement must be submitted within one hundred eighty (180) days from receipt of Preliminary Acceptance/Bill of Sale
- Appropriate Fee Structure as determined by Springs Utilities
- Breakdown of Eligible Construction/Engineering Costs for Review by Springs Utilities

# RBD REVIEW MAP





# Colorado Springs Utilities

*It's how we're all connected*

**Commercial Water Meter Sizing Form Review Process to be used in conjunction with the International Plumbing Code**



Colorado Springs Utilities

*It's how we're all connected*

[Commercial is defined as all construction considered commercial and industrial development, which includes all residential housing equal to or over 3 living units with one common meter and all separate irrigation meters. Springs Utilities will reserve the right to request a Commercial Water Meter Sizing form when a facility type or water use is in question and will be required to be submitted before a Service Agreement can be paid.]

## **Commercial Water Meter Sizing Form Review Process**

Completed Form must be provided to Colorado Springs Utilities with the Mechanical Plan for the review and sizing of the water meter

1. The Developer (or his assigned representative) shall be responsible for the accuracy of all data calculated and sent to Colorado Springs Utilities for review.
2. The Developer works with the Architect/Mechanical engineer to provide the water meter sizing form. (One form per building structure)
3. The Developer submits the water meter sizing form (s) along with one set of drawings of the proposed Mechanical/Irrigation plan showing the water fixtures and piping to Customer Contract Administration, Suite 210 (second floor), (719) 668-8111 at the Pikes Peak Regional Building Development Center.
4. Customer Contract Administration will notify Customer Operation (Field Services) to pick-up the mechanical/irrigation plans and water meter sizing form(s).
5. The set of mechanical plans and water meter sizing form(s) will be reviewed by Customer Operations (Field Services). Field Services reviews the proposed water meter sizing form(s) in conjunction with the current approved version of the International Plumbing Code for sizing criteria. [Figure E301.3 (1) and Table E201.1], and applicable Colorado Springs Utilities meter configurations. Field Services will coordinate any comments/revisions with the Developer. Submittal will all be reviewed within 10 business days. Questions regarding the status of the form, call 719-668-7279.

Once approved, Field Services will return the water meter sizing form to Customer Contract Administration for entry into the eB database.

Note: The water meter shall not be released until the water meter sizing form has been reviewed and approved by Colorado Springs Utilities and development fees paid. The customer (s) may not pay development fees prior to approval of the water meter form. Colorado Springs Utilities allows the size of the service line and tap (with the exception of an allowed 4" tap and 2" meter), to be one size greater than the meter size, which will be verified by Customer Contract Administration. (Chapter 7, Water LESS)

6. Customer Contract Administration will check the water meter size from the eB database to create a service contract with the appropriate Water Development Charges. (Utilities Rules and Regulations)

**Meter Sizing Chart for Service lines (meter size with the approval of Customer Operations)**

<b>Pipe Size (O.D.) of Service line</b>	<b>Size of Tap (minimum and installation)</b>	<b>Meter Size based on flow requirements (min./max. size)<sup>(1)(5)</sup></b>	<b>Maximum Flow rate AWWA – M22</b>
<b>HDPE Pipe (CTS) <sup>(2)</sup></b>			
¾" HDPE CTS	Not Permitted <sup>(2)</sup>	Not Permitted <sup>(2)</sup>	Not Permitted <sup>(2)</sup>
1" HDPE CTS	1" (Sidewall)	¾" meter	¾" = 30 GPM
1 ½" HDPE CTS	1 ½" (Sidewall)	¾", 1" meter	1" = 50 GPM
2" HDPE CTS	2" (Sidewall)	1", 1 ½" meter	1 ½" = 100 GPM
<b>Copper Pipe (CTS)</b>			
¾" CTS	¾" (Tap)	5/8"x ¾" meter	5/8" = 20 GPM
¾" CTS	¾" (Tap)	¾" meter	¾" = 30 GPM
1" CTS	1" (Tap)	¾", 1" meter	1" = 50 GPM
1 ½" CTS	1 ½" (Saddle)	1", 1 ½" meter	1 ½" = 100 GPM
2" CTS	2" (Saddle)	1 ½", 2" meter	2" = 160 GPM
<b>Service line pipe (does not apply to Fire lines) <sup>(3)</sup></b>			<b>Flow based on type of meter (Turbo, Compound, etc.)<sup>(3)</sup></b>
4"/ 3" <sup>(4)</sup>	4"	3" meter	=
4"	4"	4" meter	=
6"	6"	6" meter	=
8"	8"	8" meter	=

Note: To be read in conjunction with Chapter 7 of the Water Line Extension and Service Standards and Appendix E of the current approved International Plumbing Code.

