Utah Fire Service Certification System

TECHNICAL RESCUE

TRENCH RESCUE

CERTIFICATION STANDARD

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Joan Aaron, Certification Program Manager

Certification Specialists:
Jennifer Lindley – Northern Region
Trudy Meister – Central Region
Sharon Stokes – Salt Lake County/Southern Region

For questions or comments concerning this or other Utah certification standards, please contact:

Utah Fire Service Certification Council
Utah Fire & Rescue Academy
Utah Valley University
3131 Mike Jense Parkway
Provo, Utah 84601
Phone 801-863-7709
Fax 801-374-0681
www.uvu.edu/ufra

Trench Rescue Technical Committee

The Certification Council would like to recognize and extend a voice of appreciation to the following fire service professionals for their work on the Trench Rescue certification standard. These individuals devoted many hours to reviewing the National Fire Protection Association (NFPA) 1006 standard, certification test banks, and curriculum textbooks to develop the wording for the skills for each discipline within this standard.

Thank you.

Trench Rescue Committee

David Youngberg, Battalion Chief
North Davis Fire District
*Certification Council Representative

Jason Buhler, Fire/Heavy Rescue Captain
Salt Lake City Fire Department

Wade Rigby, Engineer
South Davis Metro Fire

Brandon Valley, Captain
Orem Fire Department

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INTRODUCTION

The Utah Fire and Rescue Academy (UFRA) has evolved into a dynamic organization that provides fire and emergency service–related training, professional accredited certification, and resource assistance. The Utah Fire Service Certification System (UFSCS) has been administered by UFRA since the system's inception in the early 1980s. The governing body for the firefighter certification system in the state of Utah is the Utah Fire Service Certification Council (UFSCC). The members of the council represent various areas of the state as well as a variety of department types.

The entire system is based on international professional job performance standards from NFPA and NWCG. Fire service training must be utilized to its maximum potential. Any overlap, fragmentation, and lack of basic structure must be eliminated. Standardization is the natural complement and necessity. Through these national standards and certification, firefighters and fire departments have a tool to measure specific levels of skills, abilities, and knowledge. Testing takes place all over the state of Utah and is usually scheduled by fire department training officers for members of one or more local agencies to test at their own facilities using their own equipment.

The Utah Fire Service Certification System creates uniformity through certification. Certification allows a fire service professional to be a part of the National Registry (Pro Board and IFSAC), which verifies that a person has been trained at a national standard. Firefighters, hazardous materials responders, and rescue personnel can earn various certifications. Volunteer, part-time, and career firefighters must all meet the same standard to certify. Most fire departments in Utah have certified personnel even though there is no law requiring it.

> "Certification from an accredited entity is a statement of success, an indisputable mark of performance belonging to individual fire service professionals. Each successful candidate for certification from an accredited entity knows that he or she has been measured against peers and meets rigorous national standards. Certification affords the individual a uniformity and portability of qualifications. In addition, the creditability of an organization is enhanced by having members certified to national consensus standards."
>
> —theproboard.org
>
> IFSAC "provides accreditation to entities that certify the competency of and issue certificates to individuals who pass examinations based on National Fire Protection Association (NFPA) fire service professional qualifications and other standards approved by the Assembly."
>
> —ifsac.org

The following certification requirements are based on the objectives listed in Chapter 12, "Trench Rescue," in NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications* (National Fire Protection Association, 2021), as verified and adopted by the Utah Fire Service Certification Council (UFSCC).

TECHNICAL RESCUE CERTIFICATION REQUIREMENTS

Entrance Requirements

Certification at the Technical Rescue – Trench Rescue Awareness, Operations or Technician levels is a unique process. Because of the method and manner in which NFPA has established to become certified, candidates must complete the prerequisites and/or requirements for any of the specialty areas as set forth in Chapter 12 of NFPA 1006 (2021). In order to certify at the Technical Rescue – Trench Rescue Awareness, Operations or Technician levels, candidates must fulfill the following requirements:

1. Complete entrance requirements.
2. Set up and maintain department records.
3. Train on the required written and practical objectives in the specialty areas outlined in Chapter 12, "Trench Rescue."
4. Pass an in-house practical skills examination for each specialty area.
5. Meet any other training requirements/prerequisites as defined by the Certification Council.
6. Pass both written and practical skills examinations administered by the Certification Council.
7. Request Technical Rescue Certification for each specialty area completed.
8. Request recertification at end of each 3-year certification period.

Physical Fitness Requirements

The UFSCC acknowledges the importance of and need for physical fitness requirements as listed in NFPA 1006. Many agencies and departments have existing policies, regulations, etc. already in place regarding these requirements. The handling of physical fitness requirements is a **LOCAL MATTER**, outside the authority and jurisdiction of the UFSCC. The Council will not check, test, evaluate, or determine how individual agencies meet these requirements. Some departments have found it necessary to waive any type of physical fitness requirements due to their own special needs. As a local decision, this is permitted. However, due to the amount of physical, mental, and emotional stress inherent in this profession, **the Utah Fire Service Certification Council strongly recommends careful evaluation before altering or doing away with any existing physical fitness requirements.**

"All technical rescue activities should be carried out in the safest possible manner, including the consideration that all risks taken are to benefit the operation. Technical rescue skills require a high degree of physical activity, coordination, operational planning, and a strong knowledge of all applicable protocols" (NFPA 1006, 1.3.9).

Here are the entrance requirements outlined in NFPA 1006 (1.3.9, A.1.3.9):

1. Meet the minimum educational requirements established by the authority having jurisdiction.
2. The Utah Fire Service Certification Council Policy 11.3 requires that a candidate must be at least 18 years of age to test and be certified.
3. Meet the medical requirements of NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments,* 2022 edition*,* as determined by the medical authority of the AHJ.
4. Technical rescue operations involve activities that pose great physical and mental challenges requiring the rescuer to perform challenging physical activities in a high-stress environment. Physical fitness requirements for entry-level personnel should be developed and validated by the authority having jurisdiction. Physical fitness requirements should be in compliance with applicable Equal Employment Opportunity regulations and other legal requirements.
5. Prior to beginning training as technical rescue personnel, a minimum medical training requirement should be met.

6. People having the potential for encountering hazardous materials on an incident scene should be trained to recognize the hazard and to implement exposure and control methods.

Department Training Officers

For a department to enroll in the certification process, it is necessary for the department to assign training officers. Departments who **do not** have certified personnel to act as training officers for certification training should contact the Utah Fire & Rescue Academy at (801) 863-7709 for assistance in setting up and monitoring certification training.

Department training instructors shall be certified at the level they are teaching. In addition, the Certification Council strongly recommends that training officers and instructors be state certified at the Instructor I level.

Department training officers or instructors will be responsible for certification training. Their primary responsibility will be to teach, evaluate, and in-house test department personnel on the skill and evolution requirements for each level of certification training.

The final entrance requirement is to complete the **Intent to Participate** form provided in Appendix C and return it to the Certification Council. Remember, participation in the certification process is **VOLUNTARY**. Once you have enrolled, you can withdraw if desired.

If a department is already participating in the Utah Fire Service Certification System, it will not be necessary to file another Intent to Participate form.

DEPARTMENT TRAINING

The position of a Trench Rescuer is one that requires a high level of skill and knowledge. The training that is given to and received by the candidate should be of the highest quality and degree. All training received must meet the requirements of NFPA 1006 (2021), including the sections regarding technical specialty areas contained in Chapter 12, and the skills as approved by the UFSCC contained within this Utah certification standard. All training received must be documented and recorded in the Training Record. All testing for Trench Rescue will be conducted following the Policies and Procedures of the UFSCC.

