



Potomac River Generating Station Abatement & Deconstruction Plan

Balfour Beatty



Table of Contents

- Tab 1** Schedule and Methods for Deconstruction
- Schedule Overview
 - Permits by Sequence
-

- Tab 2** Dust Mitigation Plan
-

- Tab 3** Noise Control
-

- Tab 4** Regulated Materials and Scrap Metals Removal, Packaging, and Transportation
-

- Tab 5** Construction Management Plan
- Site Logistics Plan
 - Truck Route for City of Alexandria
-

- Tab 6** Health and Safety Plan

Balfour Beatty



Tab 1

Schedule and Methods for Deconstruction

- Schedule Overview
- Permits by Sequence

Schedule and Method for Deconstruction of Key Structures

Project Background

The Potomac River Generating Station (PRGS) is the former coal-fired powerplant located in the Old Town North (OTN) neighborhood of Alexandria. It was owned by GenOn Energy and was decommissioned in 2012 after 63 years of operation.

The PRGS Redevelopment will transform the location from a closed-off former industrial site into a vibrant, urban, mixed-use community that could include office, residential, arts, hotel, entertainment, retail, restaurant, and open park space.



Schedule and Method for Deconstruction of Key Structures

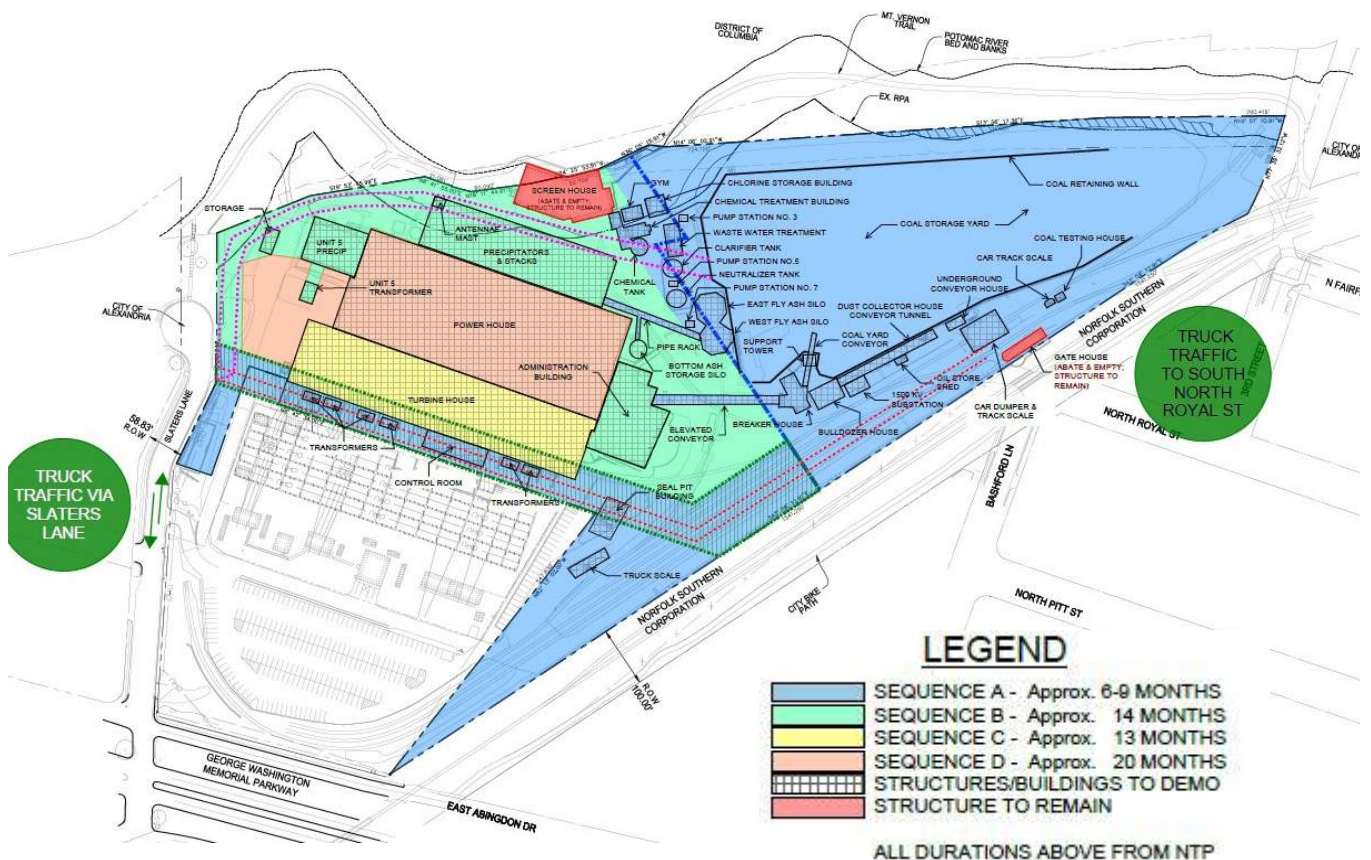
Deconstruction

Balfour Beatty and the selected deconstruction subcontractor plan to sequence the project into four (4) sequences with some over-lap between sequences. The project is anticipating approximately 20 months of deconstruction. Cut and caps of existing utilities will be preceding the start of deconstruction. Generally, abatement work will begin in all four sequences upon commencement of the project with sequence A and B completing abatement first followed by sequences C and D. Deconstruction work will generally work South to North starting in sequence A (coal yard and auxiliary buildings) and finishing with Sequence D. See sequencing figure 1 below.

Types of Equipment used in Deconstruction (not limited to):

- Liebherr 9150 High-Reach Excavator with Universal Processor (UP)/Shear (160' Reach)
- Komatsu PC1250 Excavator(s) with 3rd Member Shear
- 330 ton lattice boom crawler crane
- CAT 390 (190,000#) excavator equipped with shear, grapple, concrete hammer or concrete pulverizer
- CAT 980 Loader, CAT D6 Dozer, CAT 773 Off-the-road trucks, CAT Vibratory Roller
- Komatsu 1250 (250,000#) excavator equipped with a high reach boom and shear attachment
- Skid steer(s), Gantry Crane, Forklift(s)
- Komatsu PC 200 Excavator(s) with Bucket & Thumb

Figure 1— General Sequencing

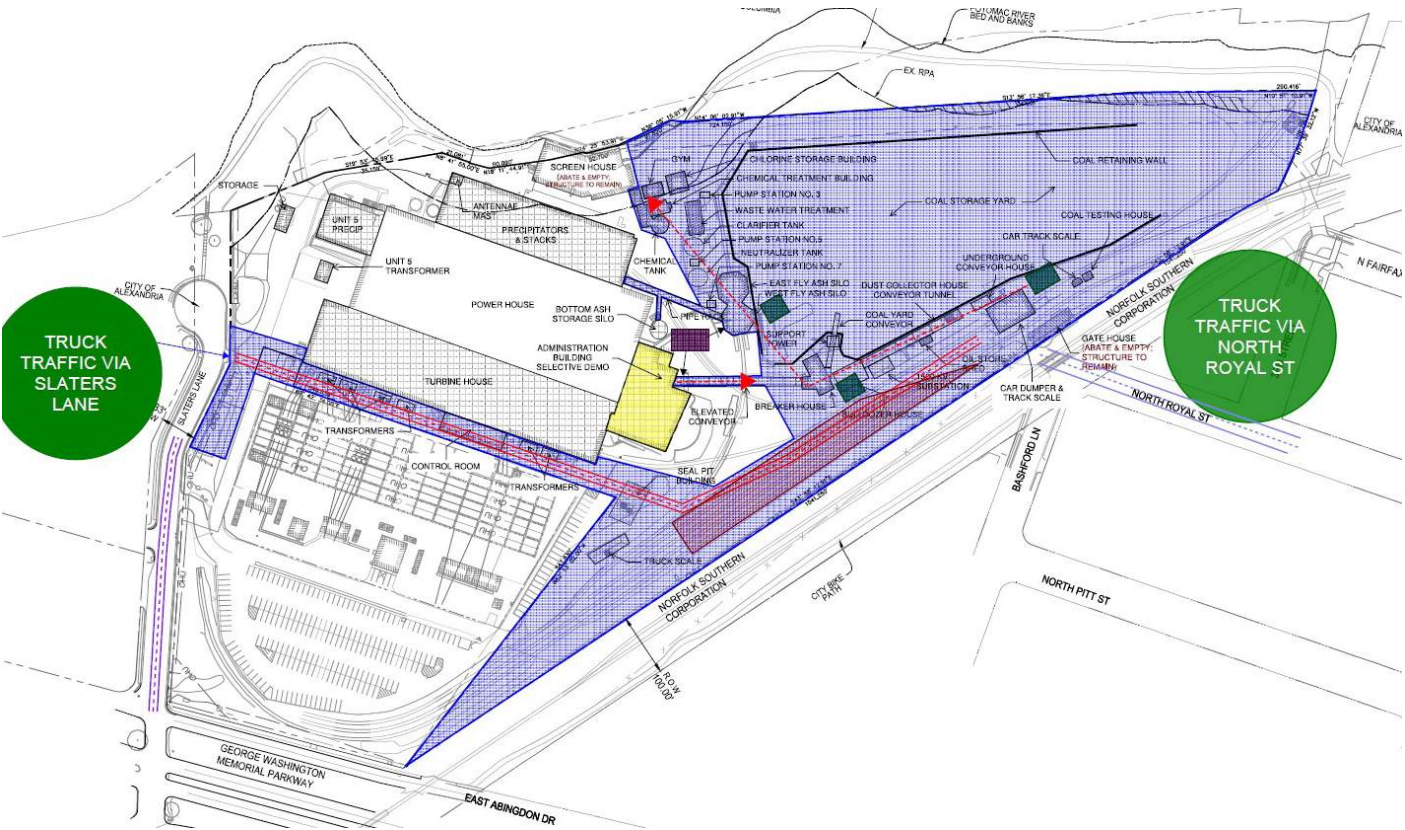


Schedule and Method for Deconstruction of Key Structures

Sequence A – Approximately 6-9 Months

Sequence A will consist of abatement work (reference attached permit sheet) and followed by deconstruction of structures within the area designated as sequence A. The deconstruction will be performed by mechanical dismantling methods with the use of Long Arm and High Reach excavator deconstruction equipment with additional support equipment to process and remove the deconstruction materials.

