



Gold Shovel Standard®

Prevent. Empower. Protect.

Excavator Enrollment Guide

Welcome to Gold Shovel Standard (GSS), a program designed to help excavators better measure success in safety when excavating around buried infrastructure, and to participate with industry to create standardized measurements for that success.

Gold Shovel Standard (GSS) is a nonprofit organization committed to improving workforce and public safety and the integrity of buried infrastructure. GSS believes that greater transparency in all aspects of damage prevention among buried-asset operators, locators and excavators is essential to drive continuous improvement, and vital to increasingly safe working conditions and communities.

The vision of Gold Shovel Standard is a safer North America, achieved by greater transparency in damage prevention performance, through the use of performance measurements, technology, and universal participation in the one-call process. Furthermore, Gold Shovel Standard Communities are safer, and infrastructure buried below Gold Shovel Standard Communities is at reduced risk from line strikes.

Gold Shovel Standard focuses on metrics, creating Gold Shovel Standard Communities and increasing the use of innovative technology and safety management systems.

Standardized damage prevention measurements are a key part of the GSS mission, and the establishment and broad deployment of metrics are core components of Gold Shovel Standard's efforts to improve public and workforce safety. Gold Shovel Standard believes that no significant reduction in damages will be obtained unless all responsible parties (operators, excavators, locators) continuously improve, and measurements underpin continuous improvement.

GSS works to establish innovative partnerships between utilities (electric, gas, pipelines, telecommunication, sewer and water / wastewater) known as Gold Shovel Standard Communities, to collaboratively form ever-expanding regions of increased safety and decreased risk to buried infrastructure.

Success at dramatically reducing damages in the coming decades is dependent on the broad adoption of innovative technology and safety management systems. Gold Shovel Standard works to develop and offer the technology necessary to facilitate successful damage prevention. For example, Gold Shovel Standard's ShovelSafe™ technology puts damage prevention at the fingertips of business leaders, giving them the tools for analyzing and tracking damage prevention performance.

GSS further works to promote the use of appropriate safety management systems, specifically tailored for damage prevention (DP-SMS) as a necessary ingredient to achieve the industry-wide goal of zero incidents.

Finally, please keep in mind that GSS is committed to minimizing the burden placed on excavators, while maximizing the program benefits. If there are services your business would like to see GSS provide in the future, or adjustments that the program could make, please let us know.



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This document is intended to assist you with completing the Gold Shovel Standard® enrollment process. Before beginning your enrollment, please review the following background information. Participants in Gold Shovel Standard agree to enforce certain policies and procedures within their business and to perform a specific set of actions.

To obtain Gold Shovel Standard Certification, an excavator must have a complete Damage Prevention Safety Management System (DP-SMS) which specifically includes the following essential elements:

1. Leadership and management commitment
2. Annual basic awareness training for all workers on jobs with excavation
3. Whistleblower and stop work responsibility for workers
4. Policy to adhere to all applicable CGA Best Practices*, specifically Ch. 5
5. Policy to hire Gold Shovel Standard subcontractors with few exceptions
6. Thorough investigation procedure to be used in the event of an incident
7. Corrective action procedure with root cause analysis

To maintain Certification, participants agree to

1. Investigate and report all damages to any buried infrastructure (gas, electric, water, sewer, telecom, etc.) directly following any incident
2. If hiring any subcontractors for excavation work, ensure that those subcontractors are Gold Shovel Standard Certified, with few exceptions
3. Regularly report certain work volume information (used for normalizing metrics data)

GSS Certification provides a benefit to participating organizations, as the Certification demonstrates a recognition of continued learning, quality safety procedures, adherence to Federal and State laws, and investment in Best Practices. GSS Certification enhances reputation by illustrating a commitment to damage prevention, and ensures confidence and peace of mind among buried asset owners and program participants.