Training for Trench Rescue can be obtained by completing one of the following training courses or methods in order to qualify to take the state certification examination.

1. A Trench Rescue course which meets the requirements of NFPA 1006 (2021), Chapter 12. A Training Record, as given in this standard, must be completed for each person.

2. Department-Based Training. Departments can create their own Trench Rescue course which meets the requirements as outlined in the "Trench Rescue" section of Chapter 12 in NFPA 1006 (2021). A Training Record, as given in this standard, must be completed for each person involved in the department-based training.

To prepare the candidate to successfully pass the state certification examination, the course material should be based on NFPA 1006 (2021) and the *Trench Rescue* textbook published by Jones and Bartlett.

Written Objectives

Written objectives for Trench Rescue are covered in:

- Chapter 12, "Trench Rescue," in NFPA 1006 (2021)
- Ron Zawlocki and Craig Dashner, *Trench Rescue*, 4th edition (Jones & Bartlett Learning, 2022)

These resources are available from various fire service bookstores or on the internet. A list of current resources is available online at uvu.edu/ufra.

There are numerous methods departments have used to help prepare their personnel for the written examination. Considering the high level of skill and knowledge that is required of a Trench Rescuer, the Council recommends that the candidate participate in a comprehensive class and receive instruction on both skills and written requirements.

Skill Objectives

Each participant **must** be trained and evaluated in the performance of **all** skills as found in this Utah certification standard. Each of the skill objectives shall be completed swiftly, safely, and with competence as defined below:

- **Swiftly.** Each skill objective must be completed within the allotted time.
- **Safely.** Each skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Department Training Records

Each candidate shall have a current, accurate, and complete Training Record on file with the department which indicates that they have been trained on all skill objectives. **The Training Record must be completed in its entirety in order to test.** Training Records may be completed on a computer or by hand. Departments may set up their own Training Records, use the one provided in this standard, or use the fillable Training Record found online on UFRA's website. If a department chooses to set up their own Training Record it must meet the following requirements:

1. Indicate the certification level and its corresponding NFPA standard number and edition.
2. Include a signature line for the candidate, which attests that all skills have been trained on and a complete in-house comprehensive exam was administered and passed.
3. Include a signature line for the Chief/Training Officer, which attests that the candidate has been trained on all skills and a complete in-house comprehensive exam was administered and passed.
4. Include a line to record the date the Training Record was completed.
5. List all the skills from this Utah certification standard for this level. Include columns indicating the date of trainings, training instructors, the date of exams, exam instructors, and whether the candidate passed each exam (see the Training Record on page 11 in this standard).

Department In-House Skills Examination

At the completion of the department's skills training, the department is required to hold an in-house skills examination for the level being trained. This is a comprehensive in-house skills test conducted by the department training officers. This test is to ensure that skill mastery has been maintained from the beginning to the end of the training process, and to prepare candidates for the state examination. Training officers may utilize other personnel to assist in administering the exam; however, they must be certified at the level they are in-house testing.

Proctor instructions for the examination are in Appendix B in this standard. In-house testers shall follow the proctor instruction sheet to provide for uniformity and fairness during the exam. It is recommended that candidates be given two attempts at any skill. **If they fail on the second try, then they have failed the evaluation and are required to go through additional training by the department trainer.** No training, teaching, or coaching is allowed during the test. After the evaluation, using the test to teach and train is recommended.

If skill weaknesses are evident, the department should conduct additional training and hold a new department in-house skills examination to ensure their personnel has fully mastered all required skills. Only those individuals who successfully pass the department skill test will be allowed to participate in the Certification Council's skill spot check examination. Department records must show that all candidates have successfully passed the in-house exam.

CERTIFICATION EXAMINATIONS

After completion of the training process, the Chief/Administrator can request testing for the candidate using the Examination Request form in Appendix C. The candidate will then have three attempts to pass the written examination. A separate request must be sent to the Certification Office for each attempt. Request forms must reach the Certification Office no later than 30 days prior to the examination date. The entire examination process must be completed within one year of the first written exam date.

Written Examinations

The written examination is a randomly generated test covering the written objectives of the Technical Rescue standard of NFPA 1006 (2021).

Chapter 12 Certification Level	**# of Questions**
Trench Rescue - Awareness	25
Trench Rescue - Operations	50
Trench Rescue - Technician	25

A minimum score of 70% is required to pass the certification exam. Firefighters failing the first attempt of the written exam will be permitted to retest no sooner than 30 days from the date of the last exam. Three attempts area allowed to pass the exam. If a candidate fails the written examination three times, they have failed the certification process and must wait one year from the date of the last failed exam before reentering testing. Exam results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

Skills Spot Check Examinations

This is a two-step examination. The first step is a department records check and the second is the skills spot check examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts the examination.

Training records are checked. If records are inadequate, corrective action must be taken before proceeding to the next step. The records must meet minimum requirements and are checked for the following:

1. Candidate has been trained in each skill for the level being evaluated.
2. A department training officer has signed off each skill.
3. Each candidate has passed a department in-house skills examination.

The skills spot check examination is graded on a 100% pass/fail basis. The test is graded in the following three areas:

- **Swiftly.** Each skill objective must be completed within the allotted time.
- **Safely.** Each skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Evolution Examinations: Candidates are spot checked on one Evolution Examination for each level (Awareness, Operations, Technician), or three skills for that level (chosen randomly). This is a 100% pass/fail test. If a candidate fails any portion of the skill, then they have failed the evolution/skill and must retest the entire evolution/skill. Candidates who fail the second attempt must wait **30 days** before the third and final attempt. **No training, teaching, or coaching is allowed during this state test.**

- Trench Rescue Awareness: one Evolution Examination, or three skills for that level
- Trench Rescue Operations: one **Team** Evolution Examination, or three skills for that level
- Trench Rescue Technician: one **Team** Evolution Examination, or three skills for that level

The skills will be from NFPA 1006 (2021), Chapter 12. Candidates are given two attempts to perform each skill/evolution. If they fail on the second attempt, the applicants must wait 30 days before the third and final attempt. Participants taking third attempts will test on the skill/evolution they missed and one additional skill.

Candidates who have failed the third attempt of the written examination or the skills examination have failed the certification process and must wait **one year** from the date of the failed third attempt to reenter state testing. The candidate will begin testing with a new **first attempt** of the written examination, following a request for examination. If a candidate wishes to enter a new course, the candidate may petition the Certification Office to reenter the certification examination process no sooner than 120 days after their **third attempt** failure. In the petition, candidates must explain the reason(s) behind their request to reenter the process.

TECHNICAL RESCUE CERTIFICATION

When all requirements for certification have been met, applicants are eligible to be certified. The chief/administrator may apply to the Utah Fire Service Certification Council for certification for those candidates who have successfully completed the certification training/testing process. Requests for state certification must be submitted to the Certification Office using the Certification/Recertification Request form provided in Appendix C. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Effective January 1, 2025, the fee structure for first, second, and third attempts on exams has changed. All exam attempts are $75, except for Firefighter I and II, Hazardous Materials Awareness and Operations. (See Appendix C for more details.)