- (1) Meter Sizing for Commercial Buildings on Meter Sizing Form and the number of w.s.f.u., engineered by the consultant engineer. Smaller meters installed with the approval of Customer Operations based on maximum flow and length of service line.
- (2) ¾" HDPE pipe up-sized to 1" pipe per RBD requirements, HDPE pipe to be engineered by the consultant engineer.
- (3) Different meters (turbo, compound, etc.) are required for different applications based on facility use, per Meter Sizing Form and Customer Operations.
- (4) Variance: 4" Tee reduced at pit to accommodate a 3" meter, see Water Construction drawings.
- (5) Variance: A variance for a larger meter and the design of HDPE pipe, maybe granted, based on design engineer's calculations.

**Water Service Sizing Chart for 5/8"x 3/4" and 1" meters (from Water LESS, Chapter 7 – Figure 2)**

**5/8"x 3/4" Water Meter Size**

		Maximum flow – 20GPM 80% capacity – 16GPM															
Static Pressure at water main/point of Connection PSI	130	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	120	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
	110	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B
	100	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B
	90	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B
	80	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B
	70	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B
	<60	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
		<20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170

Linear feet of type “K” copper service from the water main to the primary meter location

**1" Water Meter Size**

		Maximum flow– 50GPM 80% capacity – 40GPM															
Static Pressure at water main/point of Connection PSI	130	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C
	120	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	110	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C
	100	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C
	90	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C
	80	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	70	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	<60	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		<20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170

Linear feet of type “K” copper service from the water main to the primary meter location

**Legend**

A= 3/4" copper/ 1" HDPE service line, B=1" copper/ 1 1/2" HDPE service line, C=1 1/2" copper/ 2" HDPE service line

**Application:**

The Developer shall attach the water meter sizing form(s) along with one set of drawings of the proposed water/plumbing mechanical plans for the structure to Customer Contract Administration, Suite 210 (second floor), (719) 668-8111, at the Pikes Peak Regional Development Center.

Sizing water meters shall be based upon the Water Supply Fixture Units, in the current approved version of the International Plumbing Code – Appendix E, by the City of Colorado Springs and El Paso County, Pikes Peak Regional Building Department. (Reference AWWA M 22 – Sizing Water Service Lines and Meters)

Developer Name \_\_\_\_\_ Phone # (    ) \_\_\_\_\_

Print Name

Service Address \_\_\_\_\_

(Address issued by PPRBD Enumeration)

Legal Description \_\_\_\_\_ Tax ID # \_\_\_\_\_

Use of Facility \_\_\_\_\_

(Circle answer)

Number of Construction Phases: 1    2    3    4

Domestic Use only:    Y    N

Irrigation Use only:    Y    N

Combined Domestic/Irrigation:    Y    N

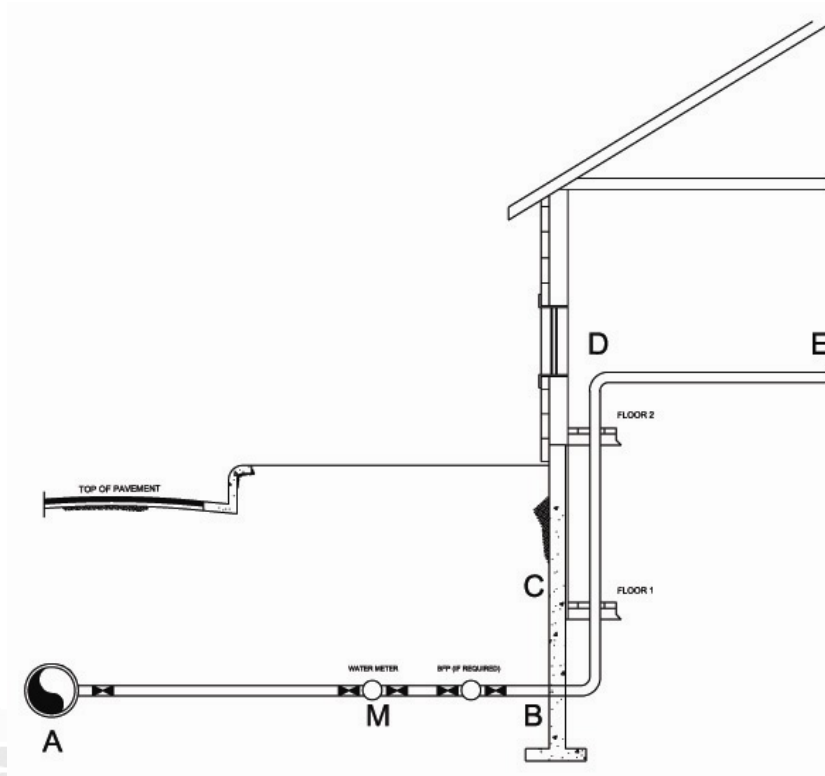
Is meter installation in a pit or vault or Mechanical room (Inside installation)? \_\_\_\_\_

