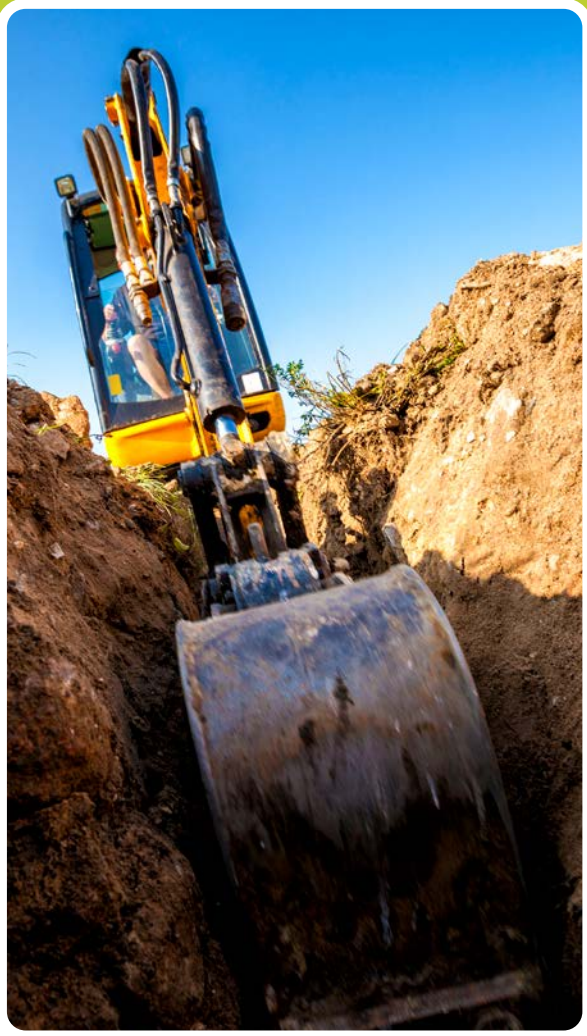

2023 COLORADO UNDERGROUND UTILITY DAMAGE REPORT

Annual summary report of Colorado underground facility damages based on data provided by the Common Ground Alliance (CGA) Damage Information Reporting Tool (DIRT).

Prepared by Michael Abla, Colorado 811

COLORADO 811
Know what's below. Contact 811 before you dig.

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PURPOSE

The underground facility damage data presented in this report originates from the Common Ground Alliance (CGA) DIRT tool reported data and is summarized and published by the Utility Notification Center of Colorado (UNCC), DBA "Colorado 811", as mandated by C.R.S. 9-1.5-103(7)(b)(c)(d) & 9-1.5-105(2.6) (a)(I) and (2.6) (b). This report is intended to be viewed by various Colorado stakeholders, including underground utility/facility owner/operators, locating/marking professionals, excavation, and construction sector stakeholders, industry associations, regulatory bodies, and the Colorado public.

Colorado 811 encourages the reader segments to use the presented data and analysis for positive change in underground utility safety and damage prevention efforts.

SUBMITTING DAMAGE DATA – INCIDENTS

Colorado facility owners and operators must adhere to state regulations and laws, which mandate the submission of underground facility damage details and corresponding data sets to the Common Ground Alliance (CGA) Damage Information Reporting Tool (DIRT) within 90-days of service restoration following any underground facility damage incident. Excavators are also obliged to report such damage as soon as possible and outline and post the damage(s) by contacting Colorado 811. The Utility Notification Center of Colorado, "Colorado 811", does not enforce or oversee accurate or timely damage data submission to DIRT or its corresponding data analysis as presented by DIRT.

To participate and submit your Colorado underground facility damage data via the online CGA DIRT tool submission, stakeholders must register at www.cga-DIRT.com.

CGA DIRT DATA

The Common Ground Alliance (CGA) and Colorado 811 urge industry stakeholders to submit facility damage information to DIRT as a central repository for this type of damage data within the parameters outlined in the corresponding Colorado laws and guidelines. **However, challenges and inaccuracies in the reported DIRT data set may occur based on data quality, timeliness, or quantity included in the analysis process, resulting in duplicate submissions from a variety of different entities for the same damage incident, encompassing data reported from facility owners, locators, excavators, government agencies, industry associations, loss recovery firms, and insurance companies**.

It is important to note that The Common Ground Alliance (CGA) initially aimed to analyze the data separately for each submitted data source to provide a diverse perspective on the same incident. Regrettably, CGA instead opted to aggregate all damage reports from various Colorado stakeholders, **leading to a previous significant overestimation of DIRT reported damages in the State of Colorado in the annually published CGA National Damage Report due to multiplication data submitted for the same incidents by various stakeholders.**

To minimize the duplication of data source issues, Colorado 811 discontinued submitting excavator related damage ticket data to the CGA DIRT tool and fully relies on external entity data submissions for its damage data analysis. Currently Colorado 811 only collects a limited data set of damage reporting data information for internal analysis and benchmarking purposes.

As a result, this report only focuses on data analysis of data provided by facility owner/operators directly to DIRT who submitted damage incident data directly to the CGA DIRT tool. It does not include any data collected directly by Colorado 811. Details on the specific data sets used in this report are outlined in the methodology sections.

DISCLAIMER

KEY FINDINGS

In 2023, CGA DIRT reported a total of 3,560 underground utility facility damages for Colorado, a -18% decrease from 2022, when damages may have peaked. This decline includes a sharp drop in telecommunications-related damages, which reportedly fell by 67%. **Despite the overall reported decrease, the data raises questions about reporting accuracy due to reliance on self-reported incidents by facility owners.**

DAMAGE TRENDS (2018-2023):

- Reported underground facility damages have generally fluctuated over the years, peaking at over 4,300+ in 2022 before dropping in 2023.
- The damages per 1,000 Colorado 811 tickets rate also fell to 2.9 from 4.0 in 2022

TELECOMMUNICATION FACILITY UNDERGROUND DAMAGES:

- The sharp drop in telecommunication damage significantly contributed to the overall decrease in state-wide damage. In 2022, telecommunication- related incidents spiked due to prominent levels of fiber work in the State of Colorado, but in 2023, the rate of telecom damages per 1,000 tickets dropped to 0.44 from 1.48 in 2022.
- With telecommunication damages declining, natural gas incidents have returned as the most frequently damaged facility type in the State per the reported DIRT data, with 1.3 damages per 1,000 tickets in 2023.

REPORTING CONCERNS:

- **Despite the reported improvement, the reliability of these DIRT data figures is questionable.** The DIRT system is reliant on voluntary submissions by facility owners, which means some incidents may go unreported. Colorado 811 acknowledges that Section 7 (a) and (b) of the Colorado Notification law asks that if damages to an underground facility meet or exceed the reporting threshold (zero) as established by UNCC, any owner or operator of the damaged underground facility shall provide the information within 90-days after the service has been restored via the acceptable reporting process into the DIRT tool. However, Colorado 811 does not have the authority or ability to monitor submissions or incident reports submitted to DIRT and therefore cannot guarantee that all damages are reported withing the outlined timeframe, into DIRT tool, or that data is submitted entirely or at all.
- For example, Colorado 811 ticket data revealed that 2023 was a record-breaking year for excavation activities (1.2 million Colorado 811 tickets processed, a 13% increase from 2022), especially related to fiber installation (311,000 Colorado 811 fiber-related tickets in 2023, a 137% increase from 2022); as a result, the decline in DIRT damages might not fully reflect the on-the-ground situation, or all occurrences of damages based on current industry trends.

