

**“Common Ground”**  
**Damage Prevention Best Practices Study**  
**Task Teams Kick-off Meeting**  
**November 4 & 5, 1998**  
**Phoenix, AZ**

## **Overview**

This meeting of the “Common Ground”, Damage Prevention Best Practices Study Team served as the kick-off to get the individual Task Teams organized and working toward the identification and evaluation of damage prevention practices to determine those “best” practices to be included in the Study report. The meeting began with a General Session involving all participants. The General Session was followed by breakout meetings for the individual Task Team to begin working.

All participants reconvened on the afternoon of November 5, and each Task Team provided a summary to the larger group of its progress and status. Sample practices, tentative evaluation criteria, and issues resulting from the Task Team meetings have been compiled into separate lists (Attachments 1, 2, and 3). Issues include policy issues referred to the Linking Team for further evaluation, as well as issues considered likely to be better considered within the scope of one of the other Task Teams.

## **General Session**

### Opening Remarks      Stacey Gerard, OPS

Stacey noted that the Common Ground Best Practices Study is considered the most important FY99 effort within the Office of Pipeline Safety. She feels the effort is the key to developing an inclusive compendium which can be seen as the “Bible” of best practices. She stressed that the key is inclusiveness within the study effort. She noted that another benefit is to bring together the disparate groups involved, to help solve national damage prevention issues. She noted that underground facility damage problems will continue beyond completion of the Study Team’s report. Thus, she encouraged, the efforts of the Study Team should continue beyond the completion of the report; the report should become a living document to be maintained and updated. Stacey also noted that The Study Team will want to track the disposition of all issues identified, even if they are not accepted as best practices. She then thanked the participants for lending their time, intelligence, and experience to the Study Team efforts.

### Background      John Hess, OPS

John noted that the recently enacted Transportation Equity Act (TEA-21) considered the transformation of government from traditional regulation to a broader process, inclusive of those affected by the regulation. TEA-21 includes a grant program to support states in the adoption of underground damage prevention best practices and directed the Secretary of Transportation to

perform a study of those best practices. After the law was passed, a Federal Register Notice (FRN) was issued to announce a public meeting regarding the implementation of the best practices study. Another meeting was held on September 21, 1998, as a follow-up to the public meeting. This second meeting helped to determine the policies & strategies to accomplish the identification and definition of best practices. John noted that TEA-21 has 11 specific questions for the Study Team to consider; these should be used as a starting point, not a constraint on discussions. John then reviewed and discussed Rich Felder's (OPS) Charge to Common Ground Damage Prevention Best Practices Study Team.

Team Structure          Herb Wilhite, Cycla Corporation

Herb reviewed the three-tiered structure adopted for the Study Team as discussed in the This structure includes the separate Steering, Linking, and Task Teams. Herb also covered the responsibilities for each of these separate teams, consistent with the structure document. Specific points Herb covered are noted in Attachment 4.

Herb also stressed the importance of communications to the Study effort. He described the One Call Systems Study (OCSS) Information System, an Internet, Web-based information system developed by Cycla Corporation for OPS for use by the Study teams. He noted that the information system is an interactive system that:

- provides information on the Study to Team members and to the public
- supports notification of members for meeting notices, documents, and actions
- provides a calendaring function for individual members to facilitate the scheduling of Team meetings
- supports the ability to broadcast messages to multiple Team members simultaneously
- supports document sharing and library functions

Herb noted that OPS staff and Cycla Corporation will be working aggressively to ensure all Study Team members can benefit from this important tool.

Guidelines          Don Evans, OCSI (Steering Team)

Don noted to the participants that the Task Teams were selected by the Steering and Linking Teams by the consensus process. In a similar manner, Task Team decisions will also be made by consensus. To that end, Task Team members are responsible for reaching consensus on issues and decisions discussed within the Teams; non-members of the Task teams can participate but will not take part in the consensus decision making process. Don noted that the Task Teams' memberships are still open, however, to facilitate the Study Team process the opportunity to add members to the teams will soon be closed (around the first of December). After that time, Task Team meetings will still be open to participation by others, but non-member participants will not be involved in consensus decisions. Don also noted that Team membership was and will be based on the recommended Team member's expertise and willingness and ability to participate in the process. Don stressed that vendors will be constrained from being Team members if the individual is advocating specific product. Opportunities may be provided, if requested, for

vendors to make presentations to the Task Teams. Don then briefly reviewed the draft outline for the Task Team chapters of the Study report.