Candidates who have met the requirements for certification will continue to have access to their wallet ID card and certificate online via the UFRA Certification and Training Lookup System at https://uvu.edu/ufra/lookup/. Patches are included with each certification (if available for that level). Additional patches are $10. New printed certificates with an original seal attached may be requested from the Certification Department for a fee of $20 per certificate. A hard wallet ID card is $20.

The new fee structure applies to Utah fire departments only. All other Utah agencies will be assessed a $90 fee per attempt for each level. Reciprocity is $200 per application (for all levels), but it must include Pro Board or IFSAC certificates (with an IFSAC seal).

Prerequisites for Trench Rescue Certification

To qualify to train on the NFPA 1006 section listed in the left column, candidates must have completed the prerequisite training indicated in the right column.

Training	Prerequisites
Rope Rescue - Awareness (5.1)	
Trench Rescue - Awareness (12.1)	
Trench Rescue - Operations (12.2)	5.1, 12.1, 12.2
Trench Rescue - Technician (12.3)	12.2, 12.3

Recertification

Certifications are valid for a three-year period. Each certified Technical Rescuer may renew certification by having the Chief/Administrator of the participating agency submit a Certification/Recertification Request (provided in Appendix C of this standard).

Certified candidates should participate in at least 36 hours of structured class and skill training per year to maintain competency and stay current on their skills. This 36 hours is for all certified levels combined, not 36 hours for each individual level. **A total of 108 hours of training is required** for the previous three-year certification period.

Recertification for Technician Levels Only

Because of the high level of skills required of a Trench Rescue Technician, the Certification Council requires that candidates complete an in-house comprehensive examination evolution—that allows them to demonstrate the technician-level skills contained in this standard—as part of their recertification process. An original copy of a candidate's Technician Training Record for the previous three-year period must accompany each technician recertification request, verifying the candidate is qualified in all technician level skills.

For more information on Utah firefighter certification, contact the:

Utah Fire Service Certification Council
Utah Fire & Rescue Academy, 3131 Mike Jense Parkway, Provo, UT 84601, 801-863-7709, www.uvu.edu/ufra

TECHNICAL RESCUE CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- ❑ Each candidate has met the requirements listed in NFPA 1006, 2021 edition.
- ❑ Each candidate has trained on the Technical Rescue level written objectives.

DEPARTMENT TRAINING RECORDS:

- ❑ Each candidate has a training record on file with the department that shows:
  1. A learning experience in each skill objective
  2. Dates of training
  3. Initials of instructors
- ❑ Each candidate has trained on the Technical Rescue level written objectives.

DEPARTMENT IN-HOUSE SKILLS EXAMINATION:

- ❑ Each candidate has successfully completed an in-house skills and evolution examination.
- ❑ Exam results are documented in department training records.

CERTIFICATION EXAMINATIONS:

- ❑ Each candidate has passed the UFSCC written examination.
- ❑ Each candidate has passed the UFSCC skill.
- ❑ A Spot Check examination was administered by an approved Certification Tester(s).

TECHNICAL RESCUE CERTIFICATION:

- ❑ The Chief/Administrator has requested certification for candidates using the Certification/Recertification Request.

SECTION I
TRENCH RESCUE – AWARENESS

TRENCH RESCUE - AWARENESS

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a trench simulator, or an open trench, for testing purposes. Refer to Appendix A for the Trench Specifications Sheet.

Awareness Examination Evolution

To create a more realistic testing environment, the individual skills have been assembled into this examination evolution. Candidates must train and complete an in-house skills and evolution examination. The evolution will be graded on a 100% pass/fail basis.

1. **Establish command, perform an appropriate scene size-up and create a corresponding Incident Action Plan for a trench collapse scenario.**

   REFERENCE: NFPA 1006, 2021 edition, 12.1.2-12.1.7

   CONDITION: Given a trench collapse scenario, notepad and pencil, and graphics of the incident, list in writing the issues that should be addressed in the Incident Action Plan.

   SCENARIO: Your team has been assigned to gain access to a live patient in a trench collapse who is partially buried. The patient is unconscious yet in stable condition.

   COMPETENCE:

   a. Establish command, conduct a scene size-up, create a corresponding Incident Action Plan. Determine exactly what has happened, and identify additional resources needed.
   b. Secure witnesses, site supervisor, and Competent Person. Read, gather information and resources, and interview.
   c. Identify and mitigate immediate hazards, determine trench type (Straight, T, L).
   d. Remove nonessential personnel and restrict entry.
   e. Identify location and number of patients and assess the non-entry or self-rescue options.
   f. Determine severe environmental conditions with implications for secondary collapse and victim survivability.
   g. Reduce imposed loads at or near the lip of the trench
   h. Place scene control barriers
   i. Operate control and mitigation equipment
   j. Identify and communicate areas of high risk, identify incident hazards, select and deploy tools or materials for bridging or weight distribution.
   k. Apply AHJ operational protocols, request support and resources, and determine safety measures using technical rescue reference materials and specific planning forms based on the types of incidents
   l. Conduct a risk benefit analysis and determine rescue or recovery operation.
   m. Activate and identify appropriate strategy and tactics and notify the appropriate trench level response for the given situation and determine

the require safety measures.

n. Function within an incident management system, implement an Incident Action Plan, and follow ICS and AHJ operational protocols.
o. Report the task progress status to a supervisor or incident command.
p. Identify and evaluate various types of hazards within the AHJ.

TIME: 20 minutes

UTAH FIRE SERVICE CERTIFICATION SYSTEM
TRENCH RESCUE - AWARENESS

NFPA 1006, 2021 Edition
12.1.1 - 12.1.7

TRENCH RESCUE - AWARENESS
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			EVOLUTION / SKILLS
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
Evolution 12.1.2-12.1.7						**Establish command, perform an appropriate scene size-up and follow and implement an Incident Action Plan (IAP) for a trench collapse scenario.**
12.1.4						a) Establish command. Conduct a scene size-up. Create a corresponding Incident Action Plan. Determine exactly what has happened. Identify additional resources as needed.
12.1.1, 12.1.4						b) Secure witnesses, site supervisor, and Competent Person. Read, gather information and resources, and interview.
12.1.1, 12.1.3						c) Identify and mitigate immediate hazards and determine trench type (Straight, T, L).
12.1.2						d) Remove nonessential personnel and restrict entry.
12.1.2						e) Identify location and number of patients and assess the non-entry or self-rescue options.
12.1.1						f) Determine severe environment conditions with implications for secondary collapse and victim survivability.
12.1.3, 12.1.5, 12.1.6						g) Identify and communicate areas of high risk, identify incident hazards, select and deploy tools or materials for bridging or weight distribution.
12.1.6, 12.1.7						h) Apply AHJ operational protocols, request support and resources, and determine safety measures.
12.1.3, 12.1.5, 12.1.6						i) Conduct a risk benefit analysis and determine rescue or recovery operation.
12.1.6						j) Activate and identify appropriate strategy and tactics and notify the appropriate trench level response for the given situation.
12.1.7						k) Function within an incident management system, implement an Incident Action Plan, and follow ICS and AHJ operational protocols.

SECTION II
TRENCH RESCUE – OPERATIONS

TRENCH RESCUE - OPERATIONS SKILL OBJECTIVES

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a trench simulator, or an open trench, for testing purposes. Refer to Appendix A for the Trench Specifications Sheet.