(Continued)

BROADBAND EXPANSION AND FUTURE CHALLENGES:

- Colorado's broadband initiative, focused on connecting 99% of all households by 2027, has resulted in a spike in fiber focused excavation activities. This activity is expected to continue in the near future, posing challenges for accurate facility location and damage prevention, especially in rural areas where telecom facility damages remain higher.

DAMAGE CAUSES AND PREVENTION:

- A major contributor to underground facility damages continues to be the failure to notify Colorado 811 before excavation. "No Notification to 811" was cited in 20% of damage incidents, a trend that has remained consistent since 2018. In 2023, 27% of total reported damages involved no prior notification, a slight improvement from 32% in 2022.

CONCLUSION:

While the reported decrease in damages is encouraging, there are concerns about possible data submission gaps in the reported CGA DIRT data since it doesn't fully align with or support the data found by analyzing Colorado 811 ticket transmissions during the same timeframe. As excavation projects, particularly related to fiber installations ramp up, it is critical to enhance data reporting frequency and accuracy and promote awareness of safe excavation practices across the state. **This is particularly important in rural areas, where telecom damage remains disproportionately high.**

CGA DIRT DATA

The data source used for this analysis is collected and provided by the CGA DIRT Tool. To prepare the data for analysis, the following steps are conducted:

- Filter to Colorado incidents only
- Filter to underground damage incidents
- Filter to facility owner/operators reported incidents

The period for the data set is from 2018-2023, where the CGA DIRT current specification version (2018.0 Current) is used. Colorado 811 does not guarantee accuracy of the CGA DIRT data set.

METRIC DEFINITIONS

Damage: Any impact or exposure that results in the need to repair an underground facility due to weakening or the partial or complete destruction of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection, or housing for the line, device, or facility. There does not need to be a release of product.

Damages per 1K Tickets: A calculated rate defined by taking the reported types of damages divided by total Colorado 811 ticket volumes. Then the calculated number is multiplied by 1,000 to get a per 1K ticket rate.

DIRT: Damage Information Reporting Tool (DIRT), which is the data repository managed by CGA.

Facility Damage: The type of facility (e.g., gas, electricity, water, etc.) that is impacted by the damage incident.

Incident: A reported damage event entered into DIRT.

Population: All state and county population information obtained through U.S. Census data.

Rural vs. Urban County: This report defines an urban county where the population per square mile is equal or greater than the state average, which is based on 2023 U.S. Census estimates.

Ticket: A submitted request by either a homeowner or professional excavator to Colorado 811 for a utility locate prior to digging.

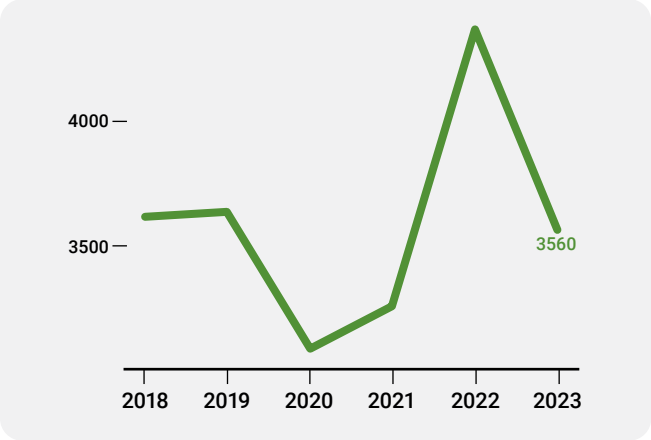
DECREASE IN STATE REPORTED DAMAGES

A total of 3,560 total underground facility damages were reported into the Common Ground Alliance (CGA) DIRT Tool for damages in 2023 in the State of Colorado; this represents an -18% decrease from 2022.

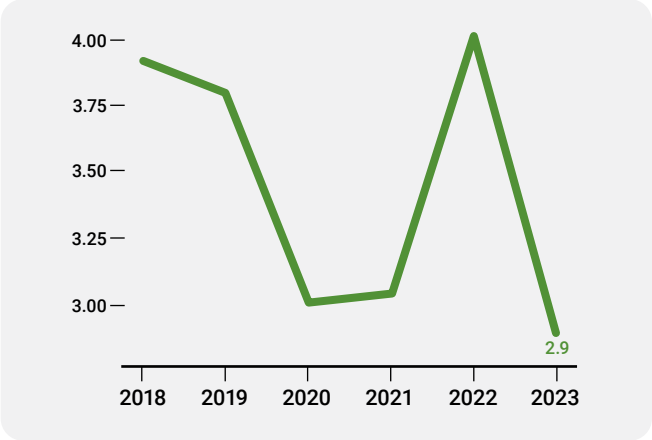
OVERALL TRENDING

As shown in the two charts and table below, reported Colorado underground facility damages captured in the CGA DIRT tool in 2023 decreased in both overall volume and per 1K ticket rate compared to last year's peak.

2018-2023 Total Damages



2018-2023 Total Damages per 1K Tickets



2018-2023 Total Damage Table

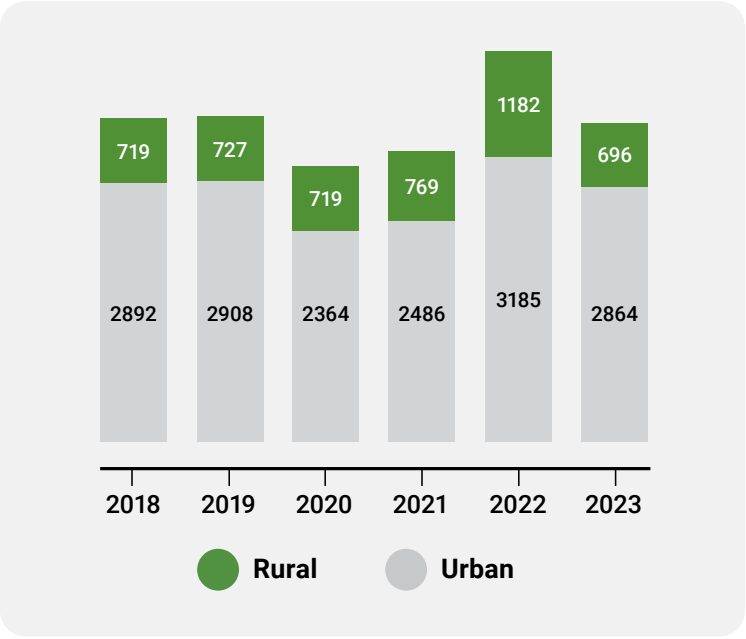
METRIC	2018	2019	2020	2021	2022	2023
Total Underground Facility Reported Damages	3,591	3,631	3,077	3,249	4,349	3,560
Total Colorado 811 Tickets (in thousands)	920K	955K	1,024K	1,063K	1,089K	1,233K
Damages per 1K Tickets Rate	3.9	3.8	3.0	3.1	4.0	2.9

URBAN VS. RURAL COUNTY REPORTED DAMAGES

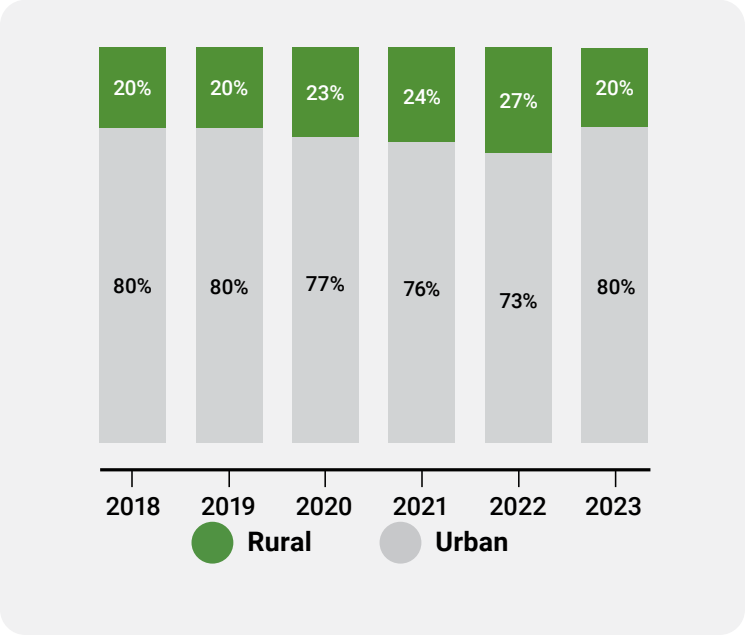
Four out of five damages reported into the DIRT tool for Colorado are from urban counties. Both urban and rural counties experienced damage declines from the prior year; however, rural counties had a greater decline in reported damages (-41% vs. 2022).

