





2016 Horizontal Directional Drilling Best Practices



SERVICE CENTER REPRESENTATIVES

- | | | |
|----------------------|-----------------------|--|
| Cy Wagner | (303) 895-5252 | - South Denver Metro |
| Paul Hauck | (303) 502-0597 | - Northwest Metro |
| Heath Buster | (720) 253-9506 | - Denver Proper, HIP |
| Brad Yenter | (970) 216-9921 | - Western Slope |
| Kurt Emery | (303) 503-1470 | - Mountains |
| Chris Hendrix | (303) 356-8816 | - Northern Colorado
& Boulder |

After Hours Assistance - (303) 716-2030



Are You *PREPARED* to DRILL?



HABIT 2

MULTIPLE Day Tickets

- An agreed upon area within requested excavation scope marked daily (up to 10 tickets per call to CO811)
 - Useful on larger projects and extended periods of excavation
 - Improves communication between excavator & locators
 - Can serve as a daily refresh for area where marks are being destroyed frequently
 - Multiple day “Meet” tickets may also be available



HDD Best Practices



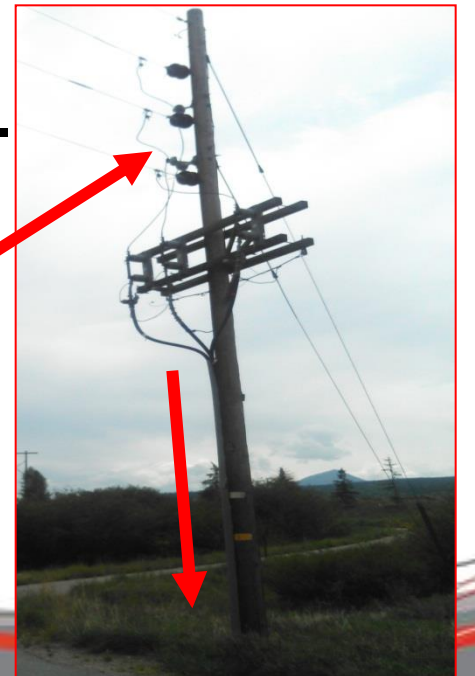
- Locate is valid for **30** calendar days or as long as **PAINT** marks are clearly visible.
- Maintain a list of all Tier 1 & Tier 2 Members
- Contact ALL Tier 2 members directly.
- You **MUST** have your **OWN** locate request.



HABIT 4

Perform a Pre-Excavation Site Survey

- Walk site with sketch or EPR in hand.
- Compare marks to pictures.
- Look for unmarked facilities.
- Look for unmarked, sunken trenches.
- Look for newly installed, unmarked facilities.
- Look for old paint/flags.
- Look for asphalt cuts/bore markings.
- **Look UP!**



HABIT 4

Ensure Positive Response from Facility Owners

Newtin - A (UNCC Golden Colorado)

Response Display



Ticket

Ticket	Revision	Address	Street	Cross street	Company	Mark by Date
A527400422	Latest revision: 00A	65	S JACKSON ST	E BAYAUD AVE	XCEL ENERGY	10/05/2015

Code	Name	Response	Description	Responded	Revision
CMSNOCO	COMCAST	002	CLEAR - NO CONFLICT	10/05/15 10:54:24	00A
LVL311	LEVEL 3 COMMUNICATIONS	009	REQUIRES STAND-BY AT TIME OF EXCAVATION - CONTACT FACILITY OWNER	10/07/15 07:51:31	00A
MCI01	MCI	001	LOCATE AREA MARKED	10/06/15 10:57:38	00A
NCEC1A	NEW CENTURY ENERGY-FIBER	017	COMPLETED - SEE MARKS ON SITE	10/05/15 09:51:10	00A
PCKVEL	XCEL ENERGY--ELEC TRANSM	017	COMPLETED - SEE MARKS ON SITE	10/05/15 09:51:10	00A
PCND00	XCEL ENERGY - NORTH DENVER	017	COMPLETED - SEE MARKS ON SITE	10/05/15 08:33:06	00A
QLNCNC00	CENTURY LINK	002	CLEAR - NO CONFLICT	10/05/15 10:54:40	00A
TESTEL	TEST CODE	999	FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC	10/05/15 23:59:28	00A
TESTGS	TEST CODE	999	FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC	10/05/15 23:59:28	00A
XOCOM1	X O COMMUNICATIONS, INC	002	CLEAR - NO CONFLICT	10/05/15 15:02:21	00A