1. **Establish command, perform an appropriate scene size-up and create a corresponding operating Incident Action Plan for a trench collapse scenario.**

REFERENCE: NFPA 1006, 2021 edition, 12.2.1-12.2.6

CONDITION: Given a trench collapse scenario, notepad and pencil, and graphics of the incident, list in writing the issues that should be addressed in the Incident Action Plan.

SCENARIO: Your team has been assigned to gain access to a live patient in a trench collapse who is partially buried. The patient is unconscious yet in stable condition.

COMPETENCE:

- Establish command.
- Conduct a scene size-up, determine exactly what has happened, and identify additional resources needed.
- Identify type, depth of trench (no more than 8 feet deep). Pre-brief team on shoring strategies.
- Secure witnesses, site supervisor, and Competent Person.
- Identify and mitigate immediate hazards, establish safety zones, making scene safe.
- Identify location and number of patients and assess the non-entry or self-rescue options, if possible.
- Conduct a risk benefit analysis and determine rescue or recovery operation.
- Identify appropriate strategy and tactics for the given situation.
- Assign RIT and operational tasks.
- Ensure protective systems are being used appropriately.
- Assess victim(s) for injurie4s, package victim for safe removal
- Safely remove victim(s) using appropriate rigging methods as needed

TIME: 15 minutes

2. **Identify and describe type of PPE requirements for a trench rescue incident. Describe the use and care of PPE, etc.**

REFERENCE: NFPA 1006, 2021 edition, 12.2.2-12.2.7

CONDITION: Given a trench rescue incident, describe required types of PPE and equipment. AHJ approved.

COMPETENCE:

- Identify and describe the type(s) of PPE used and/or potentially used in a Trench rescue:

- Steel toed boots
- Harness (AHJ – if required)
- Helmet
- Gloves
- Respiratory protection; SCBA, face piece, etc. (as needed) if incident requires it
- Other PPE required by AHJ

- Use and care of PPE:
  - After incident is complete, be sure PPE is clean and operable.
  - Follow AHJ approved cleaning protocols.

TIME: 3 minutes

3. Identify and describe the type of rescue tools and equipment requirements for a trench rescue incident.

REFERENCE: NFPA 1006, 2021 edition, 12.2.3, 12.2.5, 12.2.7-12.2.8

CONDITION: Given a trench rescue incident, describe required types of tools and equipment. AHJ approved.

COMPETENCE:

- Trench Rescue tools and equipment, identify *at least* eight:
  - Tape measure
  - Ground pads
  - Ladder(s)
  - Air monitoring and ventilation equipment
  - Trench shoring equipment (panels, struts, ropes, etc.)
  - Pike poles
  - Pickets and sludge hammers
  - Hammer and nails
  - Shovels and buckets
  - Patient removal equipment
  - Lifting equipment (air bags, jacks, etc.)
  - Rope rescue equipment
  - As needed:
    - Scene lighting
    - Lumber cutting equipment
    - Chain saws
    - Dewatering devices

TIME: 3 minutes

4. Disassemble rescue support systems at a trench emergency incident.

REFERENCE: NFPA 1006, 2021 edition, 12.2.7, 12.2.8

CONDITION: Given a properly shored intersecting trench of the following dimensions: Intersecting L – Short Leg 7'x 4'x 9', Long Leg 7' x 4'x 13', OR Intersecting T – Top Leg 7' x 4' x 14', Bottom Leg 7' x 4' x 5', an 8-12 member firefighter team, a Competent Person as assigned by the AHJ, appropriate PPE, a Tactical Sheet as provided or used by the AHJ, 2 ladders, and an atmospheric monitor.

SCENARIO: Your team has removed a live patient in a trench collapse. Disassemble rescue support systems.

COMPETENCE:

- Wear appropriate PPE.
- Appoint necessary groups and/or divisions for the task, including RIT.
- Establish clear communications on the rescue scene.
- Appoint safety officer who monitors the scene, operations, rescuers, and patients.
- Establish a clear escape route and rally point for team members.
- Safely approach, assess, work in and around the trench.
- Determine method for disassembly: machine removal, manual removal, and machine tear out, etc.
- Remove protective systems in appropriate order given the depth and configuration of the trench.
- Demonstrate safe and proper removal of the last shore and corresponding panels.
- Account for all personnel.
- Command must verify that all equipment was accounted for prior to terminating the operation and returned to pre-deployment working order.
- Conduct post incident briefing with team
- Ensure appropriate report is completed

TIME: 60 minutes

5. Demonstrate the maintenance procedures and assembly procedures for a pneumatic shore.

REFERENCE: NFPA 1006, 2021 edition, 12.2.2-12.2.5, 12.2.7, 12.2.8

CONDITION: Given one Pneumatic Shore as used by the AHJ, one Control Box including all hoses and gauge, one air bottle, disassembled pneumatic.

COMPETENCE:

- Inspect exterior and interior cylinder for any deformity that would impair safe operations.
- Ensure that bypass hole is unobstructed.
- Inspect seals or "O" ring for cracks or deformities.
- Ensure all parts of the strut assembly are clean and free of debris.
- Check the locking mechanism on the cylinder for signs of excessive wear.
- Check hoses for cracks or other defects, include the couplers.
- Demonstrate correct procedure for assembling the device and making it ready for operation.

TIME: 5 minutes

6. Conduct monitoring of the environment so that a representative sample of the space is obtained.

REFERENCE: NFPA 1006, 2021 edition, 12.2.1-12.2.3

CONDITION: Given properly calibrated monitoring equipment for Oxygen, LEL, Toxicity,

reference material, personal protective equipment, and size-up information.

COMPETENCE:
- Identify type of monitoring equipment to be used.
- Identify proper PPE for incident.
- Confirm fresh air calibration of selected monitoring equipment.
- Obtain environmental sample of the trench.
- Correctly interpret monitor readings.
- Inform incident command of atmospheric conditions.
- Document readings of sample taken.
- Determine ventilation effects in the trench being monitored.

TIME: 5 minutes

7. Demonstrate the maintenance procedures and start-up procedures for a gasoline-operated chain saw.

REFERENCE: NFPA 1006, 2021 edition, 12.2.3-12.2.4

CONDITION: Given appropriate PPE, one gasoline-operated chain saw as used by the AHJ, one set of chain saw chaps, one helmet, one set of ear protection, one pair of safety glasses, assorted screwdrivers, a spark plug wrench, one spare chain.

COMPETENCE:
- Check fuel/oil mix level and bar oil level.
- Check condition of air filter and spark plug.
- Check condition of chain.
- Demonstrate correct procedures for changing and adjusting the chain.
- Set chain brake.
- Don appropriate PPE.
- Stabilize saw.
- Open choke and pull the cord several times (until saw sputters).
- Close the choke and pull cord until the saw starts.

TIME: 7 minutes

TRENCH RESCUE – OPERATIONS EVOLUTION

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a trench simulator, or an open trench, for testing purposes. Refer to Appendix A for the Trench Specifications Sheet.

To create a more realistic testing environment, the individual skills have been assembled into this examination evolution. Candidates must train and complete an in-house skills and evolution examination. The evolution will be graded on a 100% pass/fail basis.