Even though most excavation projects occur in urban counties, it is important to continue to prioritize safety excavation practices and 811 awareness across all state levels, not exclusively in urban areas. (See charts below for detailed information on reported damages by urban and rural counties.)

2018-2023 Total Damages by Urban/Rural Counties



2018-2023 % of Total Damages by Urban/Rural Co.



SHARP DECLINE ON REPORTED DIRT TELECOM FACILITY DAMAGES

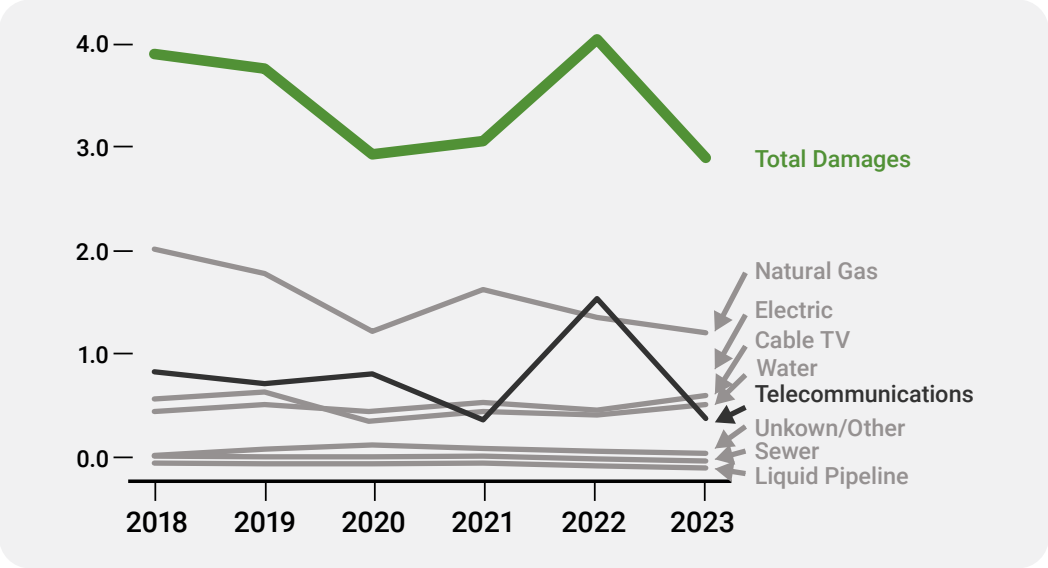
The overall State decrease in reported DIRT tool underground damages for 2023 is due to a -67% year-over-year drop in reported telecommunication facility incidents (548 damages in 2023 compared to 1,681 total damages in 2022).

OVERALL TRENDING

The overall State decrease in 2023 YoY reported underground damages by DIRT was primarily due to lower damages associated with telecommunication facilities according to facility owner submitted incidents to DIRT. This is a reversal from 2022 where telecom damages experienced a spike in 2022 (0.44 damagers per 1K tickets in 2023 compared to 1.48 in 2022).

Due to the decline associated with telecom, DIRT reports that natural gas is once again the highest occurrence of facility underground damage (1.3 damages per 1K tickets in 2023 compared to 1.48 in 2022). Electric (0.56 damages per 1,000 tickets) and Cable TV (0.43 damages per 1,000 tickets) completed the top four (See chart and table below for reference).

2018-2023 Total Damages per 1K Tickets by Facility Type



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2018-2023 Total Damage per 1K Tickets by Facility Type Table

METRIC	2018	2019	2020	2021	2022	2023
Natural Gas	2.01	1.80	1.27	1.63	1.48	1.30
Telecommunications	0.82	0.72	0.8	0.41	1.54	0.44
Electric	0.57	0.62	0.37	0.49	0.45	0.56
Cable TV	0.44	0.5	0.41	0.39	0.38	0.43
Water	0.05	0.11	0.13	0.09	0.09	0.09
Sewer	0.01	0.03	0.01	0.03	0.02	0.02
Unknown/Other	0.01	0.01	0.01	0.01	0.03	0.03
Liquid Pipeline	0	0	0	0	0.01	0
Total Damages	**3.92**	**3.80**	**3.01**	**3.1**	**4.01**	**2.89**

THE DIRT REPORT SHOWS A DECLINE IN 2023 OVERALL & TELECOM UNDERGROUND DAMAGES.

This Data Interpretation Results Seems Questionable!

The sharp 2023 decrease in overall underground damages (-18% vs. 2022) and with telecommunication facilities (-67% vs. 2022) reported in DIRT would suggest significant and quick improvements were made in damage prevention efforts helped to decrease state-wide damages in Colorado. In theory, this decline would signal a tremendous achievement especially in comparison to 2022 results, which was the highest amount of damages reported in a year of underground damage volume since 2018.

In response, one must remember that the DIRT data collection effort is not 100% complete and accurate – I.e., not every utility in the State of Colorado reports all damage data on time, at the same time, every time, or provides a fully complete data set each time. The DIRT data collection effort solely dependent on all facility owners and operators' submission of underground facility damage incidents on a regular basis with a completed data set. Even though it is a requirement under Colorado state law, there is currently no oversight mechanism of compliance with the Colorado law, or a guarantee issued that all utilities report on time, each time, with an accurate data set.

If a damage incident goes unreported or is not submitted to the DIRT tool, then the damage report data associated with it is not reflected in the raw data or analysis. ***Unfortunately, the absence of a complete data set or lack in accuracy oversight of the submitted data is an all-too-common occurrence each year and there are other data points collected by Colorado 811 that in fact suggest that 2023 was an extremely busy year for the industry, especially for fiber excavation and that the DIRT reported improvement data may not be complete and consequently might caution one to consider a lack of degree in the data analysis confidence of the DIRT report.***

For example. 2023 showed an all-time high in terms of Excavator driven Locate Requests submitted to Colorado 811 (1.2M total Tickets processed in 2023; 13% increase vs. 2022), which was primarily driven by a surge in Fiber related excavation work (311K tickets in 2023; 137% increase vs. 2022).

Due to a record volume of Excavator and Fiber activity and no notable changes made in the State laws within the past year, an increase in underground facility damages would have been expected for 2023. Yet, the data in DIRT does not reflect that, which suggests unreported underground damage incidents continue to be a challenge within the DIRT potentially causing data gaps and misinterpretations in the analysis with industry-wide reporting.