Additional remarks of encouragement and motivation were provided by Griff Goad (Linking Team Co-chair), and Will Carey and Allen Gray of the Steering Team. These remarks generally noted that:

- The common goal of the Study participants is to prevent underground facility damage.
- Study Teams must accommodate different viewpoints. The goal is to obtain a broad spectrum of input to each Task Team.
- Each Team member must be broad-minded and open-minded.
- Team members must “come out of our silos” and share their experience, expertise, knowledge, and information.
- Team members must work together to get the job done to the benefit of all stakeholders and to enhance our ability to prevent damage.

### **Task Team Breakout Meetings**

Following the general session presentations, the participants broke out into the separate Task Team working groups to begin the process of identifying and selecting best practices. The Task Teams met over the afternoon of November 4 and the morning of November 5. A separate summary for each Task Team meeting is available.

Linking and Steering Team members met at the end of the first day’s breakout sessions to discuss some interface and policy issues identified in those first sessions, including:

#### Task Team Interface Issues:

Some Task Teams identified issues and practices they felt were outside their scope and could be handled better by a different team and, therefore, should be referred to another Task Team. The Linking Team Liaisons brought these items to the late afternoon meeting.

The Linking Team discussed the process to be followed in referring an issue or practice to another team for evaluation. Concerns were raised on how formal the process needed to be and when or if the entire Linking Team needed to be involved in a decision. A consensus was reached to use the following steps:

1. When a Task Team identifies an item believed to be outside the Team’s scope, it will provide a good description of the item and recommend its assignment to another Task Team. If the identifying Team can not determine an appropriate “target” team, the Team’s Linking Team Liaison will make a recommendation.
2. The Task Team Liaisons from both teams will discuss the item. If they agree, the item will be transferred to the target Team.

3. If the two Liaisons can not agree on the transfer, the issue will be forwarded to the full Linking Team for review and assignment to the most appropriate Task Team.

There are, and will be, some items that are not pertinent to only a single team (e.g., different pieces of the issue/practice are within the scope of more than one team). These issues will be forwarded to the Linking Team for review. The Linking Team identified several disposition options they could use:

1. The item could remain with the Linking Team for review.
2. An additional Task Team could be formed to address the item.
3. A “combined” sub-team, with members from various existing teams, could be formed to address the item.
4. The item could be returned to an existing team for resolution.
5. The item will be evaluated by multiple teams for different perspectives.

For example, one similar issue was identified by three different teams (Excavation, Emerging Technologies, and One Call Center Practices) in the afternoon breakout meetings. This issue involved the problem of overwhelming demand for locating services during peak construction times. Contractors may place such a volume of locate requests with local One-Call Centers that the facility operator/locate contractor can not complete all the requested locates in the specified time frame.

The *Excavation* Team considered this a Locating/Marking issue - they focused on the length of time specified for locators to complete their task. The current limits (48 - 72 hours) were developed many years ago and are out of date because of the significant increase in construction activity. One solution would be to increase the time allowed for the location.

The *One Call Center Practices* Team received a suggestion that the number of tickets a One Call Center would accept in a specified period be limited. This would provide the process a “safety valve” to slow down the system to ensure locators are not swamped. One aspect of this problem is with contractors requesting locates for an extremely large area, one greater than they could possibly begin excavations in within the specified time. To address this aspect, another suggestion was to redefine a “legitimate” ticket to decrease the maximum area that could be requested under a single ticket. A third suggestion was to limit the number of requests from a specific contractor.

The Linking Team decided to refer the issue back to four Task Teams (Excavation, Emerging Technologies, Locating/Marking and One Call Center Practices) for additional discussion. This would allow the issue to continue to be discussed from four perspectives. Each team will develop a more complete problem description and recommendations. The issue will be re-addressed in a future meeting.

Task Team Definitions:

Several teams had difficulty determining the boundaries of their task. The specific scope and area of responsibility for each team was considered to need better definition to be understood by all participants. Additional guidance was requested from the Steering and Linking Teams. The Linking Team agreed to develop a more specific definition of each individual Task Team's area of responsibility by the end of the 12/4/98 meeting in Atlanta.

Other items resulting from the Task Team meetings, as noted below, include:

- the need for additional Task Team members to ensure representation from the different industry constituents; and
- schedules for planned, future Task Team meetings.

Task Team Requests for Additional Members:

Several Task Teams felt that specific constituencies were inadequately represented. Additional members are needed to balance the teams. They requested that the Linking Team review the problem and appoint additional members. Task Team requests for additional members include:

1. *Compliance Practices* – Needs a representative from a State DOT.
2. *Excavation Practices* – Needs a representative of both a One Call Center and a contract locator.
3. *Locating & Marking Practices* – Needs a representative from the Telecommunications Distribution Industry
4. *Mapping Practices* – Needs a representative from the Telecommunications Distribution Industry
5. *One Call Center Practices* – Needs a representative from both the National Rural Water Association and the Telecommunications Distribution Industry
6. *Planning & Design Practices* – Needs a representative from NUCA

Future Task Team Meetings:

The Linking Team requested a status from each Task Team on any future meetings being planned. Future Task Team meetings planned are as follows.

