Annex 10.

Schedule

Pol Pellisé Tintoré
Schedule

In this part, the goal is to determine how long it is going to take to build the bridge and which is the order the activities are performed.

We can divide the activities performed in different groups:

1. The first group is the activities regarding the demolition of the existing road. For that we have the asphalt milling and the concrete demolition.
2. The second group is for all the activities concerning the excavation. In this group we have the excavation itself and the temporary soil nail walls.
3. The third group is where the work related to the MSE walls is. For that we have preparation and pouring of the leveling pad, installing the under drain, setting panels, backfilling with material and finishing with the moment slab and coping.
4. The fourth group is for all the activities regarding the structures of the bridge. Starting from the drilled shafts and finishing with the grooving of the bridge.
5. The fifth group concerns the activities of getting the bridge ready for traffic in terms of asphalt and traffic signals.

Attached with this annex, there is annex 10.1 which is a detailed schedule with all the duration for every specific activity.

According to that schedule, the construction of the bridge will be completed in 172 days. There are eight days of work for the demolition activities, forty-nine days for the excavation and temporary walls, nineteen for all the works related to the retaining walls, a hundred and six days for all the activities concerning
the structure and six days for to lay asphalt and install all the illumination and traffic signals needed.

See Annex 10.1 for a detailed schedule.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration (Day)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
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<tbody>
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<td>Webb Chapel Rd Bridge</td>
<td>172</td>
<td>23-jun-15</td>
<td>12-dic-15</td>
</tr>
<tr>
<td>Demolition</td>
<td>8</td>
<td>23-jun-15</td>
<td>01-jul-15</td>
</tr>
<tr>
<td>Mill Asphalt</td>
<td>2</td>
<td>23-jun-15</td>
<td>24-jun-15</td>
</tr>
<tr>
<td>Concrete Demolition</td>
<td>7</td>
<td>25-jun-15</td>
<td>01-jul-15</td>
</tr>
<tr>
<td>Excavation &amp; Soil Nail Walls</td>
<td>49</td>
<td>02-jul-15</td>
<td>20-ago-15</td>
</tr>
<tr>
<td>Structure</td>
<td>27</td>
<td>21-ago-15</td>
<td>17-sep-15</td>
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<tr>
<td>Abutment #1 &amp; #3 Drilled Shafts</td>
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<td>21-ago-15</td>
<td>27-ago-15</td>
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<tr>
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<td>28-ago-15</td>
<td>30-ago-15</td>
</tr>
<tr>
<td>Abutment #1 &amp; #3 Drilled Shafts Extensions</td>
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<td>31-ago-15</td>
<td>11-sep-15</td>
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<td>Columns Bent 2</td>
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<td>12-sep-15</td>
<td>17-sep-15</td>
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<td>MSE wall construction</td>
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<td>11-sep-15</td>
<td>30-sep-15</td>
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<tr>
<td>Leveling pad</td>
<td>3</td>
<td>11-sep-15</td>
<td>13-sep-15</td>
</tr>
<tr>
<td>Underdrain</td>
<td>3</td>
<td>11-sep-15</td>
<td>13-sep-15</td>
</tr>
<tr>
<td>Panels &amp; Backfill</td>
<td>18</td>
<td>13-sep-15</td>
<td>30-sep-15</td>
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<tr>
<td>Coping and Moment slab</td>
<td>4</td>
<td>30-sep-15</td>
<td>03-oct-15</td>
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<tr>
<td>Structure</td>
<td>79</td>
<td>24-sep-15</td>
<td>12-dic-15</td>
</tr>
<tr>
<td>Bent 2 Cap</td>
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<td>24-sep-15</td>
<td>29-sep-15</td>
</tr>
<tr>
<td>Abutment #1 &amp; #3</td>
<td>9</td>
<td>04-oct-15</td>
<td>12-oct-15</td>
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<tr>
<td>Bearing Pads</td>
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<td>13-oct-15</td>
<td>14-oct-15</td>
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<tr>
<td>Beams</td>
<td>2</td>
<td>15-oct-15</td>
<td>16-oct-15</td>
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<tr>
<td>Foam</td>
<td>2</td>
<td>17-oct-15</td>
<td>18-oct-15</td>
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<tr>
<td>PCP &amp; PMDF</td>
<td>8</td>
<td>19-oct-15</td>
<td>26-oct-15</td>
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<tr>
<td>Overhangs</td>
<td>8</td>
<td>27-oct-15</td>
<td>03-nov-15</td>
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<td>04-nov-15</td>
<td>06-nov-15</td>
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<tr>
<td>Rebar</td>
<td>6</td>
<td>07-nov-15</td>
<td>12-nov-15</td>
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<td>Forms</td>
<td>6</td>
<td>13-nov-15</td>
<td>18-nov-15</td>
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<tr>
<td>Bidwell Rail</td>
<td>4</td>
<td>19-nov-15</td>
<td>22-nov-15</td>
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<tr>
<td>Concrete Pour</td>
<td>2</td>
<td>23-nov-15</td>
<td>24-nov-15</td>
</tr>
<tr>
<td>Approach Slab</td>
<td>10</td>
<td>25-nov-15</td>
<td>04-dic-15</td>
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<tr>
<td>Grooving</td>
<td>2</td>
<td>04-dic-15</td>
<td>05-dic-15</td>
</tr>
<tr>
<td>Pavement, traffic signals and illumination</td>
<td>6</td>
<td>08-dic-15</td>
<td>12-dic-15</td>
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<tr>
<td>Asphalt</td>
<td>3</td>
<td>06-dic-15</td>
<td>08-dic-15</td>
</tr>
<tr>
<td>Light poles</td>
<td>2</td>
<td>09-dic-15</td>
<td>10-dic-15</td>
</tr>
<tr>
<td>Traffic signals</td>
<td>4</td>
<td>09-dic-15</td>
<td>12-dic-15</td>
</tr>
</tbody>
</table>
Annex 11.

Quality

Pol Pellisé Tintoré
Quality program

The quality department has a very important role in a construction project. They are the ones in charge of supervising that the job that is being done is being performed in the right way according to the design and specification. They are also responsible to check that all the material that is used in the jobsite is appropriate.

Regarding the aggregates and the concrete, the quality department has a lot to say. In order to be able to use concrete from a batch plant, that plant needs to be TxDot approved and the mix designs need to be approved by the quality department. It is not possible to pour concrete from a mix design that has not been approved.

These are the tests that need to be run prior to use any concrete:

<table>
<thead>
<tr>
<th>Group</th>
<th>Test Description</th>
<th>Spec</th>
<th>Place of Testing</th>
<th>UoM</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td>Coarse Aggregate</td>
<td>DECORATION</td>
<td>A-900</td>
<td>From stockpile or silo at concrete plant</td>
<td>CY (EACH SOURCE)</td>
<td>20000</td>
</tr>
<tr>
<td></td>
<td>SIEVE ANALYSIS</td>
<td>A-401</td>
<td></td>
<td>CY (EACH SOURCE)</td>
<td>10000</td>
</tr>
<tr>
<td></td>
<td>DETERIORATION MATERIAL</td>
<td>A-415</td>
<td></td>
<td>PER PROJECT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>LA ABRASION</td>
<td>A-410</td>
<td></td>
<td>PER SOURCE</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>5-CYCLE SULFATE M UGENESIS</td>
<td>A-411</td>
<td></td>
<td>PER SOURCE</td>
<td>2</td>
</tr>
<tr>
<td>Fine Aggregate</td>
<td>SIEVE EQUIVALENT</td>
<td>A-209</td>
<td></td>
<td>PER PROJECT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ORGANIC IMPURITIES</td>
<td>A-408</td>
<td></td>
<td>PER SOURCE</td>
<td>1</td>
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<tr>
<td></td>
<td>SIEVE ANALYSIS</td>
<td>A-401</td>
<td></td>
<td>CY (EACH SOURCE)</td>
<td>10000</td>
</tr>
<tr>
<td></td>
<td>WETNESS MODULUS</td>
<td>A-402</td>
<td></td>
<td>PER PROJECT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DETERIORATION MATERIAL</td>
<td>A-415</td>
<td></td>
<td>PER PROJECT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ACID SOLUBLE MAT</td>
<td>A-512</td>
<td></td>
<td>PER SOURCE</td>
<td>2</td>
</tr>
<tr>
<td>Mix Design</td>
<td>COMPLIANCE FOR STANDARD</td>
<td>A-631</td>
<td>At Source</td>
<td>PER CLASS AND SOURCE</td>
<td>1</td>
</tr>
</tbody>
</table>

Furthermore, every time concrete is poured in the jobsite, more tests need to be run. The lab technicians need to be at every pour in order to grab a sample for the concrete and run the tests. These are tests that are run:
In terms of the aggregate, the procedure is similar. Prior to bring any material, the quality department needs to run some tests on it in order to know the characteristics. A material that has not been approved by the quality department will not be used.

Depending on the type of aggregate that is used for construction, there will be more or less control by the quality department. Unless the material used is rock, there will have to be density controls. That means, that on every layer of embankment done, the lab technicians will have to test the densities of the material in order to see the compaction. If the densities pass, we can continue with the second layer, if not, we will have to work more on that first layer. A layer is one foot thick (0,30 meters). If the material is rock, densities cannot be run and therefore there is less control. There is no need of embanking one foot at a time.

Regarding the construction of the Webb Chapel Bridge, there will be two quality inspectors in the field checking the activities. There will be one in charge of the inspection for the activities related with the retaining walls and the other one will be in charge of the works concerning the structures.
Let’s talk about the quality procedure that needs to be followed while building an MSE wall.

First of all, the sub grade where the retaining wall is going to be sitting needs to be inspected. A proof roll test needs to be done. This test consists on having a water truck driving on top of that soil to see if the soil resist uniformly all along the way of the wall. According to TxDot standars, it needs to be a water truck, however, our technical office approved to do the proof roll test with a loaded tandem truck (10cy, 7,65 cubic meters). Tandem trucks are more accessible and therefore it is better. If the proof roll test passes, the wall construction can start, if not, there might be some sub grade improving needed. In order to improve the sub grade, what needs to be done is to excavate the bad material and replace it with good material such as flex base. Once the sub grade has been improved, it needs to be proof rolled again. Wall construction cannot start until the soil has passed the test. Once the proof roll is approved, the leveling pad and the under drain are set in place. The concrete for the leveling does not need to be tested because a retaining wall is considered a self sustained element and therefore the leveling pad of a retaining wall is not considered a structural element. For the under drain, the quality department will check that the material used for the geotextile, the drainage tube and the under drain rock is the one specified in the design and approved by TxDot. Regarding the backfill, if the type of material used is Type B (manufactured sand) it will have to be density controlled. However, if the material used is Type D (rock) or Type A (rock with some sand) it does not need to be density controlled. Type D material is used underneath the 100-year flood level, and over this level, we either use Type A or B. For the setting of the panels, the quality inspectors will have to check the plumbness of the ongoing wall. Another
thing they have to check is if the geotextile is being installed correctly. In the case of type D material, the geotextile need to encapsulate the material all the way. The geotextile needs to be installed as well, to separate the backfill material from existing soil. There is also geotextile that needs to be installed in between every panel.

In terms of the quality procedure for the structure there is many things to take into account.

When it comes to structures, first thing are the drilled shafts. Quality inspectors, need to check if the good rock is found where the drawings state. Every drilled shaft needs to have a minimum embedment into the good rock. Therefore it is very important to know at what depth that rock is hit in order to know how deep it needs to be drilled. Quality inspectors need to make sure that the rebar is well tied and penetrates that minimum embedment. They will also be checking that the spacers are set properly in the rebar. Regarding the concrete, they will check that is not out of time, and they will be with the laboratory technicians when they take a sample. From the moment the concrete truck is loaded, we have 90 minutes to pour. If we are over those 90 minutes, the concrete truck needs to be rejected. This 90 minutes rule concerns every pouring, regardless of the element is being poured.

For the construction of the columns and caps, the procedure is pretty straightforward. It will be inspected before the pour, that the steels is properly set and that everything is ready for the concrete pour. For the concrete, there will be the same procedure as for the drilled shafts.
The concrete beams are precast, therefore quality inspectors will have to check that the beams that are received are in good condition.

For the deck, they will have to check that the steel is well tied and in good condition. Many times, the steel used in the deck is epoxy, and therefore it needs to be carefully treated. For the deck pour, the procedure will be the same as for the other concretes. There will have to be a dry run before the pour in order to check that the elevation of the steel and precast panels are correct.

All in all, the quality department has a very important role. Although, the Texas Department of Transportation has already its specification regarding quality controls, the LBJ project has its own quality program, which includes all the TxDot requirements and more.
Annex 11.
Safety
Pol Pellisé Tintoré
Safety

The safety program that applies for the construction of the Webb Chapel Bridge is the same that is used in the whole Lyndon B. Johnson Freeway. The LBJ project has its own safety measures, which are stricter than the OSHA regulation. OSHA stands for Occupational Safety & Health Administrators, which is an agency of the United States department of labor. In every construction project, the OSHA regulations need to be satisfied at all moments.

Attached in Annex 12.1 there is the safety program for the Lyndon B. Johnson project.

Let’s talk about what is going to be important for the construction of the Webb Chapel Bridge regarding safety issues.

First of all, every single person that is going to be working on the project needs to do an orientation class. This class is held by the safety coordinators and last about 4 hours. At the end of this class, every person gets a badge in which it says the qualification of that person. For instance, an excavator operator needs to have a badge stating that he is qualified to operate that specific type of equipment.

Before starting any activity such as retaining wall excavation, construction of retaining walls and bridge construction, there is a pre-task meeting in which the construction department and the safety department meet with the subcontractor to discuss how the work is going to be performed in order to avoid any potential hazard. After that meeting, the subcontractor writes a workplan explaining the
methodology they are going to follow. Furthermore, every day in the field, before any activity starts, the people in the field need to fill a report called a Job Hazard Analysis (JHA). The purpose of this report are to identify any potential hazard that might be in the way of that day’s activity and that everybody working in the field is aware of it. Also, 48 hours prior to start any activity in the field, the subcontractor needs to call the locates. The reason of that is to notify all the companies that have utilities in that area, that they are going to be working there.

All these procedures explained above have to be done by any subcontractor regardless of the work they are going to perform. Let’s discuss now the safety measures that are specifically needed for the construction of the Webb Chapel Bridge.

Traffic control needs to be set in place in order to redirect traffic and also to create a work area safe from any traffic hazard. Standard barrier will be set along the construction area and crash cushion attenuators will be installed at the very beginning of that barrier in order to eliminate any possible blunt end. Construction works should not be closer than 2 feet (0.61 meters) to the barrier. In case it is needed to be closer than two feet, the barrier will have to be pinned to the pavement.

In terms of the excavation for the retaining walls a very important rule needs to be followed. This rule is that the excavation needs to be done by lifts, and these lifts cannot be higher than 5 feet. If we want to excavate more than 5 feet, the cut cannot be vertical, the excavation needs to be sloped in order to avoid the material to collapse. Every worker and personnel responsible of an excavation operation
should have been through an excavation-training program before the activity starts.

If a worker is exposed to a fall higher than 6 feet, a fall protection plan needs to be set in place. In a retaining wall construction, once the first and second row of panels have been set, you are at an elevation higher than 6 feet from the ground. Therefore, in a retaining wall construction, a fall protection plan needs to be followed. This fall protection plan is normally attached to the workplan that has been done prior to start with this activity. In order to be protected from a fall in a retaining wall construction, there needs to be a rail installed. That rail needs to be at all times at least 39 inches (1 meter) higher than the working ground. The tricky part for the retaining walls, comes when a new panel needs to be set. It is tricky because in order to install that new panel, the rail needs to be removed and therefore while setting that new panel there is no protection from the fall hazard. To avoid that exposure, the most common procedure followed is that before removing the rail, the workers need to wear a harness and tie themselves to the anchor (where the straps are anchored) of the panels that have already been set. Nonetheless, every worker and personnel in charge of retaining wall construction should have been to a fall protection training before the works start.
Regarding the activities of the work structure, there are also safety concerns. Once the drilled shafts are done, the rebar sticking out of the concrete needs to be protected with caps. For the construction of the columns and caps, workers need to be wearing harnesses and be tied at all times. While setting beams, precast panels (PCP) and permanent metal deck forms (PMDF), all workers working need to be as well secured with a harness and tied to the life lines. Also, every worker and personnel in charge of retaining bridge construction should have been to a fall protection training before the works start.

It goes without saying that all the equipment needs to be inspected and that all the workers need to be wearing their PPE’s at all times. PPE stands for personal protective equipment.
Last but not least, construction sites are very busy places, with different crews working. Therefore, coordination between everybody on site is vital to have a safe work environment.

The safety department from the LBJ project has several field inspectors that are constantly checking that the works are being performed in a safe manner. Inspectors have the power to shut down any operation if they believe that it is being done unsafely. At the end of each week, the safety department has all the engineers gathered in a classroom and the safety inspectors give a lecture about all the issues that need to be addressed in the field.

In case of an accident, the safety department is in charge of investigating the root of the problem and they are the ones that will execute any measure that they believe is adequate.
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CHAPTER 5A  CONSTRUCTION SAFETY PLAN

5A 1  Introduction

Trinity Infrastructure, LLC is given the responsibility of providing a safe workplace on the project.

The Trinity Safety Director or his designee will provide support and assistance to all field personnel and management in their efforts to achieve a safe and healthy work environment.

The "Construction Safety Plan" outlines requirements for planning and executing work in a manner that minimizes risks to workers, community and property. While this plan addresses most major activities anticipated, it does not address all situations that may arise. OSHA Standards 29 CFR 1910 and 1926 were the regulations used in developing this plan; therefore, it may be necessary to refer to those resources and/or your company’s Safety Program for further information.

It may be necessary to amend the Construction Safety Plan as the project progresses. The Trinity Safety Director, Construction Manager and CEO, as well as LBJ Infrastructure Group (LBJIG) and TxDOT must approve any revisions.
5A 1.1 Safety Commitment

The success of the Trinity Infrastructure, LLC Construction Safety Plan is dependent upon a sincere commitment by all involved Contractors to achieve a safe work environment by identifying, eliminating and reducing the hazards which may result in personal injuries, occupational illness, and equipment and property damage. The Construction Safety Plan is also designed to protect the general public and anyone who may come in contact with, or may be affected by our work.

Trinity Infrastructure is responsible for ensuring that all work is performed in a manner that is consistent with the safe work practices and safety policies contained within the Construction Safety Plan.

All Trinity employees and employees of other Contractors regardless of position or longevity with the project, who willfully neglect to accept this responsibility or fail to adhere to the rules and regulations set forth in this plan, will be subject to dismissal, or in the case of Contractors, removal from the project.

Safety is a core value that will not be compromised. Prior to beginning work and throughout its duration, work must be planned and evaluated to ensure all tasks will be performed safely, and that any recognized deficiencies are corrected immediately. Please reference Appendix 5A-28 for specific performance expectations.

A safe and healthy workplace can be achieved if each worker applies the following principles:

1. Take responsibility for personal safety.
2. Watch out for others.
3. Plan work and come prepared.
4. Follow all jobsite safety rules.
5. Report unsafe acts or conditions to a supervisor immediately.
6. Inspect work area and correct hazards before they cause an accident.

5A 1.2 Roles and Responsibilities

Trinity Management

The management of Trinity Infrastructure has a goal of zero incidents for the project. Management also has a responsibility to provide health and safety leadership, and promote and support a safe working environment. Management will support the Safety Director (Manager) in the implementation and enforcement of the Safety Program.
Safety Director (Manager)

The Trinity Safety Director (Manager) is responsible for the development of the Safety Plan and the enforcement of safety and health policies, procedures and work practices. The Safety Director (Manager) will provide Program direction to ensure that a safe, healthy and secure work environment exists for all employees, Contractors and the general public. The Safety Director (Manager) is responsible for the following:

1. Developing the Construction Safety Plan, emergency procedures and all required updates,
2. Reviewing the Construction Safety Plan,
3. Communicating results of performance safety audits to all Trinity managers and applicable Contractor management via regularly scheduled meetings and electronic mail communication,
4. Reviewing and analyzing the effectiveness of the Construction Safety Plan,
5. Ensuring that safety and health issues are routinely discussed by all levels of Trinity management at staff meetings or other appropriate meetings,
6. Ensuring that Trinity staff has received all required health and safety training and updates,
7. Preparing all reports required by the company or by law,
8. Promoting a safe and secure work environment that has zero tolerance for violence, threats, harassment and intimidation in the workplace, and
9. Reviewing Contractors’ safety plans.

The Trinity Safety Director will perform these duties directly or through assigned designees.

Segment Safety Manager

The Trinity Segment Safety Managers will be responsible for supporting field supervisors in their implementation and enforcement of safe work practices and promoting a safe and secure environment for all workers and the general public. The Segment Safety Manager is responsible for the following:

1. Conducting audits to ensure compliance with the Construction Safety Plan,
2. Ensuring that weekly safety meetings are held with all Trinity supervisors, including Contractor supervisors meeting with their employees to discuss safety and health matters, (To be communicated to applicable employees)
3. Conducting monthly segment-wide safety meetings to include all Trinity and Contractor employees within the segment,
4. Promoting a safe and secure work environment that has zero tolerance for violence, threats, harassment and intimidation in the workplace,
5. Include field supervision within daily safety assessment,
6. Assisting field supervisor with incident investigations, and
7. Conducting safety interventions for all incidents that occur on the project.
8. Conduct Root Cause Analysis (Appendix 5A-33) for incidents that occur on the project.

Field Supervisors and Managers
Field Supervisors and Managers are responsible for monitoring their direct hire employees and subcontractors to ensure that the work is being performed in a manner consistent with safety policies, procedures and work practices of the company. They are responsible for promoting a safe, healthful and secure work environment for workers and visitors that is free from violence, threats, harassment and intimidation, and protects the general public from harm in connection with jobsite operations.

The following items summarize some of the most frequent safety requirements Managers and Field Supervisors are expected to accomplish:

1. Communicate and enforce effective injury and illness prevention practices; e.g. make company safety manual available to workers for their reference and review,
2. Consider safety in operational planning,
3. Minimize hazards,
4. Ensure practice and use of personal protective equipment, warning signs, barricades, fire extinguishers, etc. ahead of need,
5. Conduct safety meetings with workers to discuss safety and health matters,
6. Report all incidents to the designated Trinity representative immediately,
7. Conduct investigation of all applicable incidents in the work area,
8. Conduct daily inspections of work areas to identify and correct unsafe conditions and unsafe acts,
9. Ensure that all workers are involved in a documented daily job hazard analysis (JHA: Appendix 5A6) that covers the hazards unique to their assignment,
10. Ensure that each worker understands the assigned tasks, is provided with the necessary equipment, and follows all safety and health policies, procedures and work practices,
11. Ensure that all crews perform documented daily inspections as required based on scope of work, e.g. heavy equipment, excavations, confined spaces, scaffolds, etc.,
12. Ensure all required permits are completed,
13. All applicable safety-related documentation must be completed and ready for the Trinity daily assessment process, and
14. Participate in weekly inspections and meetings to review and assess project practices related to safety.

**Personnel**

All workers are responsible for planning and completing all work in a safe manner by following all applicable policies, procedures, and safe work practices. The following items summarize some of the most common safety requirements workers are expected to comply with:

1. Report to work mentally and physically capable of performing all assigned duties,
2. Attend and participate in daily job hazard analysis (JHA) sessions,
3. Attend and participate in weekly safety meetings to discuss safety and health matters,
4. Follow safe work practices,
5. Wear all required personal protective equipment at all times,
6. Conduct daily safety inspections of worksite to identify and correct workplace hazards,
7. Take personal responsibility for their own safety and health,
8. Be observant of the safety and health of coworkers and the general public,
9. Promptly report all injuries, illnesses, unsafe conditions, and unsafe acts to a supervisor immediately
10. Use all equipment in the correct manner and follow all safety and health policies, procedures, and work practices, as directed by supervisor,
11. Ask for instructions or assistance if unable to understand the assigned task
12. Report to work free from the effects of medication, controlled substances, alcohol and complications arising from illness or injury which might impair judgment and/or the ability to perform work safely,
13. Notify a supervisor of any personal medical condition or controlled substances, alcohol or prescribed medication which might impair ability to perform assigned duties, and
14. Report to a supervisor any behavior by another worker that could reasonably indicate that they may not be fit for duty.

Contractor Safety Requirements
Contractors selected by Trinity Infrastructure, LLC will be required to provide a Safety Plan to Trinity Infrastructure, LLC that addresses the scope of work that will be performed on this project. At a minimum, the Contractor’s Safety Plan must meet/satisfy all local, state and federal regulations and requirements. Trinity Infrastructure, LLC will review the submitted Safety Plans for compliance. In addition, the following safety performance requirements will be expected from all Contractors:
1. Complete documented daily job hazard analyses (JHAs Appendix 5A6) to address specific safety concerns for the tasks the workers are to perform,
2. Hold documented weekly trade-specific Toolbox Safety Meetings for all crews,
3. Designate specific responsibilities to include equipment operators, flaggers, crane operators, qualified signal persons, qualified riggers, qualified mechanics, and assembly/disassembly directors. Reference Appendix 5A-29 for designation forms.
4. Train crews in safe work practices that address scopes of work; workers should be shown where to work, what to do and how to do it safely. The workers should be instructed in the responsibilities for their personal safety and the safety of their fellow workers (please reference Appendix 5A-28 for specific performance expectations),
5. Supervise crews in doing a quality job safely in the minimum practical time; plan work ahead of time so that necessary resources, i.e. equipment, tools, protective devices/systems and PPE are acquired and made available to the crews before work commences,
6. Provide instruction to each worker and follow up to see that instructions are carried out correctly,
7. Conduct hazard assessments for all high hazard and critical activities (please reference Appendix 5A-28 for specific performance expectations),
8. Ensure that materials, tools and equipment are used properly and protected from loss or damage,
9. Stop work to correct hazards that could be an immediate danger to crews, equipment or the public,
10. Be knowledgeable of the safety requirements for their assigned tasks,
11. Be observant for unsafe acts and conditions constantly and correct them immediately,
12. Protect all hazards created or encountered, daily and ongoing, until the hazards have been eliminated or removed,
13. Establish specific safety rules pertinent to the operation and ensure that they are communicated to and understood by all affected workers,
14. Enforce safety rules consistently,
15. Discipline all workers who violate the safety rules,
16. Review facts concerning accidents, approve corrective measures and follow up to ensure correction is accomplished,
17. Prepare accident reports as required on the proper forms for personal injury, incidents and accidents, and
18. Require and enforce that workers report all accidents, injuries and near misses immediately to the supervisor, and in turn report them to the Trinity Safety Department immediately.

Trinity Infrastructure LLC requires that Contractor supervisors and foremen participate in safety inspections of their work areas, and safety meetings with their crews. Please reference Appendix 5A-28 for specific performance expectations.

**Competent Persons**

Competent Persons must be designated for all applicable areas as identified on the **Competent Person Designation Form**, Appendix 5A-1.

A Competent Person is defined as one who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to workers, and who has authorization to take prompt corrective measures to eliminate them.

Contractors will designate Competent Persons in all applicable areas.

Management of Trinity, including the Safety Director or his designee will ensure an ongoing assessment of Competent Persons is kept current, including those designated by the Contractor.
The Designated Competent Person is responsible for performing all the required functions of their designated areas of responsibility (e.g. inspections, training, etc.).

Please reference the Trinity Infrastructure Organization Chart in Appendix 2A.1 of Chapter 2A of the PMP for further information regarding key roles and reporting structure.
5A 2 ADMINISTRATIVE

5A 2.1 Training and Education

5A 2.1.1 Safety Orientation
A proper, effective, project safety attitude begins with the hiring and orientation process. In order to achieve successful safety performance, responsible, capable workers are to be hired and indoctrinated to company safety policies. A thorough orientation by the Job Employment Representative, Safety Department, the Superintendent, and Foremen is the best tool for getting the new worker started off on the right foot with safety.

Picture ID badges will be issued to all workers upon completion of the safety orientation. Trinity employees will be issued the required PPE during this orientation.

The Trinity Construction Manager or Segment Manager or designee will inform all Contractors that a Safety Orientation will be required prior to reporting for work and the schedule of when the Safety Orientation is offered.

Appendix 5A-2 of this document contains the Safety Orientation.

If you have any questions concerning this procedure, please contact the Trinity Safety Department.

5A 2.1.2 Hazard Communications Program

General
A Hazard Communication Program (HCP) has been established to provide information relating to hazardous chemicals, substances and products to be used onsite in compliance with 1910.1200.

The Trinity Infrastructure HCP will be available for review to all workers and posted at the Trinity Infrastructure Training Facility located at 3003 LBJ Freeway, Farmers Branch, Tx 75234.

Hazard Determination
Trinity Infrastructure, LLC and Contractors will utilize material safety data sheets (MSDS) obtained from product suppliers to meet the hazard determination requirements.

Labeling
Contractors are responsible for the enforcement of container labeling requirements for the chemicals that they bring onto the jobsite.

All labels will be checked for the:
1. Identity of the material
2. Appropriate hazard warnings for the material
3. Name and address of the responsible party (only if the container is received from the manufacturer, distributor or importer)

Each Contractor is responsible for ensuring that all approved portable containers and any storage tanks used in their work area are labeled with the appropriate identity and hazard warnings.

**Material Safety Data Sheets (MSDS)**
Each Contractor will be responsible for compiling and maintaining the master MSDS file for their company. A copy of each Contractor’s MSDS file is to be maintained and available upon request.

A complete Hazard Communication file of Trinity Infrastructure, LLC, will be available at office located at 5520 LBJ Freeway, Suite 150, Dallas, Texas 75240.

Each Contractor will obtain material safety data sheets from vendors when ordering products and ensure that all new materials introduced to the jobsite are communicated to all affected workers prior to use.

Each Contractor is responsible for ensuring that new products are updated on the company’s chemical inventory list and the updated chemical inventory as well as the MSDS is added to the MSDS file prior to the use of the product on the jobsite.

MSDS must be available for review during each work shift at jobsite location.

**Multi-Employer Worksites -- Informing Contractors**
Periodically, workers may potentially be exposed to hazardous chemicals brought on site by other contractors. The Contractor bringing the materials onto the site, must be able to furnish the MSDS.

**Employee Information and Training**
Each Contractor will coordinate and maintain records of employee Hazard Communication training, including attendance rosters.

Each Contractor is responsible for ensuring that their employees are trained on their company’s Hazard Communication Plan in compliance with 1910.1200.

Each Contractor will ensure that their employees are trained on the information below:
1. The requirements of the Hazard Communication Standard,
2. All operations in their work area where hazardous chemicals are present,
3. Location and availability of the written Hazard Communication Program, the list of hazardous chemicals, and the MSDS,
4. Methods and observations that can be used to detect the presence or release of hazardous chemicals in the work area,
5. Physical and health hazards of the chemicals,
6. Measures the workers must take to protect themselves from the hazards, and
7. Details of the Hazard Communication Program including an explanation of the labeling system and MSDS, and how workers can obtain and use hazard information.

Employees will be informed that:
1. Their employer is prohibited from discharging or discriminating against an employee who exercises their rights to obtain information regarding hazardous chemicals used in the workplace,
2. Before any new physical or health hazard is introduced into the workplace, each worker who may be exposed to the substance will be given information in the same manner as during the hazard communication training class,

Prior to any solvent being purchased by Trinity, the Safety Department's approval must be obtained. Contractors are required to give advanced notice to the Trinity Safety and Environmental Departments of any solvent or hazardous material to be brought on site.

Information related to Hazardous Materials such as communications and MSDS is detailed in Appendix 3.3 Hazardous Materials Management Plan of the Comprehensive Environmental Protection Plan.

Any scope of work involving substances that are designated “Hazardous Materials” by OSHA including Lead or Asbestos will be conducted in strict compliance with all applicable OSHA regulations.

5A 2.2 Meetings

Project Safety Meeting
Management and supervision from Trinity and all Contractors will attend Project Safety Meetings conducted by the Trinity Safety Director or his designee. Management, Supervisors and Foremen are encouraged to discuss safety and health issues with the Trinity Safety Director or designee. This meeting can be in conjunction with a production meeting, providing that Safety needs, issues and concerns are adequately covered. Attendees of this meeting will sign an attendance roster.

Weekly Toolbox Safety Meeting
These training sessions will be conducted by the Contractors’ supervisors for their employees. Topics discussed must be trade-specific, appropriate and timely. They will be conducted weekly. All Contractors are required to submit a completed sign-in sheet per crew, along with the topics discussed to the Trinity
Safety Department. Please reference Appendix 5A-28 for performance expectations.

**Monthly Segment-wide Safety Meeting**
The Segment Safety Managers or their designee will conduct a segment-wide safety meeting every month for all workers on the project. Various safety topics will be discussed. Attendance is mandatory.

**Intervention Meeting**
The Segment Management Team may conduct an intervention meeting with applicable groups and/or Contractors when unsafe acts or unsafe conditions are observed in the field, or an incident occurs. The meeting will be documented by the responsible Trinity Manager or their designee using the *Safety Intervention Form*, Appendix 5A-12. The completed Safety Intervention Form, the attendance sheet and any other supporting documentation must be provided to the Safety Department Administrator within 24 hours of the meeting’s conclusion.

**5A 2.3 Safety Assessment Program**
To ensure a safe place of employment, safety assessments will be performed on the project. These assessments can be scheduled or unscheduled, segment or site specific.

**Safety Assessment Process**
Safety Assessments will be conducted in each Segment on a daily basis. The Segment Management Team, consisting of Trinity Managers, Engineers, Superintendents and Foremen are charged with supporting this responsibility. The Segment Safety Manager or his designee will ensure the execution of the safety assessment procedure.

All deficiencies found will be noted on a Daily Safety Assessment Sheet along with the name of the individuals responsible for correcting them. Repeat violations will be noted on the sheet. The *Daily Safety Assessment* can be found in Appendix 5A-3.

Any deficiencies found must be corrected as soon as possible, but not to exceed 24 hours. Serious deficiencies and hazards must be corrected immediately. Deficiencies needing additional time will require authorization by Safety Director to incorporate continued progress notation if extension is allowed.

It is the responsibility of the Trinity team members conducting the assessment to ensure that the corrections have been completed and notated on the assessment form.
The completed assessment forms will be sent to the Trinity Safety Director, or delegated, and may include distribution to other appropriate persons within Trinity’s management. Open Log for items with pending action(s) to be maintained.

5A 2.4 Work Plans

Each Contractor will be provided with a Work Plan Template that contains an outline for requested information on how an activity will be accomplished. Please reference Appendix 5A-4. The Work Plan is a Project Management tool that assists in the planning, organization and logistics of an operation.

A Work Plan Template must be completed for all work on the project.

Completed Work Plans must be submitted to the Trinity Manager in charge of the operation. Until the Work Plan Review sheet, Appendix 5A-5 has been completed by Trinity for each Work Plan, the operation described in the Work Plan cannot be commenced.

Each Work Plan will have a number assigned to it. This number will be referenced on every Job Hazard Analysis that falls under the scope of each particular Work Plan.

Work Plans can be amended by the Contractor if variables change. In these instances, the Work Plan must be resubmitted to Trinity.

5A 2.5 Job Hazard Analyses

Each Contractor will conduct a Job Hazard Analysis for each task to be performed. Please reference Appendix 5A-6.

Job Hazard Analysis booklets will be provided by Trinity to each contractor. Please reference Appendix 5A-6 for a copy of this form.

A Job Hazard Analysis will be conducted at the beginning of each shift and whenever there is a change in the task or in the environmental conditions.

The Job Hazard Analysis will involve input from all members of the crew and will be signed by all members of the crew upon completion.

Job Hazard Analyses must be available for review at any time during the shift.

A copy of all completed and signed Job Hazard Analyses (white pages) will be assessed by Trinity Infrastructure management and/or Safety Department and copy taken with Safety Manager during daily assessment.

5A 2.6 Reporting of Injuries and Accidents
Reporting
All incidents including worker injury, motor vehicle, general liability, property damage, and utility damage events will be reported immediately to the Trinity Infrastructure, LLC Safety Department and respective Segment Manager. Please reference Appendix 5A-28 for specific performance expectations.

Specific individuals along with their contact information are provided in the separate document, Emergency Action Plan.