I, the undersigned, hereby declare that the preceding information is true and correct to the best of my knowledge.

\_\_\_\_\_  
Developer's Signature

\_\_\_\_\_  
Date

**Pressure Head:**



Example of basic diagram from the International Plumbing Code (IPC) – Figure E 103.3 (1)

Total development length (AE) = \_\_\_\_\_ Feet [IPC, Figure E103.3 (1)]

Static Pressure = Overflow Elevation (Gradient Elevation) ft - Meter Elevation ft / 2.31ft/psi  
 = \_\_\_\_\_ psi

**Example of a Pipe and meter sizing table: (w.s.f.u. = water supply fixture units)**

Load value assigned to fixture units for IPC, Table E103.3 (2)  
 (Attached to the mechanical plans)

Fixture type	No. of fixtures	w.s.f.u.	Total w.s.f.u.	Remarks/Comments
				Total WSFU for structure GPM Table E 103.3(3)

Proposed size of meter to be installed [IPC, Table E201.1] = \_\_\_\_\_ inch

**Backflow:**

Circle Type of Backflow

Double Check Valve Assembly (DC)

Reduced Pressure Assembly (RP)

Backflow Pressure Loss, based on make and model (BPL) = \_\_\_\_\_ psi  
(Located in manufacturers specification manuals)

**Flow:**

Irrigation Flow (I): A) Normal Flow Rate: \_\_\_\_\_ (gpm)

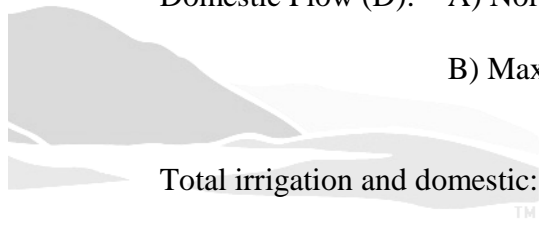
B) Maximum Flow Rate: \_\_\_\_\_ (gpm)

Domestic Flow (D): A) Normal Flow Rate = \_\_\_\_\_ (gpm)

B) Maximum Flow Rate = \_\_\_\_\_ (gpm)

Total irrigation and domestic: Normal Flow Rate:  $I(A) + D(A) =$  \_\_\_\_\_ (gpm)

Maximum Flow Rate:  $I(B) + D(B) =$  \_\_\_\_\_ (gpm)



Orings Utilities  
are all connected

**For Colorado Springs Utilities use only:**

Application received by \_\_\_\_\_ Date \_\_\_\_\_

Type and size of meter to be installed by Colorado Springs Utilities

Meter type:    Positive Displacement            Turbine            Compound            SingleJet

Size of meter \_\_\_\_\_

Comments:

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**Field Service approved** (per information provided):

By \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_

**Information entered into eB database:**

By \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_

Service Point ID or SPID \_\_\_\_\_ Premise I.D. \_\_\_\_\_

**Customer Contract Administration: (Scanned into eB database)**



Subdivision Engineering Review Team (SERT) of City Engineering  
30 S. Nevada, Suite 702  
Colorado Springs, CO 80903  
General Number- 719-385-5979

**Hours of Operation:**

8:00 am to 5:00 pm Monday through Friday

Closed for lunch 12:00 till 1:00 pm

Appointments are not required to insure availability of staff, but appointments are needed to meet with a specific staff engineer- call 385-5979 to schedule

We will try to review and sign plans upon walk-in, but likely the plan set will need to be left with us for review. In that case every effort will be made to call for pick-up within two or three business days.

