



# SINGLE-FAMILY RESIDENTIAL CONSTRUCTION GUIDELINES

*Revised August 7, 2020*



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# CONTACT INFORMATION

## BUILDING PERMITS & GRADING CERTIFICATIONS

Permit Technician  
email: [bp@windsorgov.com](mailto:bp@windsorgov.com)

direct: (970) 674-2436  
front desk: (970) 674-2400

8 a.m. - 5 p.m., Monday - Thursday  
8 a.m. - noon, Friday

301 Walnut Street  
Windsor, CO 80550  
[www.windsorgov.com](http://www.windsorgov.com)

## PUBLIC WORKS DEPARTMENT

email: [publicworks@windsorgov.com](mailto:publicworks@windsorgov.com)

front desk: (970) 674-5400

7 a.m. – 3:30 p.m., Monday – Friday

922 N. 15th Street  
Windsor, CO 80550  
[www.windsorgov.com](http://www.windsorgov.com)

## SAFEBUILT

email: [windsor@safebuilt.com](mailto:windsor@safebuilt.com)

front desk: (970) 686-7511

Inspections:  
(970) 674-1036 or  
(866) 671-1036

561 E. Garden Drive  
Windsor, CO 80550

## STORMWATER MANAGEMENT

Janine Hegeman,  
Stormwater Program Coordinator  
email: [jhegeman@windsorgov.com](mailto:jhegeman@windsorgov.com)

direct: (970) 674-2490  
front desk: (970) 674-2400

301 Walnut Street  
Windsor, CO 80550  
[www.windsorgov.com](http://www.windsorgov.com)

## UTILITY INSPECTIONS

Utility Billing  
email: [utilities@windsorgov.com](mailto:utilities@windsorgov.com)

front desk: (970) 674-2400

8 a.m. - 5 p.m., Monday - Thursday  
8 a.m. - noon, Friday

301 Walnut Street  
Windsor, CO 80550  
[www.windsorgov.com](http://www.windsorgov.com)

## WATER

### (TOWN OF WINDSOR SERVICE AREA ONLY)

#### ➤ **CONTRACTOR NOTE**

Contractors/Plumbers are not permitted to turn water off and on. Such action is punishable by law. Curb stops and street valves can only be operated by Town of Windsor employees. The Town of Windsor has the authority to confiscate and dispose of illegal jumpers whereby theft of services is suspected.

#### ➤ **HYDRANT METERS FOR CONSTRUCTION WATER**

Unmetered water cannot be used for irrigating sod, water settling soil on the lot, development or landscaping of the site. Hydrant meters are to be used for this purpose, or where a large volume of water is needed for a short period of time. Hydrant meters will not be used as a substitute for permanent water service.

Hydrant meters are available to rent at the Town of Windsor Public Works Department. Email [publicworks@windsorgov.com](mailto:publicworks@windsorgov.com) to schedule pick-up. The maximum monthly limit for a single hydrant meter is 64,000 gallons. Current deposit and rental rates will apply.

#### ➤ **UTILITY BILLING**

A utility bill is generated starting the date that a permit is issued. A monthly bill will be generated on the 1<sup>st</sup> of every month and is due by the 20<sup>th</sup> of each month. The property owner named on the building permit will be responsible for payment until closing occurs and a final meter read is taken, thereby changing ownership.

#### ➤ **RESIDENTIAL WATER YOKES**

A yoke and jumper are provided by the Town of Windsor after the building permit is issued. The yoke and jumper are available at the Public Works Department by appointment only. Email [publicworks@windsorgov.com](mailto:publicworks@windsorgov.com) to schedule an appointment.

## INSPECTIONS

**Scheduling an Inspection: All water, sanitary sewer and sidewalk inspection requests must be emailed to Utility Billing [utilities@windsorgov.com](mailto:utilities@windsorgov.com) before 3 p.m. in order to be scheduled for the next business day. Afternoon inspections are available for the initial water/sewer inspections only. Requests must include service address, type of inspection, contact name and phone number. Each request and has up to a 48-hour turnaround time. Inspections will *not* be scheduled for the last Thursday of the month.**

## ➤ COMPLETE PRIOR TO INSPECTION

These items are required prior to scheduling an inspection:

- The builder must have the correct address and building permit number.
- The address must be clearly posted and visible from the street.
- The building permit must be available at the site in order to be signed by Town staff.
- All work must be completed and ready for inspection by 7 a.m.
- If an afternoon inspection is requested, all work must be completed and ready by noon.