	<u>Task Team</u>	<u>Meeting Dates</u>	<u>Time</u>	<u>Location</u>
1.	Compliance Practices	12/1-2/98 1/6-8/99 2/2-3/99	8-5, 8-1 8-5, 8-1 8-5	Chicago Portsmouth, NH Albuquerque, NM
2.	Excavation Practices	1/6-7/99 2/6/99	8-5 8-5	BWI Airport Las Vegas
3.	Emerging Technology	12/3/98	4-6	Atlanta
4.	Locating/Marking Practices	12/4/98	1-5	Atlanta

		1/7-8/99 2/9/99	3-5, 1-5 12-5	Dallas Las Vegas
5.	Mapping Practices	12/3/98	9-4	Atlanta
6.	One Call Center Practices	12/3-4/98 1/6-7/99 2/9-10/99	8-5, 8-1 8-5, 8-5 1-5, 8-5	Atlanta Dallas Las Vegas
7.	Planning & Design Practices	12/10-11/98	8-5, 8-1	Dallas
8.	Public Education Practices	12/1/98	1-5	Atlanta
9.	Reporting & Evaluation Practices	12/1/98 2/9/99	10-5 1-5	Atlanta Las Vegas
10.	Linking & Steering Team	12/4/98	1-5	Atlanta

**Attachment 1**  
“Common Ground” Damage Prevention Best Practices Study  
Task Teams Kick-off Meeting, November 4 & 5, 1998, Phoenix, AZ

**Consolidated List of Sample Practices**

***Task Team: Mapping Practices***

One-Call

1. An electronic mapping database system is available to the call centers.
2. The One Call Center is capable of accepting GPS (Lat/Long) data.
3. The One Call Center can promptly update the database (both members and surface).
4. The electronic mapping system can produce a ticket for the smallest practical geographical area.

Excavator

5. The excavator takes responsibility for giving accurate information to the One Call center
6. The excavator has the mapping capability to facilitate an accurate locate request during a remote ticket occurrence.
7. The excavator can view graphically the utilities located in the dig area.

Facility Owner

8. Accurate up-to-date mapping is available to the locators/contractors from the facilities.

Locator

9. The locator uses accurate up-to-date maps.
10. The Locator should provide feedback to confirm or correct mapping from a visual locate. (This best practice was put on hold and will be discussed at the next meeting.)

***Task Team: One Call Center Practices***

1. All members of the digging community shall use the [one call] service.
2. Pro-active public awareness, education and damage prevention activities.
3. Specifically defined geo-political service area with no overlap.
4. Single toll free statewide number with nationwide access.
5. 24 x 7 emergency access.
6. Voice record all calls.
7. Retention of voice records according to applicable statutes.
8. Provide and advise caller of ticket number for each locate request, and the names of the facility owners who will be notified.
9. Be able to provide a printed copy of any ticket for a period of time determined by the statute of limitations.
10. Allow input to operational procedures from facility owners and digging community.
11. Documented operating procedures, human resource policies, and training manuals.
12. User friendly for entire digging community.

13. Formal agreements with members.
14. Documented owner verification of data submitted by facility owners/operators.
15. Sufficient flexibility to incorporate state requirements.
16. Systems sufficiently flexible to accommodate growth and change.
17. Accept and process locate requests placed with the state statute or accepted advanced notice period.
18. Governed by non-profit organization.
19. Planning/preconstruction meeting between the excavator and the facility operator(s) for large jobs; meeting initiated by One Call notification.
20. One Call Center accepts notifications from designers.
21. Ticket definition
22. Ticket life; life of locate marks
23. Positive response to excavator; no negative response
24. Practices to reduce over notification
25. Handling emergency notifications
26. Qualification standards for one call centers
27. Exemptions
28. Disaster recovery
29. Remote user interface

***Task Team: Locating/Marking Practices***

1. Utilizing available Facility Records at all times
2. Provide Information for Updating Records that are in error or to add new facilities
3. Uniform Color Code & Symbols
4. Single Locator for Multiple Facilities
5. Mark new facilities @ time of installation / construction
6. Proper training of locators / Certification of locators (address conflicting state laws);
7. Adequately marking for conditions: use of offsets / flags
8. Positive Response
9. Adequate hand-dig buffer zone
10. Mark multiple facilities in the same trench individually or with corridor markers
11. Identify & mark abandoned facilities when possible
12. Active or Conductive Location Rather than Passive / Inductive; Locate Electronically
13. Potholing when necessary
14. Perform Locates Safely
15. Identify Facility Owner
16. Timely Marking
17. Visually Inspect Excavation Site
18. Preconstruction Meeting for Large Projects (road, etc.); Document All Agreements
19. Definite Size of Locate Request
20. Utilizing Best available Technology (e.g., locating instruments, vacuum excavating equipment, ticket tracking & management software)
21. Establish Communication between all parties – On site visits by Contractors / Locators
22. Locate beyond specified excavation area (e.g., 25-50’);
23. Drug Testing of Employees