** The Best Practices are a publication of the Common Ground Alliance, a District of Columbia, non-profit corporation. The Common Ground Alliance and the Gold Shovel Association are independent organizations and are not affiliated. References by the Gold Shovel Association to the Common Ground Alliance Best Practices do not express or imply an endorsement by either organization of the other or its programs. While the Gold Shovel Association's Certification requirements for excavators currently require compliance with the Common Ground Alliance Best Practices, the Common Ground Alliance, itself, does not maintain such a requirement.*



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Standardized Damage Prevention Metrics

Gold Shovel Standard believes “that which gets measured, can be managed,” and that things unmeasured will continue to go unmanaged. Just as greater transparency has improved industries as disparate as law enforcement, automobiles and healthcare, Gold Shovel Standard believes it will deliver increasing benefits to our communities, as well.

Dramatic reductions in the frequency of line strikes will remain elusive unless all parties continuously improve and measurements underpin continuous improvement. Standardizing how measurements are done is an overdue first step to drive performance improvement and increase public and workforce safety. To achieve this ambitious plan, Gold Shovel Standard is working with balanced teams of damage prevention experts to draft, refine and broadly deploy damage prevention metrics for all stakeholders.

To generate measurements for damage prevention, along with industry benchmarks for like entities, Gold Shovel Standard relies on a system of non-punitive reporting. Gold Shovel Standard does not interpret or provide analysis or judgment of data. The role of Gold Shovel Standard is to create the infrastructure for and work towards broad adoption of standardized metrics, and specifically does not rate or score entities based on the data. Information reported to Gold Shovel Standard during the non-punitive reporting process, remains controlled by the stakeholder who provided the data. Gold Shovel Standard will not share information with another entity without express permission to share it.

Reporting Requirements

To maintain certification, participants are required to have an internal program for investigating and reporting (to management) all damages to any buried infrastructure (gas, electric, water, sewer, telecom, etc.) directly following any incident. Gold Shovel Standard certification further requires that all participants supply to Gold Shovel Standard the following general information within five (5) days of the incident: (1) that a damage occurred (2) the date and (3) the approximate or general location, with more complete information input as details become available.

Note – Gold Shovel Standard is linked to CGA DIRT software and will submit information to CGA DIRT; no double reporting is required.



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Training Requirements

Participants agree to provide basic awareness training, or supplement other safety training with basic awareness training that meets the Gold Shovel Standard to all workers who are present on a job with excavation responsibilities, including any new hires, and preserve records of the most recent training. This includes all field laborers, supervisors, and other workers who work alongside until excavation is complete, but excludes administrative workers without field responsibilities, casual employee visitors, inspectors not associated with excavation, etc. The training is intended as a narrow, basic excavation awareness training or a narrow supplement as part of other safety training participants may offer. While not a requirement of the program, many participants may choose to also provide a more in-depth level of excavation training to workers with supervisory roles.

Concern: “My organization will incur substantial cost to bring all my workers out of the field for a day to give them this training.”

Response: Generally, the required content of the training can be delivered in an hour or less, and there is no requirement to deliver the training in a classroom setting; the training and quiz can be administered in the field. Each participant should choose the training delivery mechanism that best fits their operations.

The grace-period for completing the basic awareness training is 120 days, from the date the participating organization receives an active certification. For larger companies, if this timeframe is disruptive to business operations or creates a hardship, please provide an alternate schedule during enrollment for review by the program.

Subcontractors

Participants agree to have a policy to hire subcontractors who also have a Gold Shovel Standard Certification, with few exceptions. Where a company chooses to hire subcontractors who are not Gold Shovel Standard certified, the company agrees to have an internal process for approving the selection of a subcontractor without a Gold Shovel Standard certification.

All participants are expected to have a policy to hire subcontractors who also have a Gold Shovel Standard Certification with few exceptions.



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The process for applying for Gold Shovel Standard involves providing several documents which comprise a thorough safety management system.

Gold Shovel Standard will provide guidance on how to prepare or develop any of these items; this consultation is included with your application, so please ask for assistance if that would be helpful.

(Document #1)

Excavation Safety Policy Statement and Enrollment Document: This is a document that is signed by an officer of your organization that obligates your organization to safe digging practices and other items as conditions of participation in the Gold Shovel Standard program.