## ➤ WATER INSPECTIONS (TWO TOTAL)

Town of Windsor water service area only. There will be two water inspections: 1.) prior to backfill and 2.) the meter install.

### 1.) Inspection prior to backfill:

- If the Town is also the sewer provider, the 'before backfill' water inspection can be performed concurrently with the 'before backfill' sanitary sewer inspection, however these are separate inspections.
- See "ADDITIONAL INFORMATION" section for more water service detail – Page 10.

### 2.) Water Meter Install:

- See "WATER METER INSTALL" section for more information – Page 6.

## ➤ SANITARY SEWER INSPECTIONS (TWO TOTAL)

Town of Windsor sanitary sewer service area only. There will be two sanitary sewer inspections: 1.) prior to backfill and 2.) a camera inspection after backfill.

### 1.) Inspection prior to backfill:

- If the Town is also the water provider, the 'before backfill' sewer inspection can be performed concurrently with the 'before backfill' water inspection, but is a separate inspection.
- See "ADDITIONAL INFORMATION" section for more detail – Page 10.

### 2.) Sewer Camera Inspection after backfill:

- The camera inspection can be scheduled for the same time as the meter install if both sewer and water are in the Town's service area.
- See "ADDITIONAL INFORMATION" section for more detail – Page 10.

## ➤ FINAL UTILITY CHECK FOR CERTIFICATE OF OCCUPANCY

- A final utility check inspection for CO is required for all residential construction within the Town of Windsor, regardless of service area.
  - The final check cannot be scheduled until *all* other utility inspections have passed. This includes the water inspection prior to backfill, the water meter install, sanitary sewer inspection prior to backfill and the sewer camera inspection.
  - Curb stop and meter pit must be to finish grade (Town of Windsor service area only.)

- Sidewalks and gutters must be clean/clear of all debris and free of cracks and large chips. Note, power washing of pavement/sidewalks into streets and gutters is prohibited per the Town's Municipal Code.

### ➤ **INSPECTIONS REQUIRED FOR CERTIFICATE OF OCCUPANCY**

See "OBTAINING A CERTIFICATE OF OCCUPANCY" section – Page 7.

### ➤ **INSPECTION FAIL**

If an inspection(s)/install fails, a door hanger will be left at the building site listing the necessary corrections. After making corrections, the inspection/install can be rescheduled by emailing the utility department at [utilities@windsorgov.com](mailto:utilities@windsorgov.com). Re-inspections cannot be scheduled for the same day as the original inspection. A fee will be billed to the account for each re-inspection/installation. The fee schedule can be found on the Town of Windsor website at [www.windsorgov.com](http://www.windsorgov.com).

### ➤ **SAFEUILT**

SAFEuilt is a private agency contracted by the Town of Windsor to perform building inspections and plan reviews. While the Town of Windsor Planning Department issues all building permits, any building code questions should be directed to SAFEuilt: (970) 686-7511. A plan examiner is typically available from 8 a.m. to 5 p.m., Monday - Friday.

**Schedule building permit inspections through the inspection hotline. Call the phone number below with your building permit number, address, the requested inspection, contact name and phone number. SAFEuilt will inspect the next working day. Inspection Hotline: (970) 674-1036**

## WATER METER INSTALL (TOWN OF WINDSOR SERVICE AREA ONLY)

The Town of Windsor Public Works Department installs water meters. (Town of Windsor Water Service Area Only). **The Town of Windsor will be requiring all water meter pits to be installed outside the home in all subdivision filings and phases that receive construction acceptance from the Town on or after August 17, 2020.**

**All meter installation requests must be emailed to Utility Billing [utilities@windsorgov.com](mailto:utilities@windsorgov.com) before 3 p.m. in order to be scheduled for the next business day. Requests must include service address, lock box code for indoor meter install (as applicable), contact name and phone number. Each request has up to a 48-hour turnaround time.**

### ➤ **METER INSTALL**

The following must be complete prior to install:

- The builder must have the correct address and building permit number.
- The address must be clearly posted and visible from the street.