Figure 2 — Sequence A



LEGEND:

- Sequence A
- Job Trailer and Equipment Staging
- Spline Road
- Truck Traffic
- Previously Demolished:
- Direction of Demolition: ➔
- High Reach Excavator-
- Standard Excavator-

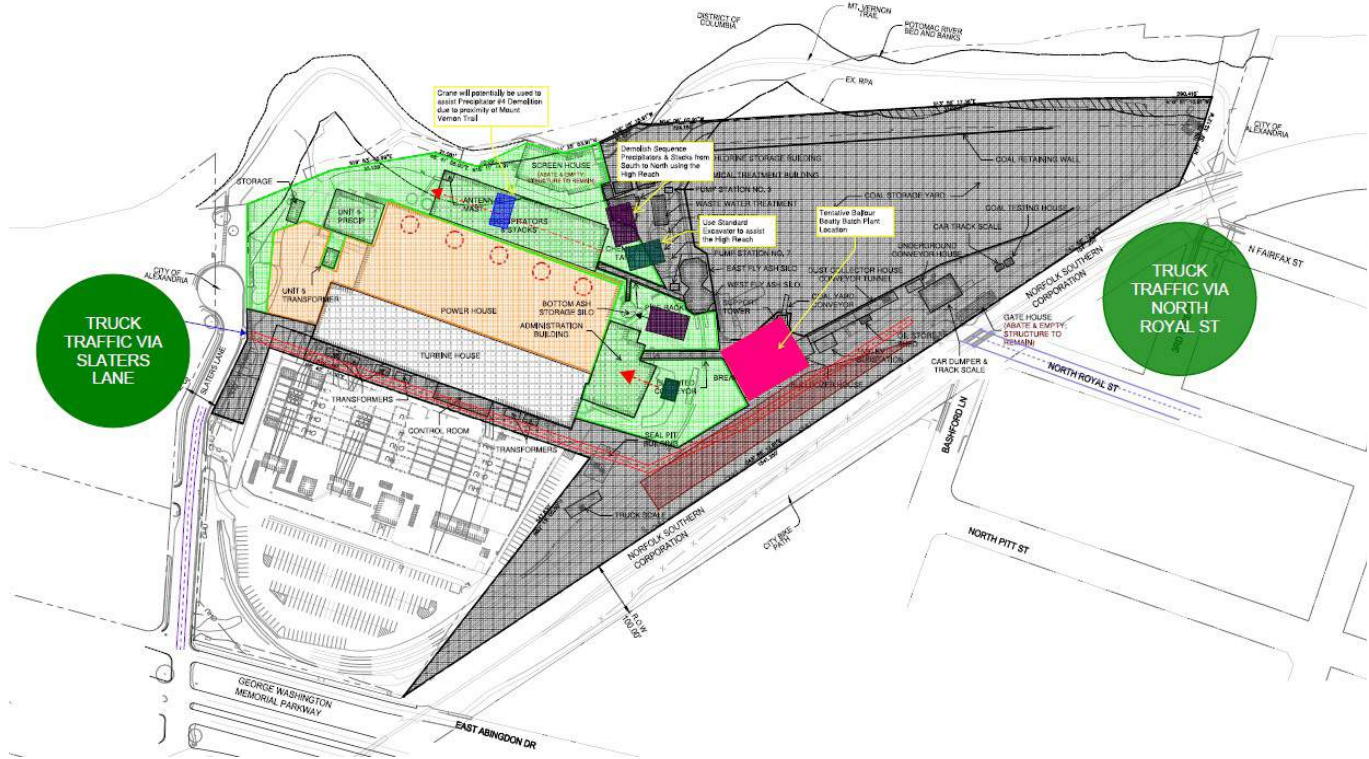
Schedule and Method for Deconstruction of Key Structures

Sequence B – Approximately 14 Months

Sequence B will include structures adjacent to the brick power house such as the electrostatic precipitators, brick smokestacks, and administration building. Abatement and regulated waste removal will commence Sequence B, to clear the precipitators, smokestacks, administration building, screen house and silos in preparation of deconstruction. Deconstruction will include but is not limited to the deconstruction of the precipitators, stacks and Admin building. Mechanical dismantling methods will be implemented using a combination of equipment such as cranes, long-arm excavator, high reach excavator, and support equipment. During Sequence B deconstruction, at times a pedestrian control plan will be implemented to ensure the safety of those using the Mount Vernon Trail. The pedestrian control plan will identify trail detour plans as well as flagger locations to direct and inform trailer users of temporary closures due to deconstruction work. Further coordination with City of Alexandria, National Park Services and other stakeholders will occur as the pedestrian control plan is further developed.

Figure 3 — Sequence B

Sequence B&Stacks Logistics Plan



LEGEND:

- Sequence B - [Green hatched box]
- Job Trailer and Equipment Staging - [Red hatched box]
- Spline Road - [Dashed line]
- Truck Traffic - [Red dashed line]
- Previously Demolished: [Grey hatched box]
- Direction of Demolition: [Red arrow]
- Sequence D- [Orange hatched box]
- High Reach Excavator- [Purple hatched box]
- Standard Excavator- [Green hatched box]
- Potential Crane- [Blue hatched box]

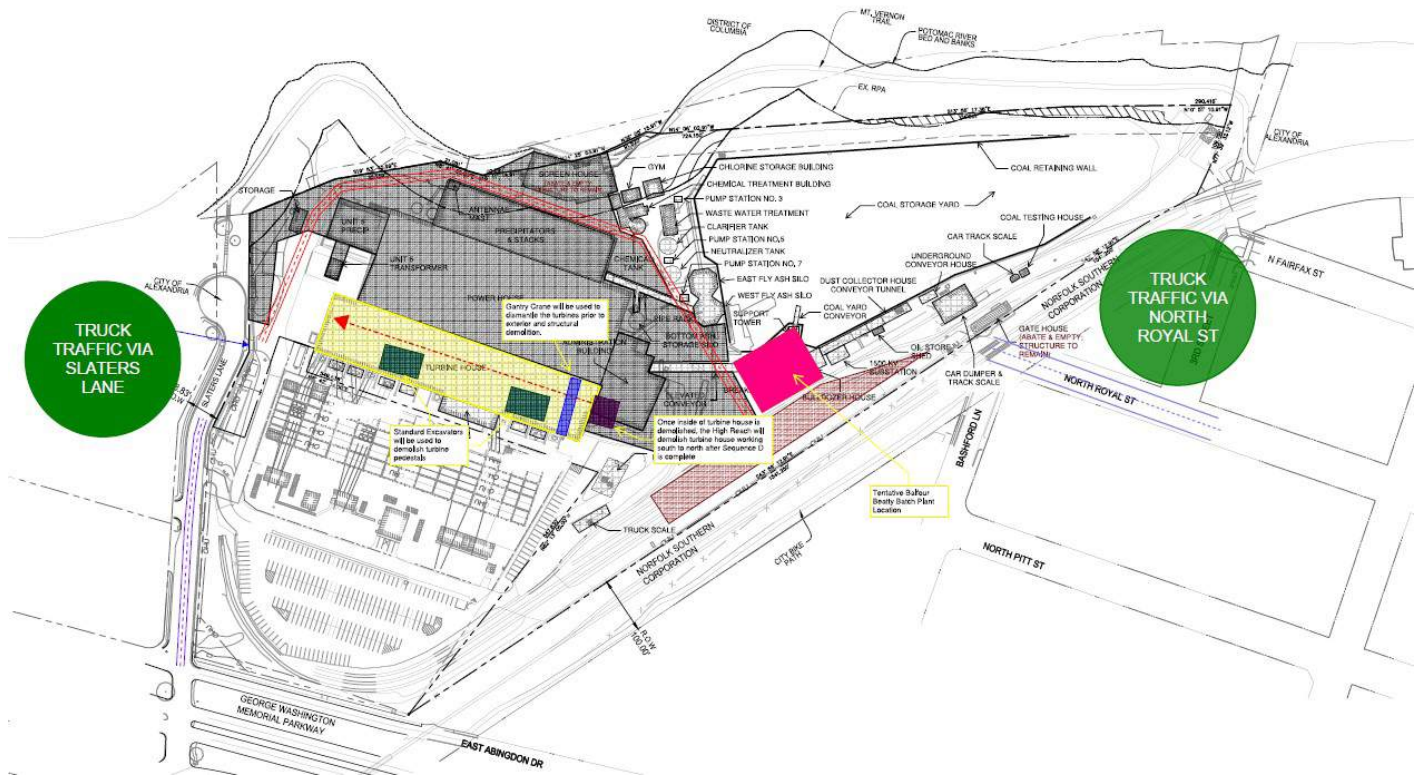
Schedule and Method for Deconstruction of Key Structures

Sequence C – Approximately 13 Months

The abatement in this phase will be focused on the Turbine House. Once Abatement work is cleared, the deconstruction process will shift towards the Turbines, superstructure and Roof of the Turbine house. This will continue to be done with the aid of Long arm, cranes, high reach equipment, etc.

Figure 4 — Sequence C

Sequence C Logistics Plan



LEGEND:

- Sequence C -
- Job Trailer and Equipment Staging -
- Spline Road -
- Truck Traffic -
- Previously Demolished:
- Direction of Demolition:
- High Reach Excavator -
- Standard Excavator -
- Crane -

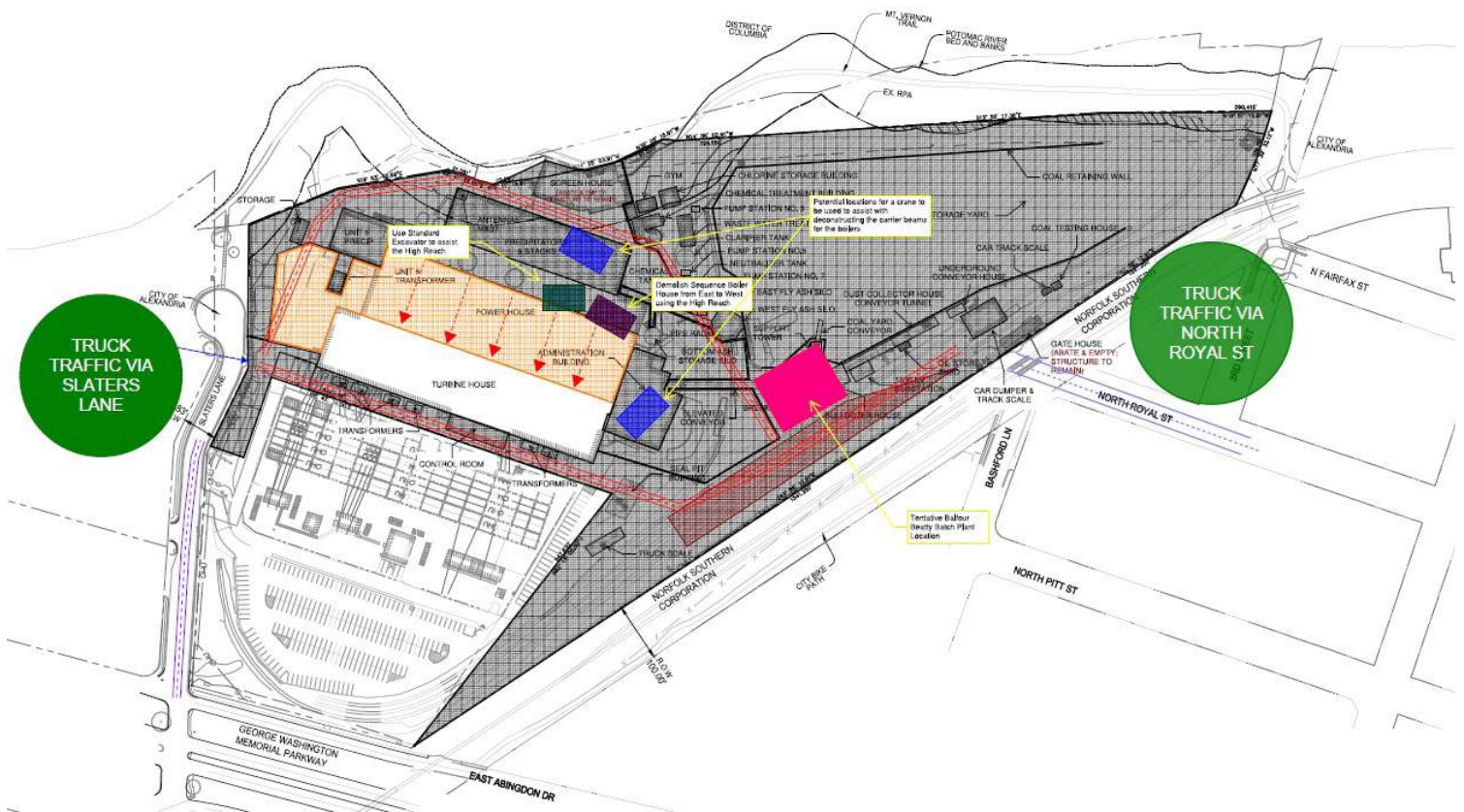
Schedule and Method for Deconstruction of Key Structures