(Document #2)

Training Curriculum: The training curriculum that your organization uses to train your affected workers* on excavation safety. This is the content from the training, typically in a document or PowerPoint. The training is intended as a narrow, basic excavation awareness training or a narrow supplement as part of other safety training participants may offer.

(Document #3)

Training Quiz: The quiz or test that your organization uses after training your affected workers* on excavation safety. This is the actual quiz administered after the training.

(Document #4)

Employee Acknowledgment: A notification that makes workers explicitly aware of management's commitment to safe digging, and empowers employees to stop work if they observe something unsafe or in conflict with safe excavation practices.

(Document #5)

Incident Investigation Form: A document that is used on-site, in the field to investigate an excavation related damage, which ensures appropriate information is collected at the time of the incident.

(Document #6)

Corrective Action Plan: A document that details how your organization investigates the cause of an incident when excavation related damage occurs and the subsequent measures taken to mitigate it from happening again.

(Document #7)

Most recent OSHA 300A form with signature (U.S. organizations).

** Affected workers includes all field laborers, supervisors, and other workers who work alongside until excavation is complete, but excludes administrative workers without field responsibilities, casual employee visitors, inspectors not associated with excavation, etc.*



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Key Concepts

Gold Shovel Standard participants should have policies which adhere to CGA Best Practices, Chapter 5, which incorporates all federal and provincial / state laws of the states and / or provinces in which they are working. The policies should represent the most conservative (most safe) approach to excavation procedures. As a hypothetical example, if the applicable government regulations do not specifically require a one call reference at the site, it would still be the Gold Shovel Standard participant's policy to adhere to CGA Best Practice 5-13, "One Call Reference at Site."

It's the Law – All documents need to make it clear that violating excavation policies is breaking the law and not a simply a violation of company policy. Documents shall reference specific state or provincial laws by name and or number. For example, in New York, reference is given to Code 753. In Alberta, reference would be made to Alberta Occupational Health and Safety Code, the Alberta Electrical Utility Code and the Alberta Pipeline Regulation. For companies that work in more than one state or province, general statements making it clear that violating excavation policy is breaking state or provincial law are required.

Documentation of Marks – Participants should document the location of markings before excavation work begins. (See CGA Best Practice 5-11)

One Call Reference at Site – A valid and not-expired One-Call ticket should be physically present (whether electronic or paper) on all worksites with excavation; the key is that the ticket is both valid and at the job site for review. (See CGA Best Practice 5-13)

Marking Preservation – Location marks should be maintained during the course of the job; if the location markings are no longer visible, excavation stops in the surrounding area, and a call to the One-Call center or locator is made with a request for the operator to re-mark the lines (See CGA Best Practice 5-17)

Tolerance Zones (Hand Expose Zones) – Documents should list the specific requirements (width of tolerance zone and dig procedures) of the state(s) or province(s) in which the company operates. It is acceptable to choose the most conservative requirements and make a single policy that meets all requirements. For example, if State A has an 18" tolerance zone and prohibits all use of mechanized equipment in that zone without the operator's express permission, while another State B has 24" tolerance zone and allows vacuum excavation and other soft dig methods, an acceptable document could state a company policy of "No mechanized equipment shall be used within 24" of the outer edges of the facility", which would be acceptable in both states. (See CGA Best Practice 5-19 and 5-20)

Mismarked Facilities – When an excavator cannot find a utility where a mark was placed or if a utility is found where no mark was placed (unmarked or inaccurately marked facility), excavation stops in the vicinity of the facility and notification takes place. (See CGA Best Practice 5-21)



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Safety Policy and Enrollment Document

ORGANIZATION NAME: _____

Total Number of Company Employees (all employees; entire company): _____

As a condition of continued certification and participation in the Gold Shovel Standard program, it is the policy of this organization that all workers supporting or directly involved in excavation-related policies or activities will be required to follow all applicable and current Common Ground Alliance Best Practices, Chapter 5, which incorporates all federal and provincial / state laws of the states and / or provinces in which they are working, and the procedures and policies provided to Gold Shovel Standard during the application process. My organization agrees to maintain and enforce those policies.