Trinity Infrastructure will notify LBJIG, with a copy to TxDOT & the IE, in a timely manner. Notification process is determined by the type of incident.

Worker Injury
The involved Contactor will call 911 or arrange for medical treatment as needed, following their companies injury management procedures.

Trinity Infrastructure, LLC employees will be taken to a preferred care provider for medical treatment by a salaried supervisor or a member of the Safety Department. Please reference Appendix 5A-7 for the Medical Treatment Authorization Form.

The involved Contractor’s supervisor or Contractor’s Safety Department will complete an investigation report and submit it along with all relevant supporting documentation, to the Trinity Safety Department within 12 hours of the incident.

Motor Vehicle Incidents (Trinity owned vehicles)
All motor vehicle incidents involving a company owned vehicle are required to be reported immediately to 911 (regardless of how minor it appears).

All incidents on site and off site are required to be reported to the Fleet Manager and the Safety Manager within 6 hours of the occurrence.

The Safety Director will report the incident to the Legal Department.

The involved driver will immediately begin gathering information to complete the glove box accident report in the vehicle. Ensure that contact information for the other drivers is collected as soon as it safe to do so. The driver is responsible to be sure they obtain the other drivers contact information and Police Department investigating officer’s name and badge number, and the Accident Report number.

All glove box accident reports and statements gathered at the scene will be submitted to the Fleet Manager and Safety Department within 12 hours of the occurrence.

Utility Damage
All utility damage events will be reported to Trinity immediately. Immediate and reasonable care must be taken by the responsible Contractor to protect workers, property and the public from exposure to any hazards created by the damage event.

Any interruption in service to facility customers must be communicated to Trinity as soon as it has been determined.

The Supervisor’s Utility Damage Report, Appendix 5A-11, must be completed and submitted to the Safety Department within 24 hours of the occurrence.

Utility Damage – Class A and Class B underground facilities
Damage is defined by the Texas Utilities Code, Title 5, Chapter 251, Subchapter A, Section 251.002(4). Requirements under Subchapter D, Section 251.159. Damage events involving natural or synthetic gas require immediate notification to emergency services, i.e. 911.

Utility Damage – Overhead facilities
The facility owner must be notified about the damage immediately. All overhead lines should be treated as “live” until the facility owner has confirmed otherwise. Lines should not be moved until the facility owner has confirmed it is safe to do so.

General Liability Incidents

All general liability incidents must be reported to Trinity immediately. A determination will be made as to what additional action needs to be taken based on the type of incident. Contractors will contact their Segment Safety Manager or their designated contact within the Segment no matter how insignificant the incident may appear. Contractors are required to provide a written report and follow their company reporting procedures for such occurrences.

The Segment Safety Manager will notify the Trinity Safety Director, who will in turn notify Trinity management.

The General Liability Report, Appendix 5A-10 is available if the Contractor does not have its own form.

The report and all supporting documentation must be submitted to the Trinity Safety Department within 24 hours following notification of the incident.

5A 2.7 Case Management Procedure
It is our goal that the best medical treatment available is provided to an injured person.

All injuries, no matter how minor, will be reported immediately to the Foreman, Superintendent or Manager of the injured worker. All injuries are required to be reported to the appropriate Trinity Segment Safety Manager or his designee as soon as possible. Contractors are to follow their company policy in regard to injury reporting and case management.

Post incident drug screens will be performed. Drug testing will be done on the individuals involved in incident occurrences and/or near misses in accordance with the Trinity Infrastructure, LLC Drug & Alcohol Policy.

Contractors are required to adhere to Trinity’s post incident drug screen policy and provide an affidavit the Trinity Safety Department to confirm that a drug screen was completed.

All injuries will be treated consistently. No one will be discriminated against for any reason.

All personnel attending to an injured worker will at all times wear and utilize proper personal protective equipment.

All first aid attendants and at least one member of every crew will be trained in first aid, CPR and blood-borne pathogen awareness.

**Emergency Response**

Local Emergency Services will be used for emergency response rescue if needed.

Any Trinity or Contractor supervisor can notify emergency services by dialing 911.

Local Emergency Services will perform all rescues if needed.

**Medical Intervention for Trinity Employees**

All non-job related injuries that require a physician’s attention should be reported to the Trinity Safety Director or his designee. The employee should have a medical release stating “no limitations or restrictions” prior to returning to work. All medications prescribed by a physician will be reported to the Trinity Safety Director or his designee, to the extent permitted by law.

All injuries that meet the prescribed criteria of a recordable injury will be recorded on the OSHA 300 report.

Any employee with a recordable injury who has been placed on modified duty by a physician will not be allowed to work past 40 hours in one week. They will
also be issued a Modified Duty letter that outlines the work available that meets
the modifications imposed by the doctor, pay, location of work etc. Failure to
report for work or reply to the letter within 3 working days may result in
termination.

Trinity employees injured on the job are required to notify their Supervisor immediately. Failure to do so may result in termination.

All medical records will be kept confidential.

In the event of an on-the-job serious injury requiring medical attention, the employee will not be moved unless failing to move the injured employee further endangers him or her. If necessary, the Safety Manager or his designee will evaluate and make arrangements for the injured employee to be transported to a medical facility.

**General Information for Trinity Employees**

There are several steps that are required to be followed in case management. These steps are as follows:

1. An injury occurs, and has been evaluated by the Trinity Safety Director or his designee as needing medical attention by a physician. The employee will be accompanied to the physician’s office by a Trinity manager. The employee’s supervisor or the Trinity Safety Department will complete a medical treatment authorization form and present it to the medical provider. The form will be returned to the Trinity Safety Director or his designee along with the work status report form from the medical provider. *Medical Treatment Authorization Form Appendix 5A-7.*

2. After being treated by the medical provider, the Trinity Safety Director will determine if the injury is recordable by the criteria set forth by OSHA. A recordable injury is required to be recorded on the *OSHA 300* within 7 days.

3. The Trinity Safety Department will complete the *DWC Form-001* and distribute to the insurance carrier within 8 days of the report of the injury.

4. If the employee is treated and released to return to work without restrictions, then the employee will go back to work and the injury case is closed. If the employee is treated and released to modified duty, then the project management team will work with the employee’s supervisor to determine if modified duty can be provided for the injured employee. If so, a Modified Duty Letter will be issued by the Safety Director. Any employee who is placed on modified duty by the attending physician will not be allowed to work more than 40 hours in one week.

**5A 2.8 Substance Abuse Plan**

The *Substance Abuse Policy*, attached as Appendix 5A-12, was developed to help provide a safe work place by ensuring a drug and alcohol free
The Trinity Infrastructure, LLC Drug and Alcohol Policy is the governing policy for this plan. The Plan has the following essential points:

1. Drug screens will be performed on all personnel before they are allowed on the site. Random drug tests may be performed throughout the job duration. Drug screening will be required for all personnel who experience an injury that requires medical treatment, and for all personnel involved in an incident involving property damage (including utility damage), or involved in a serious near miss incident. A drug screen and/or an alcohol screen test may be given after any auto accident and at any other time alcohol use is suspected.

2. A worker who either refuses to be tested or who tests positive in any drug screen will not be allowed to return to the jobsite. Additionally, stipulations as applicable per the Trinity Infrastructure, LLC Drug and Alcohol Policy may also apply.

3. The Contractor will notify all subcontractors and vendors that the Substance Abuse Plan must be adhered to by all personnel who enter the jobsite.

4. Periodically and without prior warning, searches by authorized personnel or agents may be conducted on anyone entering the jobsite. Searches may be made of all personal effects and/or lockers, toolboxes, desks, purses, lunch boxes, personal vehicles and briefcases. All storage areas or items carried onto the job site may also be searched at any time. Any person who refuses to cooperate with such a search will be removed from the premises and not be allowed to return. Additional stipulations may apply as applicable per the Trinity Infrastructure, LLC Drug and Alcohol Policy or Personnel Policy.

5. Supervision must be made aware of any prescription medication being taken.

6. Being impaired by alcohol, mind-altering or controlled drugs not prescribed to the individual by a licensed medical doctor while on the jobsite will be cause for immediate removal from the site. Possession of any illegal or non-medical drug or alcoholic beverage while on the jobsite will result in immediate removal from the site and that worker may not return. Additional stipulations as applicable under the Trinity Infrastructure, LLC Drug and Alcohol Policy or Personnel Policy may also apply.

Drug and Alcohol Requirements for Contractors
All Contractors and Subcontractors are required to submit affidavits to the Trinity Safety Department prior to beginning work assignments stating that all workers who will work on the project have been drug screened within the last 30 days or upon Contractor employment and that the tests did not indicate drug use by the Contractor’s employees. Similar affidavits verifying drug screening will be required after any incident, near miss, property loss or damage incidents (including utility damage) regardless of whether an injury occurred. All post incident, near miss, property loss or damage drug screens will be done the day
of the incident. Any person with a positive drug screen result will not be allowed on the project.

5A 2.9 Driving of Company Vehicles

All Trinity employees must have a clear motor vehicle record and be at least 18 years old prior to being assigned or driving a company vehicle. A motor vehicle record check will be rerun on an annual basis and the results kept on file in the Trinity Human Resources Department.

All Trinity drivers must have a valid driver's license.

All Trinity drivers must attend a driver-training course before a company vehicle is issued.

Non-production equipment (cars/pickups) will be parked 200 feet away from the immediate work area. If it is not practical to park 200 feet away, they must be parked safely in the work zone in an area designated for that purpose.

Stopping in traffic lanes to hold discussions with others is not permitted.

It is the responsibility of the driver to comply with safety regulations, safe practices and to obey all traffic laws.

Trinity vehicle operators must report all incidents immediately to his or her supervisor, the Fleet Manager and the Safety Department. Employees with poor driving records will not be allowed to drive vehicles. All Contractors are required to report all motor vehicle incidents within the project limits using their company reporting procedures as well as reporting the incidents to the Trinity Safety Department.

Everyone operating or riding in a vehicle must wear a seat belt.

Vehicles used to transport employees will have seat belts firmly secured and adequate for the number of employees to be transported.

No one is to ride in the back of a pickup truck.

Tailgates should be in the closed position except when loading or unloading, or when the length of the load requires otherwise. Proper flagging of the load will be maintained.

No vehicle may be left unattended while the engine is running.

Use turn signals. Approaching equipment needs to know your intentions.
All vehicles working on the project and exposed to traffic will be equipped with construction-appropriate lighting that conforms with the State of Texas’ requirements for such operations.

5A 2.10 Disciplinary Procedure for Trinity Employees

This procedure outlines the use of the disciplinary system.

Employee reprimands provide a means of documenting employee safety violations, as well as other violations, and resulting disciplinary action. All reprimands, including verbal reprimands, will be documented on the Employee Disciplinary Action Form, Appendix 5A-14. Contractor employees who violate safety and other project rules will be subject to written notification to the Contractor’s supervisor or management and subject to permanent removal from the site.

A Trinity supervisor can issue reprimands to employees who violate safety rules as outlined in the Construction Safety Plan, or any other company or jobsite rule.

A copy will be kept on file at the Project Office in the Trinity employee’s personnel file. A copy is also to be given to the Trinity Safety Director.

The type of disciplinary action(s) taken will be at the discretion of Project Management and may include but not be limited to the following:

1. A verbal warning of violation (must be documented on a Disciplinary Action Record form). These may be given at any time at the discretion of the supervisor.
2. A written notice of violation including disciplinary recommendations (e.g. retraining, coaching, change in duties, etc.). These may be given at any time at the discretion of a supervisor with the approval of the Human Resources department.
3. Disciplinary action, such as suspension without pay or termination of the employee(s). The Human Resources department must approve these actions.

Any severe violation may be cause for immediate termination.

5A 2.11 Visitor Safety Procedure

Purpose
The purpose of this procedure is to prevent injuries from occurring to visitors while on the jobsite.
**Scope**
This procedure covers visitors (i.e., Sales Personnel…) that have not attended the project safety orientation.

**Escort**
All visitors will be escorted while on the project by an authorized employee or Contractor that has the required Photo ID badge.

**Visitors Badge**
All visitors will be required to check in at the project office to receive a temporary visitors badge to be displayed while on site. Visitors must be accompanied by the escort to receive the badge from the project office receptionist.

Visit badges are good for one day only and to be turned in at the end of the visit to the receptionist at the project office.

**Personal Protective Equipment (PPE)**
All visitors are required to wear the minimum PPE listed below:
1. Approved hard hat
2. Approved safety glasses (if the visitor is wearing prescription glasses he will be issued OTGs that will fit over and cover the prescription glasses)
3. Approved Class III high visibility traffic vest.
4. Sturdy footwear appropriate for the jobsite

Visitors that are being escorted into work areas that may require additional PPE will be notified by the Escort prior to entering into the area.
5A 3  GENERAL SAFETY AND HEALTH PROVISIONS

5A 3.1  General Site Safety Rules

1. All workers, regardless of position, will comply with all Occupational Safety and Health Administration Standards (OSHA), State, Federal, Local laws and rules of Trinity Infrastructure, LLC outlined in this plan at all times. Failure to comply with these requirements may be cause for termination or in the case of Contractor employees, removal from the site.

2. Being impaired by alcohol, mind-altering or controlled drugs not prescribed to the individual by a licensed medical doctor while on the jobsite will be cause for immediate removal from the site. Possession of any illegal or non-medicinal drug or alcoholic beverage while on the jobsite will result in immediate removal from the site, and that worker may not return.

3. Guns, weapons, ammunition and explosives of any kind are not allowed on the site. Possession of any of the above may result in immediate removal from the site, and the worker may not return.

4. Proper eye protection in addition to safety glasses with side shields, e.g. goggles, face shields, welding hoods, etc. will be worn when exposed to flying objects, dust, harmful rays (i.e. ultraviolet, radiant and laser lights), chemicals or other eye hazards.

5. Gambling, fighting and horseplay on the job or in areas under project control will be cause for dismissal.

6. No loose dangling jewelry or loop earrings will be worn.

7. Hair may not be worn in a manner that could interfere with the design or function of a hard hat or with the use of a respirator.

8. Hard hats will not be modified in any way.

9. Smoking is not allowed in outside areas where flammable and or combustible materials are present.

10. Riding on equipment loads, hooks or headache balls is prohibited.

11. Only qualified and designated operators will operate heavy equipment.

12. All safe practices will be followed in hoisting and rigging of suspending loads.

13. Compliance with warnings and instructions on all signs, posters and hazard bulletins issued on the job is mandatory.

14. Proper lifting methods must be used at all times.

15. Walkways, traffic lanes and fire exits will not be blocked or obstructed.

16. Prior to entering different a work area, supervisors must communicate hazards and required safety precautions for the particular work area.

17. Always be aware of work going on in the vicinity. Keep clear of overhead work, suspended loads, pinch points, traffic areas, etc.

18. Watch out for tripping and fall hazards.

19. Always have sufficient lighting on stairs, in walkways and other work areas.

20. Always place barricades and signs to warn of traffic, overhead hazards, pinch points, floor openings, etc.

21. Hand protection should be worn as appropriate.
22. Good housekeeping is essential in incident prevention and should be a part of the daily routine. Remember a clean job is a safe job.
23. All protruding nails in scrap lumber must be removed immediately.
24. Paper drinking cups, lunch debris and trash must be placed in trash barrels.
25. Materials, stockpiles and/or equipment stored adjacent to active roads or highways must be properly barricaded and kept at a distance from the edge of unprotected lanes per TxDOT Specifications.

5A 3.2 Towed Equipment

Determine first that vehicle is capable of pulling the equipment weight.

Before towing any machinery or equipment, ensure that safety chains are part of the machinery or equipment.

All chains, hooks, latches and any other parts of the towing system will be inspected to ensure all parts are present and are in good operating condition.

During use, safety chains will be hooked to form an X or cradle.

A receiver hitch or pintle (bulldog) hitch will be used in lieu of bumper hitches.

Use the correct ball and hitch combination.

Wheel chocks will be used during installation and removal of the safety chains to ensure the machinery or equipment does not roll during this period.

All towed equipment and trailers must have working jack stands and they must be securely latched and pinned before jacking up a trailer.

5A 3.3 First Aid Kits

Kits must be properly stocked and maintained. The first aid kit should contain sterile supplies in a weatherproof container with individual sealed packages for each type of item. It should also include a blood borne pathogens response kit to prevent the transfer of infectious diseases. Provisions should also be made to provide for quick drenching or flushing of the eyes should any person be working around corrosive materials.

All Contractors will have a minimum of one person per crew certified in CPR and first aid, on site while work is being performed. A copy of valid certificates or cards will be provided to the Trinity Safety Department to be kept on file.

5A 3.4 Sanitation
Drinking water will be secured from sources free of contamination in accordance with local, state, or federal health authorities. It will be dispensed by means that will prevent contamination. Common drinking containers are prohibited.

All drinking water coolers will be marked “Drinking Water Only”.

Water coolers must be used for the containment of drinking fluids and clean ice only.

Water coolers must be kept clean and sanitary.

Single serve drinking cups and waste containers to dispose of used cups will be furnished by each Contractor for their employees.

Ice machines must remain free of contamination. They will contain only ice. No personal food or drink containers are allowed in ice machines. Only scoops will be used to remove loose ice from the machine to dispense into water coolers and ice chests. Scoops will be kept in a clean area outside of the ice machine when not in use.

Water vessels used on the project will be labeled as “non-potable”.

Toilet facilities will be provided in a type that meets public health requirements. The facilities must be maintained and sewage disposed of in accordance with appropriate sanitation requirements under good public health practices, standards and laws.

Construction labs should distinguish microwaves and refrigerators as those safe to be used for the storage and preparation of food for human consumption.

5A 3.5 Illumination

Minimum Requirements
Illumination Plan
All projects operating at night will have a nighttime operations illumination plan. For minor night work, a written plan may not be necessary, but the relevant provisions listed below should be addressed.

The plan should contain the following elements:

1. Layout showing location of light towers or other light sources.
2. Lighting calculations confirming the illumination requirements will be met by the layout.
3. Description of light towers or other light sources to provide uninterrupted power.
4. Description of how glare will be controlled.

Illumination Levels
The following minimum requirements for illumination will be met:

General. Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to not less than the minimum illumination intensities listed in Table D-3 while any work is in progress:

<table>
<thead>
<tr>
<th>Foot-Candles</th>
<th>Area of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.............</td>
<td>General construction area lighting.</td>
</tr>
<tr>
<td>3.............</td>
<td>General construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling, and field maintenance areas.</td>
</tr>
<tr>
<td>5.............</td>
<td>Indoors: warehouses, corridors, hallways, and exitways.</td>
</tr>
<tr>
<td>5.............</td>
<td>Tunnels, shafts, and general underground work areas: (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Bureau of Mines approved cap lights shall be acceptable for use in the tunnel heading)</td>
</tr>
<tr>
<td>10............</td>
<td>General construction plant and shops (e.g., batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active store rooms, mess halls, and indoor toilets and workrooms.)</td>
</tr>
<tr>
<td>30............</td>
<td>First aid stations, infirmaries, and offices.</td>
</tr>
</tbody>
</table>

Illumination Measurement: Illumination is measured in foot-candles. An illumination (light) meter is a convenient instrument that measures illumination at a specified location. This instrument is useful in quantifying any area lighting deficiencies.

All work will be discontinued in the event of the failure of the lighting system except in declared emergency situations.

Vehicle Lights
All vehicle lights will be in working order. They should be supplemented by additional lighting to make them more visible at night. All vehicles and equipment must be equipped with functioning amber rotating beacon lights or
strobes that are approved for highway use. Headlights will not be the sole method of illumination while working.

**Glare Control**
All lighting will be designed to minimize glare to oncoming traffic by extending tower lights to their full working height where feasible, i.e. where there are no overhead power lines. The use of balloon lighting instead of light towers is an acceptable alternative, and reduces glare.

**5A 4 SAFE WORK PRACTICES**

**5A 4.1 Housekeeping**

Good housekeeping is essential in accident prevention and should be a part of the daily routine, with clean up being a continuous procedure. Remember a clean job is a safe job.

All protruding nails in scrap lumber must be pulled and disposed of immediately.

The working area, stairways, ladders, and passageways will be kept free from loose materials and debris.

All excess materials must be stacked and barricaded with due consideration for safety, and allowances made for easy access.

All hazardous material spills must be reported to the involved Contractor supervisor and the Environmental Compliance Manager immediately.

Areas around saws or other wood working equipment will be kept clean and free of excess scrap, chips and sawdust.

Paper drinking cups, lunch debris and trash will be placed in trash barrels for removal.

Tool trailers will be kept clean and orderly to allow for safe access and proper storage of tools.

Materials, stockpiles and or equipment stored adjacent to active roads or highways will be properly barricaded or kept outside of the clear zone of unprotected lanes.

**Requirement for Shade**

Where there is no natural shade within reasonable walking distance to the immediate work area, the Contractor must provide a portable shade area that effectively blocks direct sunlight and does not expose workers to unsafe or
unhealthy conditions, e.g. the shade cast by vehicles and equipment is not acceptable, as these objects create as well as absorb and radiate heat.

Trespassing on private property to access shade is not permitted.

**Guidelines**
When the outdoor temperature in the work area exceeds 85 degrees Fahrenheit, the Contractor must have and maintain one or more areas with shade at all times while workers are present, that are either open to the air or provided with ventilation or cooling. The amount of shade will be at least enough to accommodate 25% of the workers on the shift at any time, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shaded areas will be located as close as practical to the areas where workers are working.
5A.4.2 Emergency Action Plan

Purpose
The purpose of this procedure is to minimize and prevent possible harm to workers, damage to material and equipment at the jobsite, to assign specific duties and establish detailed guidelines that provide a timely response and safe movement of people and ensures the accountability of all workers in the event of an emergency.

Procedure
In the event of an emergency (natural or manmade), all workers must stay clear of the emergency, contact their foreman and proceed upwind of the emergency with their foremen for a head count. All Foremen must notify their Superintendent and the Segment Safety Manager that all are present and accounted for, and wait for further instruction.

Responsibilities
The Trinity Superintendents will monitor storms as they are broadcasted by the Weather Bureau. Progress of these storms will be forwarded to the Trinity Construction Manager.

The Trinity Construction Manager or his designated representative will make the decision as to when the storm will be considered a potential threat and initiate Phase 1 of this procedure.

If it becomes necessary due to high winds and heavy rainfall, storms, hurricanes or tornadoes, certain precautions may be required. Preparation for this type of weather will be in two phases that will be initiated by the Trinity Construction Manager or his designated representative.

Phase I
The Trinity Construction Manager or his designated representative will organize a tour of the job site to determine the necessary precautions to take. He will be accompanied by personnel he deems necessary.

The determination will be made as to what on-going work will be adversely affected and as to what work may have to be completed prior to the possible arrival of the threatening weather.

All equipment, scaffolding and material necessary to work in progress, will be secured.

The Construction Team will make a thorough study of all free-standing columns and partially erected steel, concrete beams etc. to determine if they can withstand expected wind velocities and determine which ones may need guyed or other supports, to withstand such velocities.
All drainage systems will be thoroughly inspected and cleaned in preparation for heavy rainfall.

**Phase II**

When the Trinity Construction Manager determines that there is a definite threat he will initiate one or more of the following steps:

1. All ongoing construction will cease and preparation will begin for meeting the storm.
2. All scaffolding will be dismantled and stored or securely lashed to a substantial structure. Particular attention will be given to scaffold boards that will be securely tied or removed from the scaffold.
3. Tarpaulins covering material that may be damaged by the water or wind will be securely lashed down. Securing the corners only will not suffice.
4. All gang boxes and temporary construction structures not securely hooked to a foundation will also be tied down. Material such as plywood, etc., will also be lashed down.
5. All material and equipment that can be moved into a protective structure will be moved inside.
6. All equipment such as cranes, trucks, cherry pickers, etc., will be moved to an area where they are least likely to be reached by high water. Cranes will be stored with booms lowered and outriggers out. All equipment will be parked parallel, close together, with brakes set and wheels chocked.
7. The Trinity Construction Manager will make the determination of when personnel will be sent home.

Please reference Appendix 5A-23 for *Emergency Contacts and Procedures*. 
5A 4.3 **Personal Protective Equipment (PPE)**

All workers are responsible for the proper use and care of their PPE. Contractors will be required to furnish, train and enforce the use of all PPE for their employees in compliance with OSHA regulations. Please reference Appendix 5A-28 for performance expectations.

**Categories of Personal Protective Clothing/Equipment**
1. Head protection
2. Eye protection
3. Foot protection
4. Hand protection
5. Visibility apparel
6. Face protection
7. Hearing protection
8. Respiratory protection
9. Fall protection

The minimum required PPE on the jobsite consists of 1 through 5 above.

**5A 4.3.1 Specific PPE Requirements**

**Head Protection**
Hard hats will be worn in work areas at all times (except in closed cabs of vehicles). Hard hats protect the head from impact of falling and flying objects and from limited electrical shock and burn.

Hard hats must be Type 1, Class G, and meet the ANSI Z89.1 standard.

Hard hats must be worn as intended by the manufacturer.

Hard hats should be cleaned and inspected regularly, and discarded and replaced in accordance with the manufacturer’s guidelines.

Painted hard hats are not allowed. Alteration of the hat or suspension system is not permitted. Skull caps/metal hard hats and cowboy-style hard hats are not permitted.

**Eye Protection**
Proper ANSI Z87.1 approved eye protection is required on the jobsite at all times, and will vary depending on the scope of work.

ANSI Z87.1 approved OTGs (Over The Glasses) may be worn over prescription glasses that do not meet ANSI Z87.1 standards.
Side shields are required on all prescription and non-prescription safety glasses.

Tinted lenses are not permitted between sunset and sunrise. Good judgment should be used when overcast conditions reduce visibility during daylight hours.

Cutting goggles are a minimum requirement when using a cutting torch.

Hoods with proper shaded lenses are required for welding. Approved safety glasses with side shields must be worn under the welding hood.

When assisting with welding or cutting operations, workers are required to wear the same eye protection as prescribed for that particular operation and as provided by OSHA 1926.102(b)(1) Table E-2 Filter Lens Shade Numbers for Protection Against Radiant Energy.

When performing jobs where increased danger to the eyes is present, additional eye protection (such as goggles) or face shields are required.

**Foot Protection**
Safety shoes and boots must meet ANSI Z41-1991 and provide impact and compression protection to the foot. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal (top of foot) protection should be provided, and in some other special situations, electrical conductive or insulating safety shoes would be appropriate. Tennis shoes, sandals, or high heels are not allowed outside the office(s).

**Hand Protection**
Work gloves that provide appropriate protection from the hazards associated with the environment and the type of work to be performed will be worn by all workers on the jobsite.

**Visibility Apparel**
High Visibility Class III vests will be worn on the outside of any other clothing or jacket.
All Employees; CLIII vests will be worn during all operations.
These garments provide the highest level of conspicuity for workers. These are for workers with high task loads in a wide range of weather conditions where traffic exceeds 50 mph.
ANSI/ISEA 107 “recommends these garments for all roadway construction personnel, vehicle operators, utility workers, survey crews, emergency responders, railway workers and accident site investigators”.

**Face Protection**
A face shield and ANSI Z87.1 safety glasses are required for operations such as grinding, sawing, chipping, reaming, buffing or any particle producing operations.

When assisting with operations such as grinding, sawing, chipping, reaming, buffing or any particle producing operations, workers are required to wear the same face and eye protection as prescribed for that particular operation.

### 5A 4.3.2 Hearing Protection Policy

The primary goal of Trinity Infrastructure, LLC is to reduce and eliminate hearing loss due to workplace noise exposures. The policy includes the following elements:

1. Environments that contain or equipment that produces potentially hazardous noise should, wherever it is technologically and economically feasible, be modified to reduce the noise level to acceptable levels.
2. Where engineering controls are not feasible, administrative controls and/or the use of hearing protective devices will be employed.
3. Education is vital to the overall success of a hearing conservation policy. An understanding by workers of the permanent nature of noise-induced hearing loss is a goal of Trinity Infrastructure, LLC.

Trinity Infrastructure, LLC is aware that excessive noise exposure is a potential cause of hearing loss. In response Trinity Infrastructure, LLC has established a policy that is intended to meet the requirements of the Occupational Safety and Health Administration’s (OSHA) noise regulations. Trinity Infrastructure, LLC will use the Permissible Exposure Limit (PEL) established by OSHA, as detailed in the table below.

<table>
<thead>
<tr>
<th>DURATION PER DAY</th>
<th>SOUND LEVEL (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 hours</td>
<td>90</td>
</tr>
<tr>
<td>6 hours</td>
<td>92</td>
</tr>
<tr>
<td>4 hours</td>
<td>95</td>
</tr>
<tr>
<td>3 hours</td>
<td>97</td>
</tr>
<tr>
<td>2 hours</td>
<td>100</td>
</tr>
<tr>
<td>1½ hours</td>
<td>102</td>
</tr>
<tr>
<td>1 hour</td>
<td>105</td>
</tr>
<tr>
<td>½ hour</td>
<td>110</td>
</tr>
<tr>
<td>¼ hour or less</td>
<td>115</td>
</tr>
</tbody>
</table>

OSHA - 29 CFR 1926.52(d)(1), Table D-2 Permissible Noise Exposures

When the sound levels above are exceeded, feasible administrative or engineering controls will be instituted. If the controls fail to reduce the sound levels to within those listed above, hearing protection will be provided by the worker’s employer and used by the worker to reduce the sound levels to an acceptable level. In addition OSHA requirements dictate that whenever worker noise exposures equal or exceed an 8-hour time weighted average (TWA) of 85
decibels, A-weighted (dBA), slow response, a continuing effective hearing conservation program will be instituted.

5A 4.3.3 Respiratory Protection Policy
It is the policy of Trinity Infrastructure, LLC to protect its employees from hazardous atmosphere through a comprehensive program of Work anticipation, recognition, evaluation, engineering, administrative, work practice controls, and personal protective equipment including respirators. To the greatest extent feasible, hazard elimination, engineering and work practice controls will be employed to control worker exposure to within allowable exposure limits. However, where these measures are not feasible or fully effective or are under development, Trinity Infrastructure, LLC is committed to full compliance with applicable federal and state regulations pertaining to worker respiratory protection.

This policy applies to all Trinity Infrastructure, LLC employees. Each activity will be evaluated based on OSHA requirements to determine if the use of respiratory protective devices is required. Trinity employees who have to enter work areas where respiratory protection is required, will be issued and trained to use and maintain the equivalent respirator being used by the involved Contractors.

All Contractors on site are responsible for identifying potential respiratory hazards associated with their scope of work, and ensuring that all involved workers are provided with proper NIOSH approved respiratory protection at no cost to them.

All Contractors and Trinity Infrastructure, LLC personnel involved in operations that require the issuance, use and maintenance of respiratory protection will be trained prior to their use.

All Contractors performing tasks that may require respiratory protection will include the respiratory protection plan in their Safety Plan submittal prior to any work being performed on site.

All respiratory protection practices will be in compliance with OSHA 29 CFR 1910.134.

5A 4.3.4 Fall Protection Policy
It is the policy of Trinity Infrastructure, LLC to enforce a 100% (Continuous) fall protection requirement when workers are exposed to falls of 6’ or more.

All Contractors will be responsible for ensuring that their employees are adequately trained in the selection, use, inspection and care of personal fall protection devices and systems.
Equipment
A full body harness in good condition and sized properly to the worker will be used.

Lanyards being used must achieve 100% (Continuous) fall protection, and be shock absorbing with locking snap hooks.

Positioning devices may be used to allow workers a hands-free work environment. Positioning device must be compatible with harness and lanyard and must be used in conjunction with an appropriate lanyard.

Use Requirements
All workers required to wear fall protection must be trained by their company’s Designated Competent Person in the proper use of fall protection before using any fall protection equipment. Contractors will provide documentation of training to the Safety Department prior to beginning work on the project. Workers must be able to identify potential fall hazards, determine which products to use in specific work environments, demonstrate proper tie-off procedures, etc. Workers must also be instructed on inspection and maintenance procedures and the proper wearing of fall protection equipment. It is the responsibility of the involved Contractor to ensure this training is completed and documented.

Harnesses are to be worn snug around the body with the shock absorbing end of the lanyard attached to the “D” ring in the center back of the harness.

Lanyards will be kept as short as possible to minimize the free fall distance. Free fall distance will not exceed 6 feet and will not impose greater than 1800 lbs. Maximum Arresting Force (MAF) on the body.

Positioning devices are not designed for fall arrest purposes. A harness and lanyard will be used in conjunction with positioning devices.

Site conditions (e.g. working above traffic or other hazards) and total fall distance (TFD) must be considered when planning 100% (Continuous) fall protection. TFD must be calculated when a personal fall arrest system is used and the distance between the working/walking surface and the nearest surface or object below is less than 25’. TFD equals the sum of the free fall distance (FFD), the deceleration distance of the lanyard (DD) (not to exceed 3.5’), the vertical elongation of the anchor point (VEAP), the height of the tallest worker (HTW), and the constants of 1’ for the harness effect (HEFF) and 3’ for a safety factor (SF). All variables are in units of feet.

\[ TFD = FFD + DD(\text{max. } 3.5) + VEAP + HTW + 1(HEFF) + 3(SF) \]
All Trinity field employees are required to attend annual fall protection training. Contractors are required to provide the annual training for their employees who utilize fall protection. Verification of this requirement will be provided to the Trinity Safety Department.

Failure to follow 100% (Continuous) fall protection will result in disciplinary action up to and including termination or removal from the site.

**Inspection**

User must inspect PPE prior to use.

All lanyards and harnesses must be inspected quarterly by the Contractor’s Designated Competent Person and prior to use by employee using equipment.

All buckles, “D” rings, snaps, thimbles and wear pads must be checked for distortion or sharp edges, cracks, worn parts and corrosion. Any equipment with such evidence of corrosion will not be used. Buckles should work freely with the snap keeper spring providing tension to close the keeper in a locked position and must close flat against the snap exhibiting no sideways movement or play. Rivets and grommets must be tightly embedded in the material without distortion.

A component with any significant defects including but not limited to: cuts, tears, abrasions, mold, undue stretching, alterations or additions, evidence of internal/external deterioration, contact with acids or other corrosives, distorted hooks or faulty hook springs, tongues unfitted to the shoulder of buckles, loose or damaged mountings, non-functioning parts, or anything else which might affect its efficiency must be removed from service immediately.

Cleaning will be done with water and mild soap, rinsing thoroughly in clean water, and hang to air-dry.

Personal fall protection devices must be stored in a clean, cool, dark, dry area free of chemical fumes. Never store in areas where there is direct sunlight. Never store in gang boxes with tools because sharp edges will cause damage.

Any personal fall protection devices that are subjected to a fall must be removed from service and tagged to identify that the device is out of service.

Only use fall protection equipment for their intended purpose.

It is the responsibility of the worker to properly maintain, store, and inspect personal fall protection devices issued by the company.

Misuse of any fall protection equipment is grounds for disciplinary action up to and including termination.
5A 4.4 Fire Prevention

General Requirements
All fires are to be reported immediately to the Contractor’s supervision and to the Trinity Safety Department.

Before using an open flame, make certain proper fire extinguishers are in the immediate area.

Know the location of fire extinguishers in your area and know how to use them.

Make sure that all matches and smoking materials are completely extinguished before they are discarded.

Smoking is not allowed when fueling equipment.

Smoking or open flames are not allowed within 50 feet of fuel storage or refueling areas.

All "NO SMOKING" signs are to be obeyed.

Only small quantities of flammables are to be stored and dispensed from approved OSHA safety cans.

Keep work areas free of combustible materials.

Covered metal containers will be used to store oily rags.

Never use an air hose or pressure to empty drums containing gasoline or flammable liquids.

Keep "salamanders" or other space heating equipment clear of combustible materials.

Do not refuel a hot or running engine. Clean up spills before starting.

Do not wear oily or combustible clothing on the job.

Gasoline is to be used as a motor fuel only.

Above Ground Storage Tanks
Above ground storage tanks will be placed on stable ground. The area around the tank(s) will be surrounded by a berm with an approved liner. The berm or containment area will have the capacity to hold 1½ times the greatest amount of liquid that could be released from the largest tank.
Each tank must be labeled with the contents of the tank and signs stating either “Flammable” or “Combustible” and “No Smoking”.