Sequence D – Approximately 20 Months

Abatement will move from the Turbine house to the Powerhouse. Deconstruction of the powerhouse will follow abatement with similar equipment used in the other sequences. The high reach will be used to deconstruct the Power house. The high reach will be used for high elevation removal while being supported by the demolition excavators handling the lower elevation tasks. During this sequence, there is a potential for the use of a hydraulic crane to assist the high reach with the removal tasks

Figure 5 — Sequence D

Sequence D Logistics Plan

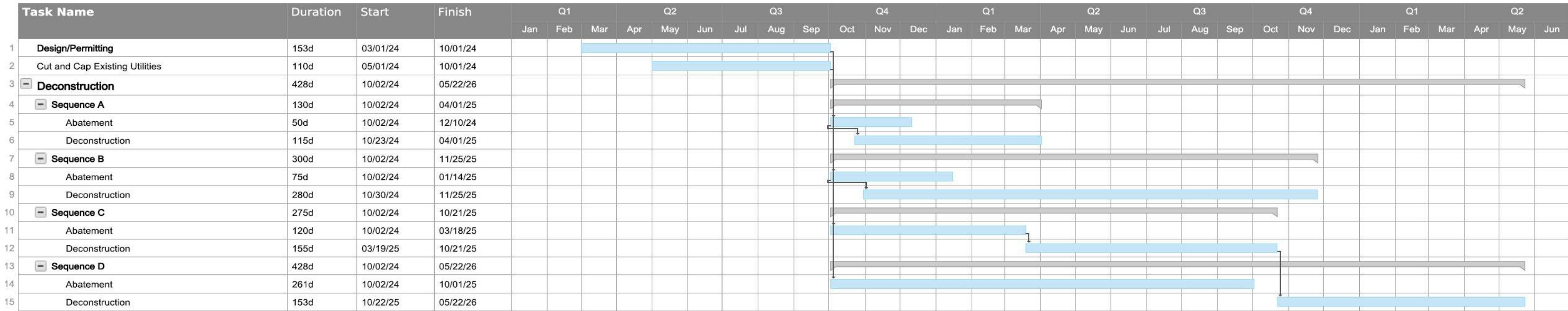


LEGEND:

- Sequence D - [Orange hatched box]
- Job Trailer and Equipment Staging - [Red hatched box]
- Spline Road - [Red dashed line]
- Truck Traffic - [Green dashed line]
- Previously Demolished: [Grey hatched box]
- Direction of Demolition: [Dashed arrow with red arrowhead]
- High Reach Excavator - [Purple grid box]
- Standard Excavator - [Green grid box]
- Potential Crane - [Blue grid box]

Schedule and Method for Deconstruction of Key Structures: Schedule Overview & Permits by Sequence

Overall Deconstruction Sequence



The schedule above is provided to demonstrate sequencing overlap, abatement preceding deconstruction, and overall anticipated durations. The start date shown above is approximate and ultimately to be determined.

Permits by Sequence

PRGS Decon & Abatement Subcontract
Exhibit B.3 - Preliminary Required by Sequence

Permit Breakdown for Abatement and Demo

Location	Demo Only	Abatement Required	Demo after Abatement	Sequence	Demo Permit	Abatement Permit	versus Child
Sequence A Demo/Abatement Permit (Parent)				A	Yes	Yes	Parent
Sequence B Demo/Abatement Permit (Parent)				B	Yes	Yes	Parent
Sequence C Demo/Abatement Permit (Parent)				C	Yes	Yes	Parent
Sequence D Demo/Abatement Permit (Parent)				D	Yes	Yes	Parent

Tab 2

Dust Mitigation Plan

Balfour Beatty in tandem with subcontractors on site will be conducting all construction activities that generate dust in accordance with OSHA, Virginia, and local county regulations.

Some of these practices include but not limited to:

- The potential use of wind fences around the perimeter of the site throughout deconstruction to reduce the amount of dust leaving the site to adjacent surroundings – see site logistics plan attached for site fencing plan.
- The use of water hoses and extensive spraying to wet areas of deconstruction that generate dust during normal operations.
- The use of plastic coverings to reduce dust migration.
- The use of deconstruction equipment and power tools with integrated water delivery and dust collection systems to reduce the amount of dust generated.
- Potential use of flush/sweeper vacuum trucks.
- Water trucks are used for directional dust suppression and mitigation, especially at higher elevations.
- Dust bosses, shall be utilized as needed to project water across broad areas, in addition to directionally cover specific deconstruction tasks.
- Equipment cabs have a dual filtration system (primary - standard filter and secondary -ultra high efficiency filter).
- Ramboll, on behalf of the Owner, will conduct real-time perimeter dust monitoring during deconstruction and select construction activities. The monitoring program will utilize industry standard and quality assured monitoring methodologies (e.g., Met One E-Sampler, Aeroqual Sentry PM10 real-time monitor, or equivalent) to provide full-time remote dust monitoring. The real-time dust monitoring data will be equipped with telemetry and data logging capabilities. The dust monitors will be stored in weatherproof stations on tripods and will be equipped with solar panels and batteries.
- Six (6) dust monitors will be deployed around the perimeter of the Site. The stationed dust meters will collect dust readings continuously during deconstruction and construction activities that are likely to produce dust, and the monitors will report out 15-minute time-weighted averages throughout the workday. The monitors will be programmed to provide notification to project team members when the dust level of 260 $\mu\text{g}/\text{m}^3$ is exceeded for any 15-minute time-weighted average. In the case of an exceedance of the dust level for a 15-minute period, corrective actions will be taken to mitigate dust generation.

Tab 3

Noise and Vibration Control

No vehicles, including construction vehicles, associated with this project shall be permitted to idle for more than 10 minutes when parked. Post no idling for greater than 10 minutes signs at construction site entrances and exits and interim parking and loading/unloading areas. (T&ES)

Unless otherwise approved by City Staff and/or City Department, the project site will comply with hours of work below for construction activities.

- i. Monday through Friday from 7 AM to 6 PM
- ii. Saturdays from 9 AM to 6 PM
- iii. No deconstruction activities allowed on Sundays and holidays.

ECS, on behalf of the Owner, will prepare a monitoring plan and execute the site monitoring to address City noise ordinances and vibration concerns with respect to adjacent and nearby structures. Vibration and noise monitoring will be conducted throughout deconstruction, below grade construction, and portions of site development anticipated to generate noise or vibrations of concern. Summary reports will be provided once a month through the duration of the program.

ECS will implement a monitoring program to document the vibration and noise levels along the property boundary to address adjacency concerns. Vibration monitoring will be performed during normal working hours during the deconstruction and selected construction activities. Vibration peak particle velocities (PPV) and peak noise levels (decibels) will be recorded for each day. Should vibration or noise levels exceed a project-specific threshold, the instrumentation will provide a “real-time” notification to the project team members by email generally within a few minutes of the event. Data will be remotely collected by devices and reviewed by ECS on a weekly basis. Summary data reports will be provided monthly.

Five (5) vibration monitors, at locations along the property boundary to be determined, will be utilized on this project and will include InstanTel Micromate or Minimate seismographs equipped with a standard triaxial geophone to allow measurement of vibration in each of three axes and an A-weighted microphone for noise levels. The monitors will be equipped with a cellular modem to allow remote communication with the ECS office and email alerts for exceedance events. Power is assumed to be provided by solar where sufficient solar exposure is available and otherwise the Contractor will extend power to instrumentation locations.

Tab 4

Regulated Materials and Scrap Metals Removal,
Packaging, and Transportation

Regulated Materials and Scrap Metals Removal, Packaging, and Transportation



Regulated Materials Removal Plan

Removal plan for asbestos and lead paint and other structures contaminated with PCBs according to local, state, and federal regulations, including results from prior completed ACM/LBP/PCB or other environmental assessments.

By following this plan and adhering to the applicable regulations in Virginia, the safe and compliant removal of lead-based paint, asbestos, and PCBs during demolition can be achieved.

1. Initial Assessment

- Hire a licensed environmental consultant to conduct a thorough inspection of all buildings/structures to identify areas with lead-based paint, asbestos, and PCBs. The Initial Assessment for the PRGS project has been completed.

2. Regulatory Compliance

- Virginia Department of Labor and Industry (DOLI): DOLI administers regulations related to workplace safety, including regulated waste removal and asbestos abatement. The regulations ensure compliance with state-specific requirements and licensing for asbestos contractors and workers.
- Virginia Department of Environmental Quality (DEQ): DEQ regulates the proper handling, transport, and disposal of asbestos waste to protect the environment. They enforce guidelines for asbestos removal and disposal procedures.
- Occupational Safety and Health Administration (OSHA): OSHA is a federal agency that sets and enforces workplace safety standards. They provide guidelines for asbestos abatement practices to protect workers from exposure to asbestos fibers.

- Alexandria Health Department: The local health department may have regulations and guidelines specific to asbestos abatement within the city limits of Alexandria. They may be involved in permitting, inspections, and ensuring compliance with health and safety measures.

3. Development of Removal Plan

- Engage licensed and certified contractors for the removal of lead-based paint, asbestos, and PCBs as identified in the initial assessment reports. The project is currently in this step.
- Ensure that the contractors have the requisite training and certification to handle materials.
- Develop a detailed plan for the safe removal of lead-based paint, asbestos, and PCBs, including containment, removal, and disposal procedures.
- Obtain necessary permits from the relevant authorities before the commencement of work.

4. Post-Removal Assessment

- Conduct post-removal assessments of each building/structure to ensure that all hazardous materials have been effectively removed prior to start of deconstruction.
- Obtain clearance certificates from the relevant authorities (licensed Third Party inspection) indicating the successful removal of hazardous materials.

5. Transportation

- Arrange for the transportation of packaged material using licensed and certified carriers that comply with regulations for the transport of hazardous materials, if applicable.

Regulated Materials and Scrap Metals Removal, Packaging, and Transportation



- Ensure that the containers are securely sealed and labeled according to regulatory requirements.

6. Documentation and Reporting

- Maintain thorough documentation of the removal process, including permits, inspection reports, and disposal records.
- Maintain thorough documentation of the removal process. Documentation should include but not be limited to permits, inspection reports, air monitoring results and disposal records as applicable to specific regulated material.
- Submit required reports to the relevant regulatory agencies as per local, state, and federal regulations.

Plan for Recovery, Packaging, Transport, and Recycling of Scrap Metals

Plan for recovery, packaging, transport, and recycling of scrap metals, to include mitigation for migration of lead-based paint or PCB contamination (particulate, aerosols, smoke, vapor, etc.) if metal sizing or cutting will occur on site.

By following this plan the recovery, packaging, transport, and recycling or disposal of scrap metals from the site can be conducted in a safe and environmentally responsible manner.

1. Recovery and Packaging

- Identify and recover scrap metals from the deconstruction site, ensuring that all items are visually inspected for potential lead-based paint or PCB contamination.
- Package the recovered metals securely using appropriate containers that prevent the release of particulates, aerosols, or vapor during transportation.

2. Mitigation Measures

- Implement mitigation measures to prevent the migration of lead-based paint or PCB contamination during metal sizing or cutting.
- Use wet methods or encapsulation to minimize the generation of particulates and aerosols.
- Establish controlled work areas with proper ventilation and containment to prevent the spread of contaminants.
- Provide workers with suitable personal protective equipment (PPE) such as respirators, gloves, and protective clothing.