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COLORADO BROADBAND GOALS RESULTING IN INCREASED FIBER EXCAVATION

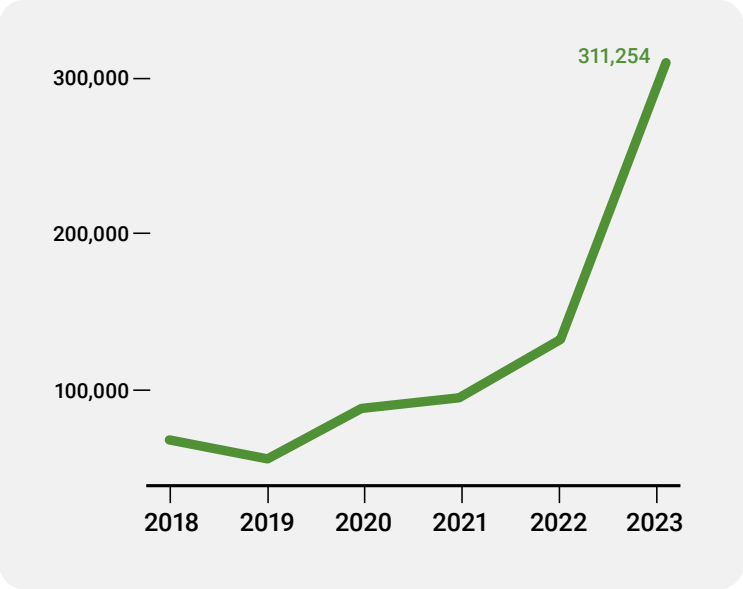
The Broadband sector data needs to be closely monitored due to the state's goal to connect 99% of households to high-speed broadband by 2027 (current coverage is at 93.5% in 2023). Federal funding from the Broadband Equity and Deployment (BEAD) of the 2021 Infrastructure Law is facilitating this effort, leading to increased spending on excavating and laying Fiber lines across all communities in the state.

Fiber-to-the-home projects are encountering various older telecom facility types, posing challenges in locating the lines during the installation of new Fiber lines. This process has led to an increase in the complexity of locate requests, placing additional strain on already overwhelmed locate technicians and the industry.

This trend is supported by data gathered from Colorado 811 tickets, showing where Fiber work type tickets more than doubled from prior year reaching a total of 311K total tickets (137% increase in 2023 vs. 2022).

In addition, the increased Fiber excavation is also illustrated in the DIRT report when reviewing work performed; historically collecting this data is a challenge since over a quarter of all entries from facility owners and operators do not identify this information when submitting underground facility damage incidents. However, for 2023, data collection appears to be improving where telecommunications are now the leading identified type of work performed for DIRT reported damage incidents (28% of total) followed by Unknown/Other (25%). The next leading type of work performed is electric (8%), water (6%), and landscaping (5%). Refer to the chart below for further details.

2018-2023 Total CO811 Fiber Work Type Tickets



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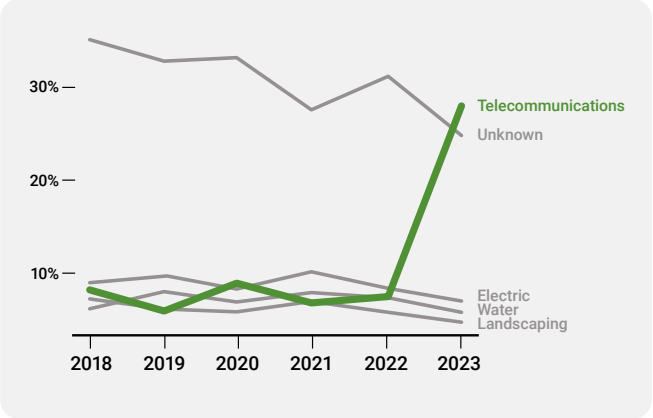
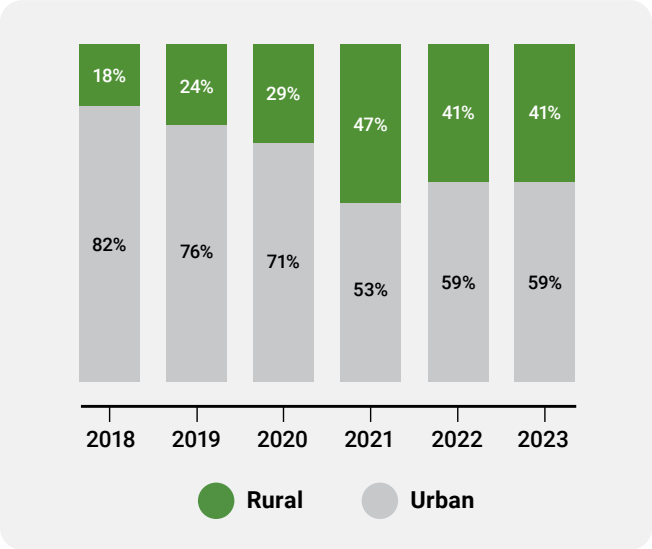
COLORADO BROADBAND GOALS RESULTING IN INCREASED FIBER EXCAVATION

2018-2023 Top 5 Damages by Work Performed



2018-2023 % of Total Telecom Damages in Urban/Rural Counties



The incidence of underground facility damage due to Telecom excavation is expected to remain elevated if spending persists to meet the State's Broadband goals by 2027.

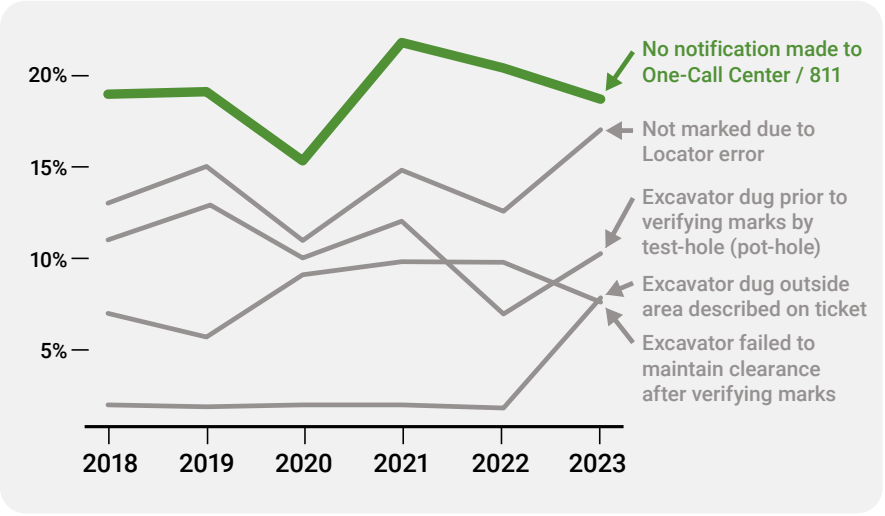
Continuing efforts to raise awareness and educate on excavation best practices, particularly in rural communities where many of these projects have and will be taking place, is crucial. The accompanying charts highlight how 41% of all Telecom facility damages are reported inrural counties, a higher rate compared to overall damages where rural counties accounted for 29% of all incidents reported in 2020, which is before when the broadband government subsidies began.