1. **The candidate, working as a member of a (min. 8-member to max. 12-member) team, fulfilling assigned team roles, supplied with the appropriate equipment, following local medical protocol and OSHA Standards, shall demonstrate the ability to size up the scene, establish command, and appoint personnel to the needed groups, division, or branch leader positions. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in a straight trench. The patient shall then be transported to a safe area outside of the Hot Zone. Create shoring system in a straight trench less than 8 ft. deep. (For trench dimensions, refer to the Trench Specifications Sheet in Appendix A.)**

   REFERENCE: NFPA 1006, 2021 edition, 12.1.3-12.1.6, 12.2.1-12.2.8, 12.3.1-12.3.5, 12.3.7, 12.3.11

   CONDITION: Given a straight trench (*less than 8 ft deep*), 7’ x 4’ x 12’, 8-12 member firefighter team, a Competent Person as assigned by the AJH, appropriate PPE, a Tactical Sheet as provided or used by the AHJ, a Trench Shoring Kit (struts, panels, etc.), one ladder, a patient packaging device and patient removal kit, a Rescue Randy or equivalent, shovels, buckets, and an atmospheric monitor. Disassembly afterward.

   SCENARIO: Your team has been assigned to gain access to a live patient in a trench collapse who is partially buried. The patient is unconscious yet in stable condition.

   TEAM ROLES: Assigned team roles include, but are not limited to: panel team (3), strut team (setup [1], ropes [2+], controller [1]), entry team, (1+), Rescue Officer and support personnel, and other AHJ protocols. Safety Officer must be qualified and provided by the AHJ.

   ***The evolution exam is a team evolution but is graded individually; the whole team is not penalized if one or more members do not fulfill their required tasks. Each team member must have the knowledge/skills of each role.*

   COMPETENCE:

   a. Wear appropriate PPE.
   b. Choose appropriate tools for the task (tabulated data).

c. Verify the tools are in good working order.
d. Establish command, including IAP, and back-up plans. Establish clear communications on the rescue scene
e. Appoint necessary groups and/or divisions for the task, including RIT.
f. Appoint a safety officer who monitors the scene, operations, rescuers, and patients.
g. Establish the hazard control zones and provide energy control
h. Demonstrate how to monitor atmosphere and ventilate.
i. Identify soil type and corresponding shoring system requirements based on equipment provided by the AHJ (tabulated data).
j. Assess and mitigate obvious hazards, including but not limited to: spoil pile, exposed utilities, overhead hazards, presence of water in and around trench, surcharge loads, heavy machinery, vibration sources, atmosphere monitoring. Ventilate as needed, etc.
k. Employ hazard control plan to protect personnel inside and outside trench and establish safe zones.
l. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in a straight trench.
m. Establish clear communications on the rescue scene.
n. Implement strategies to minimize unplanned soil movement
o. Establish clear communications on the rescue scene
p. Safely approach, assess, work in and around the trench.
q. Complete risk/ benefit assessments for selected methods of rescue and time constraints
r. Designate cut station location, material, and equipment needs.
s. Establish a clear escape route and rally point for team members and establish safe zones.
t. Appropriately place ground pads and/or lip protection.
u. Properly install ladders as a means of primary and emergency access and egress.
v. Prebrief team on shoring strategies.
w. Properly place panels and install shores and wales based on the depth, type, and size of trench per AHJ protocols
x. Lower and place panels with the use of ropes.
y. Assembly, placement, and pressurizing of a strut.
z. Installation and the use of supplemental shoring.
aa. Initiate dewatering as needed.
bb. Safely access patient as soon as it is operationally possible.
cc. Expose patient completely, implement supplemental shoring as needed, and initiate appropriate medical interventions.
dd. Package patient and establish a means of extricating patient.
ee. Transport victim safely out of the Hot Zone.
ff. Use correct hand signs and radio communication.

STOP TIME

DISASSEMBLY

aa. Terminate incident. Demonstrate safe and proper removal of the last shore and corresponding panels.
bb. Use trench safety protocols and clean and service equipment.
cc. Account for all personnel, perform incident debrief, and complete any documentation for the AHJ.

TIME: 2 hours

UTAH FIRE SERVICE CERTIFICATION SYSTEM
TRENCH RESCUE - OPERATIONS

NFPA 1006, 2021 Edition
12.2.1-12.2.8

TRENCH RESCUE - OPERATIONS
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			EVOLUTION / SKILLS
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
						Trench Rescue pre-requisites have been met prior to Trench Rescue Operations.
12.2.1-12.2.6						1. Establish command, perform an appropriate scene size-up and create a corresponding operating Incident Action Plan for a trench collapse scenario.
12.2.2-12.2.7						2. Identify and describe type of PPE requirements for a trench rescue incident. Describe the use and care of PPE, etc.
12.2.3, 12.2.5, 12.2.7-12.2.8						3. Identify and describe the type of rescue tools and equipment requirements for a trench rescue incident.
12.2.7, 12.2.8						4. Disassemble support systems at a trench emergency incident
12.2.2-12.2.5, 12.2.7-12.2.8						5. Demonstrate the maintenance procedures and assembly procedures for a pneumatic shore.
12.2.1-12.2.3						6. Conduct monitoring of the environment so that a representative sample of the space is obtained.
12.2.3-12.2.4						7. Demonstrate the maintenance procedures and start-up procedures for a gasoline-operated chain saw.
Evolution *12.2.1-12.2.8*						The candidate, working as a member of a (min. 8-member to max. 12-member) team, fulfilling assigned team roles, supplied with the appropriate equipment, following local medical protocol and OSHA Standards, shall demonstrate the ability to size up the scene, establish command, and appoint personnel to the needed groups, division, or branch leader positions. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in a straight trench. The patient shall then be transported to a safe area outside of the Hot Zone. Create shoring system in a straight trench less than 8 ft. deep. (For trench dimensions, refer to the Trench Specifications Sheet in Appendix A.)

SECTION III
TRENCH RESCUE – TECHNICIAN

TRENCH RESCUE - TECHNICIAN SKILL OBJECTIVES

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a trench simulator, or an open trench for testing purposes. Refer to Appendix A for the Trench Specifications Sheet.

1. **Establish command, perform an appropriate scene size-up and create a corresponding Incident Action Plan for a trench collapse scenario.**

REFERENCE: NFPA 1006, 2021 edition, 12.3.1-12.3.7, 12.3.11

CONDITION: Given a trench collapse scenario, notepad and pencil, and graphics of the incident, list in writing the issues that should be addressed in the Incident Action Plan.

SCENARIO: Your team has been assigned to gain access to a live patient in a trench collapse who is partially buried. The patient is unconscious yet in stable condition.

COMPETENCE:

- Establish command.
- Conduct a scene size-up, determine exactly what has happened, and identify additional resources needed.
- Identify type, depth of trench. Pre-brief team on shoring strategies.
- Secure witnesses, site supervisor, and Competent Person.
- Identify and mitigate immediate hazards, establish safety zones, making scene safe.
- Identify location and number of patients and assess the non-entry or self-rescue options, if possible.
- Conduct a risk benefit analysis and determine rescue or recovery operation.
- Identify appropriate strategy and tactics for the given situation.
- Assign RIT and operational tasks.
- Ensure protective systems are being used appropriately.

TIME: 15 minutes

2. **Identify and describe type of PPE requirements for a trench rescue incident. Describe the use and care of PPE, etc.**

REFERENCE: NFPA 1006, 2021 edition, 12.3.4-12.3.7, 12.3.10, 12.3.11

CONDITION: Given a trench rescue incident, describe required types of PPE and equipment. AHJ approved.

COMPETENCE:

- Identify and describe the type(s) of PPE used and/or potentially used in a trench rescue:

- Steel-toed boots
- Harness (AHJ – if required)
- Helmet
- Gloves
- Respiratory protection; SCBA, face piece, etc. (as needed) if incident requires it
- Other PPE required by the AHJ

- Use and care of PPE:
  - After incident is complete, be sure PPE is clean and operable.
  - Follow AHJ approved cleaning protocols.