**Bulk Storage**
Storage containers holding flammable or combustible liquids (i.e. those containers used for the purpose of dispensing into smaller containers for immediate use), will be stored in designated areas specially designed for them and that meet local, state and federal regulations.

**Small Quantity Handling**
Only metal safety cans with a positive self-closing lid and a flash arrestor screen will be allowed on the jobsite.

All fuel cans must be labeled with the contents and the appropriate warnings for the particular product.

Fuel containers for dispensing into gasoline-powered tools can not exceed 5 gallon capacity.

A funnel must always be used when dispensing gasoline from a safety can.

When filling safety cans, the cans must be set on the ground. Do not fill cans while they are sitting on the tailgate or in the bed of a truck.

No more than 24 gallons may be stored inside of enclosed spaces, e.g. storage or tool containers. If more than 24 gallons must be stored inside of an enclosed space, an approved flammable liquid storage cabinet must be used.

Small quantities of lubricating, linseed and motor oils need not be stored in safety cans. However, these oils should never be stored in open containers (such as cans or buckets) and the contents of the can will always be tagged, labeled, or otherwise indicated on the outside of each container.

Precautionary measures must be taken to prevent the accumulation of explosive vapors, e.g.:
1. Provide adequate ventilation.
2. Conduct combustible gas sampling to ensure adequacy of ventilation at beginning of use and as needed during use.
3. Control spark-producing devices.
4. Ground against static.

**Fire Extinguisher Requirements**
A 10 pound class "ABC" fire extinguisher or equivalent will be within 50 feet of any work area which has a fire potential. Operations that are especially fire prone, such as welding or flame cutting areas, will have a fire extinguisher
immediately available. All workers must be trained by their employer on the safe use of fire extinguishers.

A 20-pound "ABC" Class fire extinguisher will be placed no closer than 25 feet and no further than 75 feet away from a flammable or combustible storage tank.

Each Contractor will have available to their employees at all times, fully charged fire extinguishers with current annual inspection tags.

Adequate fire protection must be provided for all motorized equipment, including compressors and light plants.

Fire extinguishers must be visually inspected by the Contractor’s Designated Competent Person and maintained to meet all local, state and federal regulations for their safe use. All extinguishers must be inspected by a third party annually.
5A 4.5 Signs, Signals and Barricades

Warning Signs
The purpose of warning signs is to point out a hazardous condition. It notifies persons working nearby or entering the area to proceed with caution.

Use correct signs for the situation or condition, and remove when hazard is eliminated.

Barricades – Non-Traffic Control
Barricades must completely enclose hazardous areas of a more hazardous nature.

Supervision responsible for authorizing entry into the barricaded area will specify the proper protective equipment required.

Warning sign procedure must be used in conjunction with barricaded areas.

Material provided as barricade equipment is not to be used for any other purpose.

All barricades must be designed to protect personnel from the hazards contained within the barricaded area.

When a hazardous condition develops which warrants a barricade, persons will be posted at area entrances to warn or exclude traffic until the area can be properly barricaded.

Never remove barricades or signs without permission.

Barricades will be placed no less than 6 feet from the hazard.

Any Contractor using barricades must place a tag on the barricade that has the date, hazards, special requirements and the supervisor’s name and phone number.

Procedure for Entering Barricaded Areas
Barricaded areas or areas where signs are posted warning others to keep out are to be entered only with authorization from the supervisor responsible for the barricaded work area.

All hazards to include but not limited to floor openings, wall openings, debris, trenches and excavations etc., will be properly barricaded, isolated and/or covered.
All fence barricades must be constructed with 48 inch orange safety fence and T-posts.

T-posts may only be driven with a pole driver.

**Warning Tape**
Swing radius, overhead work, scaffolds under construction or any other area where work creates a hazard and where a rigid barricade is not practical, the work area must be identified with red warning tape to restrict access.

Any Contractor using warning tape must place a tag on the tape that has the date, hazards, special requirements and the supervisor’s name and phone number.
5A 4.6  Materials Handling, Storage, Use and Inspection

Only authorized workers who have been provided training and certification, and who have been designated by their employer are allowed to operate forklifts or lift trucks of any kind.

Trucks
The securing of a load on any truck will be planned. The planning is to eliminate the necessity of a man being on the load at any time for the purpose of placing chains and ratchets.

If chains are used to secure loads, then the size of the chains and the method of securing those chains must comply with OSHA 29 CFR 1926.251.

Compressed Gas Cylinders
Compressed gas cylinders will be secured in an upright position at all times and will not be moved or stored lying down.

When transporting compressed gas cylinders, they must be secured to a proper transfer device.

Caps must be kept on all compressed gas cylinders when regulators are not in place.

Rigging Inspection
Determine the safety of rigging, its life expectancy, and its load carrying ability by regularly inspecting every foot of its length. Determinations of rigging safety will be based on the section of the device exhibiting the worst condition or wear.

All rigging rated capacities will be permanently attached. All tags must be legible at all times.

Rigging must be inspected prior to each use by the Contractor’s Designated Competent Person. Recording of this inspection will be kept on file and available for review. In addition, all equipment operators and riggers should be trained in this procedure, Crane-Specific Qualified Person Designation Appendix 5A 26

Wire Rope Slings
Conditions of the following nature are sufficient to remove a sling from service:
1. Broken wires
   a. Six or more broken wires in one rope lay, or three or more broken wires in one strand in one rope lay. (A rope lay is the length along the rope in which one strand makes a complete revolution around the rope).
   b. One or more broken wires near an attached fitting.
   c. Any evidence of wire breaks in the valleys between strands.
2. Worn or abraded wires
3. Corrosion
4. Kinks
5. Bird caging
6. Protruding core
7. Electric arc contact
8. High standing

**Synthetic Fiber/Web Slings**
Conditions of the following nature are sufficient to remove a sling from service:
1. Acid damage
2. Heat damage
3. Cuts
4. Abrasion damage
5. Punctures and snags

**Chain Rigging**

Using chain application for rigging purposes will not be allowed under normal conditions. Chain usage will only be allowed when introduction of last resort reasoning is presented to the Trinity Safety department. Approval may then be given assuring that application is safe and in accordance with chain manufactured and tested in accordance with ASTM (American Society for Testing and Materials) guidelines. If other grades of chain are used, they are to be used in accordance with the manufacturer’s recommendations and guidance.

**Chain-Fall**
1. Chain falls and pull-lifts shall be clearly marked to show the capacity and the capacity shall not be exceeded.
2. Chain falls shall be regularly inspected to ensure that they are safe, particular attention being given to the lift chain, pinion, sheaves and hooks for distortion and wear. Pull-lifts shall be regularly inspected to ensure that they are safe, particular attention being given to the ratchet, pawl, chain and hooks for distortion and wear.
3. Straps, shackles, and the beam or overhead structure to which a chain fall or pull-lift is secured shall be of adequate strength to support the weight of load plus gear. The upper hook shall be moused or otherwise secured against coming free of its support.

**Note: A “Come-A-Long” Inspection**
Is a mechanical device, usually consisting of a chain or cable attached at each end, that is used to facilitate movement of materials though leverage and is not considered “hoisting equipment.”
5A 4.7 Tools – Hand and Power

Use the right tool for the job.

Inspect tools and cords for damage before each use.

Remove defective tools and equipment immediately from service.

Do not use tools with split, loose or broken handles.

It is the responsibility of Contractors using tools and equipment to have equipment inspections completed by the end of each inspection period using quarterly color code. The color code will be as follows: January – March: White; April – June: Green; July – September: Red; October – December: Orange.

Air tools are to be kept in good repair. Defective tools are to be taken out of service immediately.

Keep all loose tools in a toolbox and secure them against falling or dropping from work surfaces.

Dress tools having mushroomed heads with a grinder.

Keep cutting tools sharp and carry them in a container, not in pockets.

Do not operate equipment without guards in place.

Only qualified workers are to operate power tools.

Operate equipment and tools within manufacturers’ specifications.

Use saw horses or work tables to support work while cutting. Work pieces will not be hand held while being cut, drilled, etc.

Keep tools a safe distance from "live" electricity. The jobsite requires as a minimum, a fifteen (15) foot distance from any energized electrical source.

**Electric-Powered Tools**

Daily inspections will be performed by all personnel to ensure that electrical tools and equipment are in good condition and safe to use.

Electric power tools and equipment must be properly grounded.

Do not use electric power tools or equipment while standing in water. Ground fault circuit interrupters (GFCI) are required with all power tools.
All electric power tools and cords will have insulation that meets manufacture's specifications.

Only qualified persons are to repair electrical tools or equipment.

Secure all cords, leads, and hoses in the work area to prevent damage to them.

Do not use non-insulated wire, rods, or nails to hang a cord, lead or hose.

**Gasoline-Powered Tools**
Daily inspections will be performed by all personnel to ensure that gasoline-powered tools and equipment are in good condition and safe to use.

Refuel tools in areas away from all ignition sources. Always have a fire extinguisher within 25 feet available and ready for use.

A funnel must always be used when dispensing gasoline from a safety can.

Broken or defective tools must be repaired immediately or removed from the job. Disconnect the spark plug from the tool before making any adjustments or repairs.

**Workers** using a cut-off saw must wear a face shield over their safety glasses.

Cut-off saws must be equipped with the manufacturer-supplied guard.

Cut-off saws will be carried or moved with the engine in the off position.

Do not cut above waist height and never work from a ladder or over-reach.

**Grinders**
Daily visual inspections must be made of the grinder and cord prior to use. Check all grinding disks and stones for cracks, chips or other flaws before, during and after use. Replace damaged disks immediately.

All grinders must be maintained in good, safe condition.

All handheld powered grinders must be equipped with a momentary contact or constant pressure "on/off" control switch that will shut off power when the pressure is released. Trigger locks must be made inoperable.

Be sure the correct diameter disk is being used for the size of the grinder being used.
Workers using grinders must wear additional personal protective equipment, i.e. hearing protection, face shield and appropriate respirator for the environment and the material being ground.

Grinders must be equipped with the manufacturer-supplied guard.

Never use a hand grinder as a stationary grinder.

**Walk-Behind Equipment**

Only trained operators will use walk-behind equipment.

The operator must have control of the machine at all times. If work is on an uneven surface, the operator will be positioned on the uphill side for added protection, away from the machine.

Always maintain secure footing while operating the machine.

**Powder-Actuated Tools**

Only certified license carrying operators may operate powder actuated tools. Operators must have their credentials on their person at all times.

Powder-actuated tools use gunpowder as the working mechanism. Whenever workers use powder-actuated tools, warning signs must be posted to read:

"**POWDER-ACTUATED TOOLS IN USE**"

Powder-actuated tools must be visually inspected before each use

Powder-actuated tools must be handled as a firearm.

Powder-actuated tools must never be pointed at anyone.

Never place hand over the muzzle of a loaded powder-actuated tool.

Never rest the tool against the body when loading or making adjustments.

Never leave a loaded powder-actuated tool unattended.

Load all powder-actuated tools just before use.

Never fire a powder-actuated tool in a flammable or combustible atmosphere.

Broken or defective powder-actuated tools must be repaired immediately or removed from the job.
Remove all powder charges from the tool before making any adjustments or repairs.

Never try to release a loaded powder-actuated tool that has jammed in the firing position.

Always check the manufacturer’s recommendations for handling misfires. Miss fired loads must be emerged in water for 24 hours.

Workers using powder-actuated tools and workers exposed to flying debris and/or harmful dusts must be provided with additional personal protective equipment, i.e. hearing protection and face shields.

Live loads/cartridges must be stored in an approved, locked storage cabinet to meet applicable OSHA regulations. Do not throw explosive charges into trash containers or leave them lying around.
5A 4.8 Welding and Cutting

Ensure a hot work permit, has been obtained prior to conducting these activities.

Secure compressed gas cylinders in an upright position at all times and do not move or store lying down.

Secure compressed gas cylinders to a proper transfer device when transporting.

Keep caps on all compressed gas cylinders when regulators are not in place.

Keep regulators free of oil.

Use flashback arresters on all lines at the torch end.

Separate oxygen and acetylene cylinders a minimum of 20 feet or by non-conductive barrier at least 5 feet high having a fire resistant rating of at least half an hour.

Do not use or store compressed gas cylinders in confined areas such as tool trailers or storage containers.

Protect workers and the public from hot welding materials.

Wear safety glasses with side shields, hard hats with welding hood attached, long sleeves or leathers and welding gloves when burning or welding.

Wear a face shield with safety glasses and side shields during all grinding or chipping operations.

Turn off, bleed down, disconnect regulators and replace cap on compressed gas cylinders when not in use.

Keep flames, sparks, molten slag and hot metal from coming in contact with combustible and flammable materials.

Provide a fire extinguisher in the immediate vicinity when using gas or arc welding, blowtorches or blow pots and other devices using an open flame.

Post “FLAMMABLE” and “NO SMOKING” signs around acetylene storage areas. Post “NO SMOKING” and “OXIDIZER” signs around oxygen storage areas.
Observe the following precautions when hot work is done near combustible materials:

1. See that the floor or area around the work is free of combustible debris.
2. Be sure that no flammable liquids are in the vicinity of the work area.
3. Have all combustible materials within area of proposed work moved to a safe distance. If the material cannot be moved because of excessive weight or bulk, it should be protected with a fire resistant shield or fire blanket.
4. Provide flash screens to protect workers and the public from potential flash burns to the eyes and skin from electric arc while arc welding.
5. Be sure there are no flammable or combustible materials and/or chlorinated solvents in the work area.
6. Do not weld, cut or heat metal drums, barrels or tanks.
7. Provide a fire watch when conditions make such actions necessary to prevent fires. The fire watch must be properly trained and familiar with the use of firefighting equipment. The fire watch's only duty will be as a "Fire Watch". This is the responsibility of the involved Contractor.
8. Use a container for the disposal of used welding rods. Container will be provided by the involved Contractor.
9. Ensure that the immediate area is free from evidence of fire after completion of a job.
10. Remove the welding rod from the electrode holder when not in use.
11. Protect hoses and leads from damage.
12. Ground all welding machines properly.
5A 4.9 Electrical

General Safety Requirements
Electrical equipment and cords must be visually inspected by the Contractor’s Designated Competent Person on a quarterly basis using quarterly color code requirement specified in this section.

All electrical extension cords used on the jobsite will be of the three wire type and be designed for hard or extra hard usage. 16 gauge cords are not allowed.

Electrical cords may not be spliced or repaired with electrical tape.

Any damaged cord must be removed from the jobsite until repaired in accordance with the manufacturer’s specifications for the type of insulation required, wire size and plug attachments. Repairs can only be made by a qualified person.

Consider all electrical wires and cords "live" until checked and/or locked out.

Electrical cords cannot be used for other purposes and must be protected from vehicular traffic.

Unplug all extension cords from power source before rolling up.

Any electrical equipment showing excessive wear or damage will not be used, and must be taken out of service, inspected, repaired, and retested by a Designated Competent Person.

The involved Contractor’s Lockout/Tag-out program must be adhered to at all times.

Electrician must don full arc flash protection and use only electrically rated tools to determine if an electrically powered device has been de-energized or to perform trouble shooting methods.

If work is to be performed near overhead lines closer than 20 feet, a Close Proximity Permit must be completed. Please reference Appendix 5A-16. Additional protective measures must be taken to protect workers from contacting overhead lines with any part of their body or directly through conductive materials, tools or equipment.

Any vehicle or mechanical equipment capable of having parts of its structure near overhead lines is to be operated to assure a minimum of 20 foot clearance.

When working in confined spaces with exposed energized conductors, workers must use protective shielding, barriers and insulating materials as necessary to
avoid contact. Doors, hinged panels and other equipment will be secured to prevent contact between the workers and energized conductors.

**Assured Electrical Equipment Grounding Conductor Program**

The assured electrical equipment grounding process for the site covers all cord sets and receptacles which are not a part of the permanent wiring of the building or structure and equipment connected by cord and plug which are available for use, or are used by workers. This process will comply with the following minimum requirements and must be documented as outlined in 1926.404(b)(iii). It is the responsibility of the each Contractor’s Designated Competent Person to implement the assured electrical equipment ground conductor process. The site will require total use of Ground Fault Circuit Interrupters (GFCI).

Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug will be visually inspected before each day’s use for external defects such as deformed or missing pins or insulation damage. Equipment found damaged or defective must be removed from service.

The daily visual inspection is made only on days the equipment is actually used, and should be made by the workers using the extension cords, electrical tools and generators.

All equipment grounding conductors will be tested for continuity.

Each receptacle and attachment cap or plug, must be tested for correct attachment of the equipment-grounding conductor. The equipment-grounding conductor will be connected to its proper terminal.

**Requirements**

Equipment grounding conductors will be installed and maintained in accordance with this procedure.

Equipment grounding conductors will be installed as follows:

1. All 120 volt, single phase, 15 and 20 ampere receptacles will be of the grounding type and their contacts will be grounded by connection to the equipment grounding conductor of the circuit supplying the receptacles in accordance with the applicable requirements of the National Electrical Code.

2. All 120-volt flexible cord sets (extension cords) must have an equipment-grounding conductor that is connected to the grounding contacts of the connector(s) on each end of the cord.

3. The exposed non-current carrying metal parts of 120 volt cord and plug connected tools and equipment that are likely to become energized will be
grounded in accordance with the applicable requirements of the National Electrical Code.

Contractors will visually inspect receptacles, flexible cord sets (extension cords), except those that are fixed and not exposed to damage, and equipment connected by cord and plug before each day’s use for external defects such as missing or deformed pins, for insulation damage, and for indication of possible internal damage. Where there is evidence of damage, the item will be taken out of service and tagged until tests and any required repairs have been made.

All 120 volt, single phase, 15 and 20 ampere receptacles which are not a part of the permanent wire of the building or structure, 120 volt flexible cord sets, and 120 volt cord and plug connected equipment required to be grounded must be tested as follows:

1. All equipment grounding conductors will be tested for correct attachment of the equipment-grounding conductor.
2. The equipment-grounding conductor will be connected to its proper terminal.
3. Testing Schedule: All required tests will be performed:
   a. Before first use.
   b. Before equipment is returned to service following any repairs.
   c. Before equipment is used after any incident that can be reasonably suspected to have caused damage.
   d. At intervals not to exceed three (3) months.

The color code will be as follows:

- January – March: White
- April – June: Green
- July – September: Red
- October – December: Orange
5A 4.10 Danger Tag, Lockout and Try Procedure

Introduction
It is the policy of the Trinity Infrastructure, LLC Management to establish procedures to be followed by Trinity employees for locking, tagging and trying a de-energized energy source to prevent injury caused by incidental operation. No work may be done on any energy source until the operation is prevented by use of this procedure. The objective of management is to provide a safe work environment and training of workers on these procedures. Contractors will implement their own lockout/tag-out program and ensure training and compliance with their employees.

General
Danger tags and locks may only be used to prohibit operation of an energy source.

Only standard construction danger tags will be used by the Contractors at this site.

Tags must be able to endure weather conditions and be legible by all authorized and affected workers. Tags must be securely attached so that they cannot be inadvertently or accidentally detached during use. Use a tie-wrap able to withstand 50 pounds of force.

Tags must provide a description of the equipment and/or the circuit number, the date, phone number, name and signature of the person using the tag.

Tags are never to be reused, but destroyed immediately upon removal. No alterations are permitted.

No device will be operated with a danger tag and lock attached regardless of circumstances. They do not provide the physical restraint on those devices that is provided by a lock.

Danger tags and locks will be placed by authorized workers.

No worker may remove another worker’s tag or lock unless the owner (worker placing the lock or tag) is offsite. The owner’s supervisor will be contacted to verify that the owner is offsite. An effort should be made to contact the worker. If the owner cannot be contacted then the Trinity Construction Manager or designated person, (after assuring that the system or circuit is safe and after consulting with the responsible supervisor) may authorize its removal.

"Multi-Lock" devices must be used when multiple workers are involved in operation.
Lines containing energy sources, compressed air, inert gas and water require a lock as well as a tag.

An affected worker is one whose job requires them to operate or use a machine or equipment on which maintenance is being performed under lockout, tag-out, or whose job requires them to work in an area where service or maintenance is being performed.

Each affected worker will be instructed in the purpose and use of the energy control procedure.

An authorized worker is one who tags out or locks out machines or equipment in order to perform service or maintenance on that machine or equipment. An affected worker becomes an authorized worker when that worker's duties include service or maintenance.

Each authorized worker will receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the work place, and the methods and means necessary for energy isolation and control.

All other workers whose responsibilities are or may be in an area where energy control procedures may be utilized, will be instructed on the procedure and prohibition of attempting to restart or re-energize machines or equipment that are locked out or tagged out.

**Retraining**

Retraining should be provided for all authorized and affected workers when there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

Additional retraining should be conducted whenever there are deviations from or inadequacies identified in the workers’ knowledge or use of the energy control procedures.

The retraining should re-establish worker proficiency and introduce new or revised energy control methods and procedures as necessary.

The Trinity Safety Director will ensure that employee training has been accomplished and is being kept up to date for Trinity employees. The Trinity Safety Department will document the training and that documentation will contain name and dates of training. Contractors are responsible for providing training for their employees and provide verification of the training.
5A 4.11 Scaffolds

Purpose
The purpose of this procedure is to ensure safe erection, use and dismantling of scaffolds throughout the project.

Scope
All scaffolds and ladders erected and used at this site must conform to the requirements of this procedure.

Definitions
Mobile Scaffold – Scaffold that uses casters or wheels to make the scaffold portable.

Scaffold – A temporary elevated platform and its supporting structure used for supporting workers and or materials.

System Scaffold – Post with fixed connection points that accept runners, bearer, and diagonals that can be interconnected at predetermined levels.

Tube and Coupler Scaffold – Platform(s) supported or suspended by tubing, with coupling devices that connect uprights, braces, bearers and runners.

General
Only properly trained personnel will use or erect scaffolds. Personnel will be trained in compliance with OSHA 29 CFR 1926.454.

Erect all scaffolds in compliance with OSHA standards. Only trained scaffold builders under the direction of a Designated Competent Person will build scaffolds on this project. D.C.P. document will be submitted to Trinity Safety Department.

The site will utilize a color coded tag system:
1. Red – DANGER. Scaffold is shutdown or under construction. No entry is permitted.

   A red tag will be placed on any incomplete scaffold being erected or dismantled, or a complete scaffold that has been taken out of service for any reason. Only the Designated Competent Person who applied the tag may remove it. The Trinity Safety Department reserves the right to red tag any improperly tagged or defective scaffold.

   The tag must specify the reason for the issuance of the red tag and contact information (i.e. name and phone number) of the Designated Competent Person who issued the tag.
2. **Yellow – CAUTION. Scaffold is incomplete. Special fall protection requirements apply.**

A yellow tag will be placed on any scaffold that requires special fall protection, by the involved Contractor’s Designated Competent Person. The yellow tag must specify the hazards, the preventative measures that must be taken to protect against the hazards, and contact information (i.e. name and phone number) of the Designated Competent Person who issued the tag in the event that clarification is needed.

3. **Green – SAFE FOR USE.**

No person will access any scaffold on site until the involved Contractor’s Designated Competent Person for scaffolding has inspected and green tagged the scaffold.

The green tag must contain the date inspected and the initials of the Designated Competent Person.

A Designated Competent Person will inspect, initial and date the green tag on the scaffold daily prior to each use.

Scaffolds must be visually inspected by a Contractor Designated Competent Person on a daily basis.

Secure all decking to the scaffold frame and test for strength, and suitability to bear the intended load as per OSHA 29 CFR 1926.451(b).

Maintain scaffolds free of debris and loose materials.

Use only appropriate ladders with swing gates for safe access to scaffolding.

All scaffolds must have handrails, mid-rails (with protective mesh when warranted), and toe boards according to OSHA standards.

All persons must use fall protection when working with scaffolds.

No unauthorized worker may remove any part of a scaffold. Only qualified scaffold personnel are authorized to alter a scaffold.

Do not interchange manufacturer’s frames, bracing, connecting pins and other accessories.

**Erection**

Only properly trained personnel will erect, use and dismantle scaffolding on this project.
Scaffolds exceeding 125 feet in height above the base plates must be approved by project management and designed by a Registered Professional Engineer.

Examine footing and set scaffold legs in base plates on foundations or mud sills adequate to support the maximum intended load.

Adjusting screws are to be installed only between base plate and vertical frame section. They will never be used together with casters; adjusting screws will not be extended more than 12 inches.

Scaffolds must be properly braced by cross bracing or diagonal braces (or both) when necessary for securing vertical members together laterally. Cross braces must be of a length that will automatically square and align vertical members so that the erected scaffold is always plumb, square, and rigid. All brace connections must be secure.

If the scaffold height exceeds four (4) times the smallest base dimension, it must be secured to the building or structure at the second lift and every other lift thereafter. Running scaffolds are to be anchored every 30 feet horizontally at the heights established in the preceding sentence. Outriggers, or guys, may be used where it is impractical to secure scaffold to a structure.

All scaffold working platforms, beginning with the first lift or frame, must be equipped with a standard 42 inch high rigidly secured (not wired) handrail, 21 inch high mid-rail, and be completely decked with safety planks or manufactured scaffold decking and provided with rigidly secured toe boards.

Access to working platforms will be by ladder with rest platforms at 20-foot intervals.

Casters used with scaffolding must be rubber tired and provided with a positive locking device to hold the scaffold in position.

Casters of rolling scaffold will be locked at all times while the scaffold is being erected or in use. Scaffolds will not be moved while personnel remain on the scaffold. Tools or materials must be removed from the platform to prevent falling during moving.

**Scaffold Inspection**

All scaffolds must be inspected by the Contractor’s Designated Competent Person daily, and if found to be defective, tagged out of service until repairs are made. Inspection tags must be attached to the scaffolds. Additional inspections will be conducted as conditions change.
Inspect all scaffold components before erecting and during dismantling. Those found with defects must be discarded.

Inspect all handrails, mid-rails, cross bracing and steel tubing for damage and defects.

Ensure scaffold components are straight and free from bends, kinks, dents and severe rusting.

Inspect scaffold frame weld zones for cracks, and ends of tubing for splitting or cracking.

Inspect manufactured decking for loose bolts or rivet connections, and bent, kinked or dented frame.

Inspect plywood surfaces for softening due to rot, wear or peeling of laminated layers at edges. The surface should have an abrasive non-skid covering applied.

Inspect safety planks for external damage. Inspect tie rod/bolt and angle iron cleat.

Inspect all quick connecting devices to ensure that they operate properly.

Inspect all casters for smooth rolling surfaces, free turning, free acting swivel and that the locking mechanisms are in good working order.
5A 4.12 Fall Protection

**Scope**
100% (Continuous) fall protection is required when exposed to a fall hazard of six feet or more above the ground or next working surface. 100% fall protection means that no exposure to a fall hazard of more than six feet (6’) is permitted without protection. It may be necessary to protect workers from falls less than six feet (6’) if a hazard exists. 100% (Continuous) fall protection compliance may consist of the following:

1. Eliminating the fall hazard through acceptable engineering controls.
2. Restricting access through the use of rigid barricades such as standard handrails.
3. Using personal fall protection equipment, e.g. a full body harness with a “Twin Leg” shock-absorbing lanyard with double locking snap hooks.
4. Using Self Retracting Lifelines (SRL) to limit free fall to 2’ or less.
5. Ensuring free fall distance is limited to 6’ or less and the Maximum Arresting Force (MAF) imposed is 1800 lbs or less.
6. Ensuring that, the Total Fall Distance (TFD) is considered in relation to potential hazards and this risk is mitigated.
   - TFD must be calculated when a personal fall arrest system is used and the distance between the working/walking surface and the nearest surface or object below is less than 25’.
7. Requiring all personnel working on elevated structures to wear a full body harness with the appropriate lanyard at all times.

**Acceptable Tie–off Points**

Structural members:

1. Must be capable of supporting 5,000 pounds per worker.
2. Must be free of sharp or rough edges.
   - Utilize tie-off straps or rope sleeves to prevent abrasion and cutting.

Self-Retracting Lanyards (SRL):

1. Attach only to structures that are capable of supporting 5,000 pounds.
2. When SRLs are used in conjunction with a Horizontal Life Line (HLL) the SRL will be attached to the lifeline in such a way as to allow it to slide along with the person using it.
3. Utilize anchorage connector straps designed for fall protection use.
4. Conduct inspection of SRLs in accordance with the manufacturers’ recommendations.
5. Use an SRL on all fixed ladders where the length of climb exceeds 24 feet.
6. Utilize Double SRL System to comply with 100% (Continuous) fall protection.

**Guardrail Systems**

1. Guardrail systems must consist of top rail, midrail and toe board.
2. Guardrail systems must be constructed to withstand a load of at least 200 pounds of force applied in any direction except upward, with a maximum deflection of 2” at any point on the top rail or corresponding members.

3. Top rail must have a vertical height of approximately 42 inches +/- 3 inches from upper surface of top rail to walking/working level. If cable is used for top rails, it will be flagged at not more than six-foot intervals with high-visibility material.

4. Upright supports must be spaced no more than 8 feet apart.

5. The midrail must be halfway between the top rail and the walking/working level. (150 lbs)

6. The toe board must be a minimum of 3½ inches vertical height from the top edge to walking/working level. (50 lbs)

7. Mesh should be provided between toe board and top rail in applications where workers and/or traveling public are expected to pass underneath and there is a possibility of falling objects.

**Openings - Floors and Walls**

Protection is required to prevent personnel or material from falling through floor openings, wall openings or stairways. Protection may be accomplished with guardrails, covers or both.

Floor openings will be protected in one of the following ways:

1. Rigid guardrail and midrail of 2 inches x 4 inches wood, 2 inches x 2 inches x 3/8 inches angle iron post, supported by posts on 8 foot centers with toe board at least 4 inches high.

2. Cable guardrail and midrail of ¼ inch cable with toe boards.

3. A hole cover conforming to the following:
   a. Minimum of 3/4 inch plywood, if one dimension is 18 inches or less
   b. Must be capable of supporting the maximum intended load
   c. Two-inch material if both dimensions exceed 18 inches
   d. Secured to prevent displacement
   e. Clearly marked with "Hole Cover" sign

4. Wall openings must be protected as outlined in 1 above, if the bottom of the opening is less than 39 inches from the working surface, or if the opening is at least 30 inches high by 18 inches wide, through which a person could fall.

Elevated floor edges will be protected in one of the following ways:

1. Perimeter guardrail, as described above.

2. Temporary, non-rigid barricade set back from edge at least 6 feet.

3. Ensure that the person creating a hole is responsible to see that the hole is barricaded or covered.

**5A 4.12.1 Bridge Construction**
When work is being performed out of an aerial lift, all applicable fall protection and safety regulations for aerial lifts will apply.

Forming and Pouring Caps:
1. When deck is in place a horizontal lifeline (HLL) must be installed (if necessary two lines can be put up, one on each support beam for cap forms) and used as fall protection while deck is built and the guardrail system is completed.
2. Once the guardrail system is in place, if workers must work above the level of the top rail on the handrail system (i.e. on top of the cap form) then they must be tied off. They may tie off either to the structure or some other point that meets the requirements of an anchorage point.
3. When an aerial lift will be used to gain access to the cap form, an opening will be left so as to facilitate entry. The opening must be closed off or barricaded when not in use.
4. If a ladder is used to gain access to the cap form the opening for the ladder must be protected with removable rope or chain. Whenever the length of climb exceeds 24’ fall protection must be implemented, i.e. a self-retracting lanyard.

When checking grades on caps, a horizontal lifeline must be installed on the cap to provide fall protection. If a horizontal lifeline is not feasible, then grades will be checked out of an aerial lift.

Prior to setting beams a horizontal lifeline must be installed on the cap to provide fall protection for the worker responsible for directing the setting of the beam.

When setting pre-cast concrete beams, a horizontal lifeline must be installed on the beam prior to setting the beam. If this is not feasible then an aerial lift will be used to facilitate unhooking the crane from the beam.

When profiling beams, setting deck panels, installing PMD, overhang brackets or guardrails:
1. A controlled access zone will be established to control access to areas where leading edge and other operations are taking place.
2. Signs stating “Danger Do Not Enter Fall Protection Required Beyond This Point” will be posted in both English and Spanish at intervals not to exceed 50’. A minimum of two signs are required to be positioned at both approach ends of the work area.
3. Horizontal lifelines will be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two. Specifications for lifeline systems will be provided to Trinity for review and acceptance.
4. Lifelines will have a minimum breaking strength of 5,000 pounds.
5. Lifelines will be protected against being cut or abraded.
6. The practice of stringing a “slide” line between two horizontal lifelines is not allowed.
7. Self-retracting lifelines (SRLs) may be used. SRLs must be used in accordance with manufacturer’s guidelines.
8. Where guardrail systems terminate, e.g. at abutments, the end and corners will be protected.
9. Any openings left from missing panels or where PMD is to be installed later will be barricaded and identified with “Incomplete Decking” signs to prevent access.
10. Crossovers for openings at caps etc. will be constructed so as to handle all anticipated loads and have a top rail, midrail and toe board.
11. Horizontal lifelines will be used until the guardrail system is complete and in place.
12. All fall hazards will be eliminated prior to decommission of a controlled access zone.

**Bridge Concrete Placement**
Guardrail systems will be in place and complete.

Whenever scope of work requires workers to work at a height that effectively eliminates the fall protection afforded them by the guardrail system, workers will be tied off to an acceptable anchorage point.

**Disassembly of Overhangs and Installing Railings**
A horizontal lifeline will be set up using concrete dead-men as end anchors to provide fall protection for unprotected edges.

Overhang baskets must have manufacturer or PE approval for scope of work for which they are being used. The weight limit and counterweight requirements must be included on the engineering drawing provided to the Trinity Safety Department prior to the basket being used.

When working in an overhang basket, workers must be tied off.

This work should be done out of aerial lifts as much as is possible.

**Segmental and or Canter Lever Balanced Bridges**
In any type of leading-edge bridgework there will be a warning line or barricade 6’ back from any unprotected edge.

SRLs to restrict travel and limit TFD or a HLL are the preferred method of fall protection.
When a HLL and/or SRL is not feasible, a specific fall protection plan for the scope of work involved within 6’ of an unprotected edge must be developed. This plan must meet all the requirements for 100% (Continuous) fall protection.

**MSE Walls and Cast-In-Place Walls**
When walls reach a height of 6’, 100% (Continuous) fall protection is required.

Tying off to an adjacent panel is acceptable so long as the panel being used as an anchorage point meets the requirements of an anchorage point per OSHA.

When add-on components such as carabineers are used to facilitate tie-off to panels, they must be rated for fall protection (5000 lbs) and meet all OSHA requirements.

**Miscellaneous**
When working six feet or closer to the edge of an incomplete platform or unprotected edge that is 6’ or higher than the ground or next working surface, 100% (Continuous) tie-off will be used.

Workers will tie off when in aerial lifts.

When working over active traffic or other structures and the TFD would place an individual at risk (e.g. in the path of traffic or striking the structure), the risk must be mitigated through HLL design, use of a 2’ lanyard, SRL or other applicable means of limiting TFD.

At any time when a guardrail, lifeline or other fall protective system is taken down for work purposes (e.g. moving in materials) you must first notify and obtain permission from the Contractor who installed the system, along with notifying the Trinity Safety Department.

Anytime a fall protection system is taken down or damaged, it is the responsibility of the Contractor who did the damage to replace or repair the system.

**Total Fall Distance (TFD)**
TFD must be calculated when a personal fall arrest system is used and the distance between the working/walking surface and the nearest surface or object below is less than 25’.

TFD equals the sum of the free fall distance (FFD), the deceleration distance of the lanyard (DD) (not to exceed 3.5’), the vertical elongation of the anchor point (VEAP), the height of the tallest worker (HTW), and the constants of 1’ for the harness effect (HEFF) and 3’ for a safety factor (SF). All variables are in units of feet.
TFD = FFD + DD(max. 3.5) + VEAP + HTW + 1(HEFF) + 3(SF)

Rescue Procedure
Each Contractor must provide for prompt rescue of workers in the event of a fall, e.g. have an aerial lift or other means of retrieval readily available.

Any variances must meet 100% (Continuous) fall protection requirements and comply with all applicable local, state, and federal rules and regulations.