No further responses due

HABIT 4

SITE SURVEY

The 2nd Notice - Notify Colorado 811 IMMEDIATELY if:

- You have not received positive response
- You notice unmarked facilities
- Incomplete markings
- No markings
- Facility owner a “no-show”
- Facility not found in located area
- Incorrect address/area located
- “No show” by facility owner to Damage Request



Communicate With Facility Owners through Colorado 811



STEP 1:

Contact Colorado 811 for 2nd Notice. *(Allow at least 1 hour for response.)*

Contact locate company.
(Achieve agreed upon resolution.)



STEP 3:

Escalate to Xcel Energy Contract Field Coordinator.



STEP 2:

Escalate to appropriate Xcel Energy Service Center Rep.



STEP 4:

Escalate to Manager of Damage Prevention for final resolution.



**THE
SAFE 8**

HDD Best Practices

Number 1

- Maintain all Documentation (EPR, photographs, pothole logs)
- Verify all facilities have been marked
- Be aware of High Profile facilities (schedule on-site assistance, etc.)

Newfin - A (UNCC Golden Colorado)

Response Display

Ticket

Ticket	Revision	Address	Street	Cross street	Company	Mark by Date
A527400422	Latest revision: 00A	65	S JACKSON ST	E BAYAUD AVE	XCEL ENERGY	10/05/2015

Code	Name	Response	Description	Responded	Revision
CMSNOCO	COMCAST	002	CLEAR - NO CONFLICT	10/05/15 10:54:24	00A
LVL311	LEVEL 3 COMMUNICATIONS	009	REQUIRES STAND-BY AT TIME OF EXCAVATION - CONTACT FACILITY OWNER	10/07/15 07:51:31	00A
MCI01	MCI	001	LOCATE AREA MARKED	10/06/15 10:57:38	00A
NCEC1A	NEW CENTURY ENERGY-FIBER	017	COMPLETED - SEE MARKS ON SITE	10/05/15 09:51:10	00A
PCKVEL	XCEL ENERGY--ELEC TRANSM	017	COMPLETED - SEE MARKS ON SITE	10/05/15 09:51:10	00A
PCND00	XCEL ENERGY - NORTH DENVER	017	COMPLETED - SEE MARKS ON SITE	10/05/15 08:33:06	00A
QLNCNC00	CENTURY LINK	002	CLEAR - NO CONFLICT	10/05/15 10:54:40	00A
TESTEL	TEST CODE	999	FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC	10/05/15 23:59:28	00A
TESTGS	TEST CODE	999	FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC	10/05/15 23:59:28	00A
XOCOMI	X O COMMUNICATIONS, INC	002	CLEAR - NO CONFLICT	10/05/15 15:02:21	00A

No further responses due

Copyright (c) 2004-2010 Cosmic Computers, Inc.



Not Clear to Dig Notice



⚠️ Action Required ⚠️

You Are Not Clear to Dig!

An Xcel Energy representative has visited your work site/excavation area. It has been determined a High/Intermediate Pressure (HIP) Gas Pipeline to be in conflict with your excavation.

Xcel Energy requires your company to have Xcel Energy representation on site when digging near any High/Intermediate Pressure (HIP) Gas Pipelines including potholing and directional drilling

Colorado Revised Statute:

Title 9-15-103.(4)(a)

Notice of Required On Site Assistance

Call Immediately to Set Up Xcel Energy Representation

It's The Law!