**Contacts:**

Subdivision Engineering Review Team (SERT)

(719) 385-5979

Dave Lethbridge, Manager, 385-5059

**Plan Review Consideration:**

The following items are required to be included in the building permit plan set for Commercial Plan Review and approval sign-off by City Engineering.

1. Pertinent site civil plans showing public street improvements, drainage facilities, sidewalk, etc. (SERT does not review utility plans)
2. Approved Development Plan
3. Approved Grading and Erosion Control Plan
4. Legal Description including subdivision name and acreage



**El Paso County Department of Health & Environment**  
301 South Union Blvd  
Colorado Springs, CO 80910  
Environmental Health Services (719) 575-8635 (719) 578-3188 (fax)

## **Recommended Procedure for Obtaining Public Health Approval of Regional Building Department Plan Reviews**

### **1) Plan Review For Retail Food Establishments and Mobile Units**

- Plan Review Contact at the El Paso County Department of Health and Environment (EPCDHE):  
Laura Dixon  
Environmental Health Specialist  
El Paso County Department of Health and Environment  
301 South Union Boulevard  
Colorado Springs, Colorado 80910  
Ph: (719) 575-8968  
Fax: (719) 578-3188  
[lauradixon@epchealth.org](mailto:lauradixon@epchealth.org)

Health Department Hours of Operation:  
Monday – Thursday 7:00 am to 6:00 pm

- Plan Review Process:
  1. Set up a Plan Review appointment by calling Laura Dixon. The review meeting will take place at the Health Department at 301 South Union Boulevard, located on the east side of Union Boulevard, across from Memorial Park.
    - Fill out the EPCDHE Retail Food Establishment Plan Review Application Form, which is available from the Health Department.
    - Fill out the License Application (2 sheets) with Colorado DOR Sales Tax Number.
    - Include a menu or list of food items that will be served.
    - Include a to-scale drawing of the facility with equipment locations.
    - If owner will not be present during the Plan Review, then include a Letter of Authorization to allow an outside party to represent the owner at the plan review appointment.
    - For a mobile unit, there must be a Commissary Letter included with the packet (authorizing use of a licensed food facility for equipment storage and cleaning).
  2. Pay the Plan Review fees:
    - \$75.00 Plan Review Application Fee (non-refundable)
    - \$40.00/hour Plan Review and Pre-opening Inspection Fee (not to exceed \$280.00)
    - Applicable Retail Food Establishment License Fee
  3. After the plan review, please address all comments or make any changes as required in the Plan Review Comment Sheet and the Colorado Retail Food Establishment Rules and Regulations prior to scheduling the pre-operational inspection. The Retail Food Service Establishment License fee must also be paid prior to the pre-operational inspection.
  4. The pre-operational inspection will take place at the restaurant facility, or, for a mobile unit, at the Health Department or base operation (commissary). Food items are prohibited to be in your facility prior to obtaining Health Department approval.
  5. Once an approval is granted and all outstanding inspectional fees are paid at the Health Department, then the Retail Food Establishment License will be mailed.

## **2) Air Quality Permits and Plan Approvals:**

The El Paso County Department of Health and Environment no longer has a local air quality program (as of January 1, 2009). Therefore, for all plan reviews with potential air quality issues please contact:

Colorado Department of Public Health and Environment,  
Air Pollution Control Division, Permitting Section  
4300 Cherry Creek Drive South  
Denver, CO 80246  
**Phone:** 303-692-3100  
**Website:** <http://www.cdphe.state.co.us/ap/airpermits.html>

## **3) Swimming Pool/Spa Plan Approvals:**

The El Paso County Department of Health and Environment no longer has a swimming pool/spa inspection program (as of January 1, 2009). Therefore, for all pool/spa plan reviews contact:

Colorado Department of Public Health and Environment  
Water Quality Control Division  
West Slope Regional Office  
222 S. 6th St., Room 232 WQC-DWP-2030  
Grand Junction, CO 81501  
**Phone:** (970) 248-7150 ext. 7199  
**Website:** [www.cdphe.state.co.us/wq](http://www.cdphe.state.co.us/wq)