"NO NOTIFICATION TO COLORADO 811" CONTINUES TO BE LEADING CAUSE OF DAMAGES

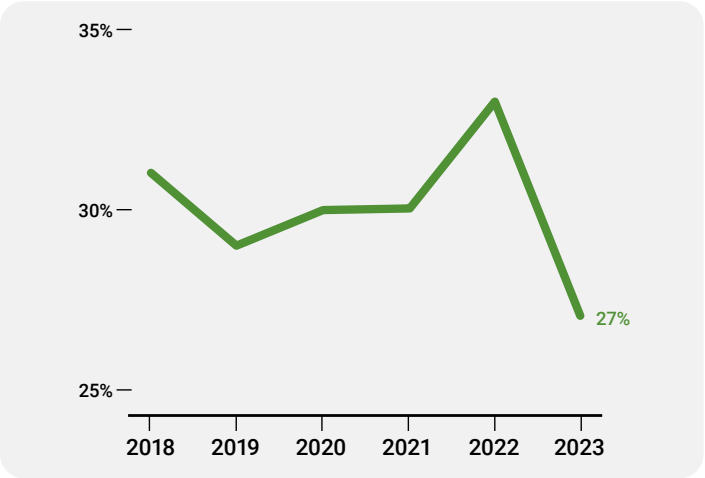
One-in-five underground facility owner submitted damages in DIRT listed that the damage cause was due to 'No notification made to One-Call Center/811' making it the leading root cause of damages occurring in Colorado. 'No notification made to 811' has been the leading cause of damage since 2018 when excluding incidents that did not list a root cause.

When reviewing all underground damage incidents that indicated whether 811 was notified prior to any excavation, roughly a third (27%) specified no initial 811 notification was made, which is a decrease from 2022 where 32% of all reported damages indicated no 811 notifications were made.

2018-2023 Top 5 Reported Damage Causes



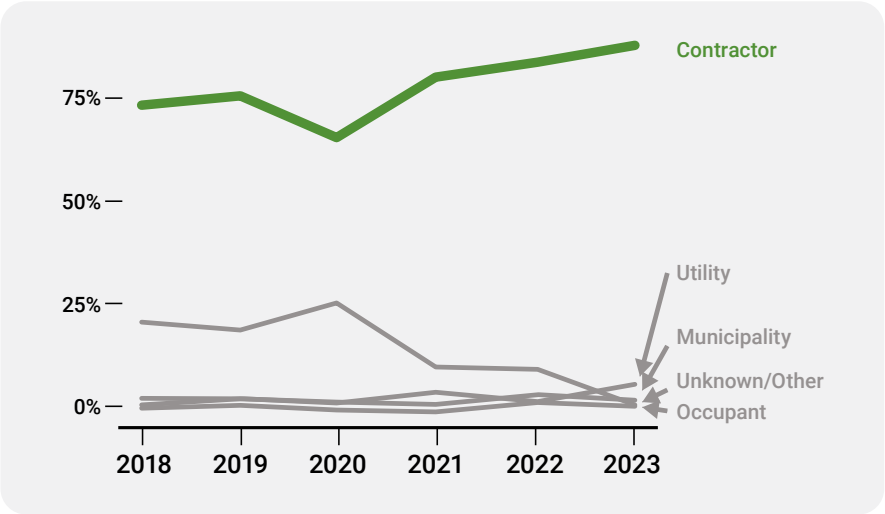
2018-2023 % of Total Damages without 811 Notification



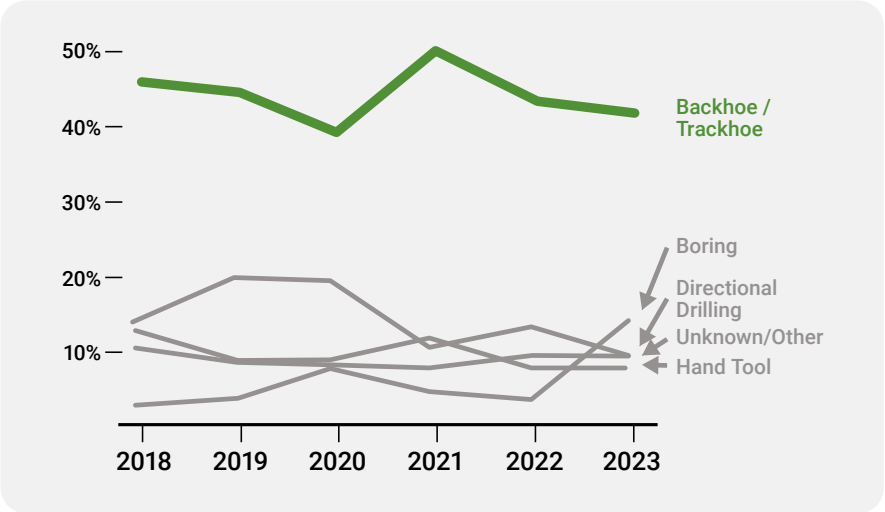
EXCAVATOR TYPE AND EXCAVATING EQUIPMENT DAMAGES

No notable changes were seen when looking at trending by Excavator and excavating equipment type related damages. Most damages being reported in DIRT for excavation types are from contractors (88% of total). For excavation equipment, backhoe/ trackhoe makes up two out of five (43%) of all excavation equipment used in reported damages.

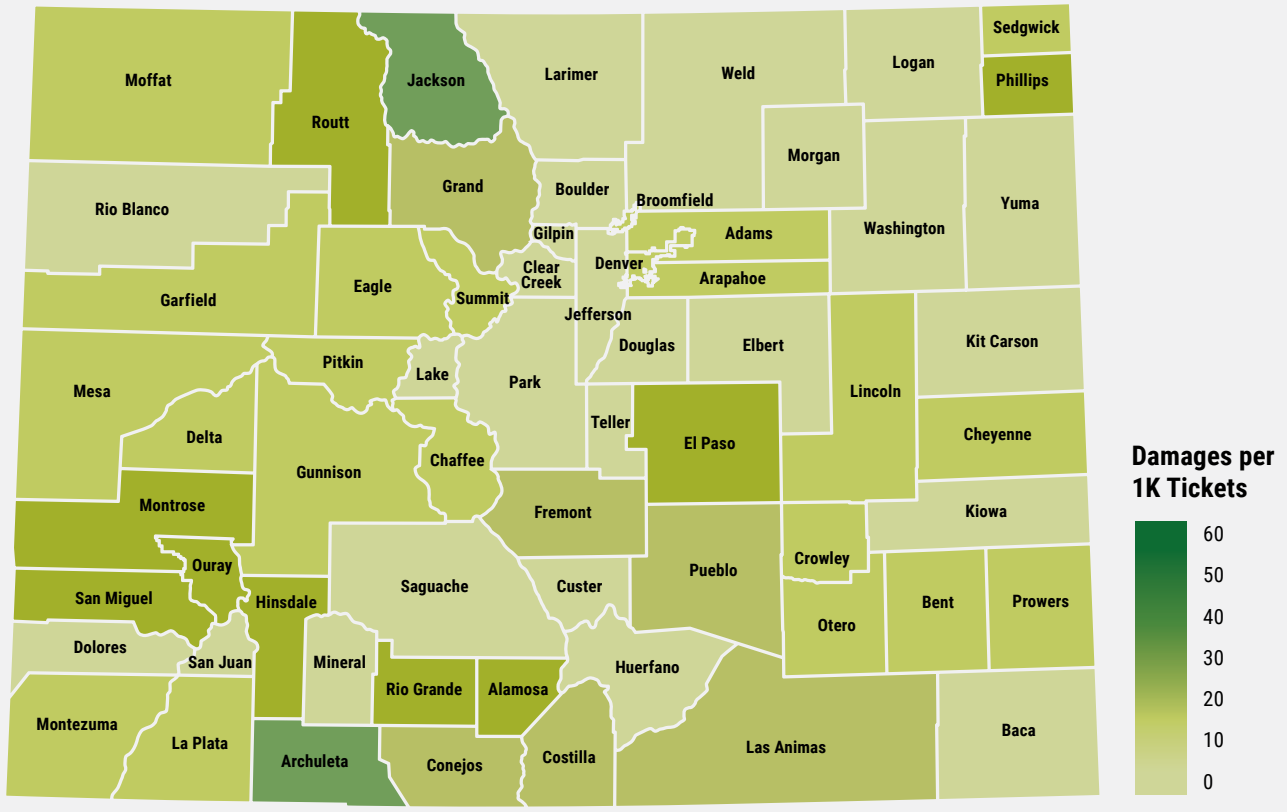
2018-2022 Top 5 Damages by Excavator Type