- Town of Windsor issued yoke must be installed.
- Where indoor meters are allowed, shut off valves must be installed before and after the yoke.
- Curb box/curb stop and meter pit must not be located in the driveway or sidewalk.
- Curb box and meter pit must be to finished grade and visible.
- The curb box and meter pit must be clear of all debris and accessible to the technician.
- Include in the request whether or not the water should be left on or off after the meter is installed.
- If the Town provides sanitary sewer, the meter install can be scheduled at the same time as the sewer camera inspection.
- See “ADDITIONAL INFORMATION” section for more detail – Page 10.

## SUMP PUMPS

Under no circumstances should discharge from any pump reach the Town’s sanitary sewer system. It is unlawful to connect a sump pump to the interior plumbing of your home or building, or to allow discharge from a sump pump to run to a basement drain.

It shall be unlawful for any property owner or water system operator to allow the discharge of water from any source to drain upon or across a driveway, sidewalk, curb, gutter or street within the Town, if such discharge contributes to the accumulation of ice, algae, scum, bacteria, fungus or similar organic matter within any such driveway, sidewalk, curb, gutter or street in a manner which presents a risk of injury to pedestrians, bicyclists or the operator of any vehicle.

## OBTAINING A CERTIFICATE OF OCCUPANCY

**A Certificate of Occupancy will be issued by the Town of Windsor Planning Department, via the Town’s Permit Technician, when 1.) all utility inspections have passed, including water meter install and sidewalk inspection 2.) SAFEbuilt’s final construction inspection has passed and 3.) the grading certification has been accepted, and the lot grading has been inspected and approved the Town’s Engineering Department.**

**Note: The Town of Windsor may withhold the Certificate of Occupancy until all requirements have been met, or if the Town has imposed special requirements on the developer, builder, subdivision or lot.**

### ➤ UTILITY INSPECTION REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY

The following inspections/requirements must be met for issuance of a Certificate of Occupancy:

- All Water/Sewer inspections passed. (Town of Windsor service area only.) See “INSPECTIONS” section for more detail – Page 4.
- Sanitary Sewer Camera inspection passed. (Town of Windsor sewer service area only.) See “INSPECTIONS” section for more detail – Page 4.
- Meter Install Complete. (Town of Windsor water service area only.) See “WATER METER

INSTALL” section for more detail – Page 6.

- The final utility check for CO inspection has passed. (Applicable in all service areas within the Town of Windsor.) See “INSPECTIONS” section for more detail – Page 4.

### ➤ **SAFEBUILT INSPECTION REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY**

The following inspections/requirements must be met for issuance of a Certificate of Occupancy:

- For the final inspection, the contractor must call SAFEbuilt and request final construction inspection and acceptance. See “INSPECTIONS” section for more detail – Page 4.

### ➤ **GRADING AND INSPECTION REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY**

The following inspections/requirements must be met for issuance of a Certificate of Occupancy:

- The grading inspection passed, and the grading certification accepted by the Town’s Engineering Department. See “SITE GRADING CERTIFICATION REQUIREMENTS” – Page 8.

## **SITE GRADING CERTIFICATION REQUIREMENTS**

**A Site Grading Certification shall be emailed to the Town of Windsor’s permit technician at [bp@windsorgov.com](mailto:bp@windsorgov.com) for review and approval by the Engineering Department. In addition to review of the grading certification, the Engineering Department will perform a site inspection. There is up to a 48-hour turnaround time for inspections.**

### ➤ **GRADING REQUIREMENTS**

Information regarding the Site Grading Certification:

- The Site Grading Certification form can be found on the Town’s website and also included in the “FORMS AND DETAILS” section at the end of this document.
- The Site Grading Certification form must be prepared by a registered professional engineer (PE) licensed by the State of Colorado. Per State statute, the grading certification *cannot* be stamped and signed by a professional land surveyor (PLS), however it is acceptable for a PLS to stamp and sign the as-built survey.
- The Town approved plot plan showing the proposed elevations on the lot must accompany the Grading Certification Form. As-built information must be added to the plot plan to show how elevations, at the time of certification, compare to the proposed elevations. Lots that are not in general conformance with the plot plan may require regrading.
  - Elevations shall be provided at all locations where elevations were shown on the approved plot plan, including the top of foundation elevation and any additional elevations necessary to clearly represent the final grading of the lot. Typically, this will include an elevation at all lot corners, finish grade at building corners, elevations opposite the building corners at the side property line, all high point and grade break elevations on the side property lines, and rear yard high point and flowline elevations of swales that carry runoff around the house. Plot plans shall be to scale, with the scale indicated.
- Where deviations occur from the approved plot plan, a letter shall be attached to the

Site Grading Certification that identifies the deviations.

- For estate lots, as-built information must include culvert size and whether flared end sections or concrete headwalls have been constructed. Flowline elevations on either side of the culvert must also be included.
- Inspection and approval of the site grade certification can take up to 48-hours.

Minimum requirements for acceptance of Site Grading Certifications by the Town shall be as follows (unless waived by the Town):

- The minimum as-built slope on any portion of the lot shall be 1.5% except on estate lots where flatter slopes were approved by the Town at the time the building permit was issued. (Minimum design slope is 2%.)
- The ground elevation adjacent to the foundation shall be a minimum of 0.5-ft below the top of the foundation. (Residential Building Code requirement.)
- The slope away from the foundation shall be a minimum of 5% in the first 10-ft. (Residential Building Code requirement.)

## STORMWATER MANAGEMENT

### ➤ STORMWATER PERMITS AND INSPECTIONS

The Town requires stormwater permits for the following conditions:

- Land disturbance occurs on one lot, or a collection of lots in the same subdivision within a 0.25-mile area, that totals one acre or more.
  - If this applies, a narrative description of the installation, maintenance, and timing of removal of the control measures (CMs) deployed on the lot(s) will be submitted with the application.
- Additional information can be found on the Town’s website:  
<https://windsorgov.com/DocumentCenter/View/21853/Town-of-Windsor-Construction-sites-Program-PDD-5-31-2019-PDF?bidId=>

Stormwater inspections begin upon building permit approval.

Stormwater inspections include:

- Verifying that all appropriate temporary control measures are installed and functioning, that streets and flowlines are swept and free of sediment and non-stormwater liquids and materials, and that trash is contained.
- Final Stabilization Inspections will be conducted when 70% of the exposed soil is stabilized with permanent structures, hardscaped and landscaped.
- Appropriate temporary control measures are in place in areas where final stabilization – meaning vegetation or landscaping – isn’t possible because of seasonal circumstances and/or a sales agreement with homeowner.

Once Final Stabilization is achieved, inspections will be terminated provided:

- The stormwater inspector is notified to conduct a final stabilization inspection, OR
- The stormwater inspector receives a proof of sales agreement or other document limiting the contractor’s ability to complete stabilization on a portion of the property.

# ADDITIONAL INFORMATION

## (TOWN OF WINDSOR SERVICE AREA ONLY)

### ➤ WATER STANDARDS

**Water Service:** The Town must inspect all water services before trenches are backfilled. See “INSPECTIONS” section for more information – Page 4.

- The service line shall be Type K copper pipe.
- The portion of the potable water service line between the main and the curb stop and/or meter must be in a continuous straight line with no joints.
- The water services cannot be located under a driveway.
- Plumbers must pressure test all water service lines. A Town representative must give approval before backfilling. Pressure tests may use either water or air:
  - For water, open the curb stop and test the service using the pressure in the water main.
  - For air, the plumber must supply an apparatus capable of pressurizing the service line to 80 psi.

#### **Curb Boxes:**

- The curb box should not be located within a driveway or sidewalk.
- The curb box must have a stainless-steel extension rod attached to the curb stop.
- The contractor is responsible for replacing faulty or damaged curb stops and boxes.
- Curb boxes must be properly adjusted to finish grade and approved by the Town of Windsor Public Works Department.

**Meter Pits:** The Town of Windsor will be requiring water meter pits to be installed outside the home in all subdivision filings and phases that receive construction acceptance from the Town on or after August 17, 2020.