24. Identify Utilities Installed Using directional Boring; Accurate Records of Type of Installation
25. Documentation of the Locate (sketch, video, photo)
26. Investigation (Involving all Parties) of Damaged Facility at time of Damage
27. Permanent Markers
28. Forecasting / Planning for predictable Workload Fluctuations; plan for dealing with unpredictable fluctuations

***Task Team: Compliance***

1. One-Call Centers should be subject to compliance with their own standards and procedures, as well as state laws.
2. All states should have laws that address one-call operations.
3. All owner/operators of underground facilities should be members of one-call if they have facilities on public property.
4. Rewards/incentives for good performance (e.g., plaques, awards, positive publicity, etc.)
5. Development and use of a company performance database to support focused and effective compliance.
6. Incentives to report near misses (i.e., underground facility is hit, but failure did not occur). Incentives could include elimination or reduction of civil penalty if the hit is reported.
7. Alternative approaches to fines and penalties (e.g., training).

***Task Team: Excavation***

1. Excavator companies should establish minimum training requirements for all workers that include items on One-Call requirements and general site awareness. Only employees who have met those requirements should be used. Contractor could choose to take advantage of existing training programs (offered by others - OCSS, trade associations, facility owner) or to develop in-house training.
2. Local governments should require that all permits must identify an associated One-Call ticket number before they will be approved/issued.
3. The excavator should visit the job site prior to requesting the ticket from the One-Call Center. He should be able to provide a good definition/description of the site to the One-Call Center. He should mark the site with white lines to define his work area.
4. The excavator should notify the One-Call Center the specified number of days before job start. Emergency locates should not be requested when it is not necessary or when the excavator failed to make the One-Call Center notification in a timely fashion.
5. The excavator should meet the locator at the job site during the marking process.
6. The excavator should hold a project orientation meeting with the entire crew prior to the start of actual excavation. If it is a major project, the meeting should include facility operator(s), site supervisors for all contractors, and locator.
7. The excavator should verify they are at the correct site (e.g., site matches location specified on ticket) and verify all locator marks prior to beginning any excavation.

8. The excavator should document exact placement of markings prior to actual excavation and this documentation should be maintained. Possibilities include sketching a site diagram or using a camera to record markings.
9. The excavator should take special to protect/preserve utility marking at job site.
10. If the job involves multiple tasks/contractors, each contractor should have his own set of tickets that specifically address his part of the overall task. Each contractor should verify that their ticket matches their job scope.
11. The job supervisor should have a valid/verified contact phone number list at the actual job site at all times. The list should contain (1) area emergency numbers and (2) facility owner contact for all utilities in work area.
12. The job supervisor should have a copy of the ticket at the actual job site at all times.
13. If there are water/sewer lines within the job site, the excavator should take responsibility for locating system laterals before starting the excavation.
14. The excavator should dig pot holes around the locators marks to verify actual facility location. Pot holes should also be dug around any item of concern in work zone (e.g., visible line with no marks).
15. The equipment operator should have a spotter when digging.
16. When excavating around utility, exercise due care and use prudent methods to avoid damage.
17. All exposed facilities should be supported during the entire excavation process.
18. If any unmarked lines are exposed, the excavator should immediately call the One-Call Center.
19. The excavator should immediately notify the facility owner of any found **or** caused damage.
20. Excavator should immediately call 911 if gas line is hit. Emergency assistance is needed to evaluate area conditions.
21. The underground facility should be protected during backfill to prevent damage.
22. Certain types of material should not be used as backfill (construction scrap, rocks, pieces of abandoned line).
23. The excavator should call back to the One-Call Center after X days on job.