3. Transportation

- Arrange for the transportation of packaged scrap metals using licensed and certified carriers that comply with regulations for the transport of hazardous materials, if applicable.
- Ensure that the containers are securely sealed and labeled according to regulatory requirements.

4. Recycling or Disposal

- Coordinate with authorized recycling facilities or scrap metal processors.
- Ensure that the chosen facilities comply with environmental regulations and have the necessary permits to process and recycle materials containing lead-based paint or PCBs.

5. Documentation and Reporting

- Maintain detailed records of the recovery, packaging, transportation, and recycling/disposal processes, including manifests, shipping documents, and disposal certificates.
- Complete required reports demonstrating compliance with local, state, and federal regulations.

Tab 5

Construction Management Plan

- Site Logistics Plan
- Truck Route for City of Alexandria

With limited parking on site, Balfour Beatty and Hilco will ensure that agreements are in place with neighboring garages to house excess/overflow parking from the site. Subcontractors will not be allowed to park on neighborhood streets and will be encouraged to use the metro rail/bus to access the site. During the Deconstruction sequences, manpower is expected to be between 100-150 Workers.

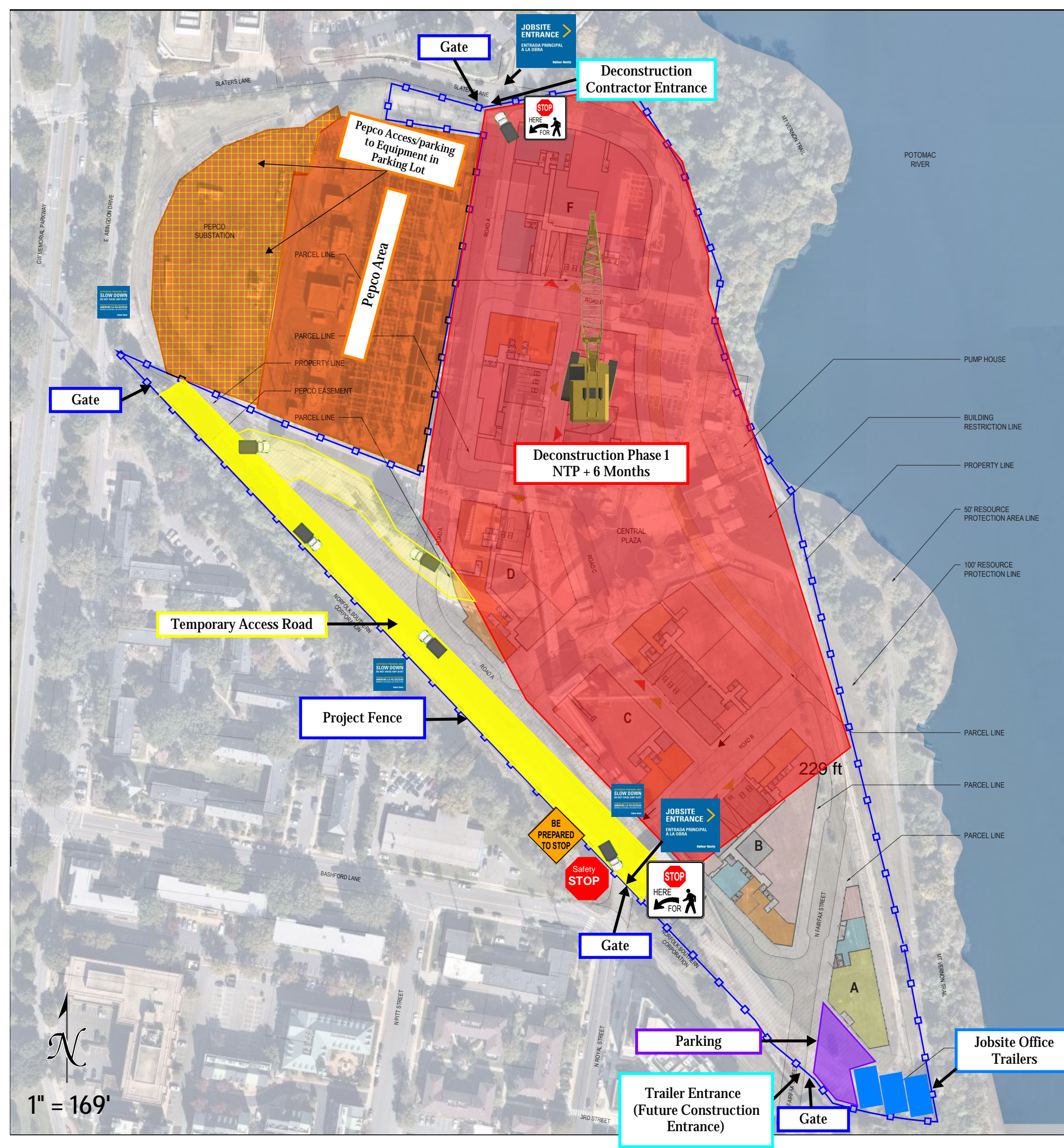
Parking Garages

- Colonial Parking - 44 Canal Center Plaza, Alexandria, VA 22314

Mass Transit options

- Metro station – Braddock Rd is located 1 mile from Project Site
- Dash and Metro bus operate within a few blocks of the Project site. Lines from both providers connect with Braddock Rd Metro station.

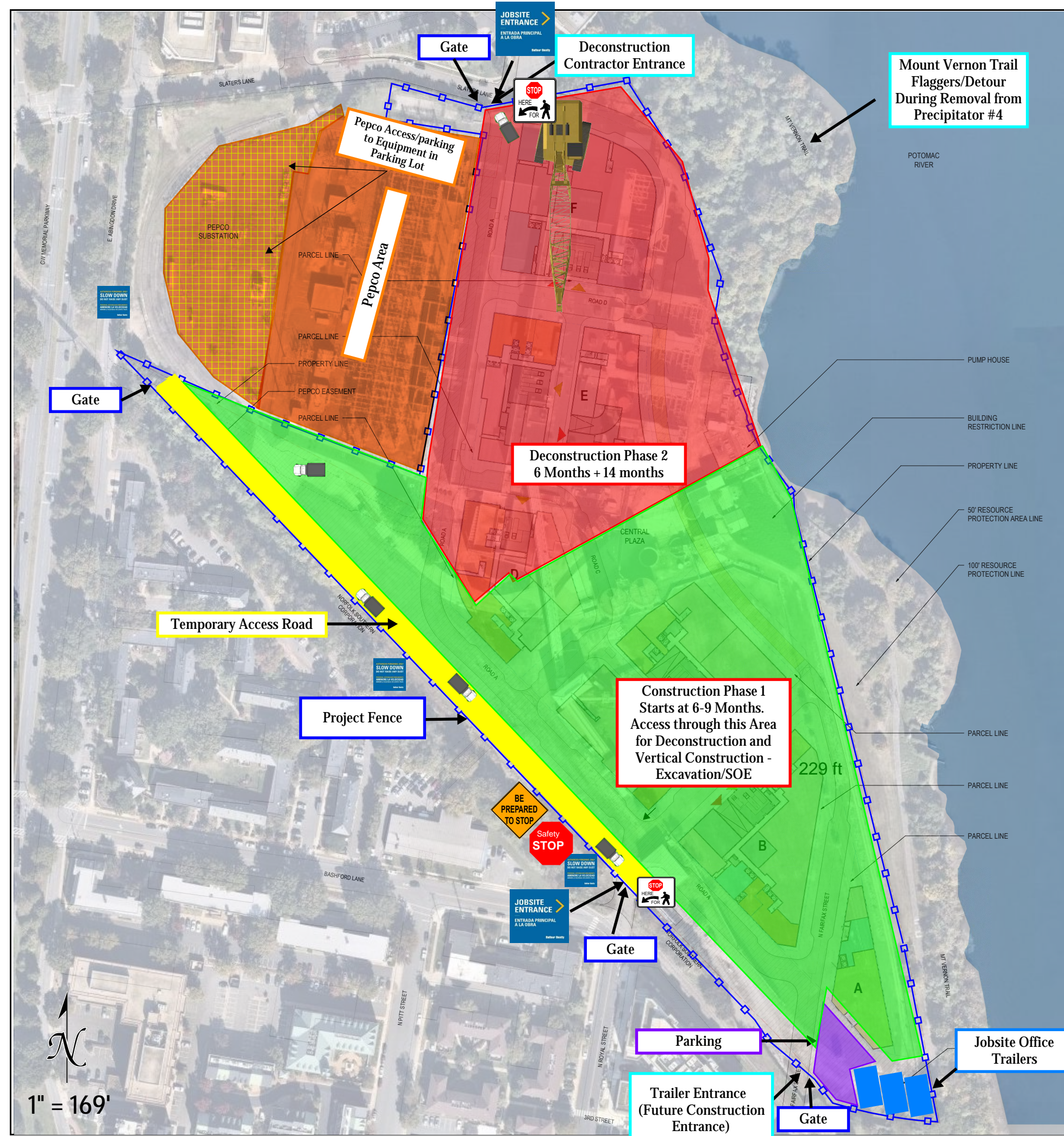
Reference **Site logistics** plan attached for travel paths for project.



- This Sequence will involve the initial mobilization and deconstruction of the project.
- In this Sequence, Abatement is planned to start in all buildings.
- Approximately 50-100 Workers will be on site for this phase
- Parking
 - Colonial Parking - 44 Canal Center Plaza,
 - 801 N Fairfax St, Alexandria, VA 22314

Potomac River Generating Station Redevelopment LOGISTICS PLAN - Early Site

City of Alexandria Truck Map Map Produced: Date April 2020		Truck Route		Truck Restriction		Timed Truck Restriction



- This Sequence will involve the initial mobilization construction of the project. This will entail Excavation and Support of Excavation work.
- Deconstruction work will continue on the main structures during this phase.
- In this Sequence, Abatement will still be on-going for buildings
- Approximately 150-200 Workers will be on site for this phase
- Parking
 - Colonial Parking - 44 Canal Center Plaza,
 - 801 N Fairfax St, Alexandria, VA 22314