As a condition of continued certification and participation in the Gold Shovel Standard program, it is the policy of this organization that no later than 120 days from the organization's Gold Shovel Standard certification date, 100% of workers on a job site, including any recent or new-hires, will have completed the organization's basic awareness training supplement that meets the Gold Shovel Standard prior to being on any job site, which includes any excavation of any type or sort, and will repeat the training at least every 12 months. This includes all field laborers, supervisors, and other workers who work alongside until excavation is complete, but excludes administrative workers without field responsibilities, casual employee visitors, inspectors not associated with excavation, etc. Furthermore, the organization will document training attendance and records of the most recent training will be preserved.

It is the policy of this organization to encourage and empower all workers to speak up, without fear of retribution, when they observe situations that are unsafe or in conflict with this organization's policy on excavation-related work.

It is the policy of this organization to complete an incident investigation, root cause analysis and corrective action plan for any incidents.

As a condition of continued participation in the Gold Shovel Standard program, it will be the policy of this organization to hire subcontractors who also have a Gold Shovel Standard Certification, with few exceptions. Where the organization chooses to hire subcontractors who are not Gold Shovel Standard certified, the organization will have an internal process for approving the selection of a subcontractor without a Gold Shovel Standard certification.

As a condition of continued participation in the Gold Shovel Standard program, I understand participation requires that all damages to any buried infrastructure (gas, electric, water, sewer, telecom, etc.) be reported to Gold Shovel Standard within five (5) business days of an incident with the following general information: (1) that a damage occurred (2) the date and (3) the approximate or general location, with more complete information input as details become available.

I understand that certification and participation in Gold Shovel Standard is voluntary and may have positive or negative effects for the Organization.

This enrollment document does not create a legal obligation on either the Organization or the Gold Shovel Standard, and should be interpreted strictly as documenting the terms of participation in the Gold Shovel Standard program.

Signature of Corporate Officer

Printed Name of Corporate Officer, Title

Date



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Training Curriculum Checklist (Document #2)

Provide the actual the training curriculum used to train employees on excavation safety.

The training is intended as a narrow, basic excavation awareness training or as a narrow supplement of part of other safety training participants may offer. While not a requirement of the program, many participants may choose to also provide a more in-depth level of excavation training to workers with supervisory roles.

Commonly, submitting your training curriculum means providing the PowerPoint slides that are used during your training. Include the training materials that cover the following topics:

- ◇ Clear language explaining that violating excavation policies is breaking the law and not a simply a violation of company policy, listing the law by name or number where applicable
- ◇ What to do if marks are no longer visible during a job (maintaining marks on job sites)
- ◇ What to do if a utility cannot be found as marked
- ◇ What to do if an unmarked utility is found during excavation
- ◇ When and how the following CGA Best Practices are implemented in the field
 - ◇ CGA Best Practice, 5-11 – “Documentation of Marks”
 - ◇ CGA Best Practice, 5-13 – “One Call Reference at Site”
 - ◇ CGA Best Practice, 5-23 – “Locate Request Updates”

Tolerance Zones (Hand Expose Zones)

- ◇ What a tolerance zone is
- ◇ The state and / or province specific width or a most conservative policy that covers the state(s) and / or province(s) in which the company works
- ◇ The state and / or province specific procedures for working within the tolerance zone (for example, “no mechanized equipment shall be used – hand tools only”) or a most conservative policy that covers all states and / or provinces

Most One-Call operators provide much of this content on their websites, which can be used while preparing your training curriculum. However, it is not sufficient to cut and paste from the One-Call handbooks or the CGA Best Practice document.

Note: Your training must meet the specific laws of the state(s) and / or province(s) in which you will be certified. For example, California’s One Call Laws (California Government Code 4216 and Cal-OSHA Title 8 Construction Safety Order Chapter 4, Subchapter 4, Article 6, Section 1541), requires a 24” tolerance zone, and your training would be specific about 24”, as opposed to some other more general discussion of tolerance zones.