TIME: 3 minutes

3. Identify and describe the type of rescue tools and equipment requirements for a trench rescue incident.

REFERENCE: NFPA 1006, 2021 edition, 12.3.1, 12.3.3, 12.3.8, 12.3.9, 12.3.11

CONDITION: Given a trench rescue incident describe required types of tools and equipment. AHJ approved.

COMPETENCE:

- Trench rescue tools and equipment, identify *at least* eight:
  - Tape measure
  - Ground pads
  - Ladder(s)
  - Air monitoring and ventilation equipment
  - Trench shoring equipment (panels, struts, ropes, etc.)
  - Pike poles
  - Pickets and sludge hammers
  - Hammer and nails
  - Shovels and buckets
  - Patient removal equipment
  - Lifting equipment (air bags, jacks, etc.)
  - Rope rescue equipment
  - As needed:
    - Scene lighting
    - Lumber cutting equipment
    - Chain saws
    - Dewatering devices

TIME: 3 minutes

4. Demonstrate the correct setup and lifting procedures using an appropriate lifting system (high and/or low-pressure air bags, cribbing system, etc.) given the load calculations, lift a heavy load to completely free a victim.

REFERENCE: NFPA 1006, 2021 edition, 12.3.8-12.3.11

CONDITION: Given an 8–12 member rescue team, lift a heavy load (12+ inches) to completely free a victim, appropriate lifting tools (high and/or low-pressure

air bags, cribbing system, long handled pry bars, etc.), a Rescue Randy.

COMPETENCE:
- Wear appropriate PPE.
- Clear lifting area from any debris.
- Calculate load to be lifted.
- Choose the correct equipment for the task and operate it safely.
- Demonstrate correct positioning of the chosen rescue lifting system.
- Lift 12 inches and maintain load stabilization by cribbing.
- Ensure cribbers are positioned in a safe zone during the lifting process, and/or secure load.
- Determine if a cribbing system is suitable.
- Safely transfer load onto cribbing system (if needed).
- Complete a final safety inspection.
- Remove Rescue Randy without compromising rescuer safety.
- Complete skill in allotted time.

TIME: 30 minutes

5. Coordinate the use of heavy equipment so that the operator capabilities and limitations for the task are evaluated.

REFERENCE: NFPA 1006, 2021 edition, 12.3.10

CONDITION: Given PPE, means of communication, equipment and operator, and an assignment.

COMPETENCE:
- Wearing appropriate PPE.
- Establish effective communications, either hand signals or radio communication.
- Assess operator skill level and demeanor to ensure safe operations.
- Recognize hazards
- Monitor rescuer and patient safety.
- Complete skill in allotted time.

TIME: 15 minutes

6. Demonstrate securing and stabilizing the heavy machinery so it does not create a hazard for the rescuers using a backhoe or track hoe.

REFERENCE: NFPA 1006, 2021 edition, 12.3.10

CONDITION: Given one backhoe or track hoe as used by the AHJ, Lock-Out Tag-Out Kit, roll of duct tape, pneumatic or timber shores, suitable number of 12-18” 4 x 4s for stabilizing all hydraulic cylinders, set of heavy-duty chains, suitable number of wheel chocks and cribbing blocks, set of pneumatic lifting devices, one Come-a-Long (chain type preferred).

COMPETENCE:
- Turn off the ignition and remove keys.
- Perform an appropriate Lock-Out Tag-Out of the operating systems.
- Chock all wheels.
- Chock all extended cylinders.

- Secure the boom.
- Secure the bucket.
- Secure the undercarriage.
- Complete a final safety inspection.
- Complete skill in allotted time.

TIME: 7 minutes

7. Safely demonstrate the use of supplemental shoring using an appropriately shored trench, with an exposed section of trench wall 2 ft. or greater below the approved shoring system.

REFERENCE: NFPA 1006, 2021 edition, 12.3.6

CONDITION: Given an appropriately shored trench, assigned by the AHJ, victim in place, supplemental shoring equipment used by AHJ, ladder(s), and an atmospheric monitor.

COMPETENCE:
- Wear appropriate PPE.
- Choose an appropriate tool for the task.
- Maintain rescue entry safe zones.
- Assess and mitigate obvious hazards, including but not limited to: excavation of entrapping soil, exposed trench wall, ensuring patient protection is maximized, etc.
- Establish clear communications for the task.
- Ensure Safety Officer is assigned who monitors the scene, operations, rescuers, and patients.
- Demonstrate application of supplemental shoring equipment as soil is removed (panels, struts, etc.).
- Complete skill in allotted time.

TIME: 20 minutes

TRENCH RESCUE - TECHNICIAN EVOLUTION

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for the candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a trench simulator, or an open trench for testing purposes. Refer to Appendix A for the Trench Specifications Sheet.

To create a more realistic testing environment, the individual skills have been assembled into this examination evolution. Candidates must train and complete an in-house skills and evolution examination. The evolution will be graded on a 100% pass/fail basis.

1. **The candidate, working as a member of a (min. 8-member to max. 12-member) team, fulfilling assigned team roles, supplied with the appropriate equipment, following local medical protocol and OSHA Standards, shall demonstrate the ability to size up the scene, establish command, and appoint personnel to the needed groups, division, or branch leader positions. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in an intersecting trench. The patient shall then be transported to a safe area outside of the Hot Zone. Create shoring systems in trenches 8 ft. deep or greater, intersecting trenches.**

REFERENCE: NFPA 1006, 2021 edition, 12.1.3-12.1.6, 12.2.1, 12.2.2, 12.2.6, 12.3.1-12.3.11

CONDITION: Given an intersecting trench, more than 8 ft. deep (2.4 m.). Intersecting L – Short Leg 7’ x 4’ x 9’, Long Leg 7’ x 4’ x 13’, OR Intersecting T – Top Leg 7’ x 4’ x 14’, Bottom Leg 7’ x 4’ x 5’, 8-12 member firefighter team, a Competent Person as assigned by the AHJ, appropriate PPE, a Tactical Sheet as provided or used by the AHJ, Trench Shoring Kit (struts, panels, etc.), two ladders, a patient packaging device and patient removal kit, a Rescue Randy or equivalent, shovels, buckets, and an atmospheric monitor.

SCENARIO: Your team has been assigned to gain access to a live patient in a trench collapse who is partially buried. The patient is unconscious yet in stable condition.

TEAM ROLES: Assigned team roles include, but are not limited to: Panel team (3), Strut team (setup [1], ropes [2+], controller [1]), Entry team, (1+), Rescue Officer and support personnel, and other AHJ protocols. Safety Officer must be qualified and provided by the AHJ.