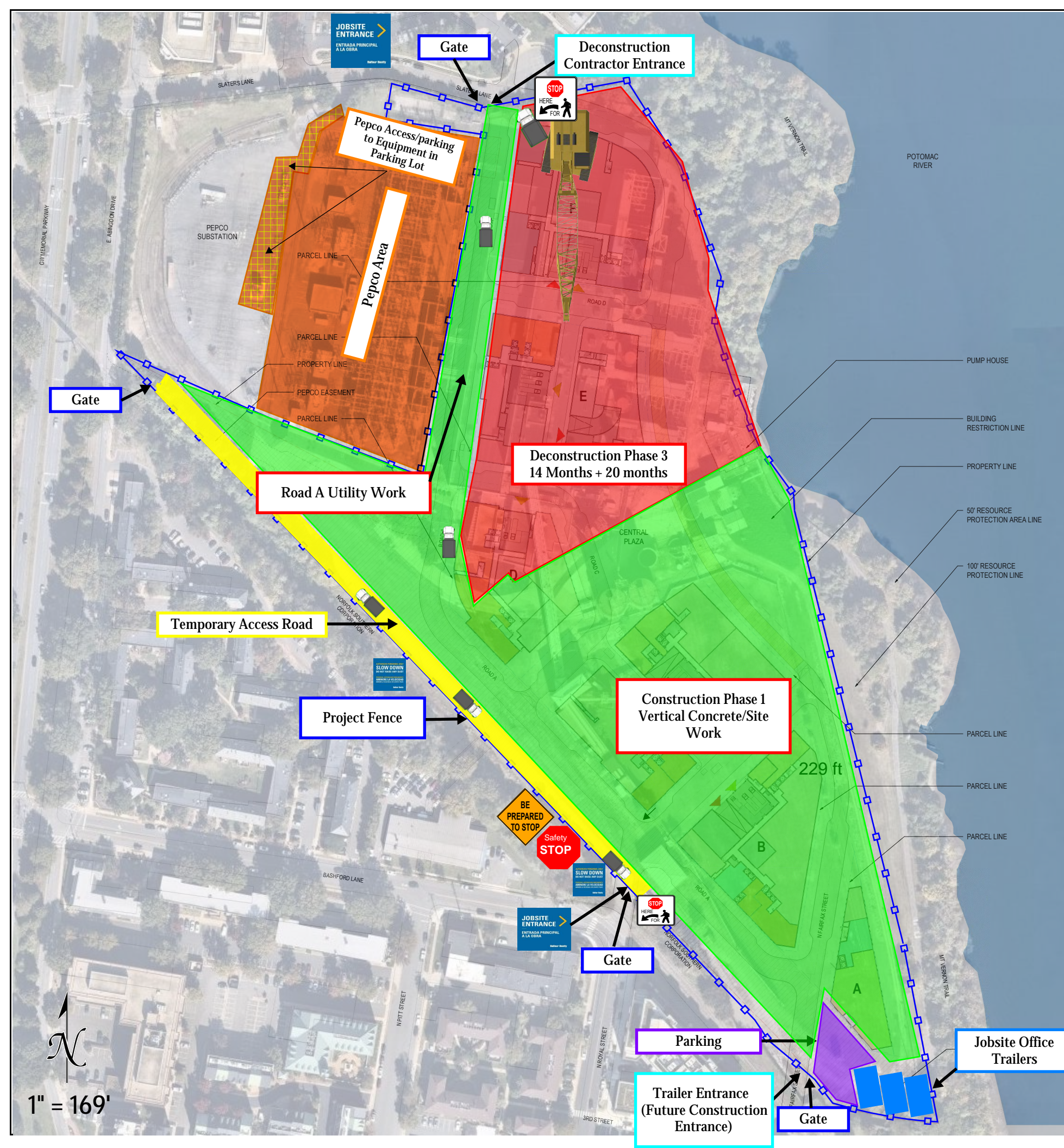
City of Alexandria Truck Map Map Produced: Date April 2020	Truck Route	Truck Restriction	Timed Truck Restriction
--	-------------	-------------------	-------------------------

Hilco
Redevelopment Partners

Balfour Beatty

Potomac River Generating Station Redevelopment

LOGISTICS PLAN - Early Site



- During this phase, both new Construction and Deconstruction will coexist on the site.
- Deconstruction work will continue on the main structures during this phase.
- New Construction will include finishing concrete/skin and site/utility work
- Approximately 300-500 Workers will be on site for this phase
- Parking
 - Colonial Parking - 44 Canal Center Plaza,
 - 801 N Fairfax St, Alexandria, VA 22314

City of Alexandria Truck Map Map Produced: Date April 2020	Truck Route	Truck Restriction	Timed Truck Restriction
--	-------------	-------------------	-------------------------

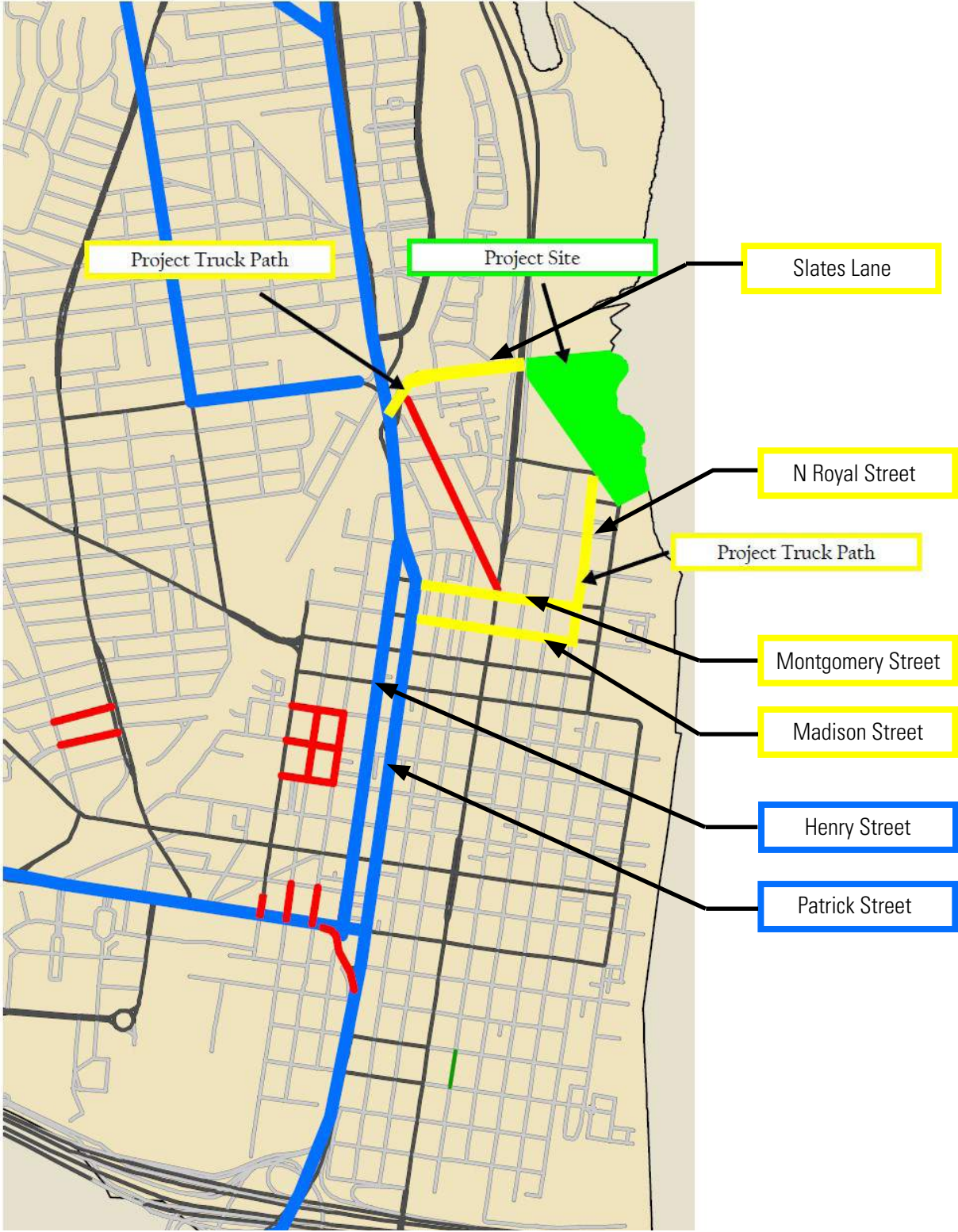
Hilco
Redevelopment Partners

Balfour Beatty

Potomac River Generating Station Redevelopment

LOGISTICS PLAN - Early Site

Truck Route for the City of Alexandria **Balfour Beatty**



City of Alexandria Truck Map <small>Map Produced: Date April 2020</small>	Truck Route	Truck Restriction	Timed Truck Restriction
---	-------------	-------------------	-------------------------

Tab 6

Health and Safety Plan

Potomac River Generating Station Project: Site Specific Safety Plan

Emergency Action Plan

Purpose

The following policy and protocols have been developed to help ensure that Balfour Beatty Construction project teams successfully respond to a jobsite emergency or event which involves serious injury, damage to property or disrupts operations.

Our company's policy on emergency response is clear. Balfour Beatty Construction's priority is always protecting the safety of jobsite personnel and the public followed by minimizing impact to the company's business activities. A successful response also protects the company's brand and reputation and is carried out in a manner that is consistent with Balfour Beatty Construction's core values of excellence, leadership and integrity.

Responsibility and Authority

Preparation is the foundation of emergency management and the **Emergency Action Plan (EAP)** plays an important role. The project manager and superintendent are responsible for developing and distributing the EAP at the beginning of the job and update as needed to ensure that all information remains current. The EAP is reviewed by the SH&E director. As part of the project team's preparation, EAP responsibilities and assignments should be determined in advance along with designated back-ups.

Given that the project manager and superintendent are peers and operate collaboratively, they will determine ahead of time who is in charge during an emergency as the designated on-site team leader and who will be the back-up. The on-site team leader is responsible for ensuring that personnel are assigned to carry out all the applicable emergency protocols.

The EAP provides step-by-step protocols for notifying project personnel and other Balfour Beatty Construction/owner representatives of an emergency, summoning outside emergency services, on-site actions to assist emergency services, making the incident scene safe, caring for injured, and evacuation of the project if appropriate. The EAP addresses dealing with the media, and preserving evidence in anticipation of a thorough investigation. A project specific EAP has posted protocols and emergency contact information including names, titles, and contact information.

An EAP is typically divided into three phases:

- 1 - Pre-mobilization emergency planning
- 2 - Mobilization emergency preparations
- 3 - Emergency action protocols

1 - Pre-Mobilization Emergency Planning

Emergency Action/Site Logistics Plan – See Site Logistics Plan.

- **Rally Points** – 3 Rally Point locations
- **Access Gates** – Changes often, see Site Logistics Plan.
- **Entrances** – See Site Logistics Plan.
- **Hydrant locations** – TBD
- **Fire Department Standpipe Connection(s) (FDC):** TBD
- **Flammable/Combustible Storage Areas** Will be shown on the Site Logistics Plan.

Emergency Services/Fire Department (ES/FD) - Invite representative from to the site early in the project and at subsequent significant “change in conditions” milestones.

Emergency Care Facility -

Concentra Occupational Health Alexandria (Non-emergency)

5590 General Washington Dr
Alexandria, VA 22312

Phone: 703.914.6718

Nova Patient Care (Non-emergency)

526 North Henry Street
Alexandria, VA 22314

Phone: 703.348.9110

Open 24 hours

Stocked First Aid Kit – Located in Balfour Beatty’s site office South of the project.

CPR/First Aid Trained Personnel –

- Balfour Beatty project management team.

Evacuation Alarm System – 3 blasts from an air horn = evacuate the building 1 long blast from the air horn = take cover inside the building off roof/decks.

Fire Department Standpipe Riser – TBD.

2 - Mobilization Emergency Preparation

Emergency Response Guide with **Emergency Response Contact List** – Refer to Emergency Contact List

Emergency Action/Site Logistics Plan – Refer to Site Logistic Plan Located on board at Construction entrance.

Command and Control Center – SW corner of the project.

Emergency Response Contact List – Refer to Emergency Contact List.

Balfour Beatty Construction Emergency Response Contact List – Attached at end and posted.

Spill Kits – Located inside BB project site office.

Emergency Evacuation Alarm Systems – 3 blasts from an air horn = evacuate the building 1 long blast from the air horn = take cover inside the building off roof/decks.

Plan Review and Emergency Response Simulations – Periodically

3 - Emergency Action Protocols

The emergency response protocols have been established to provide the project team with an interdisciplinary framework that addresses safety, operations, legal and communications issues. Each team should routinely review the protocols and use them to conduct emergency response simulations.