- Meter pits cannot be located within driveways or sidewalks.
- The contractor is responsible for replacing faulty or damaged meter pits.
- Meter pits must be properly adjusted to finish grade and approved by the Town of Windsor Public Works Department.
- Where indoor meters are allowed, a stopcock or valve must be installed on each side of the meter.

### ➤ SANITARY SEWER STANDARDS

**Sanitary Sewer Services:** The Town must inspect all sanitary sewer services before trenches are backfilled.

- Sewer service pipes require a bell and spigot with rubber gaskets. Pipe connections that cannot be accomplished with bell and spigot type shall be made with a rubber "Calder-style" coupling with stainless steel bands.
- All PVC pipe must be minimum SDR 35 strength and must be stamped with strength data from the factory. Minimum slope of 4-inch sewer services shall be 1/4 per foot (2%).
- Sewer pipe must have tamped bedding at least halfway up the side of pipe. The

maximum deflection at a joint is 45 degrees. If two joint deflections are necessary (for example two 45-degree bends), the bends must be spaced a minimum of 1-foot apart.

**Dewatering:** If groundwater collects in the trench:

- A Town of Windsor representative must be present to assure that the plug has not been pulled before the trench has been dewatered. Any removal of a plug to dewater a trench is in violation of the Town of Windsor Municipal Code. Call the Town of Windsor to schedule an inspection. See “INSPECTIONS” section for more information – Page 4.
- Dewater the trench using a pump. Direct discharge from dewatering operations to a dewatering bag on a vegetated area or toward a storm drain equipped with sediment filtering control measures.

**Sewer Cleanout:**

- The sewer cleanout must be 18-inches or less from finish grade, must have a clear space around and above the cleanout (for example it cannot be located under a bay window) and must have a permanent threaded cap.
- The sewer cleanout must be located outside of the home.
- Any deviation from the prescribed procedures and materials must be approved by the Public Works Department before installation.

## FORMS AND DETAILS



# TOWN OF WINDSOR

301 WALNUT STREET • WINDSOR, CO 80550  
PHONE: (970) 686-7476 FAX: (970) 686-7180

## SITE GRADING CERTIFICATION

(NOT REQUIRED FOR ADDITIONS AND REMODELS)

DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

LOT: \_\_\_\_\_ BLOCK: \_\_\_\_\_

SUBDIVISION: \_\_\_\_\_

I hereby certify that:

1. The elevations and drainage patterns shown on the enclosed Final Grade Certification Plan were determined from a field survey performed by me, or under my supervision, to measure critical elevations at the above referenced address.
2. The slopes, elevations and drainage flows are in substantial conformance with the grading plan that was approved by the Town of Windsor with the building permit for the subject property.
3. There is positive drainage away from all openings in the foundation (such as window wells, garden level window openings and walkout basements, as applicable) and off the lot.

If there are any exceptions to the items being certified in statements 1 through 3 above, I have attached a letter identifying those exceptions for review by the Town.