***Task Team: Public Education***

1. Educating the media (e.g. ensure that local TV and newspaper assignment editors are aware of damage prevention issues)
2. Using leverage from advertising expenditures to obtain free PSA broadcast time
3. Using resources of member utilities to their fullest (i.e. don't just rely on public education budget of the One Call Center)
4. State designated "Call Before You Dig" month
5. Utility bill inserts
6. Training videos for in-house utility staff and one-call member liaisons

***Task Team: Emerging Technologies***

N/A

***Task Team: Planning & Design***

(Patrick Ramirez)

***Task Team: Reporting & Evaluation***

1. Establish a central reporting entity to receive the data. The existing one-call centers should be used for this. The one-call centers should perform damage prevention activities (many one-call centers don't do damage prevention).
2. Establish a consistent data reporting content/format (short, sweet, to the point) and reporting frequency (continuous, monthly, etc.).
3. The data evaluation team should include representatives from each of the 5 industry groups (utilities, excavators, one-call, insurance, and locators).

## **Attachment 2**

“Common Ground” Damage Prevention Best Practices Study  
Task Teams Kick-off Meeting, November 4 & 5, 1998, Phoenix, AZ

### **Consolidated List of Evaluation Criteria**

#### ***Task Team: Mapping Practices***

1. Contributes to Damage Prevention
2. Cost Effective
3. In Use
4. Transferable
5. Maintainable
6. Available

#### ***Task Team: One Call Center Practices***

1. Must be a “current practice”
2. Must have benefit or add value to the process
3. Must be reasonable and practical
4. Should be cost effective
5. Must have consensus support
6. Must have been considered by a broad spectrum of opinions
7. Provides effective use of system
8. Fair & flexible
9. Must meet all applicable laws, regulations, etc.
10. Should consider liability
11. Must fit within the defined scope of the Task Team

#### ***Task Team: Locating/Marking Practices***

1. Probability of Damage Reduction
2. Feasibility (cost)
3. Public Safety
4. Employee Safety
5. Conformance with Existing Standards

#### ***Task Team: Compliance***

Due to time constraints, this topic was not addressed by the Compliance Practices Task Team.

#### ***Task Team: Excavation***

1. Must be practical with current technology.
2. Must be considered reasonable by the constituency that would be asked to implement the

- practice.
3. Would not be an issue for any constituency if incorporated into future law-making.

***Task Team: Public Education***

Not addressed.

***Task Team: Emerging Technologies***

1. Team should be careful when discussing the effectiveness of technology, as technology is always changing, and is often updated, making previous technology less effective or obsolete.
2. Team should consider all factors that will affect the ability to reach consensus about technology, such as applicability, benefit, and cost.
3. Team should develop a "gap list", to identify what problems exist that today's technology is unable to address, and help direct future technology to address these problems.
4. Team should look at "big picture" areas regarding broad technological issues, rather than specific technologies that address current problems. This will avoid "favoring" certain products and the problem of always changing technologies that makes previous products obsolete.

***Task Team: Planning & Design***

(Patrick Ramirez)

***Task Team: Reporting & Evaluation***

1. Should be practical and useful.
2. How easy is it to implement the practice (or how widely is it implemented now)?
3. Evidence that the practice works.
4. Should promote consistency between one-call centers.
5. Industry supported practice.
6. Cost effectiveness.

**Attachment 3**  
“Common Ground” Damage Prevention Best Practices Study  
Task Teams Kick-off Meeting, November 4 & 5, 1998, Phoenix, AZ

**Consolidated List of Issues**

***Task Team: Mapping Practices***

1. A new member from the telecom distribution industry is considered necessary to balance the team.
2. Determine if requests for information from the task teams should be coordinated to avoid duplicate requests to the same organization or group of people.
3. Determine what level of support can be expected from Cycla Corporation.

***Task Team: One Call Center Practices***

1. Practices to reduce over-notifications. Generally described as locating & marking overload, this issue involves too many excavation notifications through a one call center to be reliably handled within the necessary, regulated amount of time by the facility operator (or locating/marking contractor). The concern was expressed that the One Call Centers should somehow limit the number of tickets that can be processed within a specified amount of time because constraints on locating/marking capabilities can cause log jams, violations, and safety concerns. (The Linking Team agreed to establish a special committee to evaluate this issue, as the issue had arisen in the discussions of several teams. Jim Holzer was selected from the One Call Center Practices Task Team to participate on the special committee. Sam Lanzafame agreed to draft a position paper on the issue.)
2. Should cost and liability (e.g., to One Call Center and Members) be considered in the identification of best practices? This also relates to the “practicality” aspect of practices. David Frey and Mike Ames agreed to draft an issue paper on this issue.
3. Locate mark permanency and re-marks (Keep and evaluate but refer also to Excavation and Locating/Marking teams)
4. Sovereign immunity for local governments. (Crossover to Compliance Team)
5. Railroad participation in One Call when digging in co-located facilities. (Crossover to Compliance Team)
6. Facility owners should register facilities other than those restricted to private use on the facility owner’s property (e.g., co-located facilities); railroads say “no.” (Crossover to Compliance Team)
7. Number of days in advance an excavator should call for notification. (Escalate to Linking Team)
8. [Policy Issue] Steering Team should attempt to provide some clarification to Task Team members to address concerns about what impacts the Best Practices Study will have after it is published.
9. [Policy Issue] The Linking Team should define each Task Team’s scope with regard to

the identification of best practices.