2018-2022 Top 5 Damages by Excavating Equipment



COLORADO MAP OF DIRT TOOL UNDERGROUND REPORTED FACILITY DAMAGES PER 1K TICKETS BY COUNTY



REPORTED DAMAGES BY COUNTY

County	County Type	Population	Total Tickets	Pop. per Sq Mi	Pop. per Ticket	Damages	% of Damages without One Call/811	Damages per 1K Tickets
Adams	Urban	533,365	122,258	456.8	4.4	219	25%	1.8
Alamosa	Rural	16,655	1,383	23.0	12.0	11	36%	8.0
Arapahoe	Urban	656,061	148,062	822.0	4.4	409	21%	2.8
Archuleta	Rural	14,189	2,859	10.5	5.0	35	31%	12.2
Baca	Rural	3,344	828	1.3	4.0	-	-	-
Bent	Rural	5,681	569	3.8	10.0	1	100%	1.8
Boulder	Urban	326,831	78,290	450.0	4.2	151	25%	1.9
Broomfield	Urban	76,860	12,609	2,327.0	6.1	10	30%	0.8
Chaffee	Rural	20,617	3,612	20.3	5.7	12	83%	3.3
Cheyenne	Rural	1,727	803	1.0	2.2	1	100%	1.3
Clear Creek	Rural	9,147	2,246	23.1	4.1	3	33%	1.3
Conejos	Rural	7,521	1,207	5.8	6.2	6	50%	5.0
Costilla	Rural	3,628	412	3.0	8.8	2	50%	4.9
Crowley	Rural	5,636	608	7.2	9.3	2	50%	3.3
Custer	Rural	5,534	890	7.5	6.2	1	0%	1.1
Delta	Rural	31,746	4,925	27.8	6.4	22	32%	4.5
Denver	Urban	716,577	142,820	4,683.5	5.0	369	26%	2.6
Dolores	Rural	2,513	452	2.4	5.6	-	-	-
Douglas	Urban	383,906	80,132	456.9	4.8	160	45%	2.0
Eagle	Rural	54,381	8,021	32.3	6.8	26	65%	3.2
Elbert	Rural	28,806	8,431	15.6	3.4	17	29%	2.0
El Paso	Urban	744,215	131,070	349.9	5.7	818	20%	6.2
Fremont	Rural	50,318	4,447	32.8	11.3	23	39%	5.2
Garfield	Rural	62,707	8,129	21.3	7.7	37	30%	4.6
Gilpin	Rural	5,926	788	39.5	7.5	1	100%	1.3
Grand	Rural	15,935	4,600	8.6	3.5	30	27%	6.5
Gunnison	Rural	17,321	3,339	5.3	5.2	17	53%	5.1
Hinsdale	Rural	765	353	0.7	2.2	3	0%	8.5
Huerfano	Rural	7,055	1,556	4.4	4.5	1	100%	0.6
Jackson	Rural	1,309	305	0.8	4.3	4	0%	13.1
Jefferson	Urban	576,366	110,888	754.2	5.2	251	26%	2.3
Kiowa	Rural	1,384	1,289	0.8	1.1	-	-	-
Kit Carson	Rural	6,994	2,910	3.2	2.4	-	-	-
Lake	Rural	7,365	2,690	19.5	2.7	3	33%	1.1
La Plata	Rural	56,407	9,867	33.3	5.7	48	44%	4.9
Larimer	Urban	370,771	81,976	142.8	4.5	201	21%	2.5
Las Animas	Rural	14,348	1,679	3.0	8.5	9	56%	5.4
Lincoln	Rural	5,480	2,112	2.1	2.6	4	0%	1.9
Logan	Rural	20,619	3,477	11.2	5.9	4	50%	1.2
Mesa	Rural	159,681	29,262	48.0	5.5	110	29%	3.8
Mineral	Rural	944	331	1.1	2.9	-	-	-
Moffat	Rural	13,327	2,461	2.8	5.4	11	36%	4.5
Montezuma	Rural	26,531	2,847	13.1	9.3	16	50%	5.6
Montrose	Rural	44,156	8,357	19.7	5.3	66	32%	7.9
Morgan	Rural	29,524	4,685	23.1	6.3	8	50%	1.7

REPORTED DAMAGES BY COUNTY

(Continued)

County	County Type	Population	Total Tickets	Pop. per Sq Mi	Pop. per Ticket	Damages	% of Damages without One Call/811	Damages per 1K Tickets
Otero	Rural	18,136	2,035	14.4	8.9	5	60%	2.5
Ouray	Rural	5,176	2,211	9.6	2.3	18	17%	8.1
Park	Rural	18,117	3,920	8.3	4.6	6	33%	1.5
Phillips	Rural	4,476	652	6.5	6.9	3	0%	4.6
Pitkin	Rural	16,640	2,758	17.1	6.0	14	29%	5.1
Prowers	Rural	11,751	1,514	7.2	7.8	3	100%	2.0
Pueblo	Urban	169,422	25,603	71.0	6.6	120	26%	4.7
Rio Blanco	Rural	6,569	1,764	2.0	3.7	2	50%	1.1
Rio Grande	Rural	11,188	1,466	12.3	7.6	10	20%	6.8
Routt	Rural	25,064	4,670	10.6	5.4	39	49%	8.4
Saguache	Rural	6,688	1,310	2.1	5.1	1	0%	0.8
San Juan	Rural	802	126	2.1	6.4	-	-	-
San Miguel	Rural	7,868	1,671	6.1	4.7	16	62%	9.6
Sedgwick	Rural	2,299	693	4.2	3.3	2	0%	2.9
Summit	Rural	30,465	10,318	50.1	3.0	37	30%	3.6
Teller	Rural	24,617	6,664	44.2	3.7	5	40%	0.8
Washington	Rural	4,855	1,517	1.9	3.2	1	100%	0.7
Weld	Urban	359,442	121,504	90.1	3.0	156	22%	1.3
Yuma	Rural	9,862	1,778	4.2	5.5	-	-	-
COLORADO		**5,877,610**	**1,233,009**	**56.7**	**4.8**	**3,560**	**27%**	**2.9**

REPORTED DAMAGES BY FACILITY TYPE

FACILITY DAMAGE	2018, N = 3,611[1]	2019, N = 3,635[1]	2020, N = 3,083[1]	2021, N = 3,255[1]	2022, N = 4,367[1]	2023, N = 3,560[1]
Natural Gas	1,855 (51%)	1,726 (47%)	1,305 (42%)	1,734 (53%)	1,612 (37%)	1,608 (45%)
Telecommunications	757 (21%)	688 (19%)	824 (27%)	439 (13%)	1,681 (38%)	548 (15%)
Electric	523 (14%)	598 (16%)	381 (12%)	519 (16%)	487 (11%)	696 (20%)
Cable TV	408 (11%)	478 (13%)	417 (14%)	419 (13%)	419 (9.6%)	536 (15%)
Water	47 (1.3%)	110 (3.0%)	135 (4.4%)	96 (2.9%)	93 (2.1%)	108 (3.0%)
Sewer	8 (0.2%)	25 (0.7%)	9 (0.3%)	31 (1.0%)	25 (0.6%)	25 (0.7%)
Unknown/Other	10 (0.3%)	6 (0.2%)	8 (0.3%)	13 (0.4%)	34 (0.8%)	37 (1.0%)
Liquid Pipeline	3 (<0.1%)	4 (0.1%)	4 (0.1%)	4 (0.1%)	16 (0.4%)	2 (<0.1%)