Use and Inspection of Lifelines
All Contractors are required to provide appropriate measures to eliminate personal injuries due to falls. All lifelines erected will be compatible with other fall protection equipment in use as well as meet specific erection guidelines for semi-permanent horizontal lifelines and comply with 29 CFR 1926.104(b). All lifelines will be designed in compliance with 29 CFR 1926.502(d)(8).

Contractors will ensure that all requirements of the program are monitored for compliance.

The involved Contractor will determine proper performance requirements and considerations in the selection, location and erection of semi-permanent horizontal lifelines.

The involved Contractor’s Designated Competent Person must inspect all lifelines and system components daily prior to their use.

Any component will be removed from service if subjected to a static shock load.
5A 4.13  Cranes, Derricks, Hoists and Conveyors

General Requirements
All cranes to be brought on site will be checked in by a designated Trinity representative using the *Mobile Crane Check-in Form*, Appendix 5A-15 before they are released for service.

All cranes are required to have an annual third-party inspection.

The crane must be of sufficient capacity and of proper type (i.e. crawler or mobile; mechanical or hydraulic) to fulfill all requirements of the work without endangering personnel or equipment.

Crane operation will be only at the direction of one Designated Qualified Signal Person.

Outriggers on all mobile cranes will be set and the crane leveled for all lifts (sound horn before setting outriggers), accordingly meeting 1926.1402, Ground Conditions.

When working off of natural ground or any unstable surface the appropriate sized cribbing or mats will be placed under the outrigger pads. Take the tonnage of the crane and divide it by 4, then take the square root of that number. This is the necessary square footage of the cribbing pad, e.g. an 80-ton crane would require a cribbing pad that is approximately 4.5’ square (80/4=20, the square root of 20=4.47). Additional measures may also be necessary to include the use of cribbing of a larger surface area based on the surface/ground conditions, weight of the intended load, etc.

“Walking” of suspended loads will not be permitted when other options are available. Where necessary to do so, the following rules will apply:
1. Investigate route to be followed for solid and level footing.
2. Take whatever steps possible to stabilize the load. The load must not swing from side to side.
3. Personnel will not touch the load for any reason. Tag lines must be used to control it in addition to Item 2, if additional control is required.

Weight of the load must be positively established prior to handling. Check brakes and machine stability when load is only inches above ground.

The operator must not attempt any lift for which they feel conditions are inadequate.

When leaving the cab, the following precautions should be observed:
1. Disengage the master clutch and shut off the engine,
2. Lower bucket or crane load to ground,
3. Set safety pawls on all drums where these are manually operated, and
4. Set the swing lock or swing brake and both traction brakes and/or locks to prevent machine movement.

The swing radius of the counterweight must be barricaded and will be maintained throughout the day and highly visible. At a minimum red warning tape or equivalent must be used for swing radius identification.

All cranes must be equipped with a functioning anti-two block device.

All cranes must be properly secured after each workday.

Operators may not allow anyone to ride on equipment unless seats are provided for that purpose.

Operators are required to use seat belts if manufactured for their equipment.

Operators must keep oilers within sight at all times.

Operators will make certain that the equipment is not adjusted, repaired or greased while in motion or while the motor is running.

No one may climb on or about the equipment while it is in motion.

All guards on equipment must be kept in place.

Crane operators will not allow persons to ride the hook or suspended load.

Crane or shovel booms will never be brought within twenty (20) feet of power lines without a **Power Line Close Proximity Permit**, Appendix 5A-16.

All hoisting equipment must be operated on a firm, level foundation.

Avoid sudden stops and starts.

The hoist line must be vertical before starting the lift.

Crane loads and booms may not swing over personnel.

The boom hoist drum pawl should be engaged at all times except when lowering the boom.

A tagline is required on all loads, except when in close proximity to power lines and then they must only be used if they are made of non-conductive material.
No toolboxes, oil cans, choker racks, water coolers or similar additions may be placed in the radius of the swing of the counterweight where a person could conceivably be crushed.

Standing or sitting on the running board, fender, hood, head-ache rack or on a load is prohibited.

Keep well away from the cable in towing and winching operations.

Operators and oilers will inspect cables on equipment twice daily in accordance with the manufacturer’s recommendations, and will perform proper maintenance on cables.

The operator is responsible for the safe operation of the equipment at all times.

The operator is responsible for a daily inspection using the type –specific daily inspection log. Copies must be provided weekly to the Trinity Safety Department.

The operator is responsible for keeping equipment in safe operating condition, and will report defects or malfunctions to their foreman immediately.

Windshields are to be clean and free of cracks and other obstructions.

Knots in wire rope or tail-chains are prohibited.

All wire rope, nylon slings, chokers, and chain slings will have a tag indicating load capacity and size.

Slings and chokers will be inspected prior to each use and meet OSHA requirements. Cables that are severely kinked will be removed from the site or destroyed.

A critical lift is any lift that exceeds 75% of the capacity of a crane. If a lift exceeds 75% of a crane’s Load Chart Capacity at any given radius, then the lift becomes critical. Other considerations for critical lift are as follows:

1. The lift requires multiple cranes
2. The location is hazardous
3. There is a long lead time for making and receiving a particular load
4. Use of a suspended personnel platform

5A 4.13.1 Operator Qualification
All Designated Crane Operators (Crane operators must have accredited “Crane Operator Certification”; i.e. CIC, NCCCO. Start date: 1/1/2013), regardless of previous experience, prior to operating any crane are required to pass a skills assessment administered by the Contractor’s Designated Competent Person
qualifying them for the specific crane they are to operate. Only qualified and authorized persons are allowed to operate equipment. Documentation of the skills assessment must be on file in the crane while on site. Unauthorized use of equipment is cause for removal from the project.

Qualification follow-up: After initial qualification, the operator will be closely monitored by the involved Contractor’s Designated Competent Person until they feel there is no doubt of the operator’s full qualifications.

Rental Cranes
All rental cranes must be checked in by a designated Trinity representative using the Mobile Crane Check-in Form, Appendix 5A-15 before they are released for service.

Outside operators must provide documentation showing qualification and authorization to operate the crane. The involved Contractor who is leasing the crane is responsible for providing Trinity Infrastructure, LLC with a copy of this documentation.

5A 4.13.2 Inspections

Annual Inspections Third Party
All cranes and boom trucks used on the site will be required to pass an annual third party inspection prior to operating on the jobsite. The third party inspection will be available on the crane for review by the designated Trinity representative.

Monthly Inspections by a Competent Person
All cranes used on the site must be inspected monthly by the Contractor’s Designated Competent Person and documented. Copies of this documentation must be provided to the designated Trinity representative.

Daily checklist inspections by a Competent Person / Operator
All cranes and boom truck must be inspected daily prior to use by the Designated Crane Operator or Designated Competent Person, and the results documented on a checklist. The records of the daily inspection will be required to be kept on the equipment and available for review. Copies of this documentation must be provided to the designated Trinity representative.

5A 4.13.3 Suspended Personnel Platforms

General
A crane or derrick may be used to hoist workers onto a platform only when:
1. It would be more hazardous to use conventional equipment for elevated work such as a personnel hoist, ladder, stairway, aerial lift, elevated work platform or scaffolding.
2. Structural design or work site conditions make it impossible to erect, use and dismantle such conventional equipment,
3. The crane or derrick and the personnel platform and the use of that platform all comply with 29 CFR 1926.1431.

Any Contractor needing to use Suspended Personnel Platform must first notify the Trinity Segment Safety Manager a minimum of 48 hours prior using the Suspended Work Platform Checklist and Authorization, Appendix 5A-17.

Platform Specifications
A qualified person familiar with structural design must design the personnel platform and attachment/suspension system used for hoisting personnel.

The system used to connect the personnel platform to the equipment must allow the platform to remain within 10 degrees of level, regardless of boom angle.

The suspension system must be designed to minimize tipping of the platform due to movement of workers occupying the platform.

The personnel platform itself (excluding the guardrail system and personal fall arrest system anchorages), must be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

Each personnel platform must be equipped with a guardrail system and must be enclosed at least from the toe board to mid-rail with either solid construction or expanded metal having openings no greater than ½ inch (1.27 cm).

Points to which personal fall arrest systems are attached must meet the anchorage requirements specified in the Fall Protection section of this program.

A grab-rail must be installed inside the entire perimeter of the personnel platform except for access gates/doors.

Access gates if installed, must not swing outward.

All access gates, including sliding or folding gates, will be equipped with a device to prevent accidental opening.

Sufficient headroom must be provided to allow workers to stand upright in the platform.

When workers are or may be exposed to falling objects, the personnel platform must be equipped with an overhead shield as a precaution additional to, and not as a substitute for, the use of hard hats.
All rough edges exposed to contact by workers must be covered or smoothed out in order to prevent skin punctures, lacerations and similar injuries.

Only a qualified welder, who is familiar with the types and grades of welds and the materials specified in the platform design, may perform the welding on the platform and its components.

The following information must be conspicuously posted on the personnel platform by means of a plate or other permanent type of markings:
1. The weight of the unloaded platform
2. Its rated load capacity or maximum intended load

**Personnel Platform Loading**
The personnel platform must not be loaded in excess of its rated load capacity.

The number of workers occupying the personnel platform must not exceed the number required for work being performed.

Personnel platforms may only be used for hoisting workers, their tools and the materials needed for their work. Except during trial lifts, materials and tools must not be hoisted on a platform unless workers are also aboard.

All materials and tools on a suspended platform will be:
1. Evenly distributed within the confines of the platform while it is suspended and
2. Securely anchored to prevent shifting of falling.

**Rigging**
When a wire rope bridle connects the personnel platform to load line, each bridle leg must be connected to a master link or shackle in such a manner as to ensure that the load is evenly distributed among the bridle legs.

Hooks on overhaul ball assemblies, lower load blocks or other attachment assemblies must be of a type that can be closed and locked, eliminating the hook-throat opening. Alternatively, an alloy anchor-type shackle with a bolt, nut and retaining pin may be used.

Wire rope, shackles, rings, master links, and other rigging hardware must be capable of supporting without failure at least five times the maximum intended load to be applied to or transmitted through them.

Anti-two block devices are required on cranes used as personnel hoists. Refer to 29 CFR 1926.1431(d)(5)(v). A positive acting device must be used which automatically prevents damage and load failure from contact between the load block, overhaul-ball, or similar component, and the boom tip.
Where rotation-resistant rope is used, the slings must be capable of supporting without failure at least ten times the maximum intended load.

All eyes in wire rope slings must be fabricated with thimbles.

Bridles and associated rigging for suspending the personnel platform must only be used for the platform and the necessary workers, their tools and the materials necessary to do their work, and must not be used for any other purpose when not hoisting personnel.

**Trial Lift, Inspection, and Proof-Test**

Immediately before personnel are placed on the platform, a trial lift will be performed by lifting the unoccupied personnel platform, loaded at least to the anticipated lift-weight, from ground level (or other position where workers will enter platform) to each position where the personnel platform will be positioned for work.

The Designated Competent Person must determine:

1. That all systems, controls and safety devices are activated and functioning properly.
2. That no interferences exist.
3. That all the configurations necessary to reach the various work locations without exceeding 50 percent of the hoist's rated capacity can be accomplished.
   - A single trial lift may be performed at the same time for all locations to be reached from a single set-up position.
4. The load radius to be used during the lift has been accurately determined.

After each trial lift, a Designated Competent Person will visually inspect the crane, derrick, rigging, personnel platform and base support or ground to determine whether the testing has exposed any defect or produced any adverse effect upon any component or structure. Any defects found during inspection that create a safety hazard will be corrected before personnel are hoisted.

Just before personnel are hoisted, the platform will be hoisted a few inches and the Designated Competent Person will inspect it to ensure it is secure and properly balanced. Workers must not be hoisted unless the following conditions are confirmed:

1. Hoist ropes must be free of deficiencies in accordance with 29 CFR 1926.1413(a),
2. Multiple-part lines must not be twisted around each other,
3. The primary attachment must be centered over the platform, and
4. If the load-rope is slack, the hoisting system must be inspected to ensure all ropes are properly seated on drums and in sheaves.

The trial lift must be repeated before hoisting workers:
1. Whenever the crane or derrick is moved to a new location or returned to a previously used location,
2. Whenever the lift route is changed, unless the operator determines that the route change is not significant (i.e., that the route change will not affect safety of hoisted workers), or
3. Before hoisting personnel, the platform and rigging must be proof-tested for load capacity:
   a) At each location where the equipment is set up.
   b) After any repairs or modifications.

Proof-testing must be done concurrently with the trial lift.

The platform and rigging must be proof-tested to 125% of the platforms rated capacity by holding it in a suspended position for five minutes with test load evenly distributed on the platform.

After proof testing, the Designated Competent Person will inspect the platform and the rigging. Repeat the proof-test after any deficiencies found have been corrected.

Personnel must not be hoisted until proof-testing requirements are satisfied.

**Work Practices**
Workers must keep all parts of their bodies inside the platform enclosure during raising, lowering and positioning. This provision does not apply to workers performing the duties of a signal person on the platform.

Before workers enter or exit a personnel platform that is not resting on a work surface, the platform must be secured to the structure where work is to be performed unless securing to the structure creates an unsafe situation.

Tag lines must be used unless their use creates an unsafe condition.

The operator must remain at the controls of the crane or derrick at all times when the engine is running and/or platform is occupied.

Hoisting operations must be promptly discontinued upon any indication of adverse weather conditions, such as lightning, high winds (in excess of 20 mph), etc., or other impending danger.

Workers being hoisted must remain in continuous view and direct communication with the operator or signal person. Where direct visual contact with operator is not possible and use of a signal person would create a greater hazard for persons on the platform, workers will communicate directly by radio.
Except when working over water, workers in the platform must use an appropriate personal fall arrest system attached to the lower load block or overhead ball, or to a structural member within the personnel platform capable of supporting a fall impact for workers using anchorage. When working over water, 29 CFR 1926.106 will apply.

Lifts must not occur on any of a crane’s or derrick’s load lines while another of its lines is suspending personnel on a platform.

**Traveling**
Hoisting workers while the crane is traveling is prohibited.
5A 4.14  Self-Propelled Aerial Platforms

Operator Qualification
Only trained and qualified operators who have been designated by their employer will be allowed to operate a self-propelled aerial platform. An Operator Designation form must be submitted to the Trinity Safety Department Administrator for each individual worker prior to the operation of the equipment.

Fall Protection
A full body harness with an appropriate lanyard will be worn when operating an aerial platform. Attach the lanyard only to the manufacturer - provided anchorage point. Never attach any lanyard to a handrail or a nearby structure or support.

Tie-off is required in all scissor lifts unless expressly prohibited by the manufacturer and/or by the absence of adequate anchorage points. The safety requirements as set forth by the manufacturer of the make, model and type of scissor lift being used will be the governing guidelines for this requirement.

Use of an aerial platform to gain access to an elevated platform or workstation is permitted only if there is a safe method of gaining access. In the event an aerial platform is to be used in this manner, the following rule will be strictly adhered to:

1. Workers operating on aerial platforms will be tied off 100% of the time while on the platform.
2. Prior to opening the gate of the aerial platform to exit and unhooking from it, workers must tie off to an adequate and acceptable anchor point on the structure they are accessing with the second leg of their lanyard.
3. Prior to disengaging from the structure or work platform, workers must first hook the second leg of their lanyard to the designated anchor point on the aerial platform.

Never remain tied off to an aerial platform while working outside of it nor remain tied off to a structure or work platform while working inside of the aerial platform.

Driving
Secure turntable before moving extension boom.

Be sure the machine is in the stowed position before towing.

Reverse traveling is intended for work site mobility only.

Ensure proper orientation of turntable for intended direction of travel.

Never move machine until the outrigger beams and jacks have been completely retracted.
Be aware of clearances when driving and towing.

Always travel with the boom positioned inline with the direction of travel.

Post a lookout when the operator's view is obstructed.

Always keep your attention in the direction of travel and watch out for overhead obstructions.

Driving on a 15% grade to get to the worksite is acceptable but the boomlift should be operated on a flat level surface. When traveling over a long distance it is advisable to lock the turntable (if the boomlift is equipped with one, the University’s is not equipped with this device), keep the boom mast retracted and keep the operator platform at or below the horizontal position with the ground. Do not drive the boomlift on grades or side slopes exceeding those specified on caution place-cards or indicated in the Operator’s manual.

Never drive machine with outriggers extended.

Do not travel or work machine on soft or uneven surfaces, as tipping will occur.

**Safe Operating Practices**

Obey all warnings, cautions, and operating instructions posted on the machine and listed in the operations manual.

Operators must complete a documented daily inspection which must remain on the equipment for review.

The operator’s manual must remain on the equipment at all times.

Never operate a malfunctioning machine. If a malfunction occurs, shut down the machine and notify a supervisor.

Maintain safe clearance from electrical lines and apparatus. A *Close Proximity Permit*, Appendix 5A-16 is required when operating a self-propelled aerial platform within 20 feet of electrical lines and apparatus.

Never exceed manufacturer's rated platform capacity.

When riding in or working from the platform, both feet must be firmly positioned on the deck.

Never position steps, ladders or similar items on the platform to provide additional reach for any purpose.

Do not allow ground personnel in areas around and under a raised platform.
Do not operate machine when wind conditions exceed manufacturer’s guidelines.

Always check clearance on both sides of machine before extending and setting outriggers.

Be extremely cautious when operating from platform to prevent objects striking or interfering with operating controls.

Use a flagman or ground guide when operating in confined area.

Always actuate controls with slow even pressure.

Never slam a control through neutral to opposite direction. Return lever to neutral, stop and then proceed.

Never pull the machine or other objects by retracting the boom.

Never push the machine or objects by telescoping the boom.

Never use boom for any purpose other than positioning working personnel, their tools and equipment.

Never attempt to free machine by lifting it off the ground with boom.

Never walk or climb the boom to gain access to or to leave the platform.

Stow boom and shut off all power before leaving the machine.

Always check clearances around entire platform and boom when raising, lowering, swinging and telescoping. Always check turntable clearance before swinging the boom.

Always check machine stability before positioning platform.

Keep oil, mud, grease and slippery substances cleaned from your footwear and platform deck.

Never attach wire, cable or any other items to platform.

Be familiar with locations and operation of all alternate and override controls.

Never tamper with the dead man foot switch or other safety limit switches.

**Maintenance**
Always disconnect batteries when replacing electrical components.
Remove rings, watches or other jewelry when performing any maintenance.

Do not wear loose fitting clothing or unrestrained long hair.

Use only approved nonflammable cleaning solvents.

Shut off all power controls before making adjustments, lubricating or performing any other maintenance.

Use caution when checking hot pressurized engine coolant system.

Machine must be grounded when refueling. No smoking is mandatory. Never refuel during electrical storms. Ensure fuel cap is secure when not refueling.

Never work under an elevated boom until boom has been restrained from movement by blocking or with overhead sling.

Keep oil, grease, water, etc., wiped from standing surfaces and handholds.

Always check all instruction, caution and warning placards to ensure they are not obliterated, defaced or missing.

Never allow a machine to be operated until it has been serviced and maintenance performed according to manufacturer's specifications and schedule.
5A 4.15 Motorized Vehicles and Mechanized Equipment

Equipment Inspections
Before any machinery or mechanized equipment is put in use, it will be
inspected by a qualified person to ensure it is in safe operating condition.

Inspections will be performed in accordance with the manufacturer's
recommendations and will be documented.

All equipment will be re-inspected prior to use if it leaves the jobsite and returns.

Daily shift inspections will be performed as follows:
1. The Designated Operator of the machine will be responsible for completing
   and documenting the daily inspections.
2. Inspections will be done at the beginning of each shift during which the
equipment is to be used to determine that the brakes and operating
systems are in proper working condition and that all required safety
devices are in place and functional.

Whenever any machinery or equipment is found to be unsafe or whenever a
deficiency which affects the safe operation of the equipment is observed, the
equipment will be immediately taken out of service and its use prohibited until
the unsafe conditions have been corrected.

A tag indicating that the equipment will not be operated will be placed in a
conspicuous location on the equipment. Required, lockout procedures will be
followed.

The tag will remain in its attached location until it is demonstrated to the
individual who tagged the equipment that it is safe to operate.

When corrections are complete, the machinery or equipment will be re-
inspected prior to being returned to service.

In no event is any piece of equipment to be placed in use because it is "urgently
needed" until it has been thoroughly inspected and the proper guards installed.

Safeguards and Safe Operating Procedures
When equipment is used, each operation will include the use of the equipment
in the daily job hazard analysis.

Whenever possible, haul roads, ramps and other areas where heavy equipment
is moving should be avoided. Follow the flag person's directions and always
keep a sharp lookout for moving equipment.
Seatbelts and anchorages that meet applicable federal regulations will be installed and in working condition in all motor vehicles. Two-piece seatbelts and anchorages for construction equipment will comply with applicable federal specifications of SAE J 386a.

Seat belts must be installed and used on all equipment with rollover protection.

Equipment driven on open, public roadways will be operated by a Designated Operator with a valid driver’s license.

No one may ride outside cabs of any piece of equipment.

A fully charged and accessible fire extinguisher will be available for each piece of equipment.

All equipment with obstructed vision must be equipped with a reverse signal alarm. Reverse signal back-up alarms will be installed on all self-propelled construction equipment, whether moving alone or in combination.

Back-up alarms will be audible and sufficiently distinct to be heard over prevailing conditions. All back-up alarms will operate automatically upon commencement of backward motion. The alarms may be continuous or intermittent, not exceeding 3-second intervals, and will operate during the entire backward movement. Any person who notices a non-working back up alarm on any piece of equipment will be required to immediately notify their supervisor.

A warning device or signal person will be provided where there is danger to persons from moving equipment, swinging loads, buckets, booms, etc. Back-up alarms will be in addition to the requirements for signal persons.

Guards will be provided for all belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains or other reciprocating, rotating or moving parts of equipment which are exposed to contact by persons or when they otherwise create a hazard.

All hot surfaces of equipment, including exhaust pipes or other lines, will be guarded or insulated to prevent injury and fire.

Platforms, foot walks, steps, handholds, guardrails and toe boards will be designed, constructed and installed on machinery and equipment to provide safe footing and access ways.

Overhead protection will be provided for operators of forklifts and similar material handling equipment. Suitable protection against the elements, falling or flying objects, swinging loads and similar hazards will be provided for operators of all machinery or equipment.
Glass used in windshields or cabs will be safety glass, and maintained clean and free of cracks in the view of the operator.

The scissor point of all articulating equipment will be guarded.

No guard, safety appliance or device will be removed from machinery or equipment or made ineffective except for making immediate repairs, lubrications or adjustments, and then only after the power has been shut off. All guards and devices will be replaced immediately after completion of repairs and adjustments, and before the power is turned on. All points requiring lubrication during operation will have accessible fittings located without hazardous exposure.

Dozers used for clearing trees and large brush must be equipped with brush guards on the windows and on all sides of the cab.

All bulldozers, tractors or similar equipment will be provided with guards, canopies or grills to protect the operator from falling and flying objects as appropriate to the nature of the operation.

All crawler and rubber-tire tractors, off-highway self-propelled pneumatic-tire earth movers, motor graders, water tank trucks and other self-propelled construction equipment, such as front-end loaders, backhoes, rollers and compactors must be equipped with a rollover protective structure.

Non-production equipment (cars/pickups) will park 200 feet away from the immediate work area. If it is not practical to park 200 feet away, they must be parked safely in the work zone in an area designated for that purpose.

When constructing haul roads for equipment use, the following procedures will be followed:
1. Berms must be built along the roadway, especially on hills and curves where there is a danger of sliding or spinning out.
2. Dust control measures will be monitored to maintain maximum visibility.
3. Ramps and crossing will be clearly marked with flagging and/or signs so that oncoming traffic has ample warning.
4. Haul road surfaces will be smoothed frequently with a motor grader (or similar equipment) and super elevated at curves.

Never start a piece of equipment by shorting across the start terminals.

Never wire around or defeat the neutral start switch.

Always make sure the equipment is in neutral or park before starting it.
Never start a piece of equipment from any place other than the operator's seat.

Always walk around the equipment to check for people before moving and to make sure the area is clear of obstructions.

Check tail swing for interference on large backhoes and cranes. Excavators that do not have swing radius protection must have "DANGER" decals legible from 2 sides and from the rear of the machine.

Equipment and vehicles are not to be left running when unoccupied, no matter how short the duration. This includes on-road and off-road equipment and vehicles.

Prior to dismounting from equipment, the parking brake must be set and all ground engaging tools must be lowered to the ground (exception is backhoes when the backhoe is in the locked position.) When parked on a grade, the wheels should be blocked or turned into a bank. Never park equipment uphill from work areas.

Off-road trucks and equipment that do not have ground engaging tools to lower to the ground must also have chock blocks to prevent uncontrolled movement.

Handrails, ladders, steps and walkways are to be used when mounting and dismounting equipment. Always face the ladder when climbing up and down and use the three-point contact method. Never jump from a piece of equipment or truck.

All towed units such as generators, tool trailers, air compressors, light plants, flat trailers, etc. must have the wheels chocked prior to unhitching the trailer from the tow vehicle.

Operators are to maintain a speed on the roadways that is consistent with the conditions of the roadway, grade, clearance, visibility, traffic and the type of equipment being operated.

Equipment on public roads will be escorted by the involved Contractor's company vehicle equipped with flashing or rotating beacons. The machinery must have a "Slow Moving Vehicle" sign (i.e. orange triangle) and should also be equipped with a flashing or rotating beacon or such other signage as the law and Traffic Control Plan require.

When traveling equipment with attached tools (buckets, forks, etc.) the tools should be positioned forward and within 2 feet of the ground.
Lights will be turned on for safety. Operate all equipment and company vehicles with lights on, including flashing or strobe lights if equipped, both day and night.

No "homemade" tools, jigs, fixtures or rigging devices may be used.

No motor vehicles or equipment operating on this site will be refueled with the engine running or operating.

All ignition switches will be in the "off" position during refueling operations.

A suitable fire extinguisher will be at hand during refueling operations.

Supervisors and foremen will train their employees with the provisions of this procedure and require strict compliance.

**Equipment Repairs**  
Mechanics must adhere to rules set forth for equipment operations.

Each Contractor is required to have a spill kit available to contain and cleanup operating fluid spills. Every spill will be reported to Trinity.

Required PPE is to be worn when using solvents or any other hazardous material.

Ensure all equipment and vehicles are locked out, the key removed from the ignition and controls tagged prior to working on the machine.

When it becomes necessary to work beneath a machine or part of a suspended machine, it will be safely blocked or cribbed before work begins.

Only approved solvents are to be used for cleaning parts. The use of gasoline as a cleaning solvent is prohibited.

An approved safety cage or safety rods must be used when inflating lock-ring tires.

**Work near Overhead Electrical Service Lines Policy**  
In order to prevent the possibility of serious injury, the following overhead power line policy will be implemented.

Before any operations begin, all power lines will be identified.

Every power line on the job including those located in maintenance and storage yards, plant sites, driveways, etc. must be identified. These lines will be identified by KVA and their location identified on a map with station number.
Before work starts on any job where the danger of contacting an overhead power line exists, a Close Proximity Permit, Appendix 5A-16, must be included in the Work Plan from the Contractor. Requirements under 29 CFR 1926.1407 through 1926.1411 will be followed.

Specific additions to the standard Work Plan will include:

1. Large scale plan views of the job identifying the location of all overhead utilities, each in a different contrasting color (a legend must be provided). The plans should also indicate the voltages, the heights of the lines and the location and markings or labels required for all warning signs. These plans will be updated and maintained as determined by job progress, e.g. grade changes, relocation of power lines, cable installation, etc.

2. The plan will be communicated to all involved workers working near overhead power lines.

3. The location where equipment has the potential to come within 20’ of a power line and a location-specific hazard assessment identifying the work plan/procedure for all pieces of equipment on the job prior to work in that area.

4. Emphasis that equipment and materials should not be stored under overhead lines.

5. A completed Close Proximity Permit, Appendix 5A-16.

**Equipment Traveling or Working near Overhead Power Lines**

All work within 20’ of overhead power lines must have an operation-specific procedure and hazard assessment.

When it becomes necessary to position equipment for performing work in an area near energized power lines, the following procedures must be followed if the equipment has the potential to extend, be raised or otherwise move within the minimum safe clearance.

Power lines should be de-energized or relocated, if at all possible.

If it is possible to have the power line de-energized, do not start operations until notification has been received by the utility owner that the lines are dead and the lines are visibly grounded on both sides of the area where the equipment will be working. If the lines cannot be grounded, a representative from the utility company will be present at the start of each shift (or full-time) to confirm that the lines are de-energized.

If it is not possible to have the lines de-energized and not practical to have the lines relocated, then the equipment must be prevented from coming any closer than 20 feet. If operations could have the possibility of getting within 20 feet of a power line, 29 CFR 1926.1407 through 1926.1411 will be followed.
Vehicles in transit near energized lines must maintain 50 feet clearance.

Positive stop measures must be installed to prevent working equipment or loads from coming within the required clearance of energized power lines.

If positive stops cannot be installed, a supervisor of the involved Contractor must be present with an air horn (or similar device) at all times with sole responsibility of preventing the equipment from coming any closer than 20 feet. If it is necessary for the supervisor to leave the work location, the equipment will be turned off and the operator will exit the equipment.

A Designated Contractor Competent Person must approve all equipment setups in areas where power lines are present. A Close Proximity Permit will be required. The form for this permit can be found in Appendix 5A-16.

Any equipment operating near power lines must be moved away from the power line at the end of the shift.

On projects where it is necessary to move equipment or loads on access roads adjacent to energized power lines, the following procedures must be adhered to:

1. Place “DANGER Power Line” signs along the side of roads where overhead power lines run, and spaced no more than 50 yards apart.
2. Demarcate a highly visible line (in day or night) parallel to the overhead power line at a distance that does not permit a piece of equipment moving on the access road to come within the Table A Minimum Clearance Distance (29 CFR 1926.1408) for the kV rating of the power line.
3. Review the written working procedure for moving the equipment along the access road with the operators and crews.
4. A Designated Competent Person of the involved Contractor must be put in charge of oversight of the equipment during movement. This individual may not delegate their responsibility to a foreman or any other person on the crew, however, they may assign the actual signaling and directing of the movement to a more experienced person.

On projects where power lines cross over access roads, the following procedures must be followed:

1. Place “DANGER Power Line” signs on both sides of the roadway preceding the overhead power lines.
2. Erect goal posts constructed of highly visible material (in day or night) perpendicular to access roads, preceding overhead power lines from both directions. The top of the goal posts should be at a height that does not permit a piece of equipment passing under the overhead power line, to come within the Table A Minimum Clearance Distance (29 CFR 1926.1408) for the kV rating of the power line.
3. Do not allow anyone to touch the equipment or any materials the equipment is hoisting or carrying during movement of equipment under overhead power lines.

4. A Designated Competent Person of the involved Contractor must be put in charge of oversight of the equipment during movement. This individual may not delegate their responsibility to a foreman or any other person on the crew, however, they may assign the actual signaling and directing of the movement to a more experienced person.

5. Review the written working procedure for moving the equipment along the access road with the operators and crews.

Temporary power lines installed for our own use should be placed underground, inside conduit.

Supervisors, operators, oilers and all other crewmembers must be thoroughly familiar with these procedures while working in close proximity to energized power lines. They must be trained on the correct procedures to follow in the event equipment or loads make contact with an energized power line. The following procedures must be followed if there is contact with an energized power line:

1. No member of the crew will touch any portion of the equipment or suspended load.
2. The operator should stay with the equipment and break contact before attempting to leave the controls.
3. The utility owner must be notified.
4. Emergency services must be notified if equipment cannot break contact or the general public’s safety is affected.
5. All members of the crew must watch for unexpected collapse of a crane boom, for lines breaking or loads shifting that might cause them to come in contact with power lines.
6. While the equipment is in contact with an energized line, no persons are allowed within a minimum of 40 feet of the equipment, as the ground surrounding the equipment may be energized. Greater distances are required for lines over 50kV.

The Trinity Construction Manager and Safety Director must be notified immediately in the event of an overhead power line contact.
5A 4.16 Plant Operations

Purpose
The purpose for this procedure is to ensure that all applicable OSHA, state, local and project requirements are met while operating plants on this project.

All plants to be brought on site will be checked in by the Trinity Safety Department using the Batch Plant Check-In Form, Appendix 5A-18, after set-up and prior to operation.

Scope
All Trinity Infrastructure, LLC’s employees and Contractors working on the following types of plants:
1. Concrete Batch Plants
2. Asphalt Batch Plants
3. Pug Mills
4. Crusher Plants

Inspections must be in compliance with manufactures recommendations.

The operators manual for the make and model plant will be located in the control house.

All required warning decals and operational device labels must be legible.

The Hazard Communication Program and all material safety data sheets for the products in use and stored on the premises will be available for review in the plant control station.

All chemical containment vessels will be labeled with the contents.

The spill control plan, and containment and clean up materials will be available on site. Workers must be trained in the use of these materials.

Fuel tanks must be labeled with the contents and “Flammable” and “No Smoking” signs posted within 50 feet.

Fire extinguishers must be available throughout the batch plant area in the type, amount and spacing/travel distance as specified in 5A 4.4.

All plants are required to have a properly stocked first aid kit that is visible and accessible.

Workers required to maintain, clean or work with any hazardous energy source are required to ensure that the hazardous energy source is de–energized and locked out. The involved Contractor’s supervisor or Designated Competent
Person is responsible for implementing their company’s lockout/tag out program before beginning work.

**Cement Dust**
Appropriate eye protection is required at all times in plant operations.

Approved respirators to minimize inhalation of cement dust must be available for all workers.

Designate an area where workers can eat and drink that is free of dust to avoid the ingestion of chemicals.

**Concrete**
Wear alkali-resistant gloves, coveralls with long sleeves and full-length pants, waterproof boots in addition to the required minimum PPE.

Wash contaminated skin areas with cold, running water as soon as possible.

An eye wash station to rinse eyes splashed with wet concrete with water for at least 15 minutes is required to be maintained in the batch plant area.

**Machine Guarding**
Guards are required on all belts, pulleys, augurs, couplings, etc.

Maintain conveyor belt systems to avoid jamming and clear jam only after the equipment is properly shut down and locked out.

Establish and follow lockout/ tag out procedures when servicing equipment.

**Falling Objects**
Protect areas underneath conveyor belt systems, or other overhead operations within the plant area to guard against workers being hit by falling material.

Avoid working beneath elevators, conveyor belts and stacker/de-stacker machinery.

Stack and store materials in compliance with 29 CFR 1926.250.

**Confined Spaces**
Mixers and ready-mix trucks have confined spaces. Follow established procedures for confined space entry and work.

Wear appropriate protective equipment to avoid silica exposure when removing concrete residues from inside mixer drums.
Use appropriate hearing protection to guard against excessive noise exposure during cement loading/unloading and while using pneumatic chippers inside mixer drums.

**Vehicles**
Poorly maintained or improperly handled vehicles and equipment can lead to crushing injuries at the plant site or other injuries for truck drivers.

Make sure back-up alarms on all vehicles are functioning.

Use care with the load out chute on concrete mixers to avoid injuries to hands and fingers.

Use a spotter when backing vehicles in the plant area.
5A 4.17 Excavations, Drilling and Boring

General
The procedures for excavations must comply with all applicable state and federal regulations, and the Trinity Infrastructure, LLC Safety Program.

All excavations, boring and drilling operations and adjacent areas must be inspected by a Designated Competent Person daily, after every rainfall, as soil conditions change and as needed throughout the shift. These inspections will be documented. A sample Daily Excavation Inspection Checklist can be found at Appendix 5A-22.

5A 4.17.1 Utility Locations

The involved Contractors are required to complete the Surface Penetration Permit, Appendix 5A-19 and attach all utility locate confirmation tickets, including DIG-TESS and other member and non-member responses, to the checklist prior to beginning any excavation, drilling or boring activity.

The involved Contractor is required to notify and request locations of non-member utilities such as municipal water and sewer etc. that may be in the affected work area.

All proposed locations to be excavated, drilled or bored are required to be identified with white marking paint around the designated area prior to the locator arriving to ensure that the correct area is being marked by the utility locators.

All DIG-TESS locate request tickets and non member request notifications will specify the exact work area to be located and must state that the area to be located by the utility owner’s representative is marked with white paint.