### ***Task Team: Locating/Marking Practices***

#### Marking and Locating Issues

The team compared the following list of issues with its list of sample practices to ensure that all issues were addressed by at least one good practice.

1. Conflicting State Laws
2. Unlocatable Facilities (depth)
3. Inaccurate or No Records
4. Common Grounding
5. Fluctuating Workloads
6. Locating for Design / Engineering
7. Maintenance of Marks
8. Determining Life of Marks
9. Reporting Depth
10. Facilities Installed with Directional Boring
11. Marking / Removal of marks after damage

#### Policy & Interface Items

12. The task team meeting was attended by observers not on the initial list of team members. Who is considered part of the final "voting" membership of the team was a policy question brought up by a linking team member attending the task team meeting.
13. One of the team co-chairs had a question of whether linking team members can serve as an advocate of best practices within the task team.

In addition, the locating and marking team identified the following interfacing items considered to affect best practices of other task teams:

14. Lag time between Construction and Mapping (Mapping)
15. Facility Owners Area Definition (Mapping and One-Call)
16. Workload Fluctuations (One-Call)
17. Limit to size of Locate Request (One Call)
18. White-lining (Excavation)
19. Locate Request Clarity / Standardization (One-Call)
20. Overlapping One Call Center Coverage (One-Call)
21. Establish plan for facility protection during construction (Planning & Design)
22. Avoid excessive depth (Planning & Design, Excavation)

### ***Task Team: Compliance***

The Compliance Task Team identified a number of issues to review when they are conducting their research on state One-Call laws, regulations, and policies. These are:

1. Definitions
2. Pre-Marking for Excavation (White lining delineation)
3. Safe Excavating Practices (Hand dig, vacuum, safe dig zone)
4. Membership (What is addressed)
5. Exemptions
6. Marking Standards (facility)
7. Emergency Response
8. Positive Response
9. Damage Investigation and Reporting
10. Jurisdiction (who enforces)
11. Incentives
12. Mediation/Arbitration
13. Penalties
14. Timing (call, response, life of the ticket)

In addition during the discussions, the Team boarded several other issues which were more specific than the above list. These are:

15. Flexible approaches to compliance (i.e., not always “black and white”).
16. Compliance requirements for locators.
17. Inadequate safety training for locators both on public and private property (e.g., locators access railroad ROW without proper safety training for working near railroads.).
18. Effective performance measures for compliance/improved safety.

***Task Team: Excavation***

Excavation Issues

1. Excavation under roads, particularly interstates. Worker safety concerns exist from traffic on highway. Requirements to “hand dig” within the safety zone do not consider this site condition. Current technology makes it difficult to getting through concrete and rebar.
2. Ability to determine an accurate burial depth for underground facilities. This is a particular problem with directional drilling. This is an example of a technology gap - excavators have not found existing detection devices to be adequate.
3. Specific types of excavation practices have their own individual problems and safety concerns. These include directional boring, blasting, pot holing, and hand digging.
4. Worker, public, and facility safety (OSHA requirements).
5. The work load for locators exceeds their current capacity during peak construction times. (Issue was referred to several Task Teams by the Linking Team for additional consideration. Each team was asked to identify actions that could taken by their constituency to decrease the number of unnecessary One-Call Center ticket requests that are generated in a specific time frame. Excavation practices that contribute to the problem include identifying a work zone that is larger than required for the actual excavation and calling in more tickets than can be completed within the specified time frame. The Excavation Task Team is to propose specific practices that could be

employed by excavators to reduce the number of unnecessary tickets.