In the event of an emergency, the designated on-site team leader will initiate the project team's response and oversee the following action items many of which are happening simultaneously:

Safety & Operations

- Dial 911 to request assistance from emergency services (EMT, fire & rescue, etc.)
- Administer first aid and CPR if a trained team member is available
- Establish the command and control center
- Initiate notification protocols (see details in next section)
- Secure the job site and immediate accident scene. Each gate or entry point should be manned to control access and to facilitate arrival of emergency vehicles.
- Determine if the job should be shut down.
- If necessary, direct field personnel to rally point and conduct head count. Subcontractor reps should assist and report results to a Balfour Beatty Construction point of contact that has been identified ahead of time
- Based on the nature of the emergency, determine if field personnel should shelter in place or leave the jobsite
- Mobilize necessary equipment or personnel to assist EMT/fire and rescue
- Coordinate make safe, post-accident assessment and clean-up activities.

Notification Protocols

- The on-site team leader (Mike Gearghy) will notify the project executive and SH&E director.

- Based on the nature of the accident, the SH&E director will contact OSHA or local OSHA as required.
- Given the on-site team leader's ongoing responsibilities during the emergency, the project executive will assist by contacting the business unit leader. If deemed appropriate, the business unit leader will notify the division president who in turn will notify the regional CEO.
- Business unit leader will direct human resources to notify all division employees if necessary.
- The project executive also will notify the owner's representative, risk management, legal counsel, human resources and the region's communications leader.
- Identify names of injured. Coordinate notification of family with subcontractors as necessary.
- Notify human resources of names of injured.

Supporting Reference Materials:

- Emergency Response Guide (SHE-5424-T)
- Site Logistics Plan Updated regularly
- Emergency Response Contact List (SHE-5002-T)

EMERGENCY RESPONSE CONTACT LIST

On-Site Team Leader: Mike Gearghty Mobile: 240.372.0243	Back-Up On-Site Team Leader: David Chachu Mobile: 631.514.5449
Designated Spokesperson: Art Malacarne Mobile: 703.898.3779	Back-Up Designated Spokesperson: Dan Novack Mobile: 703.851.9659
Project Business Unit Leader: Art Malacarne Mobile: 703.898.3779	Project Executive: Mobile:
Division SH&E Director: Mike Saunders Mobile: 801.687.8457	Project Manager: Mobile:
Project Superintendent Bldg A: Mobile:	Project Superintendent Bldg B: Mobile:
Owner Rep: Danny Pettway Mobile: 202.853.0417	Facilities Manager: N/A
Gas Utility: Washington Gas Emergency Direct Line: 703-750-1000	Electric Utility: Dominion Electric Emergency Direct Line: 866.366.4357
Virginia America Water Emergency Direct Line: 800-452-6863	Emergency Services: 911

MAJOR SUBCONTRACTORS

TRADE	COMPANY	CONTACT	CONTACT #
Deconstruction			
FIRE/SPRINKLER			
PLUMB			
ELECTRICAL			
CONCRETE			
WET UTILITIES			
DRY UTILITIES			
Skin West			
Skin East			
Masonry			

Form/Template Number: SHE-5002-T	Version Number: 01.00	Issue Date: 5/01/2015
Function Owner: Steve Smithgall	Document Owner: Janet McCord	Page 1 of 2

First Name	Last Name	Company	Job Title	Mobile Phone
Dan	Novack	Balfour Beatty	President	703.851.9659
Art	Malacarne	Balfour Beatty	Vice President	703.898.3779
David	Chachu	Balfour Beatty	Operations Director	631.514.5449
Mike	Gearhty	Balfour Beatty	Senior Superintendent	240.372.0243

Form/Template Number: SHE-5002-T	Version Number: 01.00	Issue Date: 5/01/2015
Function Owner: Steve Smithgall	Document Owner: Janet McCord	Page 2 of 2

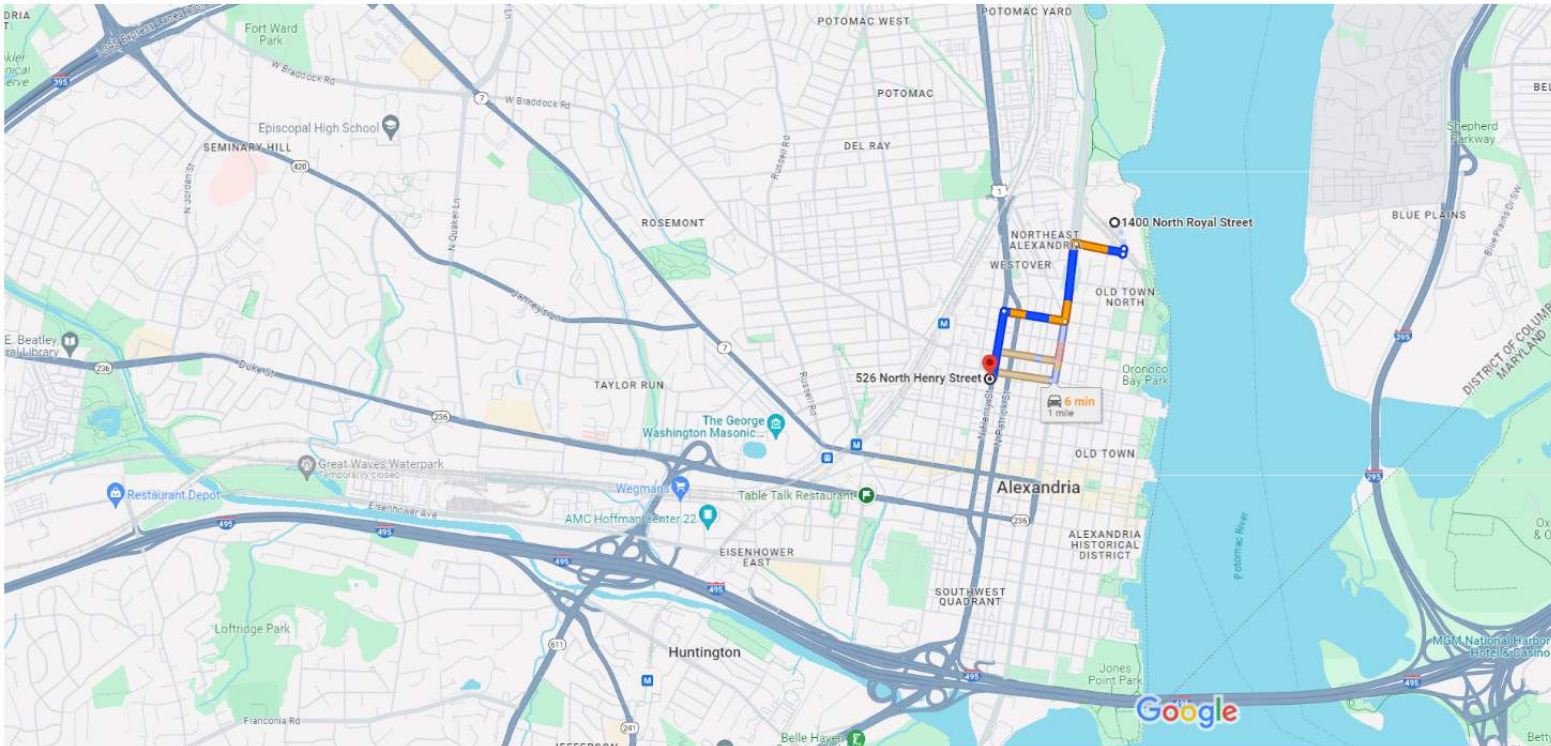
PRGS - EMERGENCY ACTION PLAN

Directions to Nearby Nova Patient Care (Non-emergency)



1400 N Royal St, Alexandria, VA 22314 to 526 North Henry Street, Alexandria, VA

Drive 1.0 mile, 5 min



EMERGENCY CONTACT LIST:

- Power – Dominion (866) 366-4357
- Gas – Washington Gas (844) 927-4427
- Verizon - (800) 837-4966
- Miss Utility - 811 or (800) 257-7777
- Virginia America Water (800)-422-2782

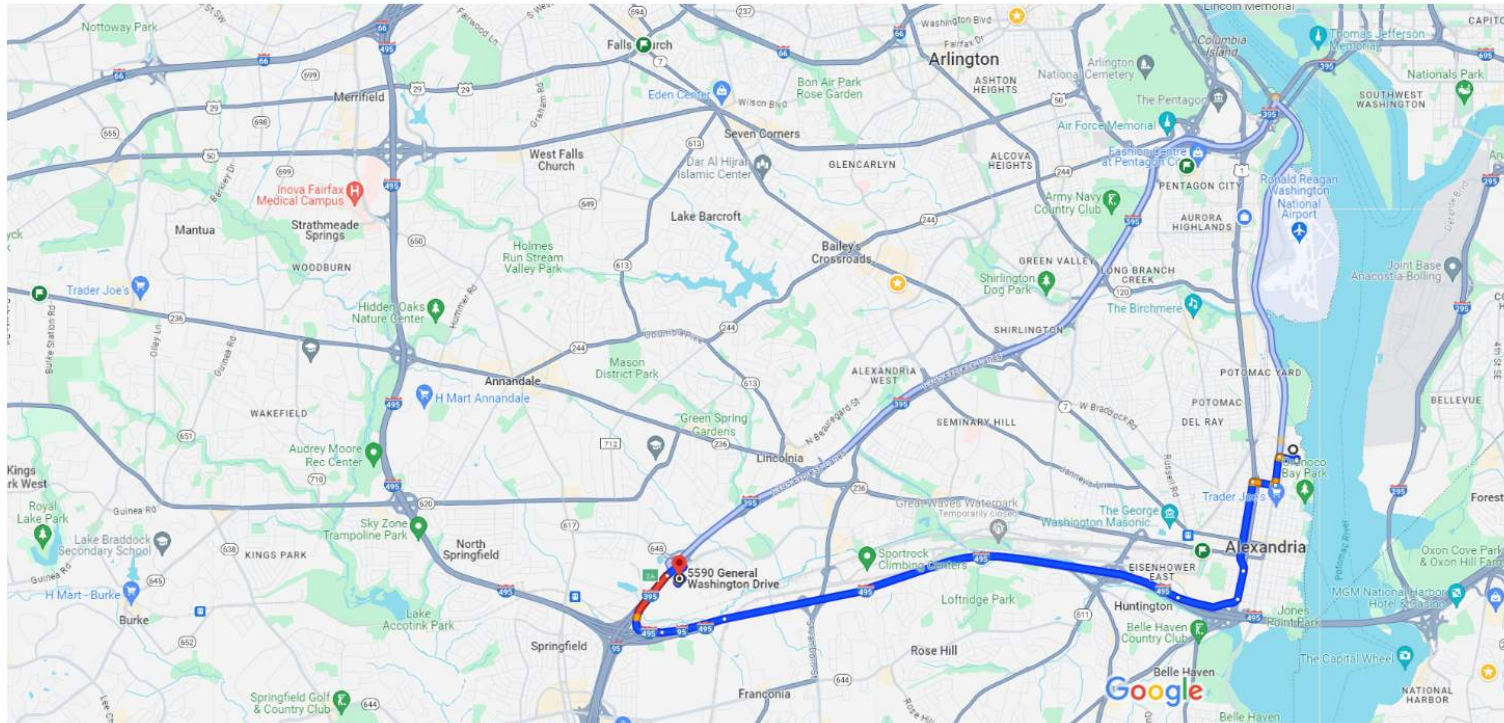
Emergency Numbers	
Police – All Emergencies	911
Fire - All Emergencies	911
Non – Emergency - Police	703-746-4444

PRGS - EMERGENCY ACTION PLAN

Directions to Nearby Concentra Occupational Health Alexandria (Non-emergency)

Google Maps 1400 N Royal St, Alexandria, VA 22314 to 5590 General Washington Dr

Drive 9.9 miles, 18 min



EMERGENCY CONTACT LIST:

Power – Dominion (866) 366-4357
 Gas – Washington Gas (844) 927-4427
 Verizon - (800) 837-4966
 Miss Utility - 811 or (800) 257-7777
 Virginia America Water (800)-422-2782

Emergency Numbers	
Police – All Emergencies	911
Fire - All Emergencies	911
Non – Emergency - Police	703-746-4444

PRGS - Balfour Beatty**EMERGENCY RESPONSE GUIDE****Post in Balfour Beatty Office Reception Area, Conference Room and other conspicuous Balfour Beatty/Subcontractor Project Office Locations**

FIRE/AMBULANCE	911
Alexandria NON-EMERGENCY POLICE	703-746-4444
POLICE/SECURITY	911
Dominion ELECTRIC	866-366-4357
Washington GAS	844-927-4427
Virginia American Water	800-422-2782

Safety & Operations Protocols:

- Assess the incident scene and secure as warranted to ensure the safety of site personnel, injured persons and emergency services personnel.
- Do not move a seriously injured person unless necessary for their safety.
- Render first aid to the injured (if applicable) as willing and trained to do so until emergency services arrive.
- Call emergency services and state clearly the name and address of the jobsite where you are located.
- Give a detailed description of the incident and extent of damage or injury (high rise fire, fall from height with head injury, etc.).
- Specify the best access to site location, the incident location within the site and that they will be met for guidance upon arrival.
- Give call back number and/or maintain communication for questions or instructions.
- Direct someone to meet the emergency services at the designated site access point – with the emergency action/site logistics plan if applicable/possible, and attempt to staff all site access points to monitor/control access to and from the site.
- Ensure the emergency services route through the project is cleared and safe.
- Escort/direct emergency services to incident location and provide assistance as requested.
- Preserve evidence (if applicable and as practical) until an incident investigation can be conducted.