All Contractors are required to ensure that all involved equipment operators and other workers are aware of the utility location flags and paint marks in the area and how to determine it is safe to excavate and/or drill in the area.

If locate marks or flags are not visible at the time a Contactor arrives at the work area, work will not begin until it has been verified that the locate service did respond to the locate request and did not find any utilities in the designated work area.

The involved Contractor is required to ensure that all of the utilities are identified and marked indicating there is no conflict with the work to be performed.

The Trinity Superintendent or his designee is required to verify that the utility locations are marked in the designated area to be excavated, drilled and/or
bored, the checklist is properly completed by the Contractor’s Designated Competent Person, locate tickets are attached to the completed checklist and there are no obvious hazards prior to the work beginning.

All Contractors must be aware that locate tickets expire after 14 days and a relocate is required if the work is not completed.

Utility Damage Events
In the event a facility is damaged by excavation, boring, drilling or any other activity, the following procedure must be followed:
1. The involved Contractor will immediately contact the facility operator to report the damage.
2. If the involved Contractor is not certain of the operator’s identity, the Contractor will contact a notification center (e.g. DIGTESS) to report the damage.
3. If damage endangers life, health, or property because of the presence of flammable material, the Contractor will keep sources of ignition away and immediately call 911. The involved Contractor is responsible for protecting the affected work area, evacuating personnel up wind and shutting down all equipment.
4. Trinity Infrastructure must next be verbally notified. Trinity must be informed of any service interruption to customers, the anticipated time of repair and the time when the service has been restored to all affected customers.
5. The involved Contractor will complete a Supervisor’s Utility Damage Report, Appendix 5A-11, and turn it into the Trinity Safety Department within 24 hours of the occurrence. This report is also required for above ground utility damage events where damage meeting either of the first two criteria (removing the word “underground”) under the definition of “Damage”, has occurred.

Definition of Utility Damage

"Damage" means:
1. the defacing, scraping, displacement, penetration, destruction, or partial or complete severance of an underground facility or of any protective coating, housing, or other protective device of an underground facility;
2. the weakening of structural or lateral support of an underground facility; or
3. the failure to properly replace the backfill covering an underground facility.

5A 4.17.2 Excavations
All excavations over 5’ must be properly shored, sloped or shielded unless otherwise directed by a Designated Competent Person.

All surface encumbrances that are located so as to create a hazard to workers must be protected, removed or supported as necessary to safeguard workers.

Excavations must be properly barricaded and warning signs posted when unattended.

Material, including spoil piles and equipment must be kept a minimum of 2’ from the edge of excavations.

Spoils piles must not have a greater slope than the slope allowed for the type of soil(s) being excavated.

Workers will not work outside the protected areas of an excavation, i.e. outside of a trench box or shoring system.

Workers must not work in excavations where there is accumulated water unless precautions have been taken to protect the workers from the hazards posed by water accumulation. These precautions will vary with each situation but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or the use of a safety harness and, lifeline.

Trench boxes and shoring systems must have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system. They must also be installed so as to prevent lateral movement. Manufacturer specifications, recommendations and limitations concerning these systems and components must be in writing, and include the Tabulated Data. This documentation must be available at the location where the trench box is being used.

Shoring systems made for particular excavations or uses must be designed by a Registered Professional Engineer (RPE). The specifications and drawings with the RPE’s signature and seal must be on file with the Trinity Safety Department and also available at the location where the system is in use.

Protective systems for excavations greater than 20-feet in depth must be designed by a Registered Professional Engineer (RPE). The designs must be in written form, must include the configurations that were determined to be safe for the particular location and activity and must include the RPE’s signature and seal approving the design. All of the above documentation must be on file with the Trinity Safety Department and also available at the location where the system is in use.
Installation and removal of excavation protection systems must be conducted in a manner that meets OSHA regulations, the manufacturer’s specifications and when applicable, a Registered Professional Engineer’s requirements.

A stairway, ramp, ladder or other safe means of access and egress must be located so as to require no more than 25’ of lateral travel for workers in excavations 4’ or more in depth.

Temporary special shoring will be used on all abutment walls, roadway walls and MSE retaining walls as needed to prevent sloughing and ensure safety. This shoring will consist of horizontally drilled soil nails, wire mesh and application of Gunite. Temporary special shoring will be designed by a Registered Professional Engineer (RPE). The specifications and drawings with the RPE’s signature and seal must be on file with the Trinity Safety Department and also available at the location where the system is in use.

Horizontal Auger Drilling will be done in accordance with applicable federal regulations and industry standards.

5A 4.17.3 Requirements for Hazardous Excavations

In any excavation where it can reasonably be expected to contain or develop an oxygen deficient or hazardous atmosphere, all applicable OSHA regulations will apply. Reference Appendix 3.3 – HMMP and Appendix 3.7 – ECMP of Chapter 3 of the PMP for further requirements.

Upon the start of an excavation periodic monitoring must be done to check for the presence of hazardous and or explosive atmospheres. Monitoring will be done periodically throughout the excavating process. The involved Contractor’s Designated Competent Person will perform these monitoring checks, recording the results and maintaining the results for review.

All permit required confined spaces must be accounted for on the Work Plan and be made known to the Trinity Safety Department prior to entry.

Upon completion of the excavation to the required depth and prior to entry by any worker, the excavation and adjacent area will be monitored for the presence of hazardous and oxygen deficient atmospheres and a confined space permit completed by the Designated Competent Person.

Atmospheric monitoring will be performed by the Designated Competent Person at intervals to ensure that no hazardous atmospheres are present or accumulating above acceptable levels in the excavations.
If levels of hazardous atmospheres are encountered that make it unsafe for workers to enter, engineering controls will be used to eliminate the hazardous atmosphere or reduce them to acceptable levels. Periodic monitoring will be done by the Designated Competent Person as needed to ensure that the engineering controls initiated are working to eliminate or maintain an acceptable level of contaminants responsible for the hazardous atmosphere.

If unacceptable levels of hazardous atmospheres are encountered and engineering controls are ineffective in either eliminating or reducing them to acceptable levels, the Designated Competent Person will do more specific monitoring to identify the exact types and levels of hazardous atmospheres present and notify their immediate supervisor and the Trinity Safety Department. Based on these findings the appropriate PPE (as dictated by the type(s) and level(s) of hazardous atmospheres present and the applicable OSHA requirements) will be donned by all workers entering these types of excavations.

In addition, all applicable procedures as specified by OSHA such as decontamination procedures, use of specialized PPE (including respirators), the amount of time workers may be exposed to the contaminants as dictated by the applicable Personal Exposure Limits (PEL), and all other applicable procedures will be followed. An air blower will be used to create air movement in an excavation if oxygen levels of less than 19.5%, volatile organic compounds (VOCs) or explosive vapors are detected, until oxygen levels return to a normal level and volatiles and/or explosive levels return to “0”. The air blower will be located in a zone free from flammable mixtures. Fresh air will be inducted into the excavation through a flexible duct of sufficient length to recharge the space with fresh air and reduce hazardous levels in the most efficient manner.

Workers must avoid contact with contaminated soil by means of personal protective clothing or equipment. Work will comply with the Hazardous Materials Management Plan prepared for the project.

All workers who will be entering excavations and/or working in any type of excavation where the possibility of oxygen deficiency or a hazardous atmosphere could exist must be appropriately trained. The training will consist of confined space training, hazard recognition training, PPE training and any other training as required by federal and state regulations, and company policy.

**5A 4.17.4 Drilling and Boring**

Underground utilities must be located per utility procedures referenced in **5A 4.17.1**.

Identify all other hazards such as overhead power lines, overhead structures, vehicle traffic and pedestrian traffic.
Establish controlled access zones around work to prevent the entry of non essential personnel. No worker other than the operator will be within 8 feet of the moving auger or inside of the barricaded area.

Drill shafts 6 feet or greater in depth are required to be protected to prevent falls in compliance with all applicable OSHA regulations.

Drill shafts that require a worker to enter the space, all applicable Confined Space Entry and Fall Protection requirements must be followed. A Designated Competent Person must first test the shaft to the maximum depth of the entry for any hazardous or oxygen deficient atmosphere.

Drill shafts must be securely barricaded or covered, and appropriate warning signs posted when left unattended.

All drill shafts and adjacent areas must be inspected by a Designated Competent Person.

Do not allow any part of the machine to contact or come near electrical lines. Maintain a minimum distance of 20’.

All surface encumbrances that are located so as to create a hazard to workers must be protected, removed or supported as necessary to safeguard workers.

Material, including spoil piles and equipment must be kept at least 2’ form the edge of the drill shaft.

A bore pit is defined as an excavation.

Always check for obstructions before moving the machine or machine mast.

Do not attempt to move the machine if visibility is obstructed.

Do not attempt to move the machine in a potentially unstable condition.

While in operation, drill should be attended at all times.

Personnel should remain clear of all moving drill parts.

Personnel should not walk under or step over a moving drill stem or auger.
Concrete and Masonry Construction

Concrete Safety
Workers must be trained on the hazards of concrete on bare skin, protective measures to take and the steps to remove and neutralize the concrete in the event of skin contact.

Rubber gloves and rubber boots are required in addition to the minimum required PPE when working with concrete.

All concrete burns must be reported to the involved Contractor’s supervisor and treated immediately by rinsing with water and neutralizing with vinegar or other neutralizing solution.

When placing concrete, make sure the ground will support the loaded concrete truck. Check for buried tanks, shallow sewers and utilities or loosely back-filled trenches and basements. Trucks should stay away from excavated areas where their vibration and shifting weight could cause shifting in unstable excavated areas.

Watch for tripping hazards in concrete formwork such as protrusions of rebar or formwork members. String line is a tripping hazard on paving operations.

Be aware of dangerous form conditions including cracked joists, rotted wood, unsecured wales, loose snap ties or coil rods, un-spliced wales, unsecured bulkheads and un-shored gaps that can be blown out during a pour.

When working at heights over six feet, be sure to have handrails and/or fall protection in place. Do not trust nail-supported formwork to be safe for access or protection.

Working under loads
No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. To the extent practical, elevated concrete buckets shall be routed so that no employee, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets.

Watch for drift and spin of concrete buckets as they are swung into place. Operators will not swing a load over traffic or people.

Concrete tremie sections must be securely fastened to each other with wire rope or other suitable means. As tremie sections are removed, they must be carefully lowered to the ground and stacked.
Maintain stable footing and good balance to avoid strains and sprains from over lifting or shoveling wet concrete.

Use caution when unfolding or attaching concrete truck chutes. Make sure they are tied off properly to prevent jolts and that open chutes are anchored properly before releasing concrete.

Rebar cages and mats as well as column and wall forms must be designed, secured and braced for the intended loads.

Traffic patterns around the placing operation as well as at the plant sites must be clear and understood by everyone in the area.

A spotter must be used when trucks are backing.

Keep 30' from the swinging belt of concrete placers.

Use caution when walking around high pressure lines and use whip checks where possible.

Exposed reinforcing steel (i.e. rebar) or other objects that presents an impalement hazard, such as t-posts, dowels, ground rods or other rigid objects that, by its shape, size or orientation, a worker could impale any part of their body, must be covered or otherwise protected to reduce the hazard.

Employees who work above grade or above any surface and who are exposed to protruding rebar or similar projections shall be protected from impalement by:

A) The use of guardrails, or

B) Approved fail protection systems, or

C) Approved troughs and covers per 344.90, 1712 (C)

**Cast-in-Place Concrete**

Formwork will be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork. Formwork which is designed, fabricated, erected, supported, braced and maintained will be in accordance with Sections 6 and 7 of the American National Standard for Construction and Demolition Operations Concrete and Masonry Work, ANSI A10.9-1983.

Drawings or plans, including all revisions, for the jack layout, formwork (including shoring equipment), working decks, and scaffolds, will be available at the jobsite.
All Shoring equipment (including equipment used in reshoring operations) will be inspected prior to erection to determine that the equipment meets the requirements specified in the formwork drawings.

Shoring equipment found to be damaged such that its strength is reduced to less than the anticipated load will not be used for shoring.

Erected shoring equipment will be inspected immediately prior to, during, and immediately after concrete placement.

Shoring equipment that is found to be damaged or weakened after erection, such that its strength is reduced to less than the anticipated load will be immediately reinforced.

Sills for shoring will be sound, rigid, and capable of carrying the maximum intended load.

All base plates, shore heads, extension devices, and adjustment screws will be in firm contact, and secured when necessary, with the foundation and the form.

Eccentric loads on shore heads and similar members is prohibited unless these members have been designed for such loading.

Reinforcing steel for walls, piers, columns, and similar vertical structures will be adequately supported to prevent overturning and to prevent collapse.

Measures will be taken to prevent unrolled wire mesh from recoiling.

**Precast Concrete**

Precast concrete wall units, structural framing, and tilt-up wall panels will be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.

No worker will be permitted under precast concrete members being lifted or tilted into position except those workers required for the erection of those members.
5A 4.19 Underground Construction

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5A 4.20 Compressed Air and Light Plants

General
All electrical power receptacles must have a functioning ground fault circuit interrupter (GFCI).

A fire extinguisher (minimum 5lb ABC) is required within 25 feet of all air compressors and light plants in use.

5A 4.20.1 Compressed Air

Compressed air must not be used for cleaning purposes except where reduced to 30 PSI or less except for concrete form cleaning purposes.

Air hoses will be bled at compressors before being disconnected.

Never turn compressed air on yourself or others.

Compressors must be equipped with safety check valve(s) at compressed air connections.

Crows foot connections must be safety pinned or secured by the use of whip checks.

Nozzles are required to be equipped with an on/off valve.

Air compressors must have all guards in place.

All air hoses must be inspected prior to each use.

5A 4.20.2 Light Plants

Lighting Fixtures
Always follow manufacturers’ procedures for replacing light fixtures on light plants.

Set-Up
Do not raise the mast in the vicinity of overhead power lines.

Light plants should be setup in level areas.

When raising and lowering a mast, take care not to crush or damage the plant’s electric cables. This could lead to a cable being shorted out and causing injury.

Masts must be lowered and locked into their horizontal position when moving.
Servicing
When servicing light plants, the power source must be shut down and immobilized prior to performing maintenance and repairs. When possible, a positive lockout system should be implemented.

When servicing a fixture, unplug the cord to the fixture.

Do not fill fuel tank with engine running. Do not smoke or use open flames near the unit when servicing.

Routine service should be scheduled during daylight hours if possible.

Inspect wire rope cables that raise and lower masts for broken wires.
5A 4.21 Abrasive Blasting

Only workers who have been trained and are authorized can operate abrasive blasting equipment.

All sand blasting equipment will be maintained in good condition.

Only non-silica material is permitted for abrasive blasting.

Hoods, hoses, valves and respirators must be inspected daily before use.

In addition to respiratory hazards faced by the blaster, there are hazards to the public and other workers from downwind exposure, cleanup and "pot-tending" that will require protection.

All hose connections will be safety pinned or have whip checks.

Contractors are required to perform all abrasive blasting operations in compliance with OSHA regulations.

If practical, the blasting should be done with water injection to moisten the dust particles, reducing the air born particles.

All abrasive blasting work areas will be identified with red warning tape to ensure no unauthorized persons may enter.

Good housekeeping practices must be followed in abrasive blasting operations.

Specialized PPE is required for abrasive blasting operations.

When compressed air is used for breathing, a carbon monoxide monitor is required.
5A 4.22 Demolition

Preparatory
Before the start of every demolition job, the Demolition Contractor must take the necessary steps to safeguard the health and safety of workers at the jobsite. Preparatory operations involve the overall planning of the demolition job, including the methods to be used to bring the structure down, the equipment necessary to do the job, and the measures to be taken to perform the work safely. All planning of demolition work will be performed by Designated Competent Persons experienced in all phases of the demolition work to be performed. A copy of the work plan, lead abatement plan and daily job hazard analysis must be submitted to the Trinity Segment, Safety and Environmental Managers prior to beginning work.

No worker is permitted in any area that can be adversely affected when demolition operations are being performed. Only those workers necessary for the performance of the operations are permitted in these areas.

Engineering Survey
Prior to starting all demolition operations, an engineering survey of the structure must be conducted by a Designated Competent Person. When indicated as advisable, any adjacent structure(s) or improvements should also be similarly checked. The Demolition Contractor must maintain a written copy of this survey. Photographing existing damage in neighboring structures is also advisable.

The Contractor should plan for the wrecking of the structure, the equipment to do the work, manpower requirements and the protection of the public.

The safety of all workers on the job site should be a prime consideration.

The Contractor should plan for potential hazards such as fires, cave-ins and injuries.

Appropriate measures must be taken to protect workers and any adjacent structures.

Determine if any type of hazardous chemicals, gases, explosives, flammable material or similar dangerous substances have been used or stored on the site. If the nature of a substance cannot be easily determined, samples should be taken and analyzed by a Qualified Person prior to demolition.

All safety equipment needs should be determined beforehand.

Asbestos Abatement
All asbestos abatement must be in compliance with all Federal, State and local regulations.

**Lead Abatement**
All lead abatement must be in compliance with all Federal, State and local regulations.

**Utility Location**
All electric, gas, water, steam, sewer, and other services lines will be shut off, capped or otherwise controlled at the structure before demolition work is started. In each case, any utility owner whose facility is in conflict should be notified in advance and their approval or services obtained.

All power, water or other utilities will be temporarily relocated as necessary and/or protected. The location of all overhead utilities will also be determined. All workers will be informed of the location of existing and relocated utilities.

**Medical Services and First Aid**
Provisions must be made for prompt medical attention in case of serious injury. The nearest hospital or clinic will be located as part of the engineering survey. The demolition supervisor should be provided with instructions for the most direct route to these facilities. The emergency telephone numbers will be provided in the Work Plan.

**Fall Protection**
Any worker that is exposed to a fall of 6 feet or more must follow the fall protection requirements covered in the Fall Protection section of this Program, 5A 4.12.

**Debris Clearance**
A supervisor must determine when debris is to be removed. Halt all demolition during debris removal and make sure the area is clear of workers before continuing demolition.

**Demolition of Pre-Stressed Concrete Structures**
A Designated Competent Person will determine if the structure to be demolished contains any pre-stressed members.

It is the responsibility of the Demolition Contractor to inform all workers in the demolition work area of the presence of pre-stressed concrete members within the structure. They will also instruct them in the safe work practices which must be followed to safely perform the demolition. Workers will be informed of the hazards of deviating from the prescribed procedures and the importance of following their supervisor's instructions.

**Pre-tensioned Members**
Before breaking up pre-tension members, they should be lowered to the ground. It is advisable to seek the counsel of a Professional Engineer before carrying out this work. A sand bag screen, timbers or a blast mat as a screen will be erected around the ends before beginning the demolition process, taking care to clear the area of any workers.

**Monolithic Structures**
The advice of a Professional Engineer experienced in pre-stressed work should be sought before any attempt is made to expose the tendons or anchorages of structures in which two or more members have been stressed together.

**Progressively Pre-Stressed Structures**
It is advisable to seek the counsel of a Professional Engineer before carrying out this type of work and to demolish the structure in strict accordance with the engineer's method of demolition. The stored energy in this type of structure is large. In some cases, the presence of large pre-stressing forces may cause sudden and complete collapse with little warning.
5A 4.23 Overhead Work

Purpose
The purpose of this policy is to provide requirements for working from overhead structures and protection of workers, pedestrians and vehicle traffic.

Policy
All Contractors are responsible for evaluating, determining and implementing a protection plan prior to beginning work to determine the best methods to protect workers, pedestrians, and vehicles during overhead work.

Overhead Work involving Vehicle, Worker and Pedestrian Traffic
When performing overhead work from bridges or structures where vehicle or foot traffic may be exposed, all work areas must be protected to prevent any tools materials, debris and or equipment from accidentally falling from the work area.

Lane closures are required whenever overhead work cannot positively contain tools, materials, debris or equipment that will be used.

All overhead work platforms and work from bridges and other structures where foot or vehicle traffic is exposed must have a guardrail around the perimeter of the work area that is enclosed at least from the toeboard to midrail with either solid construction material or metal screen material having openings no greater than ½ inch to prevent material, tools or debris from being kicked or dropped to the area below.

Overhead work where public walkways exist must have a rigid physical barrier and appropriate signage to prevent pedestrians from entering underneath the overhead work area.

Overhead work is to be identified with appropriate barricades and signs when the general public is exposed.

Only authorized workers will be allowed to enter the cordoned off areas.
5A 4.24 Ladders

Policy
All Contractors are required to implement a ladder use and inspection program.

Responsibilities
The Trinity Safety Department is responsible for ensuring compliance with the policy.

Contractor’s Supervisors and Designated Competent Persons are responsible for ensuring that all requirements of their program are met.

Workers are required to:
1. Understand and comply with the program
2. Guard against damage to the ladders
3. Report any damage to supervision
4. Fully participate in any training and inspection procedures.

Standard Operating Procedures
Only manufactured portable fiberglass ladders and job-built ladders that meet OSHA requirements will be allowed on site.

Workers will be allowed to perform a job requiring a ladder only after they have been trained in the proper use of ladders.

Inspection
To ensure safety and serviceability, all ladders must be inspected before each use.

Ladders must be visually inspected by the Contractor’s Designated Competent Person on a quarterly basis and use color code identifications.

The Designated Competent Person will inspect for:
1. Condition of steps and rungs
2. Oil, grease and other slip hazards
3. Lubricated metal parts
4. Burrs or sharp edges
5. Condition of non-slip/safety feet
6. Structural damage
7. Working condition of spreaders and locking devices on step ladders
8. Condition of support braces and other hardware
9. Tightness of screws and bolts
10. Quarterly color-coded tape on the side rails

Training
All workers must be trained on accident prevention when using ladders to include:
1. Identifying hazards in work areas
2. Safety procedures for setting up portable ladders
3. Safety procedures for working on ladders

Retraining will be provided to each worker as necessary.

**Procedures for Setting up Portable Ladders**
1. Ensure ladder is on a level and stable surface
2. Ensure ladder feet are parallel to resting surface
3. Position extension ladders at about a 4:1 ratio
4. Do not use on slippery surfaces without non-slip feet or securing feet
5. Extend the ladder a minimum of 3 feet above resting surface
6. Extend top section from ground only
7. Engage locking devices on stepladders
8. Lock, guard and barricade when using in doorways or pathways
9. When climbing a ladder to tie off at the resting surface, have a co-worker hold the ladder
10. Read and follow all labels/markings on the ladder.

**Procedure for Use of Ladders**
Do not use a ladder if you:
1. Have a serious fear of heights
2. Have a tendency for dizziness or fainting
3. Are not medically fit
4. Are taking prescription medications that affect your ability to climb

The top step or rung of the ladder may not be used.

All ladders must be used according to manufacturer’s requirements with regard to maximum working height.

Do not use if manufacturer Labels/Markings are missing or not legible.

Do not overload ladders.

Only one person may be on a ladder at a time.

Use rope or hoist to lift tools.

Face ladder when climbing; maintain three points of contact, do not overreach, keep body centered between rails.

Maintain a firm grip, use both hands while climbing.
Do not climb onto ladder from the side unless secured against side motion.

Never use a ladder as a platform, plank or hoist; never use ladders on scaffold.

Keep ladder close to work.

Never drop or apply an impact load to ladder.
5A 4.25  Confined Spaces

Introduction
It is the policy of Trinity Infrastructure, LLC Management to establish and maintain a Confined Space Entry Procedure. Contractors are required to annually train all involved workers and to provide guidelines for safe entry requirements governing authorized entrants who enter a confined space and workers assigned as attendants of a confined space. The Confined Space Evaluation can be found in Appendix 5A-20 of this document.

Trinity employees or Contractor workers must not enter any tank, tunnel, manhole, vessel or vault without completing a confined space entry permit and following the confined space entry procedures of your company and project requirements.

Procedure Definitions
A Confined Space is an enclosed area which:
1. Is large enough for a worker to enter and perform assigned work and
2. Has limited or restricted means of entry or exit and
3. Is not designed for continuous worker occupancy

A Permit Required Confined Space additionally has one or more of the following characteristics:
1. Contains or has the potential to contain a hazardous atmosphere,
2. Contains a material that has a potential for engulfing the entrant,
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section and/or
4. Contains any other recognized serious safety or health hazards

Attendant – An individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in their employer's permit space program.

Authorized Entrant – A worker who is authorized by their employer to enter a permit space.

Engulfment – The surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entry – The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the Entrant's body breaks the plane of an opening into the space.
Hazardous Atmosphere – An atmosphere that may expose workers to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:
1. A flammable gas, vapor or mist in excess of 10% of its lower flammable limit (LFL).
2. An airborne combustible dust at a concentration that obscures vision at a distance of 5 feet or less.
3. An atmospheric oxygen concentration below 19.5% or above 23.5%.
4. An atmospheric concentration of any substance for which a permissible exposure limit (PEL) is published in Subpart Z of 29 CFR Part 1910 (if no PEL, then based upon acceptable limits as indicated on MSDS) that could result in worker exposure in excess of its permissible limits.
5. Any other atmospheric condition recognized as Immediately Dangerous to Life or Health (IDLH).

Confined Spaces are categorized by degree of danger.
1. Class A – Most dangerous to life because of oxygen deficiency, toxicity or an explosive atmosphere
   NOTE: IDLH entries must have a rescue team on standby at entry site.
2. Class B – Potential for causing injury or illness without any immediate threat to life.
3. Class C – Space does not require special work procedures.

A trained Attendant and rescue equipment is required for all classes.

**Responsibility**
Supervision and/or Designated Competent Person of the involved Contractor entering the confined space will be responsible for control of entry. Supervision will ensure that individuals authorized to enter a confined space are appropriately trained.

Determine that the necessary procedure, work practices and equipment for safe entry are in place before allowing entry to a confined space.

Every supervisor is responsible for the following:
1. Ensuring that all workers involved with confined entry understands that the Attendant is in charge of the whole operation
2. Ensuring that all conditions in the area are safe
3. Setting up any special precautions
4. Designating proper protective equipment
5. Ensuring that all monitoring tests are conducted
6. Terminating confined space entry authorization whenever entry conditions are not met
7. Training personnel
8. Signing permit prior to entry

Attendants who are assigned standby duty outside a confined space must be positioned and equipped to easily communicate with Entrants or others in an emergency. Attendants will not leave the standby position until the Entrants inside the confined space have come out. Attendants will be carefully instructed on their duties.

Attendants for confined spaces will:
1. Receive Attendant training documented and on site for review.
2. Continuously maintain an accurate count of all Authorized Entrants in the confined space. This will prevent entry by non-authorized workers.
3. Recognize potential confined space hazards.
4. Monitor activities inside and outside the confined space to determine if it is safe for the Entrants to remain in the confined space.
5. Maintain effective and continuous communication with Entrants during entry.
6. Order Entrants to evacuate the confined space immediately when:
   a. Entrant exhibits behavioral effects from a hazard exposure,
   b. A situation outside the space that could endanger the Entrants is detected, and/or
   c. An uncontrolled hazard within the confined space is detected.
7. Summon rescue and other emergency services as soon as determining that Entrants need to escape from the confined space hazards.
8. Know how to use rescue techniques and mechanical devices for rescue.
9. Know how to use any firefighting equipment needed for confined space entry.
10. Never leave the confined space area without relief from a trained person or a supervisor.
11. Keep means of entering and exiting open and clear.
12. Ensure flow of air from blowers or other air moving equipment (when applicable) is continuous and uninterrupted.

Monitoring
All confined spaces must be tested by a Designated Competent Person before any entry is permitted. Workers who enter the confined space must be given the opportunity to observe the monitoring.

Atmospheres must be tested for the following:
1. Flammable or explosive gas vapors or mists in excess of 10% LFL
2. Oxygen deficient atmosphere (below 19.5% by volume)
3. Oxygen enriched atmosphere (above 23.5% by volume)
Testing and monitoring must be done prior to entry and continuously to verify that acceptable environmental conditions are being maintained.

Calibration accuracy of monitoring equipment will be done at such frequency sufficient to verify that acceptable environmental conditions are being maintained.

When the presence of toxic materials in a confined space is known or suspected, advance preparation must include:
1. Identification of toxic airborne chemicals that may be encountered in the confined space.
2. Monitoring for toxic materials should be performed continuously, while work is being performed and whenever the potential exists for the presence or production of air contaminants that are immediately dangerous to life or health. The monitoring protocol should recognize the fact that in some instances work performed in confined spaces itself is a source of air contamination, so that testing for toxic material only prior to entry, may fail to reveal a dangerous condition with respect to worker exposure to toxic material that arises during the course of work being performed.

**Ventilation**
Ventilation of a confined space should be started before entry into the space. Ventilation should be calculated to have at least two (2) exchanges of air through the confined space before Entrants are allowed to enter. Forced ventilation must be continuous during any entry activity which produces toxic or flammable atmospheres that may develop during the course of work, such as welding or painting. In such a situation, care should be taken to ensure that the ventilator is explosion proof and the location of the ventilation equipment does not impair the ability of the workers to rapidly exit a confined space. There will be no instance where the ventilation of a confined space be considered as a substitute for testing of the confined environment.

**Training**
Workers assigned as Authorized Entrants in confined spaces must be annually trained on the following:
1. How to identify the hazards that they may be faced with during entry.
2. How to recognize the signs and symptoms of exposure to a hazard and understand the consequences of exposure to a hazard.
3. How to maintain contact with Attendants using visual or radio contact.
4. How to use retrieval lines, respirators and equipment needed for safe entry and exit.
5. When to exit from confined spaces (unless physically unable to do so) e.g.:
   a. Attendant orders evacuation
   b. An automatic alarm is activated
   c. Entrants perceive they are in danger
Workers assigned as Attendants must be trained on the following:
1. How to ensure and maintain an accurate count of all persons in confined spaces.
2. How to recognize potential confined space hazards and monitor activities inside and outside the space to determine if it's safe for Entrants to remain in the space.
3. How to maintain effective and continuous contact with Entrants during entry and when to order immediate evacuation of Entrants, e.g.:
   a. A condition develops which is not recognized
   b. Detecting behavioral effects of Entrant, suggesting hazard exposure
   c. Detecting a situation outside the space that could endanger the Entrants
4. How to detect an uncontrolled hazard within the confined space
5. How to summon rescue and other emergency services as soon as it is determined that the confined space Entrants need to escape the space
6. Where to post rescue procedure at confined space.
7. How to keep unauthorized workers from entering the confined space
8. Emergency response Do’s and don’ts
   a. Don’t enter a confined space to attempt rescue of Entrants
   b. Do use any rescue equipment provided for Attendant use
   c. Do perform assigned rescue and emergency duties without entering the confined space

Workers authorizing or in charge of confined space entry must be trained on the following:
1. How to determine what necessary procedure practices and equipment for safe entry are in effect before allowing or authorizing entry.
2. How to periodically check and confirm that entry procedures practices and equipment for safe entry are in effect before allowing or authorizing entry.
3. When to cancel entry authorization and terminate entry, e.g. whenever acceptable conditions do not exist.
4. How to take necessary measures for concluding a confined space operation, i.e. closing off the confined space once the work is completed.
5. Any additional training required by 1910.146(g).
5A 4.26 Traffic Control

The traffic control procedures in the work zone can be found in the Traffic Management Plan (Appendix 2B.4), part of the Quality Construction Management document.

All Trinity employees and Contractors on site are required to follow the TMUTCD while working adjacent to the roadway.

The project Traffic Management Plan will be used to properly set up the work zones to ensure workers and the general public are protected. No Contractor may begin work unless they have the proper traffic controls in place.

No Trinity employee or Contractor is authorized to remove or alter any traffic control placed by others unless obtaining permission from the Trinity Traffic Control Manager or the Project Superintendent or his designee.

Any equipment that is parked inside the clear zone of any unprotected traffic lanes is required to have a Type III barricade facing the oncoming traffic.

Proper traffic control techniques should:
1. Reduce confusion to motorists
2. Expedite traffic flow
3. Reduce accidents
4. Eliminate exposure of hazards to workers and the public
5. Prevent damage to private and public property, including damage to the construction project and equipment
6. Protect the company from the possibility of claims and litigation arising from construction zone accidents and incidents
7. Improve public relations
8. Meet owner requirements

Flagger Control
Flaggers are required when it is determined that there is a need for a flagger.

Flaggers must be alert, neat in appearance, have good hearing and eyesight and trained in the techniques of flagging traffic by recognized agency before being placed in this position. They must be far enough away from the work to slow or stop traffic before it enters the work zone.

All flaggers must wear protective clothing to include Class III high visibility traffic apparel, hard hats and safety glasses. When necessary, two-way radios will be provided. From sunset to sunrise, flagger stations must be illuminated so the flagger is clearly visible to approaching traffic. Also, flaggers need to be monitored to receive breaks, water and have access to restrooms.
Although not required, a “SAFETY” area should be available for each flagger within easy access that will withstand the impact of a motor vehicle.

When communicating through radios, a spare battery pack should be readily available. If for some reason communication breaks down between the flaggers, the operation is to be shut down immediately until the situation is remedied.

**Night Closures**

Although most accidents occur during the daylight hours, the majority of fatalities occur at night. We cannot completely eliminate the possibility of an accident since the motoring public is not within our control, however with the proper equipment, training, planning, personnel and warning devices we can reduce the risk.

During night operations, a back-up, shadow or protection vehicle may be used and should be positioned 100 feet or more behind the "cone" truck as the first signs are placed. This process is to be followed for set-up and tear down.

All crews working in or around the closure need to be outfitted with Class III high visibility traffic apparel in addition to the minimum required PPE. All workers should be visible at a distance of 1,000 feet.

Before making nighttime closures, all materials and equipment must be inspected and in good working order. All message boards and flashing arrow signs must be tested to ensure all lights and switches are functioning properly and that the equipment is fueled and fully charged. All inspections and maintenance procedures must be documented daily and/or nightly.

**Day Closures**

The largest number of vehicle accidents involved on construction sites occur during daylight hours. It is vital that all lane closures begin well in advance of the area where work is conducted to provide a strong cushion of worker safety.

Devices should be installed in the direction of traffic in the following order:
1. First Advance Warning Sign
2. Advance Warning Zone
3. Transition Zone
4. Buffer Zone
5. Work Zone
6. Termination Zone

When signs and channeling devices are installed and removed several times during an operation, a spot should be painted or marked where each sign or device is located to minimize time required to reset the signs or devices. Drivers do not expect to see workers in the roadway setting up a traffic control
Since the goal is to make the entire operation safe, flashing, construction-appropriate vehicle lights should be used to warn the drivers of the presence of workers.

All aspects of the lane closure should provide clear, concise direction to all drivers. Ensure correct positioning and visibility of all signs, flashing arrow/message signs, barricades and delineators. Any part of the pattern that has been disturbed should be reset as soon and as quickly as possible.

**Specialized Vehicles**
Projects that require extensive traffic control may set up specific traffic control vehicles with flashing/rotating lights or beacons, sign racks, cone racks, worker platforms, protective railings with impact absorption capabilities, etc.

A cone truck should have warning beacons visible from all directions and a Type II flashing arrow sign controlled from within the cab.

An attenuator traffic control truck (crash truck) should be outfitted with the same warning devices as the cone truck. There should be an approved Truck-Mounted Crash Cushion (TMCC) attached to the rear of the truck for added protection against vehicle impacts. Crash cushions offer some protection to straying vehicles by slowing the vehicle to a stop when hit head-on or by altering their direction away from the hazards in the work zone.

If used, a crash truck must always be the last vehicle in the traffic control procession. There will be two-way communication between all vehicles and the supervisor in charge of traffic control. Communication is the key to running a smooth, well-directed closure.

**Documentation**
The Contractor responsible for traffic control will be responsible for documenting traffic control using the *Daily Traffic Control Inspection Report*, Appendix 5A-21, or similar form.

Each area will have video and photos taken of the traffic and work areas at the beginning of the project and every time the traffic control is changed or switched.

Documentation records should include:
1. Starting and ending times of work
2. Location of work
3. Names of crewmembers
4. Types of equipment used
5. Changes in temporary or permanent regulatory devices
6. Installation, change and removal of traffic control devices
7. Drawings of working closure to include all devices
When an inspection requires correction to include maintenance of traffic control devices, the documentation should include:

1. Description of the corrections needed, when it was noted and by whom  
2. Corrections made or deferred and why  
3. Replacements made or deferred and why  
4. Any other needed actions

Good documentation begins with an inventory of traffic control devices located in both the shop and the field. Major projects will require more detailed documentation since they involve more equipment, personnel and longer distances and times of physical exposure with increased danger to workers and the public.