***The evolution exam is a team evolution but is graded individually; the whole team is not penalized if one or more members do not fulfill their required tasks. Each team member must have the knowledge/skills of each role.*

COMPETENCE:

a. Wear appropriate PPE.
b. Establish command, including an IAP, back-up plans, and identify types of collapse. Establish clear communications on the rescue scene.
c. Appoint necessary groups and/or divisions for the task, division or branch leader positions, including RIT.

d. Appoint a Safety Officer who monitors the scene, operations, rescuers, and patients, and use AHJ protocols.
e. Establish the hazard control zones.
f. Assess and mitigate obvious hazards, including but not limited to: spoil pile, exposed utilities, overhead hazards, presence of water in and around trench, surcharge loads, heavy machinery, vibration sources, atmosphere monitoring. Ventilate as needed, etc.
g. Establish clear communications on the rescue scene.
h. Safely approach, assess, work in and around the trench.
i. Complete risk/ benefit assessments for selected methods of rescue and time constraints.
j. Identify soil type, and corresponding shoring system requirements based on equipment provided by the AHJ (tabulated data).
k. Establish a clear escape route and rally point for team members and safe zones.
l. Appropriately place ground pads and/or lip protection.
m. Designate cut station location, material, and equipment needs.
n. Properly install ladder(s) as a means of primary and emergency access and egress.
o. Pre-brief team on shoring strategies.
p. Properly place panels and install shores and wales based on the depth, type, and size of trench (corner panel if available).
q. Lower and place wales with the use of ropes.
r. Lower and place panels with the use of ropes.
s. Demonstrate lifting and securing a heavy load.
t. Coordinate the use of heavy equipment, hand signals and other communication methods and determine precision of movement and maintenance.
u. Determine stability of shoring system and calculate loads.
v. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in an intersecting trench that is 8 feet or greater.
w. Safely access patient as soon as it is operationally possible.
x. Expose patient completely, implement supplemental shoring as needed, and initiate appropriate medical interventions.
y. Package patient and establish a means of extricating patient.
z. Transport victim safely out of the Hot Zone.
aa. Ensure shoring system components do not slip at any time during the operation.

Stop Time

DISASSEMBLY

- Terminate incident. Demonstrate safe and proper removal of the last shore and corresponding panels.
- Account for all personnel, perform incident debrief, and complete any documentation for the AHJ.
- The ability to select, use, and care for PPE.

TIME: 2 hours

UTAH FIRE SERVICE CERTIFICATION SYSTEM
TRENCH RESCUE - TECHNICIAN

NFPA 1006, 2021 Edition
12.3.1-12.3.11

TRENCH RESCUE - TECHNICIAN
TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			EVOLUTION / SKILLS
	DATE	INSTRUCTOR	DATE	INSTRUCTOR	PASS	
						Trench Rescue pre-requisites have been met prior to Trench Rescue Technician.
12.3.1-12.3.7, 12.3.11						1. Establish command, perform an appropriate scene size-up and create a corresponding Incident Action Plan for a trench collapse scenario.
12.3.4-12.3.7, 12.3.10, 12.3.11						2. Identify and describe type of PPE requirements for a trench rescue incident. Describe the use and care of PPE, etc.
12.3.1, 12.3.3, 12.3.8-12.3.9, 12.3.11						3. Identify and describe the type of rescue tools and equipment requirements for a trench rescue incident.
12.3.8-12.3.11						4. Demonstrate the correct setup and lifting procedures using an appropriate lifting system (high and/or low-pressure air bags, cribbing system, etc.) given the load calculations, to lift a heavy load to completely free a victim.
12.3.10						5. Coordinate the use of heavy equipment so that the operator capabilities and limitations for the task are evaluated.
12.3.10						6. Demonstrate securing and stabilizing the heavy machinery so it does not create a hazard for the rescuers using a backhoe or track hoe.
12.3.6						7. Safely demonstrate the use of supplemental shoring using an appropriately shored trench, with an exposed section of trench wall 2 ft. or greater below the approved shoring system.
Evolution *12.3.1-12.3.11*						The candidate, working as a member of a (min. 8-member to max. 12-member) team, fulfilling assigned team roles, supplied with the appropriate equipment, following local medical protocol and OSHA Standards, shall demonstrate the ability to size up the scene, establish command, and appoint personnel to the needed groups, division, or branch leader positions. Demonstrate techniques for safely gaining access to, stabilizing, extricating, and packaging a patient buried under soil in an intersecting trench. The patient shall then be transported to a safe area outside of the Hot Zone. Create shoring systems in trenches 8 ft. deep or greater, intersecting trenches.

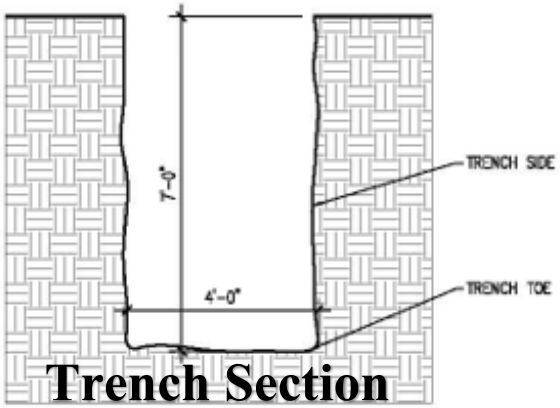
APPENDIX A
TRENCH RESCUE FORMS

TRENCH SPECIFICATIONS SHEET

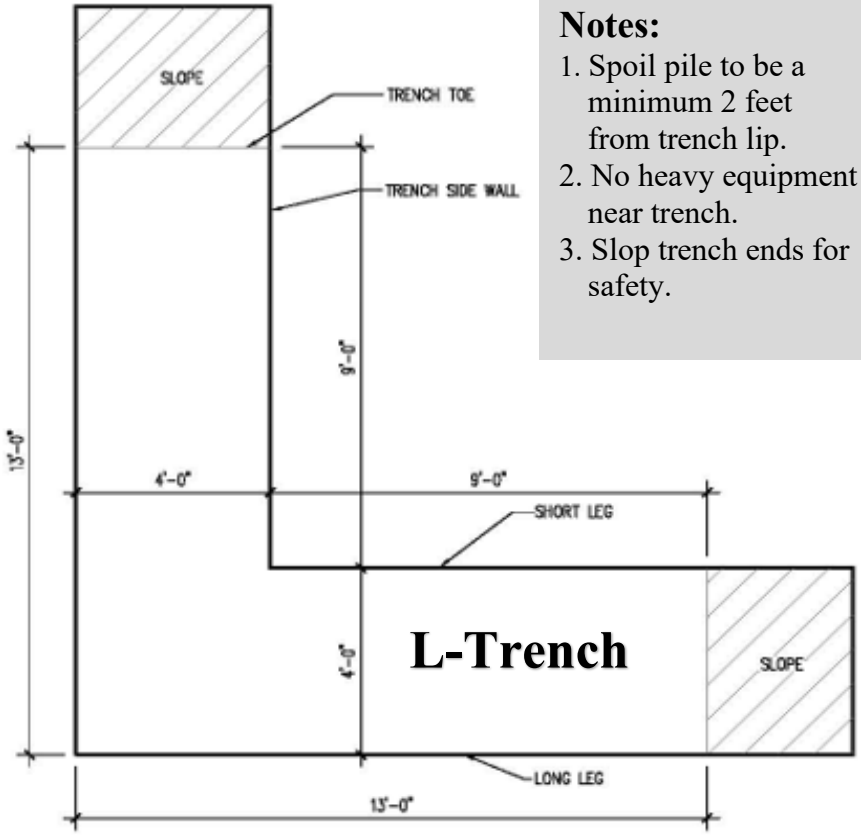
All trench dimensions are taken from the toe of the trench.