Injury Incidents:

- Ensure that the injured employee's belongings are secured.
- Notify a family member
- Have a Balfour Beatty representative accompany the injured to the emergency care facility.
- Supervisors will work with injured for recovery and return-to-work plan.
- Notify Balfour Beatty workers compensation claims manager and send incident report for a Balfour Beatty employee injury.
- Initiate notification protocols
- Consult legal considerations, public communications and media statement sections of the Balfour Beatty Emergency Action Plan (EAP).
- Start incident investigation.

Site / Building Evacuation:

- Provide notification via the evacuation alert system if an evacuation of the project/building is deemed necessary. Workers should move quickly and cautiously to a designated rally (muster) point, and remain there for a headcount and further instructions.
- Workers should not leave the site or return to work areas until instructed to do so. Contact information (phone number/website) should be provided to workers so they can find out when the site will reopen if closed.

In Case of Fire:

- Remind workers to use stairs – not elevators to evacuate in the event of a fire
- Call 911 first. Project personnel should use the temporary, general duty, portable fire extinguishers or hose provided by Balfour Beatty or the subcontractor to attempt to extinguish small fires only as they are willing and able to do so without endangering themselves or others.
- Extinguisher users should remember **PASS**: **P**ull the pin; **A**im at base of fire; **S**queeze the handle; **S**weep side to side until fire is extinguished.

In Case of a Major Storm: (tornado, high winds, hail, etc.)

- Employees should take shelter in the lowest part of the building, stairwells, interior structures or a basement area of the building and stay in place until it is safe to move about. When the inclement weather has passed, workers should report to a designated rally point or other location as directed for a headcount and further instructions.

In Case of Structural Failure, Earthquake, Explosion or Terrorist Event:

- It is difficult to establish a complete plan for this type of event. It is possible that workers may have to act on their own and use their best judgment to protect themselves and those workers around them. Once judged safe to move around, workers should report to a designated rally point or other location, at which time the situation will be assessed and further instructions will be given.

Note: *All* incidents, including near misses, service strikes, general public and property damage incidents and other dangerous occurrences must be reported to Balfour Beatty site management at the time they occur or as soon as possible thereafter, and an incident report must be completed and submitted to Balfour Beatty site management within 24 hours of the occurrence.

Notification Protocols: (See Emergency Response Contact List for numbers)

- The on-site team leader will notify the project executive and SH&E director.
- Based on the nature of the accident, the SH&E director will contact OSHA or local OSHA as required.
- Given the on-site team leader's ongoing responsibilities during the emergency, the project executive will assist by contacting the business unit leader. If deemed appropriate, the business unit leader will notify the division president who in turn will notify the regional CEO.
- Business unit leader will direct human resources to notify all division employees if necessary.
- The project executive also will notify the owner's representative, risk management, legal counsel, human resources and the region's communications leader.
- Identify names of injured. Coordinate notification of family with subcontractors as necessary.
- Notify human resources of names of injured.

SEVERE WEATHER ACTION PLAN

SEVERE WEATHER PREPARATION

- Ensure trailers are properly tied down.
- Monitor the weather alert radio (most projects) and/or the internet weather warning alerts on the internet.
- When possible, avoid storing materials or tools in low areas, beneath pipe chases and other floor openings or near window openings. Keep materials that are light in weight and/or large in surface area secured when not in use and don't shake out more material than can be used during the shift and re-secured if necessary.
- Be careful not to provide poly cover that may fill with water creating an "aquarium" that can collapse the support structure or burst releasing a massive "water bomb."

SEVERE WEATHER SAFETY PROCEDURES

When severe weather approaches:

- Secure all unnecessary materials.
- Check the security of fencing, poly covers and poly enclosures.
- Securely cover and/or place on dunnage those materials that are susceptible to moisture damage.
- Prepare to protect electrical tools and cords from water.

Notes:

- High winds often precede the rain from a thunderstorm by 15 or more minutes. A sudden change in wind direction as a thunderstorm approaches may be a signal that a down draft or "micro-burst" is about to hit.
- Wind loading on cranes can significantly increase the total applied load, especially with regard to side loading. The weight and surface area of loads should be considered as wind speeds increase. Heavier loads with small surface area (example: bundle of rebar) can be safely hoisted in higher winds than light loads with large surface area (example: concrete wall form). Verify the maximum safe wind speeds for crane operation provided by the crane Manufacturer (see owner's/operator's manual) and ensure they are not exceeded. Swing locks should generally be left off allowing the crane to freely weather vane (wind vane) when there are no obstructions. The crane owner and manufacturer should determine the best configuration and wind precautions for each crane.
- The thunder (noise) from lightning travels at approximately 1000 feet per second. As lightning approaches, monitor the flash (lightning) to sound (thunder) interval and estimate the distance away. Example: flash to sound = 25 seconds. 25 seconds divided by 5 seconds per mile = 5 miles.

Weather Alert Levels:

The following alert levels and actions are provided only as recommended guidelines that may need to be modified to be project specific, situation specific and/or to comply with project specific safety requirements.

- YELLOW ALERT: The approach of severe weather is known from visual observations and/or electronic notification. Employees are made aware of the potential for severe weather in the near future. Check items that could be water damaged or wind blown for security and protection.
- ORANGE ALERT: When lightning occurs within 5 miles (25 second flash to sound interval), when signs of a down draft are noted or a tornado warning is issued. All outside, non-critical activities (a concrete pour in progress might be an example of a critical activity) should be suspended, personnel not engaged in outside critical activities should seek safe cover inside a building or in a vehicle (a large tree is not a safe cover). Equipment and materials should be secured.
- RED ALERT: When lightning occurs within 1 mile (5 second flash to sound interval) or high winds start. All employees who have not already done so should seek safe shelter inside a building or in a vehicle. Employees should avoid using corded phones and stay away from windows and metal poles and towers while lightning is near. Stay away from windows during periods of high wind. If a tornado approaches, seek cover in a strong structure or low place such as a ditch. As much as possible, avoid areas with windows, piles of debris or unsecured materials.

POST-SEVERE WEATHER PROCEDURES (AFTER THE STORM)

Employees should not return to routine activities until winds have abated and the flash to sound interval exceeds 25 seconds. Beware of dangers created by rain and winds, including wet and slippery floors.

Look for signs of wind damage such as fencing blown down or debris in public areas and look for items that got wet and need to be dried before water damage occurs. An assessment for long term moisture damage (mold) from rain water should be made. Areas and items found to be wet or damp and susceptible to mold development should be thoroughly dried or removed as soon as possible.

Exhibit D

Balfour Beatty

Subcontractor Safety Requirements

This Exhibit applies to all U.S. BALFOUR BEATTY project subcontractors, vendors and consultants (collectively referred to in this Exhibit as Subcontractor) all tiered subcontractors employed by this subcontractor must comply with the requirements outlined in the Exhibit. Each individual project may have added safety requirements attached as an addendum. Violations of any requirement in this Exhibit or addendum are grounds for disciplinary action up to termination. **It is the responsibility of any subcontractor who uses lower tier subcontractors to ensure compliance with the rules and the safety requirements of the project.**

The contents of this exhibit and any addendum likely exceed OSHA standards, and in those instances the subcontractor and its employees are required to adhere to the heightened requirements. It is the subcontractor's responsibility to understand all applicable safety requirements and to have a workforce that is fully trained in those requirements. In addition to the requirements in this exhibit, subcontractors must comply with all federal, state, local laws including environmental laws, as well as the BALFOUR BEATTY SH&E Program. Subcontractors that create spills, discharge pollutants, or cause damage to any environmental Best Management Practices will be held responsible for their actions. In addition, BALFOUR BEATTY requires full compliance with manufacturer's instructions for materials, tools and equipment. Where safety requirements conflict, Subcontractor will follow the more stringent requirement.

BALFOUR BEATTY reserves the right to suspend or remove any worker or subcontractor from any project for failure to comply with safety requirements.

Long and Short-Term Work Planning

Subcontractors must create a Job Hazard Analysis (JHA)/Activity Hazard Analysis (AHA) for each major task, hazardous task, or non-routine process associated with their work. A JHA or AHA, whichever is appropriate, shall be submitted to the designated BALFOUR BEATTY representative before starting each phase of work for review.

Every day before starting work, Subcontractor must develop a Pre-Task Plan (PTP) that includes every anticipated task for the day. The PTP, particularly the plan and the associated hazards/risks with the work of the day, must be discussed with each crew, and then document the PTP using the standard BALFOUR BEATTY PTP Form. If a task for the day changes, the PTP must be updated with new tasks.

Common hazards, including Fatal Four (falls, electrocutions, being struck by objects, and caught in or between hazards; to include energized and pressurized systems)

Fall Protection

No one may work if exposed to a fall of greater than six feet without fall protection that *prevents or arrests* a fall. There are no exceptions. This includes ladders, scaffold erection/dismantling, truck beds, steel fixing, and crane assembly/disassembly.

Ladders

- **Work Ladders – Whenever possible, workers will use work platforms instead of work ladders. Attachment 2 – Alternates to Ladders provides examples and alternative ideas for accessing work at heights. When work ladders are the only option, the Project Site shall exclusively use platform or podium style ladders or other approved means to access work at height. Fall protection or fall arrest system is required when the worker is at a standing height greater than six feet above all adjacent surfaces. When using a ladder or platform above 6’ where the worker is tied-off, they will work with a spotter or work partner in the event they fall and have to be rescued from the suspended fall arrest system. Use ladders rated “ANSI Type I – Heavy Duty Industrial – 250 lbs.” or greater capacity.**
- **Traditional A-Frame Step Ladders & Extension Ladders: Traditional A-frame step ladders and extension ladders are NOT allowed. In the event a ladder other than a podium/platform type ladder must be used to complete a specific work task, the following will be required to be completed:**
 - i. **A written request, using the Ladder Safety Plan, will be submitted to the Project Supervision, which includes the following:**
 1. **An explanation of why a non -preferred traditional A-frame step ladder or extension ladder is necessary to complete the work task and the anticipated date by which this type of ladder will no longer be used.**
 2. **The method by which the ladder will be used.**
 3. **Documentation verifying that the individual(s) using non-preferred ladders have received safe ladder use training for ladder type.**
 - 4 **A complete description of the safety requirements that the ladder user will follow (method of securing ladder, use of spotter to hold the ladder, etc.)**
 - ii. **The Ladder Safety Plan request must be submitted to the Project Supervision before the work activity with the traditional A-frame step ladder or extension ladder begins.**
- **Access Ladders - A fall protection (arrest) system is required for access ladders (including scaffold access ladders) where the top landing is greater**

than twenty feet above the adjacent surface. A ladder will only be used as primary access under a limited needs basis. Scaffold stairs shall be used to access elevated work areas when it is the primary access to an area. Scaffold systems over 20' should employ an internal stair/ladder.