\_\_\_\_\_  
ENGINEERING FIRM NAME

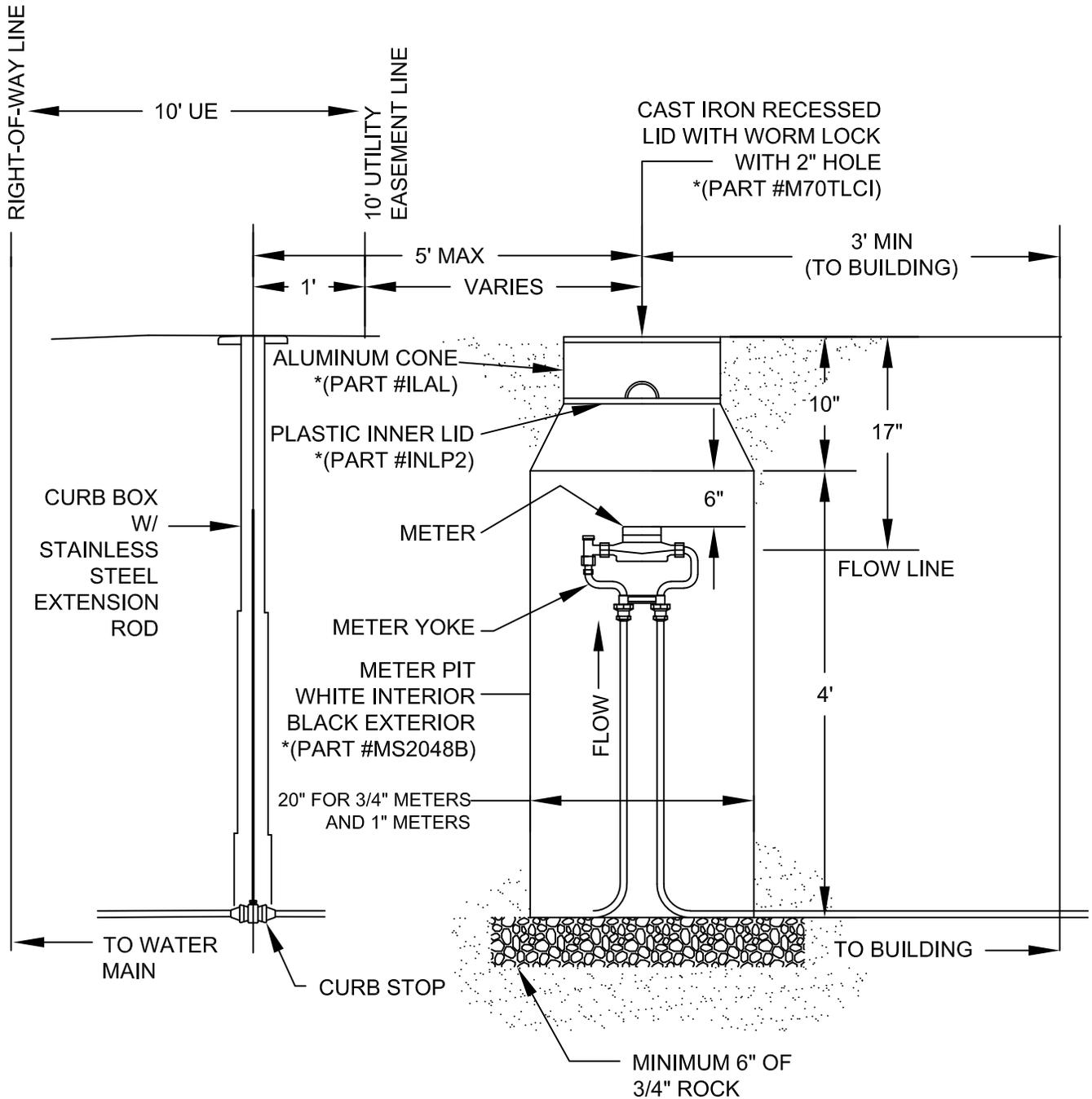
\_\_\_\_\_  
FIRM ADDRESS

\_\_\_\_\_  
CITY STATE ZIP CODE

\_\_\_\_\_  
PHONE NUMBER/EMAIL ADDRESS

\_\_\_\_\_  
PRINT NAME OF ENGINEER

SEAL  
(Sign & Date)