Notes:

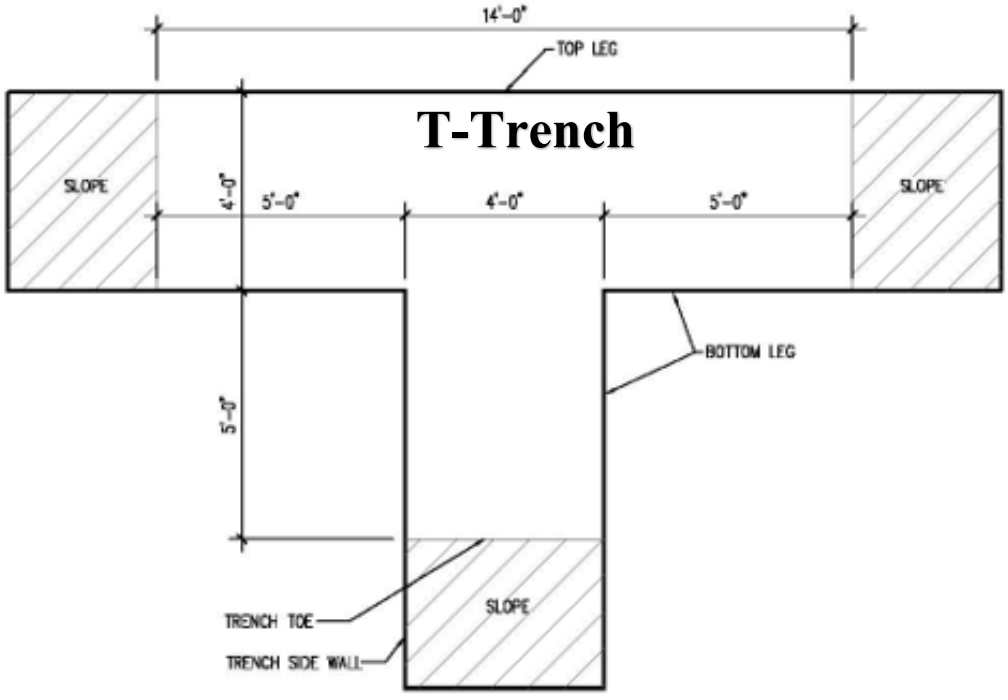
1. Spoil pile to be a minimum 2 feet from trench lip.
2. No heavy equipment near trench.
3. Slop trench ends for safety.



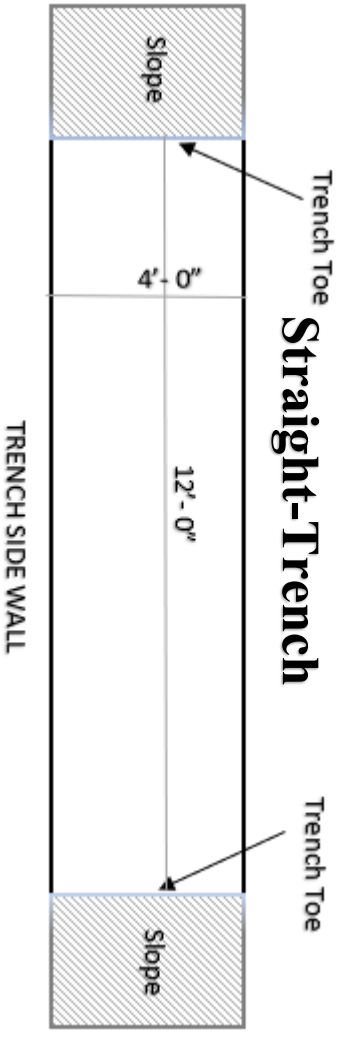
Trench Section



L-Trench



T-Trench



Straight-Trench

TRENCH – AWARENESS PHOTO EXAMPLE

APPENDIX B
IN-HOUSE PROCTOR INSTRUCTIONS

Proctor Instructions for In-House Comprehensive Examination

As the training officers for your department, you are authorized by the Certification Council to conduct an in-house skills examination (100%) for this level of certification. You must be certified to the level that you are testing. For example, if you're FF II you can test both FF I and II, Awareness and Operations. The in-house skills examination must be completed and signed off prior to the actual certification spot check exam (completed by a UFRA certification tester).

- **Prior to conducting the test, review each candidate's training record**
  It is important that before doing this in-house training skills test, the candidate has completed training in all areas for the level being tested.

- **Safety Officer selected and briefed**
  Select a Safety Officer to assist you during the test. This person is there to protect the candidates from injury during the testing process, is not taking the test, and is not assisting with the testing process.

To better evaluate the skills being tested and determine the candidate's readiness for the <u>State Spot Check exam, follow these in-house exam instructions:</u>

1. This is a TEST and there should be NO COACHING or TRAINING during the testing process. If a candidate fails to perform a skill, that skill will count as a first attempt failure and they will be given a second attempt. If they fail a second attempt, they need to be retrained on that skill and tested again. Only **qualified** candidates that have passed with **100%** should be allowed to take the State Spot Check exam.

2. Before beginning the testing process conduct a meeting with all candidates and review the testing process. Explain that this is a test and that the same process being used for the in-house will be used during the state exam.

3. Designate two separate areas for students testing: One area for those who are in the testing process and one area for those who have not yet begun the testing process. If separate areas are not available, make sure someone is in the room to ensure that students do not discuss the testing material. Make sure these areas have no training manuals or other reference materials for students to look at while awaiting testing.

4. To evaluate a candidate's performance, use the following as a guide:
   a. The skill is completed in the allotted time.
   b. Competence is shown by completing all performance criteria.
   c. Safety is shown while completing the skill.

5. At each test station the tester will read the skill to be demonstrated, the condition to be met and the time limit to complete each skill. This information is contained in the skill section of each standards packet. Do this with each student as they come to each testing station. Ask for any questions. As each skill is tested and completed, sign it off in the section provided on the candidate's training record.

By conducting the in-house skills examination in this manner, you will prepare your candidates to successfully pass the State Spot Check exam. This will also assure that training records are current and that only those who are truly prepared take the Certification Examination.

APPENDIX - C

CERTIFICATION FORMS

Certification Forms are located on our website at UVU.edu/UFRA under Certification
https://www.uvu.edu/ufra/certification/certification_forms.html

Which includes the following forms:
Intent to Participate
Examination Request
Certification/Recertification Request

CERTIFICATION FEES – Effective January 1, 2025

1st Attempt	2nd Attempt	3rd Attempt	Certification Item
Certification Levels Tested (per individual)			
$ 10	$ 50	$ 75	Firefighter I
$ 10	$ 50	$ 75	Firefighter II
N/A	N/A	$ 75	Live Fire (tied with Firefighter I and II)
$ 10	$ 50	$ 75	Hazardous Materials Awareness
$ 10	$ 50	$ 75	Hazardous Materials Operations
The skills fee will be waived on the first and second attempt if taken the same day as the written exam. Fire departments in fifith/sixth-class counties will continue to receive a free first attempt for Firefighter I, Firefighter II, Hazardous Materials Awareness, and Hazardous Materials Operations.			
$ 75	$ 75	$ 75	**All other levels**
$ 90	$ 90	$ 90	Accredited Firefighter Academies (AFAs), "non-fire department" agencies
Recertification Requests			
$ 10			All levels - For each individual (excluding Technician levels)
$ 10			All "Technician" levels (Training Record required), for each individual
Reciprocity			
$ 200			Per application (for all levels) must have Pro Board or IFSAC seals included
Other			
$ 10			Additional patches
$ 20			Printed original certificate with seal
$ 20			ID card
$ 350			Out-of-state testing/certfication: Officer I-IV (per level)