For organizations that work in many states or provinces, a single training that covers many jurisdictions is completely acceptable and recommended. We recommend asking for advice on how to prepare this, to simplify the process.



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Training Quiz Checklist (Document #3)

This document is a quiz that your company administers to confirm that trainees understand the training material. Most typically this means including the actual test used at the end of the training. Commonly, this is a multiple choice, True-and-False and fill-in-the-blank test, measuring the trainees understanding of the material.

Note – Simple tests that are entirely True / False are typically deemed too easy. Passing the quiz should adequately demonstrate an understanding of all the key concepts listed at the start of this document.

Minimum of 15 questions pertaining to the items below

- ◇ Test question(s) about whether violating excavation policies is breaking the law
- ◇ Test question(s) about CGA Best Practice, 5-11 – “Documentation of Marks”
- ◇ Test question(s) about CGA Best Practice, 5-13 – “One Call Reference at Site”
- ◇ Test question(s) about CGA Best Practice, 5-23 – “Locate Request Updates”
- ◇ Test question(s) about Tolerance Zones (what they are, width, acceptable dig methods)
- ◇ Test question(s) about the process for establishing and maintaining marks on job sites, and what to do if marks are no longer visible
- ◇ Test question(s) about what to do if a utility cannot be found as marked
- ◇ Test question(s) about what to do if an unmarked utility is found during excavation

- ◇ Training roster, signature and date on the test form, or other records of when they attended the training. This item is required somewhere in the documents; it can be placed on the quiz or employee acknowledgement sheet, for example.

Record keeping – As a condition of participation in the Gold Shovel Standard program, participants agree to keep records of the most recent training for all affected workers.



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Employee Acknowledgment (Document #4)

As a participant in Gold Shovel Standard, “affected workers” (as previously defined) should be explicitly notified of management’s commitment to safe digging, and encouraged and empowered to stop work, without fear of retribution, when they observe a situation that is unsafe or in conflict with safe excavation policies, rules or laws. The form of that notification, along with a description of how that notification is provided, should be submitted.

Incident Investigation Form Checklist (Document #5)

Incident Investigation Form - this item details what you will do to investigate a dig-in, immediately after it happens. Incident Investigation Form that includes the following:

- ◇ Place for statements from all present at the time of incident
- ◇ Reminder to capture pictures and / or videos from various angles
- ◇ Place to record sketches, measurements, notes
- ◇ Place to record site conditions, weather conditions, etc. at the time of incident
- ◇ Place to answer the following questions:
 - ◇ Does the owner of the damaged facility participate in the one-call process?
 - ◇ Were there location marks for this owner’s facilities at this particular job site?
 - ◇ Has your investigation determined if the location marks were incorrect, inaccurate, misplaced or otherwise improper?
 - ◇ Did the damage occur within the tolerance zone of the location marks?
 - ◇ Was the damage done by non-mechanized hand tools (shovels, probes, etc.)?
 - ◇ Has your investigation determined if the damage occurred during the removal of strata (existing roadway, sidewalk, hardscape) in compliance with laws of the jurisdiction?
 - ◇ Has your investigation determined if the damage was associated with a previous improper installation (not properly protected, lack of ducts, shallow buried, lack of required burial tape, etc.)?

A sample incident investigation form is available from Gold Shovel Standard, by request.



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Corrective Action Checklist (Document #6)

Corrective Action Report template or other written procedure that includes the following:

- ◇ Root cause of incident
- ◇ Corrective action to be taken

Signed OSHA 300A Form (US ONLY) (Document #7)

If your organization is required to file an OSHA 300A form, please submit the most recent signed copy of the one-page OSHA 300A form.

NOTE – There is no need to submit the OSHA 300 logs. Only the one-page 300A form is needed.

- ◇ OSHA 300A form (one-page)
- ◇ Signature on OSHA 300A form



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Gold Shovel Standard works to *Prevent* life-threatening damages, *Empower* field teams to operate safely, and *Protect* excavation crews and the public.

Get more information by visiting
www.GoldShovelStandard.org