All traffic control will be performed in accordance with the owner's specifications and the approved permit or submittal.
5A 4.27 Work Over or Near Water

Workers working over or near water where there is a danger of drowning must be provided with a U.S. Coast Guard-approved life jacket or buoyant work vest.

Prior to use, life jackets and buoyant work vests must be inspected for defects which could alter their strength or buoyancy. Defective units must be removed from service.

Ring buoys with at least 90 feet of line must be provided and readily available for emergency rescue operations.

At least one lifesaving skiff must be immediately available at locations where workers are working over or adjacent to water.
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COMPETENT PERSON DESIGNATION

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As an Authorized Representative of the above named Contractor, I hereby designate the above mentioned Employee as a Competent Person in the areas I have indicated below.

The Occupational Safety and Health Administration (OSHA) defines a Competent Person as “one who is capable of identifying existing and predictable hazards in their surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, AND who has authorization to take prompt corrective measures to eliminate them”. This can be fulfilled through training, qualification, certification, experience or any combination thereof.

Knowledge of ALL current local, state and federal requirements, regulations, standards, procedures and practices that are applicable to the encircled areas below is mandatory.

COMPETENT PERSON IN THE FOLLOWING AREAS (Please circle all that apply)

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Additional areas not listed above:

____________________________________

I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is unable to fulfill the responsibilities of this role, is terminated or is removed from the Project, I will provide written notification to the Trinity Infrastructure Safety Department within 2 business days.

<table>
<thead>
<tr>
<th>AUTHORIZED CONTRACTOR REPRESENTATIVE</th>
<th>DATE</th>
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<td>Print</td>
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<thead>
<tr>
<th>EMPLOYEE ACKNOWLEDGEMENT OF THIS DESIGNATION</th>
<th>DATE</th>
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Please indicate if applicable:

- [ ] This employee is a Supervisor
- [ ] This employee is a Company Safety Representative

Appendix 5A-1
SAFETY ORIENTATION OUTLINE

OBJECTIVE

PROJECT OVERVIEW

PURPOSE

PERSONAL RESPONSIBILITY – Ability to stop unsafe work acts (Empowerment)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

ADDITIONAL PPE REQUIREMENTS

PREPARING FOR THE DAY

FOCUS POINT

TRAINING
Your employer is responsible for providing you with the training you need to do your job safely and successfully.

Some activities require specific training, certification or approval, e.g.:
- working with chemicals, specialized equipment or tools
- working in confined spaces, at heights over 6’, in trenches or excavations, on scaffolds or ladders, etc.
- when designated to fill a specialized role or function

JOB HAZARD ANALYSES
An effective tool to help us think through what we are about to do.

ADDRESSES:
- ACTIVITIES (STEPS) – What do we have to do to get the job done?
- HAZARDS – What things during the activity or in the environment can hurt us or what can go wrong?
- CONTROLS – What do we have to do to prevent the hazards from affecting us or others?

REQUIREMENTS:
- Daily and every time before a different job is started
- Must be in writing
- All crew members must be involved and understand
- All must agree and sign off on the JHA form
- Completed JHA forms must remain with the crew
- All JHA forms will be turned in to the office

MEETINGS
• Your attendance and participation at your crew's tool-box safety meeting is required every week.
• Your attendance at the project monthly meeting is required.

HOUSEKEEPING
• Take personal responsibility
• Keep your work area clean and organized
• Clean as you go, e.g. pull nails immediately
• Pick up after yourself
• If you need a place to put trash but there is not one in your work area, notify your supervisor

HEALTH
• Do not share drinking cups.
• Only use paper cups or single serve containers.
• Do not modify a soda can to be used as a drinking cup.
• If your work area does not have any paper cups or you are almost out, ask your supervisor for more cups.
• Throw used cups and empty containers in the trash, not on the ground.
• Keep water coolers clean; they are for water only.
• Wash your hands before eating or handling food.

SANITATION
• Use the portable toilets that are provided for you.
• If you need a portable toilet in your work area or it needs to be cleaned, notify your supervisor.
• Take personal responsibility here as well.
• Clean up after yourself. Everyone has to share these.
• Profanity and graffiti may be funny to some, but it is vandalism.

WEATHER
IN HOT OR COLD TEMPERATURES:
• Be prepared
• Protect exposed skin
• Stay hydrated
• Know the signs and symptoms of over exposure
• Know your limitations
• Take shelter to recover before you reach your limits
• Watch out for each other

TRAFFIC
The greatest hazard to which we are all exposed, daily.
• Do not assume that motorists are looking out for you.
• Only work and park vehicles inside the lane closure.
• Do not alter the lane closure for any reason.
• Put your vehicles between you and oncoming traffic.
• Report damaged or missing devices to your supervisor.
• Only authorized individuals are allowed to engage and interact with motorists. No exceptions.

ONLY AUTHORIZED FLAGGERS ARE ALLOWED TO ENGAGE AND INTERACT WITH MOTORISTS.

AUTHORIZED MEANS:
• Qualified and certified by a certified instructor AND
• Designated by the employer

FLAGGERS MUST BE EQUIPPED WITH:
• Class III apparel
• a cell phone and a PTT or two-way radio
• the appropriate devices and equipment to control traffic

HAZARD COMMUNICATION
• Your employer is responsible for providing you with training and information on the specific chemicals you will be using and with those you may come into contact.
• Material Safety Data Sheets (MSDS) are available for your information.
• Your supervisor can explain your company’s Hazard Communication Program, tell you where you can find the MSDS for the chemicals you are using and provide you with the PPE you will need to do your job safely.

REQUIREMENTS:
• All containers must be labeled.
• Labels must contain the chemical’s:
  – name
  – flammability rating
  – toxicity rating
  – reactivity rating
  – special notice or required PPE

MATERIAL HANDLING AND STORAGE
• Keep ALL body parts out of pinch points.
• Nothing may be stored within 30’ from the edge of any unprotected lane.
• Keep tool and storage trailers clean and organized.
• Compressed gas cylinders must be stored upright.
• Compressed gas cylinders must have regulators removed prior to moving the cylinder.
• Only qualified and designated employees may rig material to be hoisted.

MATERIAL HANDLING
ALL RIGGING MUST BE:
• Inspected before use by the involved Contractor’s Designated Competent Person
• Complete
• Tagged or stamped with capacity
• Compatible with each component
• Removed from service if defective or shock loaded

TOOL INSPECTION
• Use the right tool for the job
• If a tool is damaged:
  – do not use it,
  – remove it from service and
  – tell your supervisor.
• If a broken tool can be fixed correctly in the field, fix it.
• Do not attempt to fix a tool unless you are qualified to fix it AND you can fix the tool correctly.

FIRE PREVENTION
• Report all fires to your supervisor immediately.
• Do not begin any hot work without a fire extinguisher.
• Do not smoke near flammables or while fueling.
• Always use a funnel.
• Never refuel running equipment.
• Separate oxygen from all flammables/combustibles.
• Flammable liquids can only be stored in containers that are specifically designed for them.

FIRE EXTINGUISHERS REQUIRED:
• For all hot work or spark producing activities
• When using gasoline powered tools and generators
• In areas where the following are used and stored:
  – flammable and combustible liquids and solids
  – flammable gases
  – batteries
• On all cranes, mobile equipment and construction vehicles

PROTECTING THE WORK AREA
AREAS THAT WE NEED TO PROTECT:
• Around cranes and drill rigs
• Around trenches, excavations or other surface openings
• Where overhead work is being performed
• Where scaffolds are being erected or dismantled
• Where fall protection is required
• Around fall exposures

AREA PROTECTION MUST BE:
• appropriate for the hazard and the environment,
• effective at communicating the hazard and/or restricting entry,
• inspected and maintained on a daily basis until the hazard has been eliminated
  AND
• enforced by the responsible supervisor
A barricade is defined as any barrier that obstructs passage; therefore colored tape
will not be considered a barricade on this project.
• Orange fence, t-posts and lumber are considered examples of barricade materials.
• Only red tape is permitted on the jobsite and only for certain applications, e.g. to
  identify:
  – swing radiuses
  – overhead hazards, such as areas under scissor or aerial lift work
• Barricades and tape must be identified with a tag indicating the responsible
  Contractor and supervisor.

IMPALEMENT HAZARDS
What counts as an impalement exposure?
• Rebar
• T-posts
• Dowel bars
• Ground rods
• Any rigid object that, by its shape, size or orientation, a person could fall onto or into
  and thus impale any part of their body
• Eliminate the hazard when possible
• Protect the hazard
• Acceptable means of protecting the hazard:
  • Rebar caps (4” square or 4.5” diameter round, steel-reinforced and correctly
    sized)
  • Carnie caps (complete system with 2 X 4’s)
  • 2 X 4 wood caps or troughs (must pass a drop test of 250 lbs from 10’ and
    be designed by a professional engineer)

PINCH POINTS
WHAT ARE THEY?
Any point at which it is possible for a part of your body to be caught in something
moving, or caught between something moving and something not moving.

STRUCK-BY HAZARDS
WHERE CAN WE BE EXPOSED TO THIS HAZARD?
• When working near moving equipment with blind spots, e.g. cranes and
  excavators
• When working near moving equipment and vehicles
• When working near material handling operations
• When working under an area where others are working
• When working near operations that can produce flying objects, e.g. demolition,
  chipping, abrasive blasting
HOW CAN WE IDENTIFY STRUCK-BY HAZARDS?
• Job Hazard Analyses
WHAT THINGS PROTECT AGAINST STRUCK-BY HAZARDS?
• Barricades
• Warning tape
• Back-up alarms and horns
• PPE
• Nets
• Toe boards

LADDERS
THREE MAIN REQUIREMENTS:
• You must be trained on the inspection and safe use of ladders by your employer.
• You may only use manufactured fiberglass ladders or job-built ladders that meet OSHA requirements.
• You must use the correct ladder for the job.
EXTENSION LADDER REQUIREMENTS:
• Inspect before each use
• Set feet on a solid and level footing
• Extend 3’ or 3 rungs above the top resting point
• Use the 4:1 ratio when setting it up
• Lock extension in place
• Secure at the bottom and the top
• Use 3 point contact when on the ladder
• Fall protection required when climb exceeds 24’
STEP LADDER REQUIREMENTS:
• Inspect before each use
• Choose a ladder tall enough for the job; you cannot use the top 2 steps
• Set feet on a solid and level footing
• Use in only the fully open and locked position
• Use 3 point contact when on the ladder
• Close ladder completely before moving
• Leave no tools or items on ladder

SCAFFOLDS
FOUR MAIN REQUIREMENTS:
• You must be trained by your employer on the safe erection, dismantling and use of the specific scaffold systems you will be using.
• Scaffold system must be appropriate for the task.
• Scaffolds must be complete (not missing or mixing manufacturers’ components) and erected according to manufacturers’ specifications.
• All scaffolds must be inspected and green tagged by the Designated Competent Person every day, prior to use.
RED – DO NOT USE
   – under construction or defective
YELLOW – INCOMPLETE
   – only involved Contractor’s authorized employees permitted
– special fall protection requirements apply
– only involved Contractor’s Designated Competent Person may issue
GREEN – OK TO USE
– only involved Contractor’s Designated Competent Person may issue

FALL PROTECTION
FOUR MAIN REQUIREMENTS:
• You must be trained by your employer on the correct selection, inspection and safe use of the specific personal fall protection systems you will be using.
• 100% at 6’ NO EXCEPTIONS
• All types of fall protection systems must meet OSHA standards and be:
  – appropriate for the task,
  – complete (not missing or mixing manufacturers’ components),
  – used according to manufacturers’ specifications (if applicable) AND
  – inspected daily by the involved Contractor’s Designated Competent Person.
• Report damaged fall protection systems to your supervisor immediately.
ADDITIONAL REQUIREMENTS:
• Only two-leg, shock absorbing lanyards are permitted.
• When using positioning devices, a lanyard must also be used.
• When using scissor lifts, follow manufacturers’ requirements for safe use and personal fall protection.
• Aerial “boom” lifts require 100% tie-off.

EXCAVATIONS
FOUR MAIN REQUIREMENTS:
• You must be trained by your employer on the hazards, safe practices and OSHA standards, as well as the specific protective systems that will be used.
• All utilities must be located and verified before moving any dirt.
• All equipment and devices needed to safely excavate and protect the work area must be provided by the involved Contractor before beginning work. This requires preplanning.
• The involved Contractor’s Designated Competent Person must:
  – inspect the excavation and work area daily, prior to entry and when conditions change AND
  – be present at all times while workers are exposed to excavation hazards
EXCAVATIONS ARE:
• Trenches
• Shafts
• Bore pits
• Any other manmade cut, cavity or depression in an earth surface formed by earth removal
PROTECTION MUST BE PROVIDED WHEN:
• excavation reaches 5’ in depth
• ground conditions or surrounding environment create a hazard that requires protection at less than 5’ in depth
• task exposes employees to hazard, e.g. working on knees or from a seated position
All protection measures and systems must meet OSHA standards and be:
• appropriate for the hazards and ground conditions,
• complete (not missing or mixing manufacturers’ components) or maintained,
• used according to manufacturers’ specifications (if applicable) AND
• inspected by the involved Contractor’s designated Competent Person prior to entry and ongoing as conditions change.

MOBILE EQUIPMENT
REQUIREMENTS:
• Only qualified and designated operators permitted
• Valid driver’s license required for rubber tire equipment
• Must be inspected before each shift
• Horns, lights and back up alarms must work properly
• Operators must wear seatbelts
• No passengers
• Hard hats required in open cabs
• No texting or cell phone use

ELECTRICAL
REQUIREMENTS:
• You must be trained on the inspection and safe use of electrical tools and equipment by your employer.
• All power tools and cords must be inspected before use.
• Damaged cords, tools and equipment must be tagged and removed from service.
• Repairs can only be done by a qualified or Designated Competent Person.
• A GFCI must be used in front of all AC power supplies.
GROUND FAULT CIRCUIT INTERRUPTERS
• Shuts off power at the source to protect you from electrical shock whenever a leakage in electric current occurs between the power source and the point of use.
• A GFCI must be tested on a regular basis by a Designated Competent Person to make sure it works and provides you with the protection you need.
• A circuit breaker or fuse is not a substitute for a GFCI. Circuit breakers and fuses are designed to protect the tools and equipment.

OVERHEAD POWER LINES
FOUR MAIN REQUIREMENTS:
• Assume all lines are energized. DO NOT TOUCH THEM!!!
• Even if you can tell that the line is not a power line, see the first requirement.
• If you find a line on the ground or sagging, see the first requirement and notify your supervisor immediately. Do not attempt to move them out of the way or pass over them.
• Only qualified persons may handle overhead lines.

IF YOU COME INTO CONTACT WITH AN OVERHEAD LINE:
• Remain calm.
• Stay inside the cab or vehicle. Do not touch any metal parts.
• Slowly back away or move in a reverse path from the path that caused the contact.
• If not successful in ending contact, remain in cab or vehicle and call for help.
• Do not move until line has been de-energized.
• Signal to others to stay away from the area and not to touch any part of the equipment, vehicle or load.

WHEN UNSUCCESSFUL IN ENDING CONTACT AND YOU NEED TO GET OUT TO SUMMON HELP OR BECAUSE OF FIRE:
• Remain calm.
• Jump out without touching the vehicle or equipment and the power line.
• Keep your feet together.
• Hop to safety.
• Signal to others that you have made contact with a power line, to stay away from the area and not to touch any part of the equipment, vehicle or load.
• Call for help.

CONFINED SPACES
DEFINITION
FOUR MAIN REQUIREMENTS:
• You must be trained by your employer on the hazards, safe practices and OSHA standards, as well as the specific policies, procedures and equipment that you will use.
• All equipment and devices needed to test, monitor, ventilate, illuminate and evacuate the space must be provided by the involved Contractor before beginning work. This requires preplanning.
• The involved Contractor’s Designated Competent Person must:
  – inspect space and test air prior to entry and monitor entrants and conditions on-going AND
  – be present at all times while workers are in the confined space.
• Restrict access to work area to only essential crew members.

Trinity Policy – Harassment, Intimidation, Drug and Alcohol

WHAT TO DO IN THE EVENT OF AN ACCIDENT

Trinity Infrastructure Safety Team Contact Information
## Daily Safety Assessment

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<tr>
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<th>SEGMENT SAFETY</th>
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<th>CONSTRUCTION MANAGER:</th>
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<th>PERSON(S) CONDUCTING AUDIT:</th>
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### Subcontractors Onsite (List Name and Trade)

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**COLUMN**
- **A** = Acceptable at time of inspection
- **N/A** = Not applicable
- **#** = Comment

### Site / Public Protection

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<td>2. JHA</td>
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<td>4. Flagger Designation</td>
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<td>5. Adequate lighting</td>
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<td>6. Barricade installed properly</td>
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<td>7. Excavation protected</td>
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<td>8. Falling object protection</td>
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<td>9. Perimeter fences</td>
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<td>10. Public protection signage</td>
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<td>11. Street closure identified</td>
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<td>12. Traffic control plan</td>
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### Housekeeping

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<td>4. Proper material storage</td>
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<td>5. Roadway around project clear</td>
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<td>6. Slip, trip, fall hazards</td>
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<td>7. Trash in protected container(s)</td>
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<td>8. Walkways clear</td>
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### Personal Protective Equipment (PPE)

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<td>3. Hard Hat</td>
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<td>4. Hearing Protection</td>
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<td>5. Metatarsal Protection</td>
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<td>6. Proper Clothing</td>
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<td>7. Respirator</td>
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<td>3. Harness / Extraction-Rescue Equipment</td>
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<td>4. Comm. / Secure Area / Signage</td>
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<td>5. Inspection / Air Monitor</td>
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<td>6. Rescue Plan / Emergency #'s / Map</td>
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<td>8. Signage (including overhead)</td>
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| 9. Fire Protection  | A | # | N/A | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------|---|---|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1. Hot Work Permit  |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 2. Emergency vehicle access |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 3. Extinguisher charged and inspected |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 4. Fire suppression equipment available |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 5. Fire watch when applicable |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 6. Proper signage (storage area…) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 7. Proper fuel containers |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |

| 10. Equipment       | A | # | N/A | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------------------|---|---|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1. Operator Designation |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 2. Daily documented inspections |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 3. Deficiencies from inspections addressed |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 4. Safety features (e.g. alarms, lights, horns, etc.) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 5. Control of work area (swing radiuses, overhead work, blind spots) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 6. Availability of operator manuals |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 7. Condition of warning stickers |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 8. Guard rails, machine guards, seatbelts |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 9. Windows and mirrors |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 10. Cab access and egress (e.g. ladders, hand grabs, foot holds, etc.) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 11. Enforcement of seatbelt use |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 12. Securing of unmanned equipment |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 13. Availability of operators’ qualifications for piece of equipment |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |

<p>| 11. Cranes and Hoisting Equipment | A | # | N/A | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-----------------------------------|---|---|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1. Crane Operator Designation     |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 2. Crane-Specific Qualified Person Designation (rigger / signal person) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 3. Assembly/Disassembly (A/D) Director Designation |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 4. Mobile Crane Check-In         |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 5. Crane Inspection              |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 6. Wire Rope Inspection (Monthly) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 7. Comprehensive Crane Inspection (Annual) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 8. Comprehensive Wire Rope Inspection (Annual) |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 9. Anti-Two block device         |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |
| 10. Boom angle indicator        |   |   |     |   |   |   |   |   |   |   |   |   |    |    |    |    |</p>
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**11. (Cont.) Cranes and Hoisting Equipment**

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**12. Welding / Cutting**

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**14. Scaffolds**

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**15. MISCELLANEOUS / COMMENTS (Include Closure Notations)**

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Work Plan

FOR

COMPANY:

CONTRACT NO:

CONTRACT NAME:

ACTIVITY:

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<th>Reviewed by:</th>
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1. Purpose

The purpose of this Work Plan is to identify and communicate the workflow process for insert brief description of works. This will assist in the operations being conducted in a manner that minimizes harm to those affected and to meet the safety and quality standards required.

2. Key Personnel, Responsibilities and Contact Information

The following key personnel, responsibilities and contact information are identified.

Identify all key personnel, responsibilities and contact information for the planned work. A table format is often found to be effective in presenting this type of information. Information provided should include but not limited to:

- Persons with specific responsibilities, e.g. Competent Persons, Equipment Operators, Flaggers, Crane Assembly/Disassembly Directors, etc.
- Contact Information - Telephone number(s) useful during work activities
- Client and subcontractor company information
- Emergency Procedures: e.g. location of hospitals and clinics, emergency phone numbers, (e.g. ONCOR, ATMOS), environmental response, etc.
- Reporting of incidents to Trinity Infrastructure

Those persons identified above are required to take all reasonable steps to ensure that they are readily accessible for contact when necessary.

3. Scope of Work

The scope of work for the operations described is as follows:

Summarize the work to be undertaken including but not limited to:

- Work procedure overview
- Contract references / requirements
- General Specifications / CDA relevant info
- General Dates and duration of work, milestones
- Location(s) of work and any limits

4. Methodology

Insert the sequence and method of working including establishment and decommissioning of the work site. The details should be written in short, clear and positive statements. Where applicable make cross references to other associated documents. The methodology should include but not be limited to:

- Detailed description of work, with a logical and ordered flow of statements – reference schedule and limitations to work
- Specifications / CDA / Standards references
- Companies relevant to work – include relevant portions of contracts
Materials and supplier of materials
Survey and layout information
PE requirements, shop drawings, plan document necessities – include relevant plan document and signed/sealed documents
Environmental requirements – include environment & SWPPP documents
Permits or relevant documentation
Equipment, formwork, temporary materials used
Repair procedures (if relevant)
QC responsibilities, information, and hold points – include relevant QC info
Health & Safety Control Measures to mitigate risk

5. Work Site Safety

The following procedures are required in order to facilitate acceptable standards of health and safety during the work activities.

Identify the work site health and safety procedures which are applicable, such as the following:

- Safety and health provisions / practices for work activities
- Housekeeping
- Signs, signals and barricades
- Material handling and storage
- Protection of hazard created and encountered
- Control of hazardous energy
- Personnel access and egress
- Fire protection and prevention
- Equipment to be used and any special precautions
- Inspection requirements
- Lifting operations and lifting plans
- Vehicle movement and management
- PPE requirements, mandatory and risk based
- Lighting plan
- Emergency response plan to accidents and incidents
- Documentation to be available on site – include copy of MSDS and relevant info

6. Job Hazard Analyses

Before commencement of work each day, a Job Hazard Analysis (JHA) will be conducted with all members of the crew. In some cases, this may include other Contractors who may be affected by the operation.

The JHA will be delivered by the Contractor’s Supervisor. Contractors will ensure that the JHA is clearly understood by all of their employees. At the end of the JHA, the Contractor Supervisor will test the understanding of all crew members by asking a number of open questions. Only when the Contractor Supervisor is satisfied that the JHA is clearly understood by all crew members and other affected Contractors (if any), will works commence.

7. Appendices
The following appendices are attached:

Insert all appendices that should be included but not be limited to:

- Diagrams, sketches, photographs
- Safety related documents, emergency plan
- Quantity spreadsheets
- Production sheets
- Permits, legal relevant documentation, studies, etc.
- Plan documents, traffic control plans, existing plans
- Relevant portions of Subcontracts & purchase orders
- Relevant Specifications / CDA / Standards
- PE stamped drawings, shop drawings, pick plans, etc.
- Environmental documentation
- QC documentation
- Schedule
- Utility Information
- Geotechnical info
- Certifications
The Work Plan detailed above has been reviewed by the Project Manager (or designated representative). **Note:** Where special knowledge of an activity or process is required, e.g. Traffic Control, additional Competent reviewer(s) have been used:

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<thead>
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<th>Position:</th>
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<td>Position:</td>
<td>Date:</td>
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The following elements of the Work Plan have been reviewed. Comments, where applicable are identified on sheet 3 of 3:

- [ ] Detailed Scope of Work
- [ ] Key personnel and responsibilities
- [ ] Work Site Safety
- [ ] Equipment and Materials
- [ ] Traffic Control
- [ ] First Aid and Emergency Procedures
- [ ] Significant Hazards
- [ ] Contact Information
- [ ] Access and Egress
- [ ] Inspections
- [ ] PPE
- [ ] Other (specify):

The following Trinity Infrastructure documents will be required to be included with this work plan:

- [ ] Competent Person Designation(s)
- [ ] Operator Designation(s)
- [ ] Flagger Designation(s)
- [ ] Crane Operator Designation(s)
- [ ] Assembly/Disassembly Director Designation(s)
- [ ] Crane-Specific Qualified Person Designation(s) i.e., Riggers, Signal Persons and Mechanics
The following inspections will be required to be submitted to the Trinity Safety Department for this work plan:

- Daily Equipment / Cranes
- Daily Excavations
- Daily Scaffolds
- Daily Confined Spaces
- Monthly Cranes
- Monthly Wire Ropes

The following permits will be required to be submitted to the Trinity Safety Department for this work plan:

- Trinity Infrastructure Surface Penetration
- Trinity Infrastructure Close Proximity
- City of Dallas Hot Work
- Trinity Infrastructure Confined Space Entry

Continued on back
Findings of Work Plan review:

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Additional sheet(s) used: Y/N
## JOB HAZARD ANALYSIS

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### TASK (Tarea)

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**LIST THE MACHINERY THAT WILL BE USED FOR THIS JOB** (En listé la maquinarias que se utilizarán para este trabajo)

**LIST THE TOOLS THAT WILL BE USED FOR THIS JOB** (En listé las herramientas que se utilizarán para este trabajo)

**LIST THE SPECIAL PPE REQUIRED FOR JOB** (Listé los equipos especiales de protección personal necesario para esta tarea)

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<th>DAILY INSPECTIONS COMPLETED? (¿INSPECCIONES DIARIAS COMPLETADAS?)</th>
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<th>PERMITS (¿PERMISOS COMPLETADOS?)</th>
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**CREW MEMBERS INVOLVED IN THIS JHA** (Miembros de la cuadrilla que participan en este JHA)

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<td>5.</td>
<td>5.</td>
<td>11.</td>
<td>11.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
<td>12.</td>
<td>12.</td>
</tr>
</tbody>
</table>

**Signature of Crew Supervisor**  
(Firma del Supervisor de la cuadrilla)

**Signature of Trinity Representative**  
(Firma del Representante de Trinity)
MEDICAL TREATMENT AUTHORIZATION FORM
5520 LBJ FREEWAY, STE 150
DALLAS, TEXAS 75240
(972) 239-2471

<table>
<thead>
<tr>
<th>Injured Employee</th>
<th>Date of Birth</th>
<th>Phone #</th>
</tr>
</thead>
</table>

Employee

Address

Street Address

City

TX

State

Zip

Date of Injury

Time of Injury

Department

Post-Injury or Accident Drug Screen

Yes ☐

No ☐

Our employee reports an injury to (body part)
While performing (describe how injury occurred)

Diagnoses

Treatment Plan

☐ Work Related

☐ Non-work Related

Trinity Infrastructure, LLC is always concerned with the health and welfare of all employees and offers extensive progressive modified duty programs. We are able to accommodate most restrictions to help employees to continue to earn their income while recovering from work related injuries. The treating physician is requested to contact Erik Rhein, Safety Director to discuss the return to work options after the evaluation. His phone number is (972) 834-2920.

Please check all that apply

☐ Employee is released to full duty without restrictions

☐ Employee is being given modified duty with the following restrictions:

Description of restrictions

☐ Lifting

☐ Pushing

☐ Pulling

☐ Squatting

☐ Climbing

☐ Standing

☐ Bending

☐ Other

Physician’s Name: ____________________________ Signature ____________________________ Date ______

Continued on back
Check the facility the employee was referred to for treatment

<table>
<thead>
<tr>
<th>Injury Care and Post Injury Drug Screens</th>
<th>Pre-placement and Post Injury Drug Screens</th>
<th>Injuries Requiring Hospital Emergency Medical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concentra Medical Centers</strong></td>
<td><strong>CareNow</strong></td>
<td><strong>Medical City</strong></td>
</tr>
<tr>
<td>2920 N. Stemmons Freeway</td>
<td>14856 Preston Rd. Suite 100</td>
<td>7777 Forest Lane</td>
</tr>
<tr>
<td>Dallas, Texas 75247</td>
<td>Dallas, Texas 75254</td>
<td>Dallas, Texas 75230</td>
</tr>
<tr>
<td>(214) 630-2331</td>
<td>972-387-8900</td>
<td>(972) 566-7000</td>
</tr>
<tr>
<td>Weekdays 7:00AM – 10:00PM</td>
<td>Weekdays 8:00AM – 10:00PM</td>
<td>ER 24 Hours daily</td>
</tr>
<tr>
<td>Saturday 8:00AM – 5:00PM</td>
<td>Saturday 8:00AM – 8:00PM</td>
<td></td>
</tr>
<tr>
<td>Sunday 9:00AM – 5:00PM</td>
<td>Sunday 8:00AM – 5:00PM</td>
<td></td>
</tr>
<tr>
<td>16810 Midway Road</td>
<td></td>
<td><strong>Dallas Medical Center</strong></td>
</tr>
<tr>
<td>Addison, Texas 75001</td>
<td></td>
<td>8 Medical Parkway</td>
</tr>
<tr>
<td>(972) 458-8111</td>
<td></td>
<td>Farmers Branch, Texas 75234</td>
</tr>
<tr>
<td>Weekdays 8:00AM – 8:00PM</td>
<td></td>
<td>(972) 484-2603</td>
</tr>
<tr>
<td>Saturday 8:00AM – 5:00PM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Medical Provider:** Please examine and provide treatment which may be required as a result of this injury.

Send the DWC 73 to Liberty Mutual Insurance Co.  
Fax # (603) 334-8096  
Drug screen invoices are to be sent to Trinity Infrastructure, LLC.  
5520 LBJ Expressway, STE 150  
Dallas, Texas 75240
# SUPERVISOR’S INJURY INVESTIGATION REPORT

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>SUPERVISORS NAME</th>
<th>INJURY</th>
<th>NEAR MISS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>EMPLOYEE NAME</th>
<th>OCCUPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF ACCIDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE OF ACCIDENT</th>
<th>DATE REPORTED</th>
<th>TIME OF ACCIDENT</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A. TYPE OF ACCIDENT</th>
<th>HOW LONG HAS EMPLOYEE WORKED AT THIS OCCUPATION?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. TYPE OF INJURY/ILLNESS</th>
<th>C. PART OF BODY INJURED</th>
<th>HOW LONG HAS THE INJURED PERSON WORKED AT THIS JOB?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>____ DAY(S) ____ WEEK(S) ____ MONTH(S) ____ YEAR(S)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF ACCIDENT</th>
<th>MEDICAL TREATMENT</th>
<th>FIRST AID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEDICAL TREATMENT</td>
<td>FIRST AID</td>
</tr>
<tr>
<td></td>
<td>NEAR MISS</td>
<td>LOST TIME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMPLOYEE RETURN WITH ANY RESTRICTIONS?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARE RESTRICTIONS WITHIN NORMAL JOB TASKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMPLOYEE STATEMENT OF ACCIDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHERE AND HOW DID ACCIDENT HAPPEN? (USE ADDITIONAL SHEETS IF NECESSARY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFY MACHINE, TOOL, SUBSTANCE OR OBJECT CONNECTED WITH THE ACCIDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNSAFE MECHANICAL/PHYSICAL/ENVIRONMENTAL CONDITION AT TIME OF ACCIDENT (BE SPECIFIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSONAL FACTORS (ATTITUDE, LACK OF KNOWLEDGE OR SKILL, SLOW REACTION, FATIGUE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSONAL PROTECTIVE EQUIPMENT REQUIRED?</th>
<th>WAS INJURED EMPLOYEE USING REQUIRED EQUIPMENT?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTION PLAN TO PREVENT RECURRENCE (MODIFICATION OF MACHINE, MECHANICAL GUARDING, ENVIRONMENT, TRAINING)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORM COMPLETED BY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUPERVISOR’S SIGNATURE</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIONS TAKEN ON RECOMMENDATIONS (INCLUDE DATE COMPLETED)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
INSTRUCTIONS FOR COMPLETING ACCIDENT REPORT
Please print or type all information. Complete report in as much detail as possible.

GENERAL INFORMATION
Fill in all information requested, company name, supervisor’s name, name of person injured, date, exact location, job title, job being performed, etc. For description of type of accident/illness, injury and body part see the following:

A. TYPE OF ACCIDENT/ILLNESS
- slip/fall
- struck by/against
- caught in/on/between
- contact with/by
- over-exertion/lifting
- burn by
- cut by
- amputation

B. TYPE OF INJURY
- cut
- bruise
- puncture
- abrasion
- strain
- sprain
- burn
- irritation
- swelling
- fracture

C. PART OF BODY INJURED
- (select as many as needed)
- thumb/finger/hand/wrist
- elbow/arm/shoulder
- toe/foot/ankle
- leg/knee/hip
- head/neck/face
- nose/eye/ear/throat
- chest/abdomen
- upper back/lower back

DESCRIPTION OF ACCIDENT
Describe in as much detail as possible where and how the accident happened. This section is for facts, not opinions. Statements the injured or witnesses made should be detailed. Use an additional piece of paper if more space is needed. Include sketches or photos if they help explain what happened.

CONTRIBUTING FACTORS
Identify and describe in detail the type of equipment, tools, processes etc., unsafe conditions (mechanical, physical and environmental) and or personal factors contributing to the accident to your knowledge. Discuss the use and requirements regarding any personal protective equipment.

<table>
<thead>
<tr>
<th>Unsafe Actions</th>
<th>Unsafe Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Operating equipment without authority</td>
<td>1. Inadequate guards or barriers</td>
</tr>
<tr>
<td>2. Failure to warn</td>
<td>2. Inadequate or improper PPE</td>
</tr>
<tr>
<td>3. Failure to secure</td>
<td>3. Defective tools, equipment or materials</td>
</tr>
<tr>
<td>4. Operating at improper speeds</td>
<td>4. Congestion or restricted areas</td>
</tr>
<tr>
<td>5. Making safety devices inoperable</td>
<td>5. Inadequate warning signs</td>
</tr>
<tr>
<td>6. Removing safety devices</td>
<td>6. Fire and explosion hazards</td>
</tr>
<tr>
<td>7. Using defective equipment</td>
<td>7. Poor housekeeping</td>
</tr>
<tr>
<td>8. Using equipment improperly</td>
<td>8. Hazardous environmental conditions</td>
</tr>
<tr>
<td>10. Improper loading</td>
<td>10. Radiation exposure</td>
</tr>
<tr>
<td>11. Improperly lifting</td>
<td>11. High and low temperature exposures</td>
</tr>
<tr>
<td>12. Improper placement</td>
<td>12. Inadequate lighting</td>
</tr>
<tr>
<td>13. Improper position for the task</td>
<td>13. Inadequate ventilation</td>
</tr>
<tr>
<td>14. Servicing equipment in operation</td>
<td></td>
</tr>
<tr>
<td>15. Horseplay</td>
<td></td>
</tr>
<tr>
<td>16. Drugs or alcohol</td>
<td></td>
</tr>
</tbody>
</table>

RECOMMENDATIONS
If contributing factors are identified, action must be taken to prevent the same thing from happening again. Realistic yet effective recommendations should be implemented. The form should be signed and dated by the appropriate supervisor.

FOLLOW-UP
List actions which have been taken and their respective completion date. Proper follow-up should continue on any incomplete recommendations.
### When an Accident Happens...

Stop at once to investigate. Help anyone who is injured. Note the total number of occupants in each car.

Identify yourself to the involved parties. Give your name, address, and license number.

Witnesses. Record the names, addresses, and phone numbers of all witnesses.

Police. Contact the local police immediately, no matter how minor the accident may appear. Give a detailed account of accident facts and obtain any reports that must be completed.

Protect the scene of the accident by directing traffic or placing glow sticks, flags, or reflectors.

Do not discuss the accident with anyone other than the police, someone from your company, or a Liberty Mutual Group representative. Do not, under any circumstances, admit fault or responsibility for the accident.