### Interface/Referral Issues

1. A re-examination of the most efficient size of the safety zone (e.g., the hand dig area) should be conducted. The size of this zone should be standardized across the US (as much as possible). (To Marking and/or Compliance)
2. The facility owner/operator should be responsible for removing old facilities when new ones are installed or when they are permanently taken out of service. (Task Team?)
3. Collocation of underground facilities (e.g., different operators placing their facilities in the same location) particularly when some facility owners/operators are exempt from participating in the One-Call System. (To Compliance)
4. Inability (or unwillingness) of locators to go onto private property. (To Locating/Marking)
5. Locators failure (or inability) to locate municipal water/sewer lines (particularly laterals). At a minimum, locators/facility owners should show the location of all lateral taps from the main water/sewer lines when marking site. (To Locating/Marking)
6. Locators re-marking of the site after hits. (To Locating/Marking)
7. Tampering with locator markings. Are there ways to minimize this or to make it more difficult to do? (To Locating/Marking)
8. Facility owners/operators have not adequately maintained records of their facility's "as built" condition (in addition to "as designed"). There has been a loss of institutional memory as employees leave the company. (To Mapping)
9. Sovereign immunity for local governments causes problems - they are not required to participate in One-Call System. In addition, there is little/no ability to recover damages caused by their actions/inactions. (To Compliance)
10. The excavator needs the same documentation (e.g., containing the same key information) for emergency locates as that supplied for routine requests. (To One-Call)
11. Training programs should be available for construction workers in local One-Call Center requirements. Special emphasis should be placed on training for subcontractors since they usually are not local people. (To Public Education)
12. Training programs should be designed specifically for targeted groups (farmers, tool rentals). (To Public Education)
13. Facility owners could reduce damage by refusing to hire unqualified contractors (primary consideration in contract award seems to be low bid). (Task Team?)
14. State/local governments could use regulations or fines to change behavior of bad contractors. (To Compliance)
15. Mandatory training programs should be required for contractors after violations. (To Compliance or Education)
16. The most effective time period for required notification of One-Call prior to job initiation should be re-examined. Current requirements were developed many years ago before the current construction boom.. 48 hours may be insufficient. (To One-Call)
17. There should be mandatory participation by all utilities in the One-Call System. There is a specific issue of the exemption for RRs within their own right-of-way; concern is with co-located facilities. (To One-Call and/or Compliance)

18. Facility owners/operators should be required to develop a “template” for new facilities or changes in existing facilities to document the actual location of all underground facilities.
19. Changes in facility burial depth over time. (To Mapping)
20. Locators should provide a written site location diagram that shows the actual location of all markings to the excavator prior to job initiation. (To Locating or Mapping)
21. Facility owners should have ultimate responsibility for their locators. They should not be able to shift liability by using subcontractors to perform the locating/marking. (To Compliance)
22. There should be equal accountability/liability for ANY group responsible for the problem that caused the hit. Current practice fails to hold other parties responsible to the same degree as it does excavators. (To Compliance)
23. One-Call Centers should develop process that provides an “instant locate” service if requested. Fees for this service could be established allowing the contractor to decide if they are willing to pay for the convenience. (To One-Call)
24. One-Call Centers should provide for notification by voice-mail. (To One-Call)

***Task Team: Public Education***

Policy / Interface Issue – The scope of the term “public” was discussed and interpreted broadly to include not only excavators and homeowners, but also utilities, one call center operators, etc. There may be some overlap between target audiences for “education” best practices defined by this team and training practices defined by other teams.

***Task Team: Emerging Technologies***

Emerging Technologies team members first identified the issues to be addressed and the types of technology that could be applied to the respective "practices" that are being evaluated by each Task Team.

**1. PLANNING & DESIGN PRACTICES**

Technology Applied

- "Subsurface Utility Engineering"
- Latitude/Longitude, and Depth
- Electronic/Web-site Planning by Designers

Issues/Challenges

Facilities often are not on company plans  
Minimize "peak work load" design with pre-planning

**2. ONE CALL PRACTICES**

Technology Applied

Various communications technology  
Data transmission standards

Issues

Positive response  
Remote user interface to one call center  
Database integrity  
Design locates.

#### Challenges

Improve overall communications methods (excavator, locator, facility operator, design engineers)  
Over-notification to facility owner/operator  
Latitude, longitude, and Depth coordinates not delivered to one call center

### 3. LOCATING AND MARKING PRACTICES

#### Technology Applied

New/improved locating equipment  
Electronic  
Ground penetrating radar  
Instrumentation  
Communications technology  
Pot-holing

#### Issues/Challenges

Non-conductive facilities  
Maintaining marks that have been placed

### 4. EXCAVATION PRACTICES

#### Technology Applied

Two categories - "Open pit" and Directional  
Directional drilling  
Directional Mole  
Micro-directional equipment  
Ground penetrating radar

#### Issues/Challenges

### 5. MAPPING

#### Technology Applied

Digital  
Lot Line  
Center Line  
Facility (detailed)  
Utility dependent for format  
Common mapping interface  
Universal accessibility

### ***Task Team: Planning & Design***

(Patrick Ramirez)

### ***Task Team: Reporting & Evaluation***

#### Issues:

- ▶ There are no formal requirements for damage reporting at the local, state, or federal levels (except for major gas ruptures). Companies that are tracking information do so through their own initiative. All companies are tracking different information and some companies aren't tracking any information.
- ▶ There is no mechanism for excavators to report the problems they are having in the field (such as unsuccessful locates, delays waiting for locators, etc.).
- ▶ Need to define what "damage" is (loss of service?, violation of damage prevention law?, does it include near misses?, ...).
- ▶ Need to develop a standard definition of how damage prevention negligence is measured (# hits per calls, # hits per feet of line, ...).
- ▶ Need to develop a uniform damage ratio.
- ▶ For the group that will analyze the data, need to establish a uniform classification for root causes. Parties can provide the data to one-call centers in their preferred format (let's be thankful for what we get).