To ensure we accommodate your work schedule contact us 48hrs in advance of excavation at 303-459-6537 or adminlocates@sitewisecorp.com to schedule an On-Site Assistance Technician

Your CO 811 ticket information:

CO 811 Ticket #A430800181-00A

Address: DENVER, DENVER 0, PARK AVE W WELTON ST

Date: 11/04/2014 09:09:55

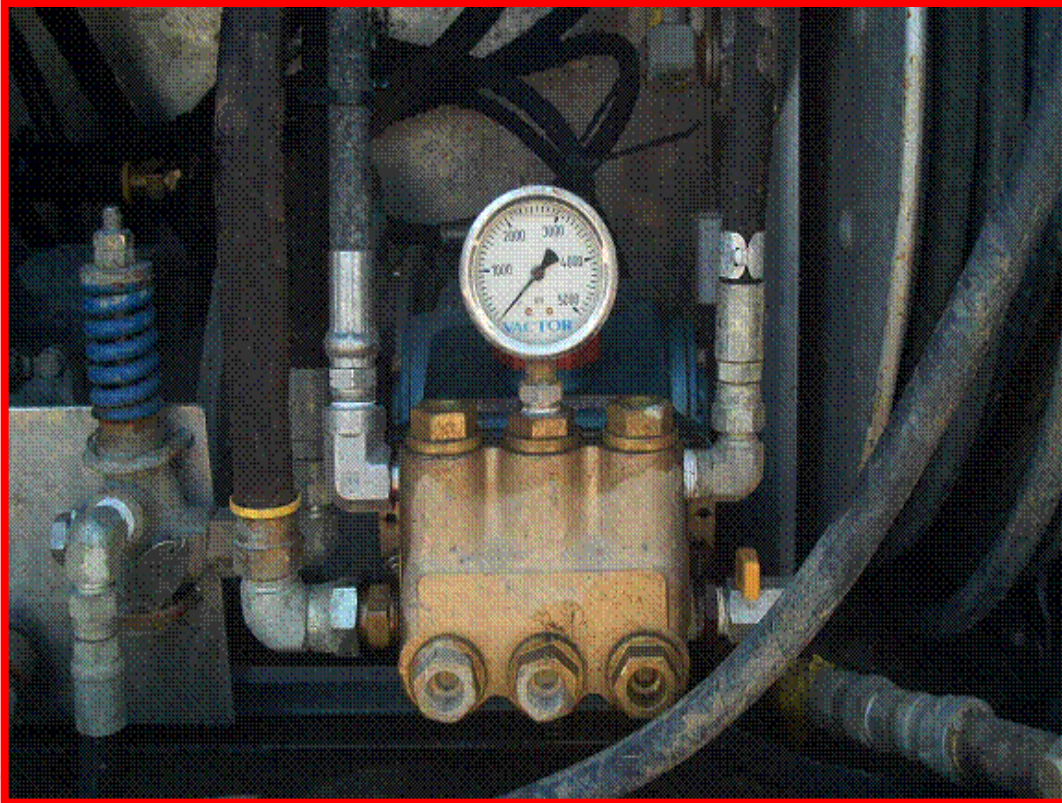


On Site Assistance Required For High Profile Facilities

- High Pressure Gas
- Transmission Gas Lines
- Intermediate Pressure Gas
- KV Electric Transmission Lines
- Xcel Energy Fiber Optics

**You MUST Call.
It's the law.**

Potholing Pressure Recommendations



- No “safe” pressure
- Stay below 1000 psi
- Higher water flow & lower pressure
- Use spinner tips
- “Wash” soil

HDD Best Practices

Number 2

Expose all exits within 10' of Switch Cabinet or Terminal Pole



RESPECT THE HALO

Hand Dig within:

36" of a Primary Structure

- Transformer / Switch Cabinet

18" of a Secondary Structure

- Electric Pedestal



HDD Best Practices

Number 3



Pothole all facilities at crossing point



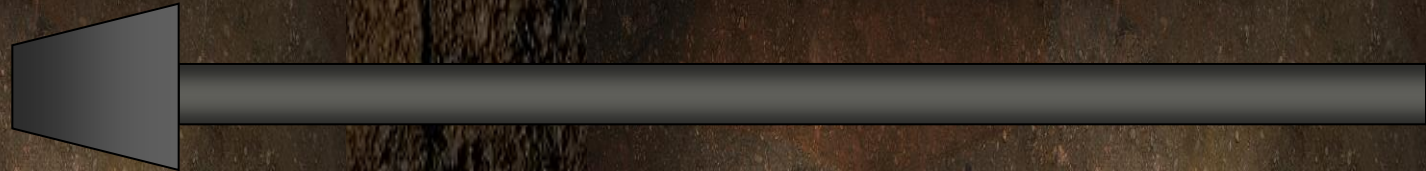
HDD Best Practices

Number 4



Watch the bore head cross all facilities

← Open Pothole



HDD Best Practices

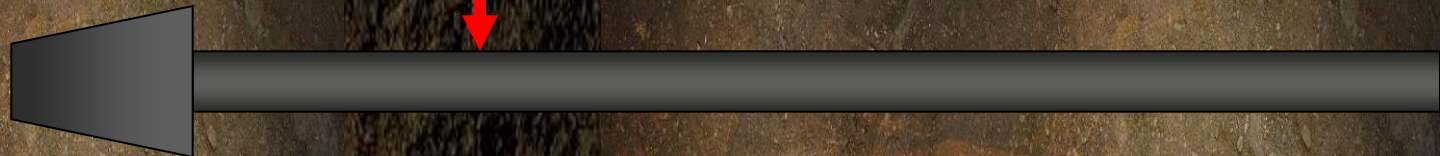
Number 5

Maintain a 3-foot clearance when crossing below an **exposed** facility.