Call your supervisor at once if anyone is injured or serious property damage is involved.

Take photographs of the accident scene and all vehicles that were involved.

Complete and hand deliver this written report to your supervisor as soon as possible.

Telephone the Liberty Mutual office closest to the accident. To reach Liberty Mutual’s Claims Department, please call 1-800-362-0000.

Give this LOCATION CODE NUMBER to Liberty Mutual:

---

### General Information

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Place</th>
</tr>
</thead>
</table>

### Car or Property Damage: Vehicle 1

<table>
<thead>
<tr>
<th>Name of operator</th>
<th>Address and telephone</th>
<th>License plate number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Driver's license of operator</th>
<th>Owner's name</th>
<th>Address and telephone</th>
<th>Insurance company</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Vehicle make, type, and year</th>
<th>Damage to vehicle or property</th>
<th>Total number of occupants</th>
</tr>
</thead>
</table>

### Car or Property Damage: Vehicle 2

<table>
<thead>
<tr>
<th>Name of operator</th>
<th>Address and telephone</th>
<th>License plate number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Driver's license of operator</th>
<th>Owner's name</th>
<th>Address and telephone</th>
<th>Insurance company</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Vehicle make, type, and year</th>
<th>Damage to vehicle or property</th>
<th>Total number of occupants</th>
</tr>
</thead>
</table>

### Injured Persons: Vehicle 1

<table>
<thead>
<tr>
<th>Name</th>
<th>Address and telephone</th>
<th>Nature of injury</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Treatment facility</th>
</tr>
</thead>
</table>

### Occupants of Vehicle 1

<table>
<thead>
<tr>
<th>Name</th>
<th>Address and telephone</th>
</tr>
</thead>
</table>

### Injured Persons: Your Vehicle

<table>
<thead>
<tr>
<th>Name</th>
<th>Address and telephone</th>
<th>Nature of injury</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Treatment facility</th>
</tr>
</thead>
</table>

### Occupants of Vehicle 2

<table>
<thead>
<tr>
<th>Name</th>
<th>Address and telephone</th>
</tr>
</thead>
</table>
## GENERAL LIABILITY INVESTIGATION REPORT

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Supervisor’s Name</th>
<th>Supervisor’s Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Accident</th>
<th>Date Reported</th>
<th>Time of Accident AM PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Involved Employee Name</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type Property Involved</th>
<th>Location of Property</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If a Vehicle List: Make, Model, Tag Number, Serial Number.</th>
<th>Vehicle Owner’s Name and Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Claimant’s Name</th>
<th>Claimant’s Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property Owner’s Name</th>
<th>Property Owner’s Address and Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location of Accident</th>
<th>Property Can Be Seen at (Address)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Injured Name</th>
<th>Injured Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Company Equipment Involved</th>
<th>Equipment Can Be Seen at (Address)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Injured</th>
<th>Injury Type if Known</th>
<th>Address of Injured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## General Info

## Claimant’s Description

## Investigation Findings

## Corrective Action

---

(trinity infrastructure, LLC
Improving mobility in Texas)
# SUPERVISOR'S UTILITY DAMAGE REPORT

## Part A – Date and Location
- Date of damage
- Time of damage
- Segment #
- Contractor name
- Contractor involved
- Person completing form
- Title
- Address or description of location
- Operator’s name
- Spotter’s name

## Part B – Affected Utility
- Electric
- Natural Gas
- Sewer
- Water
- Telephone
- Cable TV
- Description/size of utility
- Service interrupted for any customers? [Yes] [No]
- What type of service?
  - Service/Drop
  - Main
  - Fiber Optic
  - Depth of damaged facility [__ ft]

## Part C – Locating and Marking
- Was the One-Call Center notified? [Yes] [No]
- If yes, provide the locate ticket number
- Were facility marks visible in the area of the excavation? [Yes] [No]
- Were facility marks accurate? [Yes] [No]
- Facilities were marked with:
  - [ ] Paint
  - [ ] Flags
  - [ ] Paint & Flags
- If paint, what type of locate marks were present?
  - [ ] Duct Bank (Diamond Pattern)
  - [ ] Single Line (With Buffer)
  - [ ] Single Line (Without Buffer)
- Have you taken photos (Required)? [Yes] [No]
- What is the distance between the locate marks? [__ ft]

## Part D – Excavation Information
- Type of Excavation Equipment?
  - [ ] Backhoe
  - [ ] Excavator
  - [ ] Boring
  - [ ] Auger
  - [ ] Trencher
  - [ ] Directional Drill
  - [ ] Drilling
  - [ ] Hand Tools
  - [ ] Probing Device
- Type of work performed?
  - [ ] Installing Gas Pipeline
  - [ ] Installing Electric Cable
  - [ ] Joint Trench
  - [ ] Installing Telephone
  - [ ] Installing Cable TV
  - [ ] Installing Poles
  - [ ] Installing Anchors
  - [ ] Other*
- * Please specify
- Location of Excavation
  - [ ] Private Property
  - [ ] Utility Easement
  - [ ] Project Right-Of-Way

## Part E – Describe how the incident occurred (if service was interrupted, indicate time of restoration)

---

Supervisor’s Name ___________________________ Signature ___________________________ Phone # ___________________________

Reviewed 2/1/2012
# SAFETY INTERVENTION FORM

<table>
<thead>
<tr>
<th>DATE:</th>
<th>TIME:</th>
<th>SEGMENT:</th>
</tr>
</thead>
</table>

| CONTRACTOR(S) INVOLVED: |

| REASON FOR INTERVENTION (☒ all that apply): | ☐ Incident | ☐ Unsafe Action/Behavior |
| ☐ Unsafe Condition | ☐ Paperwork | ☐ Non-compliance Issue | ☐ Repetitive Issue |

| INTERVENTION LEADER: , TITLE: |

| INTERVENTION SCRIBE: , TITLE: |

## SUMMARY

### BACKGROUND (if applicable):

### EXPLANATION OF REASON FOR INTERVENTION:

### CORRECTIVE ACTIONS ISSUED BY TRINITY TO BE COMPLETED BY THE CONTRACTOR(S):

1.

### ADDITIONAL ACTIONS CONTRACTOR COMMITTED TO FOLLOW TO PREVENT A RECURRENCE:

1.

A sign-in sheet with all attendees’ names and signatures must accompany this form. This form, along with the sign-in sheet, must be turned into the Safety Department Administrator within 24 hours of the Intervention Meeting. Additional documentation requested from the Contractor(s):

- ☐ Verification of retraining
- ☐ Letter of commitment
- ☐ ________________________________
- ☐ ________________________________
SUBSTANCE ABUSE POLICY

Trinity Infrastructure, LLC has issued the following Substance Abuse Policy to all employees.

Substance Abuse Testing Policy

Substances tested through urinalysis:
1. Cocaine and Cocaine Derivatives
2. Heroin, Morphine and Other Opiates
3. Amphetamines
4. Barbiturates
5. Methadone
6. Alcohol
7. Marijuana

Pre-employment Testing
All prospective employees must submit to testing for the above substances by urinalysis.

Testing Existing Employees
Employees who are recalled must submit to urinalysis before beginning work.

Employees who work throughout the year must submit to urinalysis on an annual basis and/or randomly at the sole discretion of the company.

The company reserves the right to test employees by blood and/or urine upon request for the following reasons:
1. Following accident or injury on the jobsite.
2. Reasonable suspicion that an employee is under the influence of unauthorized drugs or alcohol and may create an unsafe condition at the worksite.

Right to Search
The company reserves the right to search employees and their property for unauthorized substances or stolen company property based upon reasonable suspicion or substance abuse or employee theft.

Any employee found in violation of these policies or found to be abusing substances listed herein will be subject to the following corrective actions.
**Reporting Procedures**
All employees are required to report jobsite substance abuse to their supervisor/foreman. The supervisor must be the only person with whom this information is discussed. No discussion of this information will be permitted with fellow employees. Anyone who is found to have discussed substance abuse occurrences on the jobsite with anyone except his or her immediate supervisor will be immediately discharged from Trinity Infrastructure, LLC employment.

**Prescription Medicine**
Any employee who uses prescription medication during work hours must produce a written statement from the prescribing physician, stating the purpose of the medication and possible physical side effects which may affect employee performance or safety at the work-site.

**Law Enforcement**
Trinity Infrastructure, LLC may, in the discretion of management, report instances of substance abuse to law enforcement agencies.

**Contractors and Suppliers**
Trinity Infrastructure, LLC, requires that all Contractors on its jobsites are aware of this policy and conform to it. Trinity Infrastructure, LLC reserves the right to require that any individual working for a Contractor or supplier leave the jobsite permanently if it has reasonable suspicion to believe that such person is under the influence of unauthorized substances or creating a potential jobsite safety hazard.
<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Employee No.:</td>
</tr>
<tr>
<td>Name:</td>
<td>Supervisor:</td>
</tr>
<tr>
<td>Violation:</td>
<td>Action Taken:</td>
</tr>
</tbody>
</table>

In accordance with the company work rules, you have been found in violation and will be reprimanded accordingly by nature of violation and number of offenses.

Acknowledgement:

I have read and understand the violation as stated above.

<table>
<thead>
<tr>
<th>Employee</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor</td>
<td>Date</td>
</tr>
</tbody>
</table>
# MOBILE CRANE CHECK-IN

<table>
<thead>
<tr>
<th>SEGMENT NO.</th>
<th>PROJECT NAME</th>
<th>SERIAL NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IH-635 Managed Lanes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSON(S) CONDUCTING CHECK-IN</th>
<th>CONSTRUCTION MANAGER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Luis Munoz</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTRACTOR</th>
<th>OWNER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAKE</th>
<th>MODEL</th>
<th>TYPE</th>
<th>CAPACITY</th>
<th>MFG DATE</th>
<th>COLOR</th>
<th>UNIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE ANNUAL EXPIRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## ACTIVITIES TO BE PERFORMED BY UNIT

<table>
<thead>
<tr>
<th>Type-specific daily inspection log in operator cab?</th>
<th>Y</th>
<th>N</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make/model-specific operator manual in operator cab?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make/model-specific load chart in operator cab?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legible hand signal chart on outside of unit?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legible and appropriate special hazard warning stickers on unit?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrocution warning stickers (1 inside cab and 2 on outside of crane)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**All safety devices present and in proper working order:**

- Crane level indicator?
- Boom stops?
- Jib stops?
- Foot pedal brake locks?
- Hydraulic outrigger or stabilizer jack integral holding device/check valve?
- Horn?

**All operational aids present and in proper working order:**

- Boom hoist limiting device (post manufacture date (MD) 12/16/1969)?
- Luffing jib limiting device?
- Anti-two blocking device (post MD 2/28/92)?
- Boom angle or radius indicator?
- Jib angle indicator?
- Boom length indicator?
- Load weighing device, load moment indicator or load moment limiter (post MD 3/29/2003)?
- Outrigger/stabilizer position sensor/monitor (post MD 11/9/2011)?
- Host drum rotation indicator (post MD 11/9/2011)?
- Hook/bail assembly and load block stamped w/ weight and rated capacity?
- Hook equipped with self-closing latch?
- Special attachments (e.g. spreader bars) stamped w/ rated capacity?
- Running ropes, pulleys and drums free of visible defects?
- Rigging (i.e., slings and chains) have attached and legible tags?
- Appropriate stability items available (e.g. pads and mats)?
- Appropriate site control items available (e.g. warning tape, fencing, signs)?
- Spill control media available?
- Fire extinguisher?
- Glass and mirrors present and intact?
- Any visible defect or area of concern?

### CRANE OWNER/LESSOR AUTHORIZED REPRESENTATIVE

<table>
<thead>
<tr>
<th>Print</th>
<th>Sign</th>
<th>Comments</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Space for additional comments and concerns on back of this form

Reviewed 2/1/2012
POWER LINE CLOSE PROXIMITY PERMIT

Date: ______________________ Requested by: ______________________

Company Name: ______________________ Competent Person: ______________________

Segment #: __________ Start Time: __________ End Time: __________

Purpose of activity: _____________________________________________________________

Location of activity: _____________________________________________________________

Supervisor completing the form: __________________________________________________

Height of power line in feet: __________ Voltage in kV: __________

Owner of utility and point of contact: __________________________________________________

Equipment to be used: _____________________________________________________________

Safety option chosen: □ De-energize and Ground □ Maintain 20’ Clearance □ Table A Clearance

Method of protection: □ Dedicated Spotter □ Proximity Alarm □ Encroachment Warning Device

□ Encroachment Limiting Device □ Insulating Link/Device

Please diagram your set-up location (aerial and elevation perspectives) on the back of this page(s).

**TABLE A — MINIMUM CLEARANCE DISTANCES (29 CFR 1926.1408)**

<table>
<thead>
<tr>
<th>Voltage * (nominal, kV, alternating current)</th>
<th>Minimum clearance distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 50</td>
<td>10</td>
</tr>
<tr>
<td>over 50 to 200</td>
<td>15</td>
</tr>
<tr>
<td>over 200 to 350</td>
<td>20</td>
</tr>
<tr>
<td>over 350 to 500</td>
<td>25</td>
</tr>
<tr>
<td>over 500 to 750</td>
<td>35</td>
</tr>
<tr>
<td>over 750 to 1,000</td>
<td>45</td>
</tr>
<tr>
<td>over 1,000</td>
<td>As established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.</td>
</tr>
</tbody>
</table>

*Note: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV.

Operator’s signature: ____________________________________________________________

Supervisor’s signature: __________________________________________________________

Trinity Representative: __________________________________________________________

This form must be completed and signed (all signatures) prior to beginning work or set-up. This form shall remain in the cab of the equipment until the operation is complete.

**The Work Plan, Job Hazard Analysis, Operator Designation and Competent Person Designation must be attached to this Permit and be available for review during activity.**
SUSPENDED WORK PLATFORM CHECKLIST

Description and type of work to be performed:

________________________________________________________________________________

________________________________________________________________________________

________________________________________________________________________________

Provide details concerning the duties location, surrounding obstructions and potential hazards

Less Hazardous Alternatives:
1. Answers to the following to be based on hazard exposure to employees performing the work.
2. Time and cost of operation must not be the determining factor in the method used.
3. After each of the following, state the reason(s) as to why this method may not be used to perform the work operation.

1. Ladders or stairways

2. Scaffolds (tubular, welded frame, two-point suspension)

3. Aerial lifts (power platform, vehicle-mounted, elevating and rotating platforms – e.g. scissor lifts, JLGs, high-lift boom trucks)

4. Personnel hoists (e.g. elevators, spider lifts)

5. Other mechanical methods
SUSPENDED WORK PLATFORM CHECKLIST & AUTHORIZATION

Contractor Name: __________________________________________________________

Project Name: __________________________________________________________

Location: ________________________________________________________________

I, ____________________________ as the Contractor’s Senior Manager approve

Name

the use of a suspended work platform at ________________________________

Location

on __________________________.

Date

The use of the suspended work platform will comply with OSHA regulations concerning

hoisting personnel baskets/platforms from cranes and derricks, as well as local

practices.

ACKNOWLEDGEMENT:

Contractor’s Representative: __________________________

Signature __________________________

Date

Copies of this completed form must be on file in the Trinity Safety Department prior to

the lift taking place.

This form is required to be onsite during the lift.
**BATCH PLANT CHECK-IN**

<table>
<thead>
<tr>
<th>SEGMENT NO.</th>
<th>PROJECT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IH-635 Managed Lanes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEGMENT MANAGER</th>
<th>CONSTRUCTION MANAGER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Luis Munoz</td>
</tr>
</tbody>
</table>

**PERSON(S) CONDUCTING CHECK-IN**

**CONTRACTOR/SUPPLIER | OWNER**

**MAKE | MODEL | TYPE | CAPACITY | YEAR | UNIT #**

**PHYSICAL ADDRESS OF PLANT**

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
<th>N/A</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily inspection log in operator house?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make/model-specific operator manual in operator house?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legible and appropriate warning stickers on unit?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals stored in appropriate containment vessels?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidizers separated from flammables and combustibles?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All chemicals’ MSDS maintained in the operator house?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documented spill procedures available for the plant?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spill control media available?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate eye wash station?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compressed gas cylinders stored upright, secured and capped?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All compressed gas/air hoses in good condition &amp; properly secured to manifolds?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documented lock-out/tag-out procedures?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lock-out/tag-out components available?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All guards are in place?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documented confined space procedures?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ladders and stairs in good condition?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All handrails in place and in good condition?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All catwalks and other walking surfaces secured and in good condition?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate # of fire extinguishers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All safety features functional (e.g. alarms, emergency shut-offs, lights, etc.)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All power sources provided with a functioning and lockable cover?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All manufacturer required warning stickers in place and legible?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arc flash warning stickers in place where applicable?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conveyor belts free of visible defects?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any visible defects or areas of concern?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PLANT OWNER/LEASOR AUTHORIZED REPRESENTATIVE | DATE**

Print

Sign

*Space for additional comments and concerns on back of this form.*
Date: __________________________ Requested by: __________________________

Company Name: __________________________ Competent Person: __________________________

Segment #: __________________________ Start Date: __________________________ Completion Date: __________________________

Drawing #: __________________________ Bore/Bent/Shaft #: __________________________

Purpose of Surface Penetration: __________________________

Location of Surface Penetration: __________________________

Description of the Surface Penetration

<table>
<thead>
<tr>
<th>Depth</th>
<th>Width/Diameter</th>
<th>Length</th>
</tr>
</thead>
</table>

Soil Classification: □ A □ B □ C

Methods of Determination: __________________________

Protective System(s) Used: □ Bench □ Slope □ Trench Box □ Shield □ Shore □ N/A

Safe Guarding Used: □ Safety Fence □ Handrails □ Cover □ N/A

<table>
<thead>
<tr>
<th>Utility Locate Reference #</th>
<th>Signature of Supervisor</th>
<th>Date Located</th>
<th>Locate Marks/Flags Visible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipeline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other –</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other –</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SAFETY CHECKLIST Y or N or Mark not applicable (N/A) for those that do not apply.

Confined Spaces Undermined Structures
Overhead Lines Spoil Piles
Notified Affected Parties Utilities (Supported)
Barricades Water Seepage
Access Ladders Employee Training
Designated Competent Person Hazardous Atmosphere

Operator’s Signature: __________________________ Date: __________________________

Foreman or Supervisor’s Signature: __________________________ Date: __________________________

Trinity Representative’s Signature: __________________________ Date: __________________________

Comments: __________________________

This permit is required to be completed by the Contractor’s Designated Competent Person prior to any surface penetration activity (e.g. drilling, boring, excavating, etc.) taking place. A new permit is required to be filled out if, after 14 days, the activity has not been completed.

*** The Work Plan, Job Hazard Analysis, Operator Designation and Competent Person
This evaluation is required to be completed in the Work Plan development process if the operation contains any work areas that meet both conditions in Box 1 below AND if workers will have to enter those areas at any time during the operation. This evaluation may be completed in the field if confined space conditions are not identified in the Work Plan development process.

**BOX 1**

| Work area has limited or restricted means for entry or exit AND |
| Work area is not designed for continuous worker occupancy |

If conditions in Box 1 work areas meet any one of the conditions listed in Box 2, the Contractor will be responsible for completing a Permit Required Confined Space (PRCS) Entry Permit (a separate document) and following all required PRCS procedures.

**BOX 2**

- Work area contains or has the potential to contain a hazardous atmosphere **OR**
- Work area contains a material that has the potential to engulf a worker **OR**
- Work area has walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate a worker **OR**
- Work area contains any other recognized safety or health hazard, such as unguarded machinery, exposed live wires or excessive heat

---

<table>
<thead>
<tr>
<th>Company Name: __________________________</th>
<th>Date: _______________</th>
<th>Segment #: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent Person(s): ____________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose of Entry: _______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location/Description of Work Area: ________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SAFETY CHECKLIST**

| Acceptable entry conditions defined? | ______ |
| Plan to monitor and test work area? | ______ |
| Plan to isolate release of energy and material into work area? | ______ |
| Plan to eliminate or control atmospheric hazards in work area? | ______ |
| Plan to protect workers from external hazards? | ______ |
| Plan to verify conditions in space are acceptable for the entire duration of the activity? | ______ |

**EQUIPMENT**

<table>
<thead>
<tr>
<th>Testing &amp; Monitoring</th>
<th>Ventilation</th>
<th>Communications</th>
<th>Lighting</th>
<th>Ingress/Egress</th>
<th>Rescue</th>
<th>Personal Protection</th>
<th>Barriers/Shields</th>
</tr>
</thead>
<tbody>
<tr>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contractor Supervisor’s Signature: __________________________</th>
<th>Date: _______________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor Competent Person’s Signature: ____________________</td>
<td>Date: _______________</td>
</tr>
<tr>
<td>Trinity Representative’s Signature: __________________________</td>
<td>Date: _______________</td>
</tr>
<tr>
<td>Comments: __________________________</td>
<td></td>
</tr>
</tbody>
</table>

This permit is required to be completed by the Contractor’s Designated Competent Person prior to beginning the work. It is the responsibility of the Contractor’s Designated Competent Person to document on the Contractor’s Entry Permit (a separate document); all required actions specified in the applicable OSHA Regulations, from pre-entry to the termination of the work activity.

*** The Work Plan, Job Hazard Analysis and Competent Person Designation(s) must be attached to this Permit and be available.
### DAILY TRAFFIC CONTROL INSPECTION REPORT

<table>
<thead>
<tr>
<th>Area inspected:</th>
<th>Traffic accidents today: Y N</th>
</tr>
</thead>
</table>

#### Date:
- Sun
- Mon
- Tue
- Wed
- Thu
- Fri
- Sat

#### Inspections:
- Time:
- Time:
- Photos: Y N
- Video: Y N

#### Temp.:
- High
- Low

#### Wind direction and speed:

#### Sky (circle):
- Clear/Sunny
- Pt. Cloudy
- Overcast
- Night

#### Precipitation (circle):
- Dry
- Fog
- Rain
- Mist
- Freezing Rain
- Snow

#### Road (Circle):
- Dry
- Wet
- Ice
- Snow
- Closed

### Today’s operations required traffic control:

#### Today’s Traffic Control Plan (If no plan, describe using “Diary” section):
- Sheet/Drawing
- Stations
- Sheet/Drawing
- Stations
- Sheet/Drawing
- Stations
- Sheet/Drawing
- Stations

#### Changes or modifications to plans today:

### After drive through inspection, check each type of device observed.
**Give counts by type and actual locations. Describe maintenance performed or needed. Check all correct.**

<table>
<thead>
<tr>
<th>Device Used:</th>
<th>Type</th>
<th>Count</th>
<th>Stations</th>
<th>Repairs/Replaced/Cleaned</th>
<th>All Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barricades</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drums/Barrels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cones</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tubes/Candles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCTB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Panels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message Boards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Boards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attenuators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crash Cushions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Daily Traffic Control Report

### Temporary Pavement Markings Applied:

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
<th>Color</th>
<th>Line/Skip</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paint Tape</td>
<td></td>
<td>White</td>
<td>Line</td>
<td>Skip</td>
</tr>
<tr>
<td>Paint Tape</td>
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<td>Yellow</td>
<td>Line</td>
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</tr>
<tr>
<td>Paint Tape</td>
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<td>White</td>
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<tr>
<td>Paint Tape</td>
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<td>Yellow</td>
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<tr>
<td>Paint Tape</td>
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<td>White</td>
<td>Line</td>
<td>Skip</td>
</tr>
<tr>
<td>Paint Tape</td>
<td></td>
<td>Yellow</td>
<td>Line</td>
<td>Skip</td>
</tr>
</tbody>
</table>

### DIARY:

If there were accidents today, discuss them with your supervisor.

Accident investigations materials you need to gather for the accident file:

<table>
<thead>
<tr>
<th>Traffic Control Logs today</th>
<th>Accident diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Control Plans is use today</td>
<td>Accident description</td>
</tr>
<tr>
<td>Police report no.</td>
<td>Statements by witnesses</td>
</tr>
<tr>
<td>Accident photos (signs, barricades, cones, wall, vehicles, skid marks, etc.)</td>
<td>Timecards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Traffic Control Supervisor (Signature)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Manager (Signature)</td>
<td>Date</td>
</tr>
</tbody>
</table>
**Daily Excavation Inspection**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisors Name:</td>
<td></td>
</tr>
<tr>
<td>Site Location:</td>
<td>Competent Person:</td>
</tr>
<tr>
<td>Soil Type:</td>
<td>Excavation Depth:</td>
</tr>
<tr>
<td>Excavation Width:</td>
<td></td>
</tr>
<tr>
<td>Type of Protective System Used:</td>
<td></td>
</tr>
</tbody>
</table>

Indicate for each item: Yes — No — or N/A for not applicable:

### 1. General Information

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Is excavation less than five feet in depth?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Is there a potential for a cave-in?</td>
<td></td>
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</tr>
<tr>
<td><em>If YES, excavation must be sloped, shored or shielded.</em></td>
<td></td>
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<tr>
<td>C. Is excavation deeper than five feet in depth?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><em>If YES, excavation must be sloped, shored or shielded.</em></td>
<td></td>
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</tr>
<tr>
<td>D. Is sloping used as your protective system?</td>
<td></td>
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</tr>
</tbody>
</table>

---

**Slope information to keep in mind:**

![Slope Diagram](image)

Example of a simple 34-degree slope commonly used around the site for cave-in protection.

---

### 2. Inspection of Jobsite:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Excavations, adjacent areas and protective systems inspected by a Designated Competent Person daily before the start of work?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>B. Designated Competent Person has the authority to remove employees from the excavation immediately?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Surface encumbrances removed or supported?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>D. Employees protected from loose rock or soil that could pose a hazard by falling or rolling into the excavation?</td>
<td></td>
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</tr>
<tr>
<td>E. Hard hats and safety glasses worn by all employees?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>F. Spoils, materials and equipment set back at least two feet from the edge of the excavation?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>G. Adequate barriers provided at all excavations, wells, pits, shafts, etc.?</td>
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<td></td>
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<tr>
<td>H. Warning vests or other highly visible clothing provided and worn by all employees exposed to vehicular traffic?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Employees required to stay away from vehicles being loaded or unloaded?</td>
<td></td>
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<tr>
<td>J. Warning system established and utilized when mobile equipment is operating near the edge of the excavation?</td>
<td></td>
<td></td>
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<tr>
<td>K. Employees prohibited from going under suspended loads?</td>
<td></td>
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</tr>
</tbody>
</table>

### 3. Utilities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>A. Location of utilities marked?</td>
<td></td>
</tr>
<tr>
<td>B. Prior to the use of equipment, underground utilities have been located by hand digging?</td>
<td></td>
</tr>
<tr>
<td>C. Underground utilities are protected, supported or removed when excavation open?</td>
<td></td>
</tr>
</tbody>
</table>
### Daily Excavation Checklist Continued

#### 4. Means of Access and Egress

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Travel distance to means of egress no greater than 25 feet in excavations four feet or more in depth?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Straight ladders used in excavations extend at least three feet above the edge of the trench?</td>
<td></td>
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<tr>
<td>C. Ramps being used for employee access have been designed by the competent person?</td>
<td></td>
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<tr>
<td>D. Employees protected from cave-ins when entering or exiting the excavation?</td>
<td></td>
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</tbody>
</table>

#### 5. Wet Conditions

<p>| | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A. Precautions have been taken to protect employees from the accumulation of water?</td>
<td></td>
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<tr>
<td>B. Water removal equipment monitored by a Designated Competent Person?</td>
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<tr>
<td>C. Surface water or runoff diverted or controlled to prevent accumulation in the excavation?</td>
<td></td>
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<tr>
<td>D. Inspections have been made after every rainstorm or other hazard-increasing occurrence?</td>
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</table>

#### 6. Hazardous Atmosphere

The atmosphere within the excavation must be tested where there is a reasonable possibility of an oxygen deficiency, combustible or other harmful contaminant exposing employees to a hazard.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A. Are there exposed sewer or natural gas lines in excavation?</td>
<td></td>
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<tr>
<td>B. Is excavation near a landfill area or are hazardous substances being stored close to the excavation?</td>
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</tbody>
</table>

If you answered YES to A or B, then treat excavation as a confined space.

Employees will contact Fire/Rescue at 911 in case of emergencies.

#### 7. Support Systems

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A. Materials and/or equipment for support systems selected based on soil analysis, trench depth and expected loads?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Materials and equipment used for protective systems inspected and in good condition?</td>
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<tr>
<td>C. Materials and equipment not in good condition have been removed from service?</td>
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<tr>
<td>D. Protective systems installed without exposing employees to the hazards of cave-ins, collapses or threat of being struck by materials or equipment?</td>
<td></td>
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<tr>
<td>E. Members of support system securely fastened to prevent failure?</td>
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<tr>
<td>F. Support systems provided to ensure stability of adjacent structures, buildings, roadways, sidewalks, walls, etc?</td>
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<tr>
<td>G. Excavations below the level of the base of a footing have been approved by a Registered Professional Engineer?</td>
<td></td>
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<tr>
<td>H. Removal of support systems progresses from the bottom and members are released slowly so you can note any indication of possible failure?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I. Backfilling progresses with removal of support system?</td>
<td></td>
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</tr>
<tr>
<td>J. Excavation of material to a level no greater than two feet below the bottom of the support system and only if the system is designed to support the loads calculated for the full depth?</td>
<td></td>
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</tr>
<tr>
<td>K. Shield system placed to prevent lateral movement?</td>
<td></td>
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</tr>
<tr>
<td>L. Employees are prohibited from remaining in shield system during vertical movement?</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### 8. Training:

A. All employees have had Excavation Safety Awareness Training.
Emergency Action Plan
Contacts & Procedures–IH 635 Managed Lanes

Emergency Response Plan
An emergency response plan is in place for the IH-635 Managed Lanes Project. Our objective is to eliminate any confusion about emergencies, should one occur. It establishes procedures for summoning help, emergency response, requirements for handling the media, and emergency communication responsibilities.

Communication of the Plan
In order to ensure that all employees are familiar with the plan, it will be provided to all Contractors and posted on the Trinity Infrastructure shared network drive. An overview of the plan will be provided during the Safety Orientation that everyone is required to attend. Reinforcement of the procedures of the plan will be provided at a frequency to ensure retention and whenever a change is made to the plan.

Administration
It will be the responsibility of the Trinity Safety Director to periodically review the plan to ensure that it is current and meets the needs of the project.

Communication Systems
Communications on the jobsite will be primarily through the use of push-to-talk radios and cellular telephones. This will allow all site supervisors to remain in constant contact in an emergency situation.

Notification Checklist
- Incident occurs
- Supervisor on scene will immediately determine if a call to 911 is necessary
- Supervisor on scene will notify a member of the Trinity Environmental Team if a release or threat to the environment occurs
- Supervisor on scene will notify a Trinity Segment Safety Manager if the incident involves an injury or the jobsite. If the incident involves third-party motorists, then the Supervisor must also notify Trinity Traffic Control.
- Segment Safety Manager will notify the appropriate Segment Manager and Trinity Safety Director. If the incident involves third-party motorists, then Trinity Traffic Control will notify the LBJ Express Traffic Management Center.
- Segment Manager will notify the Construction Manager
- Trinity Safety Director or Traffic Control, as appropriate, will notify Trinity management and the Public Information Office
- The Trinity CEO, or his designee, will notify LBJ Infrastructure Group
FIRST HOUR RESPONSE CHECKLIST

SUPERVISOR ON SCENE
1. ___ Contact Emergency Services (Contacts section).
2. ___ Contact a Trinity Segment Safety Manager (Contacts section).
3. ___ Contact the Trinity Environmental Team (Contacts section).
4. ___ Initiate site control and determine if the site should be shut down.
5. ___ Account for all employees and move to a safe and secure area away from incident.
6. ___ Do not move anything that could be classified as evidence.
7. ___ Ensure telephone coverage at the site.
8. ___ Inform site personnel to direct requests for information from outside groups to Trinity Public Relations, e.g. news agencies (Contacts section).
9. ___ Post workers to restrict entry to the site.
10. ___ Assign workers to meet and guide Emergency Services to incident site.
11. ___ Select a temporary spokesperson with the assistance of the Segment Safety Manager or Manager on-site. Always address cause (unknown/under investigation), concern (for the injured/involved), status (site shut down?).

TRINITY SEGMENT SAFETY MANAGER
1. ___ Contact the Trinity Safety Director.
2. ___ Contact the appropriate Segment Manager.
3. ___ Contact the LBJ Express Traffic Management Center.
4. ___ Assist supervisors on scene with site control.
5. ___ Determine need for command center and establish if needed.
6. ___ Determine what happened, when/where it happened and who is involved.
7. ___ Verify the current status of the site (shut down?).
8. ___ Determine whether you and/or spokesperson are needed on site.
9. ___ Document the incident in writing and on film.
10. ___ Identify potential spin-off crises.
11. ___ If needed, designate someone to stay with the injured worker(s) at the hospital until family members arrive.
12. ___ Gather names and numbers of involved parties. If needed, contact the Segment Manager to determine who should notify relatives of affected workers on the project.

TRINITY SAFETY DIRECTOR
1. ___ Contact Trinity Management.
2. ___ Contact Trinity Public Relations.
3. ___ Debrief workers who witnessed the accident.
4. ___ If necessary, initiate a post accident drug/alcohol test.
5. ___ If appropriate, notify the applicable governmental agency.
6. ___ Initiate a third party investigation team to work in tandem w/ authorities.
7. ___ Establish an emergency message mailbox for employees to access if office operations have been impacted.
8. ___ Secure and offer critical-incident stress counseling for employees who witnessed the accident (if necessary).

**TRINITY SEGMENT MANAGER**
1. ___ Contact the Trinity Construction Manager.
2. ___ Assist supervisors on scene with site control.
3. ___ Verify the current status of the site (shut down?)
4. ___ If there is an employee injury/fatality, determine who will notify relatives.
5. ___ If the injury/fatality is a Contractor’s employee, it is their responsibility to notify the spouse/family.
6. ___ If the injury or fatality is not an employee or Contractor’s employee, allow the authorities to make the notification and contact your insurance broker/company (Contacts section).
7. ___ Inform any surrounding areas that may be affected by the incident.
8. ___ Instruct employees at the accident site to contact their families to let them know they are OK.