#### Policy/Interface Items:

- ▶ Compliance needs good reporting data to do their job. After a damage occurs how is it communicated to the Compliance Group (i.e., how will the reported data get to the Compliance Group)?
- ▶ The Locating and Marking Task Team should address "Abandoned Facilities." There have been several problems with locators locating abandoned lines instead of "live" lines, causing excavators to dig into the live lines.

**Attachment 4**  
“Common Ground” Damage Prevention Best Practices Study  
Task Teams Kick-off Meeting, November 4 & 5, 1998, Phoenix, AZ

**Study Team Structure**

**Steering Team**

- Provides senior-level representation and support for the Study.
- Overall, has responsibility to review and sponsor the Study Report.
- Provides advice, guidance, and recommendations to the Linking Team and to the Task Teams.
- Acts as an arbiter to help achieve consensus on issues raised by the Linking Team.
- Supports communication among Team members, constituents, and the public.
  
- The Steering Team was selected in an attempt to achieve a balanced composition of industry and government representation, including:
  - ▶ government,
  - ▶ facility operators,
  - ▶ service providers, and
  - ▶ excavators.
  
- Steering Team members are:
  - ▶ Jim Barron,           NUCA
  - ▶ Will Carey,           AGA
  - ▶ Don Evans,           OCSI
  - ▶ Stacey Gerard,       DOT/OPS
  - ▶ Allen Gray,           AGC
  - ▶ John Healy,           Telcoms & Transmission

**Linking Team**

- Guides, supports, and ultimately integrates Task Teams’ efforts.
- Has overall responsibility to draft the Study Report, including the front matter, concluding chapters, and integration of the Task Teams’ chapters.
- Validates Task Team structures and membership -- ensures that the Task Teams are adequately staffed and representative of the diverse interests of the constituents.
- Monitors Task Team activities; provides guidance; supports communication among Team members, constituents, and the public.
- Serves as the first line of escalation for help in resolving issues raised by the Task Teams and achieving consensus.
- Helps to coordinate OPS contractor support for the Study Team efforts, through communication.
- Linking Team is sized to ensure optimum efficiency and balanced representation of industry and stakeholder constituencies.

- Linking Team members and their represented constituents are:
  - ▶ Jin Anspach, ASCE
  - ▶ Glynn Blanton, NARUC
  - ▶ Don Brown, Insurance
  - ▶ Claudette Campbell, OCSI
  - ▶ Larry Davied (co-chair) API, AOPL, INGAA
  - ▶ Donna Erat APWA
  - ▶ Griff Goad (co-chair) NTDPC
  - ▶ Russ Kopidlansky AGA
  - ▶ Rich Maxwell Independent Excavators
  - ▶ Doug McCall AAR
  - ▶ Mary McDaniel State Government (Texas RR Commission)
  - ▶ Skip McIntosh NULCA
  - ▶ John Murphy Federal Gov't (Railroad)
  - ▶ Mike McDonald Public Utility
  - ▶ Ken Naquin AGC
  - ▶ Andy Scott NCTA
  - ▶ Paul Scott Federal Government (FHWA)
  - ▶ Tommy Smith Public Utility
  - ▶ Jim Stutler NUCA
  - ▶ Eben Wyman DOT/OPS
  - ▶ John Zurcher INGAA

### Task Teams

- The Task Teams are the main element of the Study Team structure.
- Identify current damage prevention practices, drawing on each Team member's knowledge and experience.
- Consider the environment that influences the effectiveness of those practices.
- Establish the criteria to evaluate those practices and determine the "best" practices.
- Document the best practices and develop the chapters of the Study Report.
- Communicate aggressively and effectively with represented constituents.
- Actively represent constituents' interests.
- Work honestly and aggressively to achieve consensus on Task Team issues.
  
- Members have been sponsored by a represented constituency.
- Members have been selected and assigned for participation by the Linking Team.
- Each Task Team will have two co-chairs and a designated Linking Team Liaison for support.

### Communication

- Communication is Key to the Study effort.

- The large number of participants, the variety of represented interests and constituents, and the short calendar to complete the Study – all of these factors require aggressive and clear communication and information sharing.
- All Team members are encouraged to use all communication channels and NOT WAIT for organized meetings to do the necessary work.