Open Pothole →



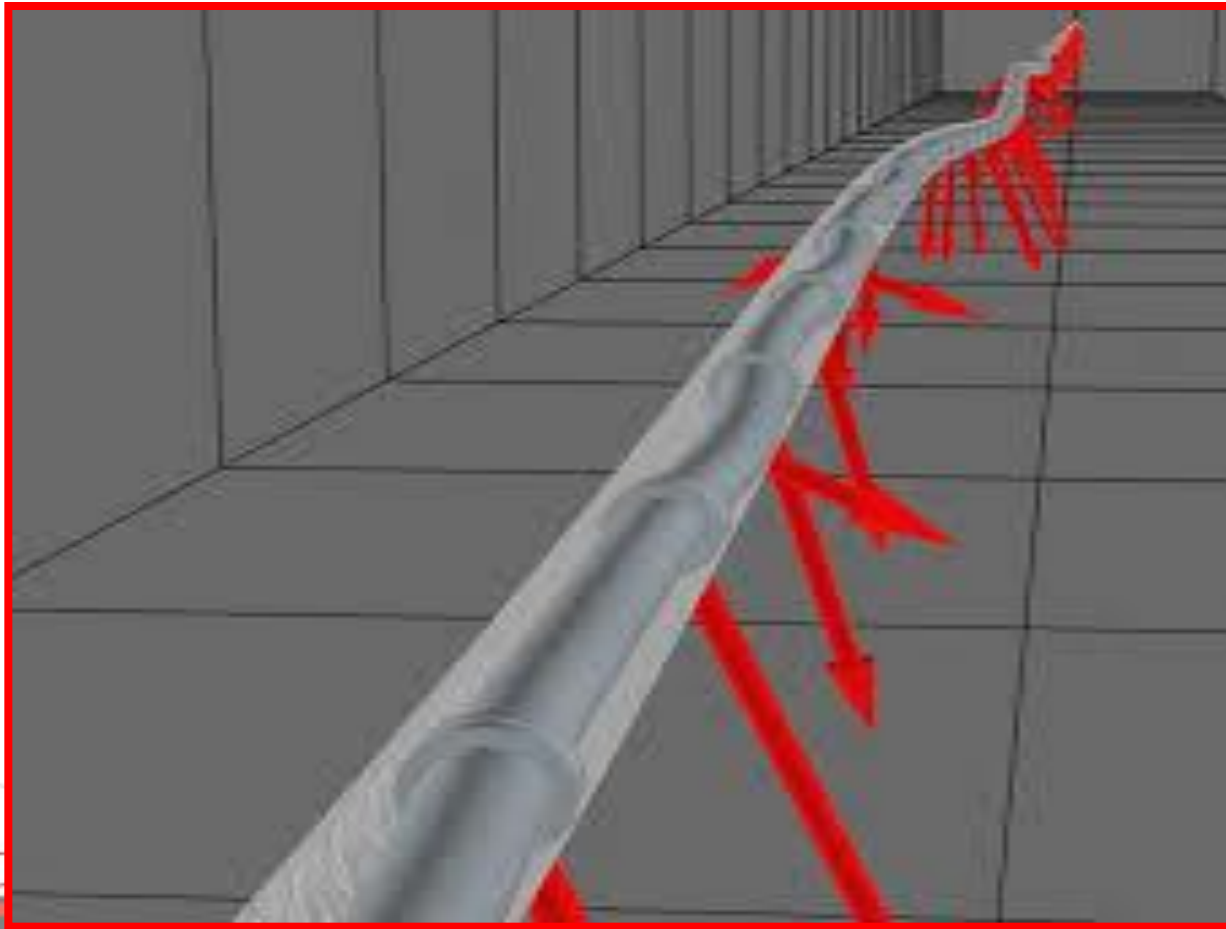
3 feet



HDD Best Practices

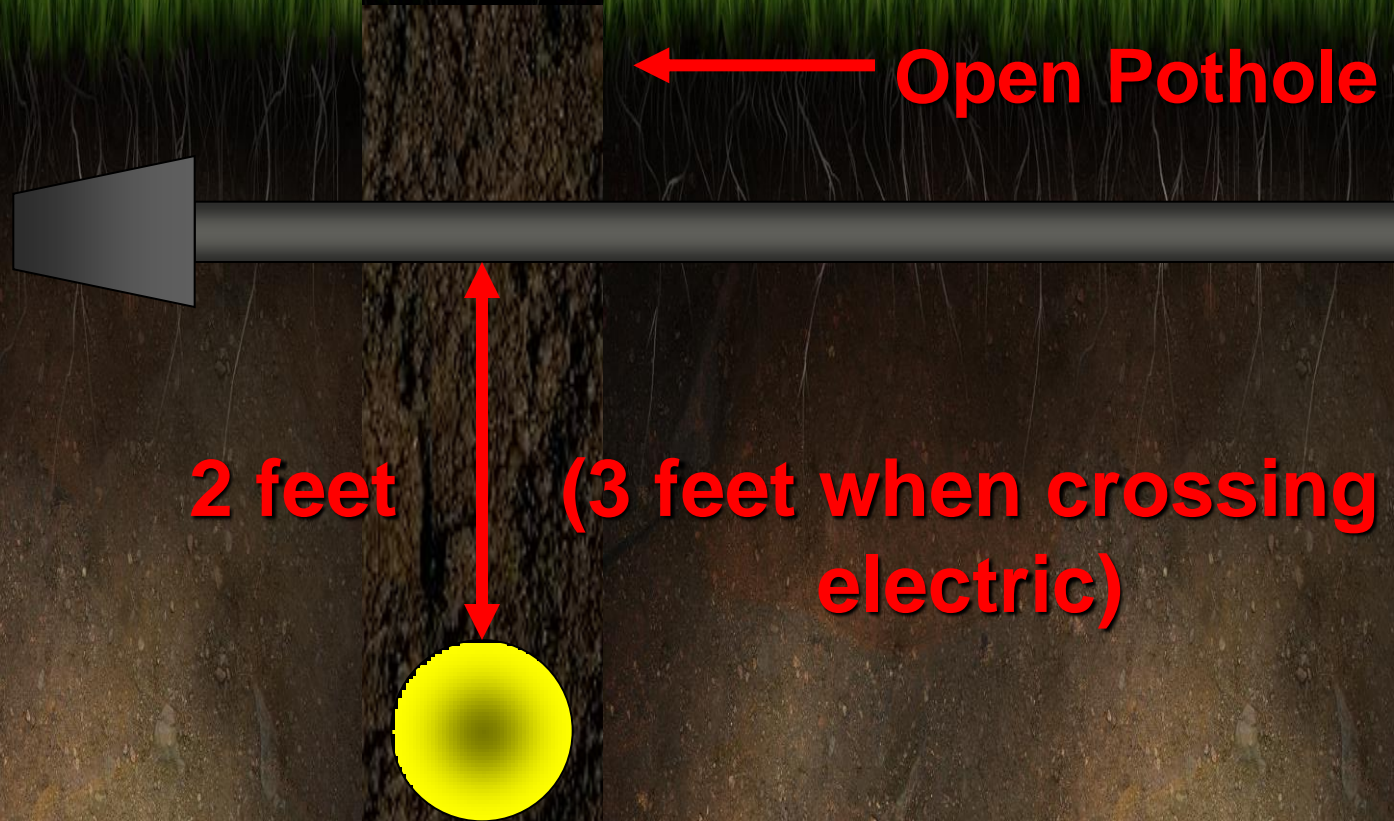
Number 5

ACCOUNT FOR ROD DEFLECTION



HDD Best Practices Number 6

Maintain a 2-foot clearance when crossing above
an **exposed** facility.



ACCOUNT FOR REAMER DIAMETER

Open Pothole →



HDD Best Practices

Number 7

Maintain a 3-foot separation when paralleling a facility




HDD Best Practices

Number 8

- Never stack new facilities above or below existing facilities.



THE SAFE 8

- 1. Maintain all locate documentation at the site and verify that all facilities have been marked.**
 - 2. Expose all exits when working within 10' of a Switch Cabinets & Terminal Poles.**
 - 3. Pothole all facilities at the crossing point.**
 - 4. Watch the bore head cross all facilities.**
 - 5. Maintain a 3' clearance when crossing below an exposed facility.**
 - 6. Maintain a 2' clearance when crossing above an exposed facility**
 - 7. Maintain a 3' separation when paralleling a facility.**
 - 8. Never stack new facilities above or below existing facilities.**
- 

CALL FOR REPAIR



IN THE EVENT OF A DAMAGE

- Know your location
- **STAY SAFE**
- If Gas, **EVACUATE AREA, CONTACT 911**
 - Secure area until first responders arrive
- Contact Colorado 811 to report damage
- Refer to **Reasonable Care Log** (for all requested information)

SERVICE CENTER REPRESENTATIVES

- | | | |
|----------------------|-----------------------|--|
| Cy Wagner | (303) 895-5252 | - South Denver Metro |
| Paul Hauck | (303) 502-0597 | - Northwest Metro |
| Heath Buster | (720) 253-9506 | - Denver Proper, HIP |
| Brad Yenter | (970) 216-9921 | - Western Slope |
| Kurt Emery | (303) 503-1470 | - Mountains |
| Chris Hendrix | (303) 356-8816 | - Northern Colorado
& Boulder |

After Hours Assistance - (303) 716-2030