**TRINITY MANAGEMENT**
1. ___ Contact LBJ Infrastructure Group
2. ___ Supervise the incident investigation and coordinate research into other relevant events.
3. ___ Fax/e-mail/voice mail all Contractors whose work is impacted by the event to notify them of the incident and tell them to whom they should direct media/general information calls.
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Cell Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Manager – Kevin Tippit</td>
<td>Cell (214) 907-2910</td>
<td></td>
</tr>
<tr>
<td>Safety Manager – Kevin Davis</td>
<td>Cell (214) 983-6912</td>
<td></td>
</tr>
<tr>
<td>Segment 1 Safety Manager – Juan Lopez</td>
<td>Cell (214) 918-2363</td>
<td></td>
</tr>
<tr>
<td>Segment 2 Safety Manager – Jason Coronado</td>
<td>Cell (469) 263-4531</td>
<td></td>
</tr>
<tr>
<td>Segment 3 Safety Manager – Bill Byrd</td>
<td>Cell (214) 605-7578</td>
<td></td>
</tr>
<tr>
<td>Safety Crane Superintendent – Terry Miller</td>
<td>Cell (214) 907-4574</td>
<td></td>
</tr>
<tr>
<td>Nighttime Safety Manager – Mayo Espitia</td>
<td>Cell (214) 901-1890</td>
<td></td>
</tr>
<tr>
<td>Safety Director (Manager) – Julio Yglesias</td>
<td>Cell (972) 834-2920</td>
<td></td>
</tr>
<tr>
<td>Deputy Safety Director (Manager) – Rodney Watson</td>
<td>Cell (214) 770-8569</td>
<td></td>
</tr>
<tr>
<td>Traffic Control Manager – Dean Conrad</td>
<td>Cell (972) 795-1076</td>
<td></td>
</tr>
<tr>
<td>Assistant Traffic Control Manager – Kevin Kendall</td>
<td>Cell (972) 213-4466</td>
<td></td>
</tr>
<tr>
<td>Segment 1 Manager – Luis Bermudez</td>
<td>Cell (972) 841-3498</td>
<td></td>
</tr>
<tr>
<td>Segment 1 Superintendent – Charlie Liebl</td>
<td>Cell (281) 924-4272</td>
<td></td>
</tr>
<tr>
<td>Seg. 1 Traffic Control Coordinator – Tommy McKinnon</td>
<td>Cell (214) 531-2199</td>
<td></td>
</tr>
<tr>
<td>Segment 2 Manager – Joaquin Losada</td>
<td>Cell (972) 922-5095</td>
<td></td>
</tr>
<tr>
<td>Segment 2 Superintendent – Pete Day</td>
<td>Cell (972) 689-8609</td>
<td></td>
</tr>
<tr>
<td>Seg. 2 Traffic Control Coordinator – Susan Sansalone</td>
<td>Cell (972) 837-0321</td>
<td></td>
</tr>
<tr>
<td>Segment 3 Manager – Miguel Yuste</td>
<td>Cell (972) 809-0653</td>
<td></td>
</tr>
<tr>
<td>Segment 3 Superintendent – Jeff Sellers</td>
<td>Cell (972) 841-4629</td>
<td></td>
</tr>
<tr>
<td>Seg. 3 Traffic Control Coordinator – Robert Bly</td>
<td>Cell (469) 263-4538</td>
<td></td>
</tr>
<tr>
<td>Public Relations – Heather Newsom</td>
<td>Cell (972) 809-9479</td>
<td></td>
</tr>
<tr>
<td>Environmental Manager – Chris Tolar</td>
<td>Cell (972) 623-7804</td>
<td></td>
</tr>
<tr>
<td>Hazardous Materials Manager – Tom Wiberg</td>
<td>Cell (830) 431-1320</td>
<td></td>
</tr>
<tr>
<td>Hazardous Materials Manager – Jennifer Wiberg</td>
<td>Cell (830) 446-9630</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>Contact Information</td>
<td></td>
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<tr>
<td>----------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Nathan Graham – Legal Counsel</td>
<td>Cell (281) 780-9617</td>
<td></td>
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<tr>
<td>Ambulance</td>
<td>Dallas/Farmers Branch 911</td>
<td></td>
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<tr>
<td>Fire Department</td>
<td>Dallas/Farmers Branch 911</td>
<td></td>
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<tr>
<td>Police</td>
<td>Dallas/Farmers Branch 911</td>
<td></td>
</tr>
<tr>
<td>LBJ Express Traffic Management Center</td>
<td>(877) 525-3979</td>
<td></td>
</tr>
<tr>
<td>DALTRANS</td>
<td>(214) 319-3601</td>
<td></td>
</tr>
<tr>
<td>Poison Information</td>
<td>(800) 222-1222</td>
<td></td>
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<tr>
<td><strong>UTILITY COMPANIES</strong></td>
<td></td>
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<tr>
<td>Locate Service</td>
<td>DIGTESS (800) 344-8377</td>
<td></td>
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<tr>
<td>Power</td>
<td>ONCOR (888) 313-4747</td>
<td></td>
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<tr>
<td>Gas</td>
<td>ATMOS (866) 322-8667</td>
<td></td>
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<tr>
<td>Water</td>
<td>Dallas 311 Farmers Branch (972) 484-3620</td>
<td></td>
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<tr>
<td>Traffic Signals</td>
<td>Dallas 311 Farmers Branch (972) 484-3620</td>
<td></td>
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<tr>
<td><strong>LIGHT RAIL</strong></td>
<td></td>
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<tr>
<td>DART</td>
<td>911</td>
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<tr>
<td><strong>HEAVY RAIL</strong></td>
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<tr>
<td>Herzog Transit Service</td>
<td>Madill Line (214) 957-0201</td>
<td></td>
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<tr>
<td><strong>GOVERNMENTAL AGENCIES</strong></td>
<td></td>
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<tr>
<td>OSHA</td>
<td>Dallas Area (214) 320-2400</td>
<td></td>
</tr>
<tr>
<td>EPA</td>
<td>Dallas Area (214) 665-2200</td>
<td></td>
</tr>
<tr>
<td>Health Department</td>
<td>Dallas County (214) 819-2000</td>
<td></td>
</tr>
</tbody>
</table>
**EMERGENCY PROCEDURES**

In the event of an accident, every effort should be made to ensure maximum safety for everyone. Only authorized personnel should be admitted to the scene.

**FOR ALL EMERGENCIES DIAL**

911

**FOR IMMEDIATE EMERGENCY RESPONSE**

NEXT, REPORT THE EMERGENCY TO THE FOLLOWING:

**APPLICABLE TRINITY SAFETY MANAGER**

Segment 1: Juan Lopez (214) 918-3263

Segment 2: Jason Coronado (469) 263-4531

Segment 3: (214) 605-7578

Nighttime: Mayo Espita (972) 480-2257

**APPLICABLE PROJECT SUPERINTENDENT**

Segment 1
Charlie Liebl
Day: (972) 239-2471
Cell: (281) 924-4272

Segment 2
Pete Day
Day: (972) 239-2471
Cell: (972) 689-8609

Segment 3
Jeff Sellers
Day: (972) 239-2471
Cell: (972) 841-4629
CHEMICAL SPILL PROCEDURES

The following will be implemented in case of a chemical spill.

- The spill will be reported as soon as possible to the Hazardous Materials Manager as to what type of chemical and how much was spilled.
- All work shall stop in the immediate area of the spill.
- The Hazardous Materials Manager will evaluate the spill and utilize the best available containment method. The team supervisor will see that the correct employee PPE is used in the containment procedure.
- The Hazardous Materials Manager will be responsible for reporting the spill to the Trinity Safety Department, ECM and Segment Manager.
- Work may resume as soon as the spilled chemical has been removed from the area and it is deemed safe to return by the Hazardous Materials Manager and Safety Department.

SEVERE WEATHER EVACUATION PROCEDURE

In case a severe weather alert is issued, the following procedure will be implemented:

- In case of severe weather, Trinity will notify the Contractors and advise them of the threat level. If the threat is:
  - Moderate – Field crews will be told to standby.
  - Severe – Field crews will be ordered to stop work immediately.

- Contractors will inform all crews, including subcontractors of the alert to stop work.
- Each contractor will inform all of their field employees to stop work immediately and move quickly to a safe location where supervisors will take a headcount of their crews. Any missing employees will be reported immediately to the supervisor.
- Once all employees are accounted for, they will be directed to evacuate the site.
- Employees shall not return to the jobsite until each contractor has been notified by Trinity that it is safe to do so.

PERSONNEL EMERGENCY PROCEDURE

In case of an employee injury on site, the following procedure will be implemented:
- Immediate supervisor will be notified.
- If the injury requires immediate medical attention, the supervisor will call 911. The supervisor will follow their company’s notification policy as well as notify the
• Trinity Segment Safety Officer of the accident and the severity of the injury. The Trinity Project Superintendent shall then be notified.  
• The supervisor will stop all work in the area of the accident and ensure that it is safe to administer medical assistance. Once the area is clear, qualified crew members will provide first aid and CPR as necessary until EMS arrives.  
• Should the situation require evacuating the area, all employees will meet at an upwind safe area determined by the Supervisor on scene and/or the Trinity Safety Officer. All foremen will conduct a head count and report to their supervisor if any are missing.  
• Rescue vehicles will be directed by a designated person to the incident site.  

**FIRE EMERGENCY**  
The procedures for a fire on site are as follows:  
• Fire extinguishers will be located throughout the jobsite wherever there is a potential fire hazard.  
• If a fire cannot be immediately extinguished with a portable fire extinguisher, the Supervisor on scene will immediately call 911.  
• The Supervisor on scene will designate an employee or employees to direct emergency equipment onto the site.  
• All employees shall leave the area until the fire is out, the emergency equipment has left and the Safety Officer has determined that it is safe to return to the area.  

**EMERGENCIES INVOLVING THE PUBLIC, PROPERTY and UTILITY DAMAGE**  
Any emergency involving the public (pedestrians), property damage and/or utility damage requires that the Supervisor on scene immediately notify 911, if necessary, and a Trinity Safety Officer.  

Notification of damaged utilities shall be made to the proper utility company:  
Gas Lines         ATMOS Energy (866) 322-8667  
Power Lines       ONCOR (888) 313-4747  
Water Lines       Dallas 311  
                 Farmers Branch (972) 484-3620  

**BOMB THREATS, TERRORIST THREATS and WORKPLACE VIOLENCE**  
In the event of a bomb or terrorist threat, or a workplace violence situation, the severe weather evacuation procedure will go into effect.  

**PUBLIC DEMONSTRATION EMERGENCIES**  
In case of public demonstration emergencies, the severe weather evacuation procedure will go into effect.
IN THE EVENT OF A SERIOUS EMPLOYEE INJURY

1. Determine the extent and nature of the injuries.

2. Find out immediately where the person is being taken.

3. Determine the most appropriate person to call the spouse/family. That individual explains that there has been an accident and that the employee has been injured, but does not discuss the severity of the injuries. If the spouse/family asks about the severity of the injuries, the response should be: "We can’t be certain of the extent of the injuries until we hear from a doctor."

4. Advise the family that a cab is arriving momentarily to take them to the medical facility. Discourage anyone from driving themselves unless someone absolutely insists.

4. If necessary, send an employee to the injured employee’s house to lend assistance. This help may include offering a ride to the hospital (if a cab was not used) or finding someone to watch the children (if applicable).

5. The team leader assigns someone to stay in contact with the hospital to monitor the injured person’s condition.

NOTE: If the injury involves a non-employee, the authorities should be consulted about notification procedures.
IN THE EVENT OF AN EMPLOYEE FATALITY

1. Make a "best effort" to inform the spouse/family in person of the accident. If it is not possible to make a face-to-face notification, a member of the clergy or a police officer may be a possible candidate. The goal is to notify the spouse/family quickly. A phone call is a last resort because of its impersonal nature.

2. The designated company representative remains at the employee’s home until other family members arrive or for as long as he or she can.

3. The media may attempt to contact a family member. You cannot prevent them from talking to the media. It is their right to speak to the media if they wish.

4. Determine whether the employee’s family is in need of money to cover small expenses. If so, it may be appropriate to provide assistance in this area.

5. Maintain contact with a relative or close friend of the spouse or family to ensure that funeral arrangements and related items are being handled. The family may wish to visit the site prior to, or immediately following, the funeral. The company should make arrangements for this visit to occur.
PROJECT DATA SHEET

Project: IH 635 Managed Lanes

Address: 5520 LBJ Freeway, Ste. 150
Dallas, TX  75240
(972) 239-2471

Construction Manager: Luis Munoz
Day: (972) 239-2471
Mobile: (214) 557-7891

CEO: Mario Mostoles Nieto
Day: (972) 239-2471
Mobile: (512) 940-6246

Developer: LBJ Infrastructure Group
4100 McEwen, Ste. 110
Dallas, TX  75244
(972) 239-5000

Hospitals and Urgent Care Facilities:
Medical City
7777 Forest Lane
Dallas, Texas  75230
(972) 566-7000

Concentra Medical Center
15810 Midway Road
Addison, Texas  75001
(972) 458-8111

Dallas Medical Center
8 Medical Parkway
Farmers Branch, Texas  75234
(972) 484-2603

Concentra Medical Center
2920 N. Stemmons Freeway
Dallas, Texas  75247
(214) 630-2331

Nova Medical Center
8267 Elmbrook Drive, Suite 100
Dallas, TX  75247
(214) 350-9800

US Health Works
1450 Empire Central, Suite 100
Dallas, TX  75247
(214) 905-5000
POSITIVE PERFORMANCE PROCESS

The goal of the I-635 Managed Lanes Project is to incur 0 injuries and 0 accidents. In order to meet this achievable goal, positive performance measures (PPMs) have been established to quantify and evaluate the effectiveness of the overall project safety program. The project safety program encompasses your company’s safety plan, the site-specific Construction Safety Plan and all rules and regulations that impact and apply to our operations.

The objective of this process is to seek continuous improvement of the overall project safety program.

If your company has established PPMs that go beyond what is listed in this document, your responsibility to meet them will remain intact. If your company has established PPMs that conflict with the PPMs outlined in this document, the stricter PPM will take precedence.

The goal is achievable, however all parties have a responsibility for playing a role in the implementation of this process within each of our organizations. The overall effectiveness of this process hinges on everyone seeing the value of the end result, i.e. 0 accidents and 0 incidents, and the benefits associated with meeting these goals. We all want to achieve 0 accidents and 0 incidents, but it requires a firm commitment to the process by all parties.

Table 1 outlines the PPMs that have been established for the I-635 Managed Lanes Project. Documentation plays a vital role in tracking the performance measures. Documentation must be submitted to the Trinity Infrastructure Safety Department on a timely basis where it will be reviewed and evaluated, then filed into the Document Control System. Image 1 provides an illustration of the process flow that has been established.

Incomplete or missing documentation will be communicated in writing by the Segment Safety Manager to you, the Contractor for correction. Documentation that cycles through the process flow as incomplete a second time or documentation that is not being turned in on time, will be communicated in writing from the Segment Manager and Safety Director to you, the Contractor for immediate correction. Failure to get complete documentation submitted to Trinity Infrastructure on time may constitute a default of the Contractor’s obligations under Attachment C, Trinity’s Supplemental Safety Requirements.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Leading Indicator</th>
<th>Measure/Monitor</th>
<th>Results</th>
<th>Improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>All activities subject to pre-job hazard analyses (JHA)</td>
<td>Risk assessment</td>
<td>% JHAs complete</td>
<td>Track reported % on a weekly basis by crew</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% Control measures listed on JHA implemented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written hazard assessment and work procedures in place for critical and/or high hazard activities</td>
<td>Work procedures and planning</td>
<td>% Written hazard assessments and work procedures complete</td>
<td>Track reported % on a monthly basis by Project Manager</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
</tr>
<tr>
<td>Safe work place</td>
<td>Weekly inspection of all work areas</td>
<td>% Inspections completed weekly by each supervisor</td>
<td>Track reported % on a monthly basis by supervisor, DCP and DQP</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
</tr>
<tr>
<td></td>
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<td>% inspections completed daily by DCP or DQP</td>
<td>Track reported % on a quarterly basis by DCP</td>
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<tr>
<td></td>
<td>Daily inspection of List A items</td>
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<td></td>
<td>Monthly inspection of List B items</td>
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<td></td>
<td>Quarterly inspection of List C items</td>
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<td></td>
<td>Annual inspection of List D items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe work practices of employees</td>
<td>Daily behavior-based observations</td>
<td>% Crews working safely / following rules</td>
<td>Track reported % on a monthly basis by crew</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
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<tr>
<td></td>
<td></td>
<td>% PPE compliance</td>
<td></td>
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<tr>
<td>Incident reporting, investigation and remedial measures</td>
<td>Timeliness of reporting</td>
<td>% Incidents reported by end of shift</td>
<td>Track reported % on a monthly basis by crew/department</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
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<tr>
<td></td>
<td>Incident investigation effectiveness</td>
<td>% Incident investigations completed on time</td>
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<td></td>
<td>Log of corrective actions</td>
<td>% Corrective actions implemented</td>
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<tr>
<td>Worker training</td>
<td>Needs assessment</td>
<td>% Needs assessments complete</td>
<td>Track reported % on a monthly basis by crew/department</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement.</td>
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<tr>
<td></td>
<td>Required training identification</td>
<td>% Required training complete</td>
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<td></td>
<td>Training records</td>
<td>% Training up-to-date</td>
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<tr>
<td>Continuous safety awareness</td>
<td>Weekly toolbox talks on trade-specific or targeted topics conducted by</td>
<td>% Tool Box Talks complete by crew</td>
<td>Track reported % on a weekly basis by crew</td>
<td>Review of progress monthly by Contractor Management. Target areas for improvement</td>
</tr>
</tbody>
</table>
# ASSEMBLY/DISASSEMBLY (A/D) DIRECTOR DESIGNATION

<table>
<thead>
<tr>
<th>PROJECT:</th>
<th>IH-635 Managed Lanes</th>
<th>GENERAL CONTRACTOR:</th>
<th>Trinity Infrastructure, LLC</th>
<th>DATE:</th>
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<tbody>
<tr>
<td>CONTRACTOR:</td>
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<td>EMPLOYEE:</td>
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As an Authorized Representative of the above named Contractor, I hereby appoint the above mentioned Employee as an A/D Director.

An A/D Director is one who meets the criteria for both a Competent Person and a Qualified Person, and is responsible for directing or performing crane assembly/disassembly (A/D) operations. This individual must meet the requirements of 29 CFR § 1926.1404.

The Occupational Safety and Health Administration (OSHA) defines a Competent Person as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, AND who has authorization to take prompt corrective measures to eliminate them".

A Qualified Person is an individual, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, can continually demonstrate the ability to successfully solve/resolve problems relating to the equipment, the work and the environment.

**NOTE** – A Competent Person Designation form must be submitted to the Trinity Safety Department with this form.

I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is terminated or is removed from the Project, I will provide a written notification to the General Contractor within 2 business days.

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<th>AUTHORIZED CONTRACTOR REPRESENTATIVE</th>
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Please indicate if applicable:
- [ ] This employee is a Supervisor
- [ ] This employee is a Company Safety Representative
CRANE OPERATOR DESIGNATION

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<tr>
<th>PROJECT:</th>
<th>H-635 Managed Lanes</th>
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As an Authorized Representative of the above named Contractor, I hereby appoint the above mentioned Employee as an Operator of a crane.

The Occupational Safety and Health Administration (OSHA) at this time requires that an Operator of a crane be qualified or certified. OSHA defines a qualified person as one “who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrates the ability to solve/resolve problems relating to the subject matter, the work, or the project”. A certified “OPERATOR” of a crane is one who has completed a formal training program through an accredited crane operator testing organization and who has passed tests in both knowledge and skill for a particular type and capacity of equipment.

**Interim Option** – Phase-in (§1926.1427(k))

**Option 1** – Certification by an Accredited Crane Operator Testing Organization (§1926.1427(b))

Name of Accredited Organization: ____________________________

**Option 2** – Qualification by an Audited Employer Program (AEP) (§1926.1427(o))

**Option A** – Accredited Organization that developed the AEP: ____________________________

**Option B** – Certified Auditor (cannot be employee of Contractor): ____________________________

Accredited Organization that Certified Auditor: ____________________________

ACKNOWLEDGEMENT

I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is terminated or is removed from the Project, I will provide a written notification to the General Contractor within 2 business days.

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Please indicate if applicable:

- [ ] This employee is a Supervisor
- [ ] This individual is an employee of a subcontractor to the Contractor under contract with Trinity Infrastructure
CRANE-SPECIFIC QUALIFIED PERSON DESIGNATION

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<tr>
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As an Authorized Representative of the above named Contractor, I hereby appoint the above mentioned Employee as a Qualified Person.

A Qualified Person is an individual, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, can continually demonstrate the ability to successfully solve/resolve problems relating to the equipment, the work and the environment.

**POSITIONS OF RESPONSIBILITY INDIVIDUAL IS QUALIFIED** (Please indicate all that apply)

- **Rigger**
- **Signal Person (§ 1926.1428)**
  - **Option 1** – Qualification determined by Third Party Qualified Evaluator
    - Name of Third Party: _____________________________
  - **Option 2** – Qualification determined by “CONTRACTOR” Qualified Evaluator

- **Maintenance and Repair Employee (§ 1926.1429)**

  I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is terminated or is removed from the Project, I will provide a written notification to the General Contractor within 2 business days.

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Please indicate if applicable:
- [ ] This employee is a Supervisor
- [ ] This individual is an employee of a subcontractor to the Contractor under contract with Trinity Infrastructure
FLAGGER DESIGNATION

PROJECT: IH-635 Managed Lanes  GENERAL CONTRACTOR: Trinity Infrastructure, LLC  DATE: 

CONTRACTOR:  EMPLOYEE: 

As an Authorized Representative of the above named Contractor, I hereby appoint the above mentioned Employee as a Certified Flagger.

The Texas Department of Transportation (TxDOT) defines a Flagger as one who is qualified to perform flagging duties, that is follow the flagging procedures set forth in the TMUTCD, direct traffic and effectively communicate with the public in a courteous manner AND is independently certified by a TxDOT-approved organization or trained by a Certified Flagging Instructor representing the Contractor.

TxDOT APPROVED ORGANIZATION or CERTIFIED INSTRUCTOR (Please indicate)

Texas Engineering Extension Service
American Traffic Safety Services Association
National Safety Council
Other Approved Organization: ____________________________

* Note: Copy of certificate must be provided to the Trinity Safety Department with this form.

Certified Flagging Instructor representing the Contractor

Instructor’s Name: ____________________________

Certifying Organization: ____________________________

Date of Instructor’s Certification: ____________________________

I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is terminated or is removed from the Project, I will provide a written notification to the General Contractor within 2 business days.

AUTHORIZED CONTRACTOR REPRESENTATIVE  DATE

Print

Sign

EMPLOYEE ACKNOWLEDGEMENT OF THIS DESIGNATION  DATE

Print

Sign

Please indicate if applicable:

☐ This employee is a Supervisor
☐ This employee is a Company Safety Representative
☐ This individual is an employee of a subcontractor to the Contractor under contract with Trinity Infrastructure
OPERATOR DESIGNATION

PROJECT: IH-635 Managed Lanes  GENERAL CONTRACTOR: Trinity Infrastructure, LLC  DATE:

CONTRACTOR:  EMPLOYEE:

As an Authorized Representative of the above named Contractor, I hereby appoint the above mentioned Employee as an Operator.

The Occupational Safety and Health Administration (OSHA) requires that an Operator be qualified or certified, dependent upon the type of equipment to be operated.

A qualified Operator is an individual, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, can continually demonstrate the ability to successfully solve/resolve problems relating to the equipment, the work and the environment.

A certified Operator is one who has completed a formal training program through an accredited operator testing organization and who has passed tests in both knowledge and skill for a particular type and capacity of equipment.

<p>| TYPES OF EQUIPMENT EMPLOYEE IS AUTHORIZED TO OPERATE (Please complete as appropriate) |
|---------------------------------------------|-----------------|-----------------|------------------|</p>
<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAKES</th>
<th>MODEL/CAPACITY</th>
<th>QUALIFIED/CERTIFIED* THRU</th>
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* Copy of certificate or license must be provided to the Trinity Safety Department with this form.

ADDITIONAL INFORMATION FOR CRANE OPERATORS (Please Indicate)

Certification by an accredited crane operator testing organization

Qualification by an audited employer program

Exception permitted under 1926.1947(k)(2)**

** A Competent Person Designation form must be submitted to the Trinity Safety Department with this form.

I, the Authorized Contractor Representative, understand that if at any point in the future this Employee loses this designation, is terminated or is removed from the Project, I will provide a written notification to the General Contractor within 2 business days.

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Please indicate if applicable:
SUBCONTRACTOR ACKNOWLEDGEMENT

<table>
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<tr>
<th>PROJECT:</th>
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<th>Trinity Infrastructure, LLC</th>
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<tr>
<th>CONTRACTOR:</th>
<th>SUBCONTRACTOR:</th>
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As an Authorized Representative of the above named Contractor, I acknowledge that I must communicate to the Trinity Infrastructure Safety Department my company’s intention to bring onto the Project the above named Subcontractor to perform work for which my company was contracted to complete.

Additionally I acknowledge that the following responsibilities are required:

**BY THE CONTRACTOR**
- Promotion of Safety and Health and the Project Safety Program with the Subcontractor
- Enforcement of all Project rules with the Subcontractor
- Enforcement of all applicable jurisdictional rules and regulations with the Subcontractor
- Collection of all required documentation from the Subcontractor
- Report of all accidents, incidents and injuries by the Subcontractor to Trinity in the time frame required

**BY THE SUBCONTRACTOR**
- Completion of all Project-required orientations by all employees
- Adherence to all Contractor and Project rules, policies and procedures
- Adherence to all applicable jurisdictional rules and regulations
- Completion of all Project-required paperwork at the frequency required
- Report of all accidents, incidents and injuries to the Contractor in the time frame required

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<tr>
<th>AUTHORIZED SUBCONTRACTOR REPRESENTATIVE</th>
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</table>
REQUIRED CONTRACTOR DOCUMENTATION

Company Safety Manual
Company Hazard Communication Program
Material Safety Data Sheets (MSDS)
Company Safety Department contact information
Drug Screen Declaration on company letterhead

SUMMARY OF BASIC CONTRACTOR SAFETY REQUIREMENTS

- Company-designated Competent Persons for specific areas of responsibility must be identified on the form provided. (Pre-Construction / as applicable)
- Company-designated Operators must be identified on the form provided. (Pre-Construction / as applicable)
- Company-designated Qualified and Certified Flaggers must be identified on the form provided. Submit forms to the Trinity Safety Department. The uniform requirement for these individuals is class III apparel. (Pre-Construction / as applicable)
- In regard to cranes and derricks, company-designated A/D Directors (Assembly/Disassembly) must be identified on the form provided. (Pre-Construction / as applicable)
- In regard to cranes, company-designated Qualified Riggers, Qualified Signal Persons and Qualified Maintenance Personnel must be identified on the form provided. (Pre-Construction / as applicable)
- The minimum required PPE for all personnel is an ANSI-approved hardhat, safety glasses and class III high-visibility safety vest, and sturdy leather work shoe with a defined heel. No sleeveless shirts or cowboy-style hard hats will be permitted. Hardhats must be worn / assembled appropriately and have the employee’s and company’s name on the front.
- All employees on the jobsite must have their Trinity Infrastructure-issued badge with them at all times (an indicator that the employee has attended the Trinity Infrastructure Safety Orientation). No one is allowed on the jobsite without their badge.
- Each crew must have at least 1 member who has a current certificate in first aid and CPR.
- When outdoor temperature in work area exceeds 85 degrees Fahrenheit, one or more areas with shade must be provided and maintained at all times while employees are present.
- All visitors, vendors, mechanics, etc., who enter the jobsite must meet the minimum requirements for PPE and follow all OSHA regulations that pertain to their industry and obey all posted project notifications. All visitors must be escorted by a person with a valid, project-issued badge. Trinity must be notified regarding all visitors to the site.
- All hazards created or encountered must be protected daily and ongoing for the duration of the project. You are responsible for providing all materials necessary to protect the hazards, e.g. impalement protection, t-posts and fencing, lumber, etc.
- All equipment movement on open public roadways must be escorted by a company vehicle. An orange “slow moving” triangle is required for all unlicensed rubber tire equipment when such equipment must operate on the roadway.
- All vehicles and equipment must be equipped with functioning amber rotating beacon lights or strobes.
- Traffic control that meets applicable requirements must be provided when your work impedes or interferes with public ROW.
- Operators of rubber tire equipment that will be driven on open public roadways must have a valid driver’s license.
- All company vehicles must be placarded on both sides with the company’s name.
- Hot work permits are required by the City of Dallas and must be obtained prior to the start date.
- All accidents must be reported to the Trinity Infrastructure Safety Department immediately. The Trinity Safety Department will make notification to the appropriate Trinity personnel. A post-accident drug test must be conducted.

ADDITIONAL REQUIREMENTS

- A documented Job Hazard Analysis must be completed by each crew, DAILY.
- A documented pre-shift briefing with the DART rail flagman and the BNSF rail flagman must be attended by each crew supervisor, DAILY (when applicable).
- A documented pre-shift equipment inspection conducted by the operator, DAILY.
- A documented pre-shift crane inspection conducted by the operator, DAILY.
- A documented pre-shift inspection of excavations, confined spaces, traffic control devices, running and standing wire ropes and scaffolding conducted by a company-designated “Competent Person”, DAILY.
- A documented trade-specific “Tool-box” safety meeting conducted by each crew, WEEKLY.
- Confined Space Evaluation (5A-19), DAILY (when applicable).
- Excavation Inspection (5A-21), DAILY (when applicable).
- Close Proximity Permit (5A-15), DAILY (when applicable).
- Surface Penetration Permit (5A-18), DAILY (when applicable).
Communication Process Flow

First supervisor on scene of accident/incident that is a threat to life, property and/or the environment.

Communication flow for incidents/accidents called directly into the TMC.
For further information regarding the document control process, please reference PMP Chapter 2B, Appendix 2B.2, PPM 1.3.
### DEFINITIONS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Activity</td>
<td>Any particular activity that is part of a critical path that takes place within the project schedule.</td>
</tr>
<tr>
<td>Critical Path</td>
<td>A sequence of tasks in a project wherein none of the tasks can be delayed without affecting the final project end date.</td>
</tr>
<tr>
<td>DCP</td>
<td>Designated Competent Person. This is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, AND who has authorization to take prompt corrective measures to eliminate them.</td>
</tr>
<tr>
<td>DQP</td>
<td>Designated Qualified Person. This is an individual, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, can continually demonstrate the ability to successfully solve/resolve problems relating to the equipment, the work and the environment.</td>
</tr>
<tr>
<td>High Hazard Activity</td>
<td>Any particular activity that presents a high level of risk of harm to personnel, equipment, property or the public, e.g. work near overhead power lines, steel erection, work over water, work in confined spaces, demolition, etc.</td>
</tr>
<tr>
<td>List A Items</td>
<td>Excavations, trenches, open shafts, confined spaces, scaffolds, all heavy equipment, construction vehicles, wire rope, barricades, protection systems, fencing</td>
</tr>
<tr>
<td>List B Items</td>
<td>Fire protection equipment, cranes, derricks, wire rope</td>
</tr>
<tr>
<td>List C Items</td>
<td>Electrical, ladders, rigging, personal fall arrest system components</td>
</tr>
<tr>
<td>List D Items</td>
<td>Cranes, derricks, construction vehicles, fire protection equipment, and wire rope</td>
</tr>
</tbody>
</table>
# IDENTIFYING ROOT CAUSE and CORRECTIVE ACTIONS

Manager / Supervisor: _____________________  Trinity / Contractor: ______________

<table>
<thead>
<tr>
<th>YES/NO</th>
<th>Root Causes Causal Factors</th>
<th>Possible Corrective Actions</th>
<th>Recommended Corrective Action</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>Was a Manpower element a contributing cause?</td>
<td>Improve supervisor capability in hazard recognition/verification and reporting procedures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Was there a failure by supervision to detect, anticipate, or report a hazardous condition?</td>
<td>Improve supervisor capability in hazard recognition/verification and reporting procedures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Was there a failure by supervision to detect or correct deviations from job procedures?</td>
<td>Review job safety analysis and job procedures. Increase supervisor monitoring. Correct deviations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Did employee(s) know that wearing specified PPE was required?</td>
<td>Review job procedures. Improve job instruction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Did employee(s) know how to use and maintain the PPE?</td>
<td>Improve job instruction. Review PPE training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Did employee(s) know the job procedure?</td>
<td>Determine why. Encourage all employees to report problems with an established procedure to supervision. Review job procedure and modify if necessary. Counsel or discipline employees. Provide closer supervision.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>Did employee(s) deviate from the known procedure?</td>
<td>Review employee requirements for the job. Improve employee selection and training.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7</td>
<td>Was employee(s) mentally and physically not capable of performing the job?</td>
<td>Review employee requirements for the job. Improve employee selection. Remove or transfer employees who are temporarily, either mentally or physically, incapable of performing the job.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>Was MATERIALS or lack of, a contributing factor?</td>
<td>Specify correct equipment/tool(s)/Material or job procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Was the wrong equipment – tool(s)/material used?</td>
<td>Specify correct equipment/tool(s)/Material or job procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Was the correct equipment – tool(s)/material not provided?</td>
<td>Provide correct equipment/tool(s)/material. Review purchasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>------</td>
<td>-------------</td>
<td></td>
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</tr>
</tbody>
</table>
| 2.3  | Was proper personal protective equipment (PPE) specified for the task or job?  
Review methods to specify PPE requirements. Review PPE assessment study see SP-039 – Section 7 page 24. |
| 2.4  | Was appropriate PPE available?  
Provide appropriate PPE. Review purchasing and distribution procedures. |
| 2.5  | Was the PPE adequate?  
Review PPE requirements. Check standards, specifications, and certification of the PPE. |
| 3.0  | Was a METHOD or lack of a method a contributing cause?  
Review each question and if “yes”, complete each row, and proceed to the next question. |
| 3.1  | Did the location/position of equipment/material/employee contribute to a hazardous condition?  
Perform job safety analysis.  
Change the location, position, or layout of the equipment.  
Change position of employee(s).  
Provide guardrails, barricades, barriers, warning lights, signs, or signals. |
| 3.2  | Was employee(s) informed of the hazardous condition(s) and the job procedures for dealing with it as an interim measure?  
Review job procedures for hazard avoidance. Review supervisory responsibility. Improve supervisor-employee communications. Take action to remove or minimize hazard. |
| 3.3  | Was employee(s) supposed to be in the vicinity of the equipment/material?  
Review job procedures and instruction. Provide guardrails, barricades, barriers, warning lights, signs, or signals. |
| 3.4  | Were there written or known procedures (rules) for this job?  
Perform job safety analysis and change job procedure. |
| 3.5  | Did job procedures anticipate the factors that contributed to the accident?  
Perform job safety analysis and change job procedures. |
| 3.6  | Were any tasks in the job procedure too difficult to perform (for example, excessive concentration or physical demands)?  
Change job design and procedure. |
| 3.7  | Is the job structured to encourage or require deviation from job procedures.  
Change job design and procedures. |
| 3.8  | Was the PPE, if necessary / allowed properly used when the injury occurred?  
Determine why and take appropriate action. Implement procedures to monitor and enforce use of PPE. |
<table>
<thead>
<tr>
<th>Employee review of hazards of job procedures?</th>
<th>Job procedures (preventive actions) for task performed infrequently.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.10 Was supervisor adequately trained to fulfill assigned responsibility in accident prevention?</td>
<td>Train supervisors in accident prevention fundamentals.</td>
</tr>
<tr>
<td>3.11 Was there a failure to initiate corrective action for a known hazardous conditions that contributed to this accident?</td>
<td>Review management safety policy and level of risk acceptance. Establish priorities based on potential severity and probability of recurrence. Review procedure and responsibility to initiate and carry out corrective actions. Monitor progress.</td>
</tr>
<tr>
<td>3.12 List other causal factors in “Comment” Section.</td>
<td></td>
</tr>
</tbody>
</table>

4.0 Was a condition of a MACHINE(s) a contributing cause?  
Review each question and if “yes”, complete each row, and proceed to the next question.

<table>
<thead>
<tr>
<th>4.1 Did any defect(s) in equipment/tool/material contribute to hazardous conditions?</th>
<th>Review procedure for inspecting, reporting, maintaining, repairing, replacing, or recalling defective equipment/tool(s) or material used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Did the design of the equipment/tool create employee stress or encourage employee error?</td>
<td>Review human factors engineering principles. Purchase equipment/tools that are ergonomically designed. Review purchasing procedures and specifications. Check out new equipment and job procedures involving new equipment before putting into service. Encourage employee to report potential hazardous conditions created by equipment design.</td>
</tr>
<tr>
<td>4.3 List other causal factors in “Comment” Section.</td>
<td></td>
</tr>
</tbody>
</table>

5.0 Was an ENVIRONMENTAL element a contributing factor?  
Review each question and if it applies, complete each, row and proceed to the next question.

<table>
<thead>
<tr>
<th>5.1 Was the hazardous condition created by the location/position of equipment/material not visible to employee(s)?</th>
<th>Change lighting or layout to increase visibility of equipment. Provide guardrails, barricades, barriers, warning lights, signs, or signals, floor stripes, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2 Was there insufficient work space?</td>
<td>Review workspace requirements and modify as required.</td>
</tr>
<tr>
<td>5.3 Were environmental</td>
<td>Monitor, or periodically check, environmental conditions as</td>
</tr>
</tbody>
</table>
such as: poor or no illumination, high noise levels, air contaminants, low/high temperature extremes, poor ventilation, vibration, radiation?

for those found unacceptable.

| 5.4 List other causal factors in “Comment” Section |
|-----------------------------------------------|---|---|---|---|

**COMMENTS**
**Budget**

We obtain that the direct cost for the Webb Chapel Road Bridge is $2,951,353.38. In order to obtain the real budget we need to add indirect costs and also the profit expected.

- Indirect cost:
  - Running (10%) = $295,135.338
  - Overhead (3%) = $88,540.60
- Profit (6%) = $177,081.201

TOTAL BUDGET = $3,512,110.519

For more detail about the budget, all the detailed information is in Document 4.