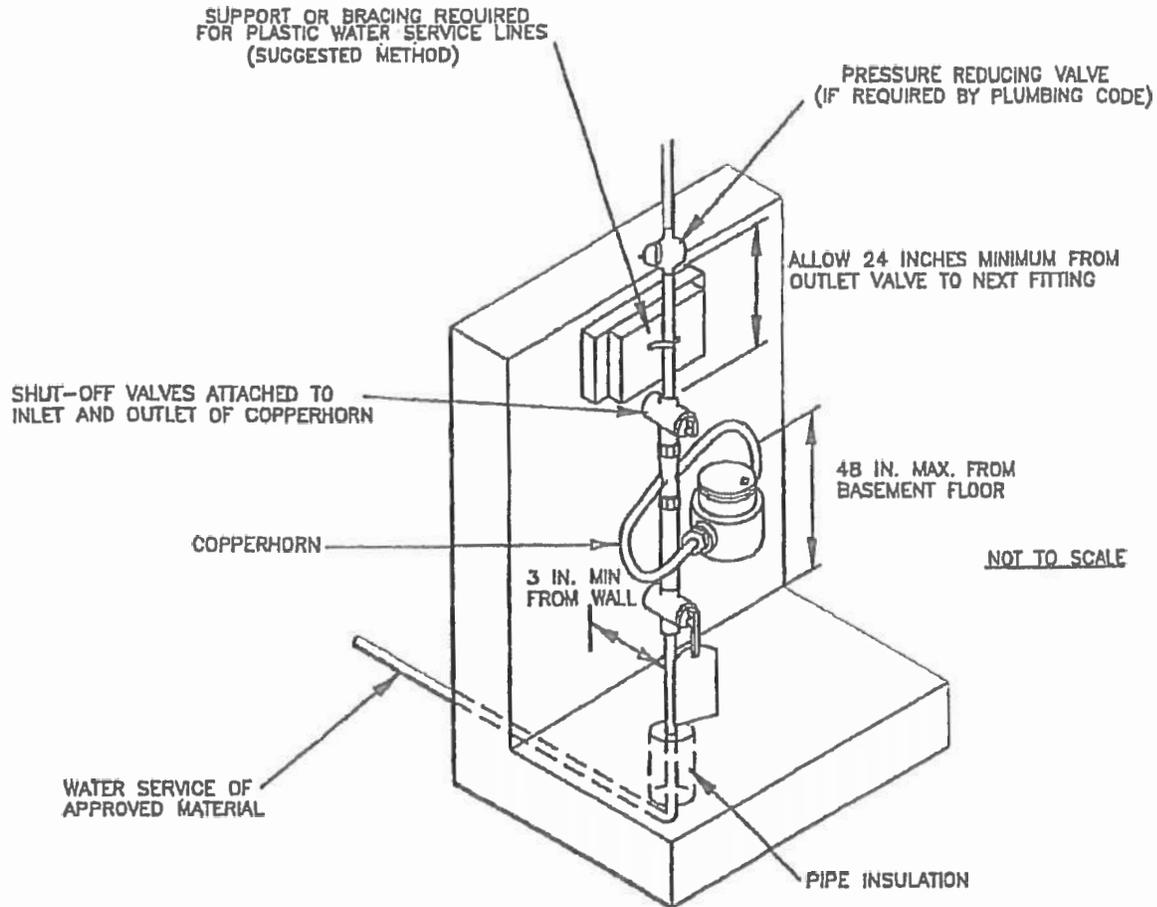


**GENERAL NOTES:**

1. This meter pit is not to be installed in any street, alley, parking area, driveway, or sidewalk.
2. No landscaping (trees, shrubs, boulders, etc.) or retaining walls to be within 4 feet of the meter pit.
3. No plumbing connections to be made in meter pit.

\* Part numbers: as manufactured by Carson Industries LLC or equal: Lid Part #M70TLCI, Aluminum Cone Part #ILAL, Plastic Inner Lid Part #INLP2, Meter box shall be MS2048B

<b>TOWN OF WINDSOR COLORADO</b>	<b>METER PIT FOR 3/4" AND 1" WATER METERS</b>			
	STANDARD CONSTRUCTION DETAILS	APPROVED: DATE: 08-05-2020 REVISED BY: SJP	SCALE: N.T.S.	SHEET 1 OF 1



**GENERAL NOTES:**

1. Water meters installed in crawl spaces will be located within 5 feet of the crawl space access and a minimum of 18 inches below floor joists.
2. Provisions will be made to prevent freezing of meters and service lines located in unheated crawl spaces.
3. Provide clear and unobstructed access to the copperhorn and shutoff valves.
4. A secure support is required for copperhorns installed on plastic water service lines.
5. Copperhorns will be installed so that meters are in a horizontal position.
6. All tees and connections to the water service line will be a minimum of 24 inches past the outlet valve attached to the copperhorn.

**STANDARD INTERIOR METER SETTING FOR ¾" AND 1" METERS**

NOTE: The Town of Windsor will be requiring all water meter pits to be installed outside the home in all subdivision filings and phases that receive construction acceptance from the Town on or after August 17, 2020.