[1]n (%)

REPORTED DAMAGES BY EXCAVATOR TYPE

EXCAVATOR TYPE	2018, N = 3,611[1]	2019, N = 3,635[1]	2020, N = 3,083[1]	2021, N = 3,255[1]	2022, N = 4,367[1]	2023, N = 3,560[1]
Contractor	2,665 (74%)	2,747 (76%)	2,066 (67%)	2,632 (81%)	3,630 (83%)	3,131 (88%)
Unknown/Other	771 (21%)	685 (19%)	769 (25%)	353 (11%)	435 (10.0%)	67 (1.9%)
Utility	28 (0.8%)	55 (1.5%)	74 (2.4%)	129 (4.0%)	96 (2.2%)	164 (4.6%)
Occupant	84 (2.3%)	90 (2.5%)	116 (3.8%)	104 (3.2%)	85 (1.9%)	63 (1.8%)
Municipality	22 (0.6%)	20 (0.6%)	24 (0.8%)	13 (0.4%)	89 (2.0%)	110 (3.1%)
Developer	22 (0.6%)	21 (0.6%)	20 (0.6%)	11 (0.3%)	13 (0.3%)	6 (0.2%)
Farmer	9 (0.2%)	8 (0.2%)	8 (0.3%)	8 (0.2%)	7 (0.2%)	9 (0.3%)
County	8 (0.2%)	8 (0.2%)	6 (0.2%)	4 (0.1%)	10 (0.2%)	10 (0.3%)
State	0 (0%)	1 (<0.1%)	0 (0%)	1 (<0.1%)	2 (<0.1%)	0 (0%)
Railroad	2 (<0.1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

[1]n (%)

REPORTED DAMAGES BY EXCAVATION EQUIPMENT

EXCAVATION EQUIPMENT	2018, N = 3,611[1]	2019, N = 3,635[1]	2020, N = 3,083[1]	2021, N = 3,255[1]	2022, N = 4,367[1]	2023, N = 3,560[1]
Backhoe/Trackhoe	1,655 (46%)	1,638 (45%)	1,239 (40%)	1,639 (50%)	1,951 (45%)	1,515 (43%)
Unknown/Other	519 (14%)	730 (20%)	613 (20%)	353 (11%)	590 (14%)	404 (11%)
Hand Tools	383 (11%)	340 (9.4%)	317 (10%)	387 (12%)	445 (10%)	367 (10%)
Directional Drilling	461 (13%)	326 (9.0%)	293 (9.5%)	289 (8.9%)	467 (11%)	390 (11%)
Boring	125 (3.5%)	161 (4.4%)	253 (8.2%)	196 (6.0%)	227 (5.2%)	453 (13%)
Trencher	214 (5.9%)	185 (5.1%)	165 (5.4%)	164 (5.0%)	279 (6.4%)	138 (3.9%)
Auger	157 (4.3%)	143 (3.9%)	108 (3.5%)	130 (4.0%)	204 (4.7%)	108 (3.0%)
Grader/Scraper	60 (1.7%)	56 (1.5%)	33 (1.1%)	45 (1.4%)	121 (2.8%)	53 (1.5%)
Drilling	2 (<0.1%)	8 (0.2%)	23 (0.7%)	7 (0.2%)	32 (0.7%)	79 (2.2%)
Bulldozer	9 (0.2%)	25 (0.7%)	21 (0.7%)	15 (0.5%)	17 (0.4%)	29 (0.8%)
Vacuum Equipment	4 (0.1%)	7 (0.2%)	10 (0.3%)	12 (0.4%)	7 (0.2%)	14 (0.4%)
Probing Device	10 (0.3%)	11 (0.3%)	4 (0.1%)	13 (0.4%)	8 (0.2%)	6 (0.2%)
Farm Equipment	11 (0.3%)	4 (0.1%)	4 (0.1%)	4 (0.1%)	15 (0.3%)	3 (<0.1%)
Milling Equipment	1 (<0.1%)	1 (<0.1%)	0 (0%)	1 (<0.1%)	4 (<0.1%)	0 (0%)
Explosives	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (<0.1%)

[1]n (%)

REPORTED DAMAGES BY WORK PERFORMED

WORK PERFORMED	2018, N = 3,611[1]	2019, N = 3,635[1]	2020, N = 3,083[1]	2021, N = 3,255[1]	2022, N = 4,367[1]	2023, N = 3,560[1]
Unknown/Other	1,258 (35%)	1,209 (33%)	1,023 (33%)	925 (28%)	1,337 (31%)	880 (25%)
Telecommunications	284 (7.9%)	223 (6.1%)	267 (8.7%)	231 (7.1%)	298 (6.8%)	991 (28%)
Electric	343 (9.5%)	313 (8.6%)	259 (8.4%)	327 (10%)	384 (8.8%)	282 (7.9%)
Water	216 (6.0%)	290 (8.0%)	230 (7.5%)	267 (8.2%)	330 (7.6%)	215 (6.0%)
Landscaping	236 (6.5%)	226 (6.2%)	200 (6.5%)	239 (7.3%)	251 (5.7%)	192 (5.4%)
Natural Gas	200 (5.5%)	220 (6.1%)	183 (5.9%)	214 (6.6%)	235 (5.4%)	182 (5.1%)
Sewer	164 (4.5%)	217 (6.0%)	189 (6.1%)	200 (6.1%)	218 (5.0%)	120 (3.4%)
Cable TV	119 (3.3%)	123 (3.4%)	140 (4.5%)	159 (4.9%)	221 (5.1%)	102 (2.9%)
Fencing	147 (4.1%)	163 (4.5%)	132 (4.3%)	96 (2.9%)	176 (4.0%)	54 (1.5%)
Pole	98 (2.7%)	109 (3.0%)	61 (2.0%)	99 (3.0%)	100 (2.3%)	109 (3.1%)
Grading	118 (3.3%)	91 (2.5%)	40 (1.3%)	89 (2.7%)	123 (2.8%)	86 (2.4%)
Road Work	112 (3.1%)	91 (2.5%)	53 (1.7%)	62 (1.9%)	149 (3.4%)	55 (1.5%)
Bldg. Construction	52 (1.4%)	73 (2.0%)	69 (2.2%)	86 (2.6%)	138 (3.2%)	56 (1.6%)
Irrigation	59 (1.6%)	48 (1.3%)	60 (1.9%)	76 (2.3%)	59 (1.4%)	55 (1.5%)
Curb/Sidewalk	39 (1.1%)	44 (1.2%)	46 (1.5%)	34 (1.0%)	80 (1.8%)	54 (1.5%)
Storm Drain/Culvert	44 (1.2%)	46 (1.3%)	27 (0.9%)	45 (1.4%)	75 (1.7%)	16 (0.4%)
Driveway	45 (1.2%)	34 (0.9%)	20 (0.6%)	28 (0.9%)	50 (1.1%)	39 (1.1%)
Drainage	32 (0.9%)	37 (1.0%)	40 (1.3%)	16 (0.5%)	15 (0.3%)	20 (0.6%)
Site Development	16 (0.4%)	12 (0.3%)	11 (0.4%)	17 (0.5%)	47 (1.1%)	13 (0.4%)
Street Light	5 (0.1%)	36 (1.0%)	11 (0.4%)	21 (0.6%)	28 (0.6%)	11 (0.3%)
Bldg. Demolition	11 (0.3%)	10 (0.3%)	5 (0.2%)	9 (0.3%)	13 (0.3%)	11 (0.3%)
Agriculture	2 (<0.1%)	1 (<0.1%)	5 (0.2%)	2 (<0.1%)	7 (0.2%)	6 (0.2%)
Liquid Pipeline	6 (0.2%)	5 (0.1%)	5 (0.2%)	4 (0.1%)	2 (<0.1%)	1 (<0.1%)
Waterway Improvement	0 (0%)	6 (0.2%)	3 (<0.1%)	5 (0.2%)	4 (<0.1%)	3 (<0.1%)
Traffic Sign	2 (<0.1%)	1 (<0.1%)	2 (<0.1%)	0 (0%)	15 (0.3%)	0 (0%)
Engineering/Surveying	0 (0%)	2 (<0.1%)	1 (<0.1%)	1 (<0.1%)	8 (0.2%)	3 (<0.1%)
Traffic Signal	2 (<0.1%)	3 (<0.1%)	0 (0%)	3 (<0.1%)	1 (<0.1%)	0 (0%)
Steam	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (<0.1%)	2 (<0.1%)
Milling	1 (<0.1%)	1 (<0.1%)	1 (<0.1%)	0 (0%)	0 (0%)	0 (0%)
Public Transit Authority	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (<0.1%)	1 (<0.1%)
Railroad	0 (0%)	1 (<0.1%)	0 (0%)	0 (0%)	0 (0%)	1 (<0.1%)

[1]n (%)

REPORTED DAMAGES BY DAMAGE CAUSE

OUTAGE DURATION HRS	2018, N = 3,611[1]	2019, N = 3,635[1]	2020, N = 3,083[1]	2021, N = 3,255[1]	2022, N = 4,367[1]	2023, N = 3,560[1]
No notification made to One-Call Center / 811	674 (19%)	684 (19%)	507 (16%)	729 (22%)	916 (21%)	685 (19%)
Root Cause not listed above (comment required)	798 (22%)	703 (19%)	888 (29%)	380 (12%)	330 (7.6%)	211 (5.9%)
Not marked due to Locator error	461 (13%)	548 (15%)	335 (11%)	480 (15%)	586 (13%)	623 (18%)
Excavator dug prior to verifying marks by test-hole (pothole)	406 (11%)	466 (13%)	300 (9.7%)	383 (12%)	316 (7.2%)	367 (10%)
Excavator failed to maintain clearance after verifying marks	267 (7.4%)	207 (5.7%)	279 (9.0%)	325 (10.0%)	432 (9.9%)	292 (8.2%)
Marked inaccurately due to Locator error	324 (9.0%)	217 (6.0%)	114 (3.7%)	128 (3.9%)	202 (4.6%)	174 (4.9%)
Improper excavation practice not listed above	148 (4.1%)	225 (6.2%)	80 (2.6%)	218 (6.7%)	194 (4.4%)	291 (8.2%)
Marks faded, lost, or not maintained	118 (3.3%)	159 (4.4%)	114 (3.7%)	118 (3.6%)	140 (3.2%)	137 (3.8%)
Excavator dug outside area described on ticket	59 (1.6%)	74 (2.0%)	57 (1.8%)	57 (1.8%)	109 (2.5%)	279 (7.8%)
Excavator failed to protect/shore/ support facilities	49 (1.4%)	45 (1.2%)	36 (1.2%)	63 (1.9%)	295 (6.8%)	51 (1.4%)
No response from operator/contract locator	8 (0.2%)	9 (0.2%)	51 (1.7%)	19 (0.6%)	390 (8.9%)	43 (1.2%)
Excavator dug prior to valid start date/time	51 (1.4%)	53 (1.5%)	60 (1.9%)	75 (2.3%)	145 (3.3%)	129 (3.6%)
Excavator dug after valid ticket expired	56 (1.6%)	50 (1.4%)	38 (1.2%)	68 (2.1%)	91 (2.1%)	73 (2.1%)
Not marked due to Incorrect facility records/maps	85 (2.4%)	63 (1.7%)	44 (1.4%)	48 (1.5%)	45 (1.0%)	59 (1.7%)
Marked inaccurately due to Incorrect facility record/maps	11 (0.3%)	17 (0.5%)	55 (1.8%)	24 (0.7%)	40 (0.9%)	21 (0.6%)
Site marked but incomplete at damage location	18 (0.5%)	21 (0.6%)	24 (0.8%)	36 (1.1%)	33 (0.8%)	34 (1.0%)
Unlocatable facility	21 (0.6%)	24 (0.7%)	30 (1.0%)	22 (0.7%)	32 (0.7%)	26 (0.7%)
Marked inaccurately due to Tracer wire issue	12 (0.3%)	12 (0.3%)	17 (0.6%)	17 (0.5%)	12 (0.3%)	12 (0.3%)
Not marked due to Tracer wire issue	13 (0.4%)	4 (0.1%)	21 (0.7%)	18 (0.6%)	16 (0.4%)	7 (0.2%)
Excavator provided incorrect notification information	12 (0.3%)	5 (0.1%)	5 (0.2%)	17 (0.5%)	14 (0.3%)	20 (0.6%)
Not marked due to Abandoned facility	6 (0.2%)	6 (0.2%)	6 (0.2%)	7 (0.2%)	11 (0.3%)	10 (0.3%)
Marked inaccurately due to Abandoned Facility	5 (0.1%)	4 (0.1%)	8 (0.3%)	14 (0.4%)	5 (0.1%)	4 (0.1%)
Deteriorated facility	1 (<0.1%)	23 (0.6%)	1 (<0.1%)	2 (<0.1%)	5 (0.1%)	4 (0.1%)
Previous damage	5 (0.1%)	11 (0.3%)	6 (0.2%)	6 (0.2%)	5 (0.1%)	3 (<0.1%)
Improper backfilling	3 (<0.1%)	4 (0.1%)	7 (0.2%)	1 (<0.1%)	2 (<0.1%)	5 (0.1%)
One-Call Center error	0 (0%)	1 (<0.1%)	0 (0%)	0 (0%)	1 (<0.1%)	0 (0%)

[1]n (%)

REPORTED DURATION HOURS

OUTAGE DURATION HRS	2018, N = 3,611	2019, N = 3,635	2020, N = 3,083	2021, N = 3,255	2022, N = 4,367	2023, N = 3,560
Mean, Median, (IQR)	15, 1, (0, 12)	16, 1, (0, 20)	20, 1, (0, 20)	36, 1, (1, 20)	2, 0, (0, 1)	2, 1, (1, 1)
Range	0, 1,300	0, 720	0, 5,016	0, 9,999	0, 240	0, 48
Unknown	2,590	2,623	1,954	2,546	2,674	2,877

REPORTED FACILITY DEPTH (INCHES)

FACILITY DEPTH INCHES	2018, N = 3,611	2019, N = 3,635	2020, N = 3,083	2021, N = 3,255	2022, N = 4,367	2023, N = 3,560
Mean, Median, (IQR)	7, 1, (1, 1)	8, 1, (1, 1)	11, 1, (1, 20)	10, 1, (1, 18)	9, 1, (1, 18)	8, 1, (1, 18)
Range	0, 120	0, 96	0, 120	0, 120	0, 96	0, 84
Unknown	1,609	1,603	1,561	829	2,357	1,187

Utility Notification Center of Colorado

16361 Table Mountain Pkwy
Golden, CO, 80403

303-232-1991

Email: **administrator@co811.org**

Monday through Friday
7am to 5pm MST
Open 24x7 for Emergency and Damage Requests.

For more information or to enter a
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