Scaffolds

On Work Platforms (e.g. scaffolds), workers must have fall protection that *prevents or arrests* a fall where they would otherwise be exposed to a fall of greater than two feet. A Work Platform is an elevated platform providing worker access from which tasks (unrelated to the work platform) are carried out. Work Platforms include --but are not limited to -- all supported and suspended scaffolds, rolling and “Baker” scaffolds, walkways and bridges between scaffolds, and aerial lifts.

- **Platforms** – All platforms over 24 inches shall be equipped with guard rails on all sides.

A fall protection system is required for access ladders (including scaffold access ladders) where the top landing is greater than twenty feet above the adjacent surface.

Mechanically Elevated Work Platform Systems (MEWPS)

All aerial lifts (boom or articulating) must have an occupant crush protection feature and that feature must be engaged at all times the equipment is in operation.

Lifting Operations

Cranes fabricated/erected on site must have a third-party crane inspector on site during the fabrication, assembly and erection. Cranes delivered to site ready for work must provide a current annual inspection performed by a third party. All crane operators must provide a valid NCCCO, OSCP or NCCER certification and proof of evaluation. Operators must have had a drug test within 7 days of arrival to the project site.

Anti-collision systems must be fitted on all cranes for projects with multiple tower cranes in use. Where there is potential for the crane to contact an adjacent structure, or where there is potential to over sail public areas, sensitive environmental areas, or electrical power sources, the crane shall also have zone control. All cranes shall have an external warning light that goes into alarm any time the anti-collision or zone controls are disabled. At no time while the crane is in operation may any of these systems be disengaged or made non-functional.

Heavy Equipment / Forklifts

Only authorized people shall operate heavy equipment on BALFOUR BEATTY projects, and BALFOUR BEATTY requires functional bi-directional alarms on heavy equipment which must be engaged when the equipment is operating. **Vehicles and equipment reversing must have their windows open.** Subcontractors are fully responsible for maintaining safe working distances between workers and their equipment. Subcontractors will provide certified flaggers, fencing or barriers as needed to ensure a safe work area.

Forklift operators cannot “free hoist” materials, tools or equipment with a forklift. All forklift operators must pass the BALFOUR BEATTY “Forklift-Telehandler Operator Evaluation” before working.

Controlled Access Zones (CAZ)

Each Subcontractor conducting overhead work will provide an exclusion zone, consisting of a barrier that clearly makes all persons aware of the work area above and restricts access. This exclusion zone will be erected below the area where overhead work is being performed. Only authorized persons will be allowed within this zone. Safety signage is required to be placed on the barrier to warn of the potential overhead hazard. Dependent on site specific conditions, spotters may be required to be used to help keep persons out of the designated exclusion zone areas.

Areas below work being performed from an elevated work platform should be controlled with a CAZ. This CAZ prevents persons from being struck by falling materials or caught between adjacent surfaces or other equipment.

Any person/persons working on a building at elevation, regardless of height, must eliminate all risks to others from the risk of fallings tools or materials and always maintain a CAZ below their work. Workers must tether all tools and materials and provide systems that eliminate the fall of materials to levels below. System shall be acceptable to the Division SHE Director.

Energized and Pressurized Systems

Work on energized equipment/pressurized systems (e.g. Electrical, Fluid, Air, Mechanical, etc.) is prohibited unless a plan is submitted to and authorized by a BALFOUR BEATTY executive or SHE Director. Subcontractors must enclose, or guard, fan powered (VAV) HVAC Box heating coils to prevent contact with coils that may be totally or partially energized during testing and balancing.

Electrical rooms, switchgear rooms or closets that contain energized electrical gear shall be locked when they are un-occupied. No electrical panels, switchgears, motor control centers, ATS's, disconnects, etc. will be energized unless all panels, dead fronts, and all covers are in place. Signage is required on all energized electrical gear.

Electrical subcontractors must have a comprehensive plan for energizing equipment and circuits.

Excavations – Dependent upon soil conditions

Subcontractors must provide protective systems for excavations four feet or more in depth (or less, dependent upon soil conditions) on BALFOUR BEATTY projects. Provide end plates on trench boxes, unless an “acceptable” alternate plan is authorized by the BALFOUR BEATTY SH&E Director or responsible SH&E Manager. Subcontractors working in excavations on a BALFOUR BEATTY project shall have a trench safety plan and a BALFOUR BEATTY “DIG Permit” before starting work.

Digging with heavy equipment within 24 inches of an underground utility is prohibited on a BALFOUR BEATTY project. Vacuum extraction is highly recommended.

Structural Precast

Prior to the start of erection activities, the precast erector must submit a comprehensive engineered structural precast erection plan that has been reviewed (peer review) and stamped by a third-party, professional engineer (PE) to Balfour Beatty for review. This plan must include the erection sequence, temporary structural and erection bracing, welding, shimming/grouting, etc.

Incidents

All incidents, which include but are not limited to, all injuries (including First Aid), utility strikes, property damage or near misses, shall be reported to BALFOUR BEATTY at the time that they occur. A complete report for any major events will be required within twenty-four hours of the occurrence. Post incident drug/alcohol testing of all individuals involved in an incident is mandatory.

Housekeeping

Subcontractors must pick up their trash debris and leave work areas broom swept every day. Keep materials, tools, and storage areas neat and orderly. BALFOUR BEATTY reserves the right to back-charge any subcontractor that does not keep the project clean for expenses incurred to clean the work area.

HazCom (Globally Harmonized System) Programs

Subcontractors shall submit copies of their SDS to BALFOUR BEATTY to be stored in a designated location. SDS shall be added to the inventory as chemicals are brought on site. Subcontractors shall submit copies or provide electronic access.

Silica

Subcontractors must meet all requirements of OSHA for silica exposure. Prior to performing any activity involving the possibility of silica exposure, Subcontractor must provide BALFOUR BEATTY with a written, site specific, silica exposure control plan. Subcontractor may not use any means or methods to control silica exposure (such as fans) that will cause any exposure to other individuals on the Project or members of the Public. Subcontractor shall ensure the containment, clean up, and proper disposal of all slurry or silica residue because of Subcontractor's means or methods (including but not limited to the use of water) to control silica exposure. Any exceptions to these requirements must be approved in writing by BALFOUR BEATTY prior to any activity involving the possibility of silica exposure.

Orientations

Site-Specific BALFOUR BEATTY Safety and Health Orientations are conducted for all subcontractor employees before starting work. A hard hat sticker or other means of visual verification upon completion will be provided. All workers new to the construction industry (less than one year) and all temporary workers attending the BALFOUR BEATTY orientation will wear New Worker hard hat sticker.

Before entering a jobsite, all visitors must obtain permission from an authorized BALFOUR BEATTY representative, sign the BALFOUR BEATTY Project Visitors Log, receive a Safety Briefing, and wear appropriate Personal Protective Equipment.

Training

Subcontractor Supervisors must, at a minimum, have an OSHA 10-Hour Course completion card.

Subcontractors must ensure project workers attend a weekly safety meeting/“Tool Box Talk”. Subcontractors must maintain both subcontractor and BALFOUR BEATTY safety meeting/Tool Box Talk meeting information and attendance sheets in the project safety files.

Workers shall be provided with task-specific safety training and/or certifications as required by their supervisor and/or the SH&E Director for task assignments that may expose a worker to unfamiliar chemicals, tools & equipment or procedures.

Qualified Person (Employer) Certification is required for tools, equipment and activities such as Forklifts, Aerial Lifts, Powder Actuated Tools, Flagging, Rigging & Signaling, etc.

Drugs, Alcohol, and Firearms

Possession or use of drugs (regardless of state-specific laws) and alcohol are prohibited on all BALFOUR BEATTY projects; all subcontractors must have a plan that is substantially like that of BALFOUR BEATTY. BALFOUR BEATTY reserves the right to test any worker at any time upon reasonable suspicion of a violation of this policy. The BALFOUR BEATTY Drug and Alcohol Policy is available upon request from the BALFOUR BEATTY Project Manager or BALFOUR BEATTY Safety Director. Firearms are prohibited on all BALFOUR BEATTY projects.

Distracted Worker

Actively using mobile devices such as cell phones within the limits of the project is prohibited while walking or operating a motor vehicle or equipment, except when used to guide operations. Music and/or entertainment devices are prohibited.

Working Alone

Work is not permitted by an individual without line-of-sight or within earshot of another unless another plan for maintaining contact/rendering assistance is approved by BALFOUR BEATTY.

Personal Protective Equipment

Workers must wear safety glasses, hardhats, shirts with sleeves, gloves, long pants, work boots/shoes and hi-visibility vests/shirts. Welding hoods will be worn with hard hats. Chain saw use requires chaps, hearing protection, face shields, and gloves. Foot covers will be worn with tamper-style soil compactors and jack hammers. BALFOUR BEATTY has a strict 100% glove use policy; all persons on BALFOUR BEATTY sites must wear gloves regardless of the task or reason for visit; workers who need task-specific gloves must wear them, appropriate to the task and/or manufacturers' recommendations.

Contact any BALFOUR BEATTY SH&E Manager or SH&E Director for more information.

BALFOUR BEATTY CONSTRUCTION
MID-ATLANTIC DIVISION

Potomac River Generating Station

***SUBCONTRACTOR
SAFETY PACKAGE***

January 10, 2024

NOTE: Balfour Beatty Construction is continuously trying to improve safety on its project, and as such, this revision may contain changes from prior versions under which the Subcontractor may have worked. It is strongly advised that this Subcontractor Safety Package be reviewed in its entirety for applicable changes.

Statement of Intent

The safety and health of our employees and everyone else affected by our activities is fundamental to the success of our business. At Balfour Beatty, we believe that our long term success as a business is dependent upon the ability to keep our workforce, our business partners, our suppliers, our subcontractors and members of the public safe. Nothing that we do is so important that it cannot be done safely.

Our Policy

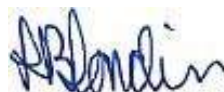
Our policy is to create an environment in which no one is harmed. We will achieve this by:

- Providing exemplary, positive and inspirational leadership
- Pursuing every opportunity to eliminate risk by designing in safety
- Identifying the hazards associated with our activities and removing the risk where reasonably practicable, including minimizing environmental impacts
- Establishing robust arrangements for the management of risks that remain
- Providing sufficient resources for the management of safety and health including setting and monitoring objectives for continual improvement
- Communicating and engaging with our workforce, our business partners, our suppliers and our subcontractors to foster a culture where everyone strives to keep themselves and others safe and healthy
- Empower all employees, our workforce and our subcontractors to question or stop any activity or condition that may be deemed unsafe without fear of reprisal, retaliation or harassment

Our Expectations

- Full compliance with all Safety, Health and Environmental (SHE) company policies and procedures, laws, codes, regulations, accepted industry standards, environmental regulations and practices, OSHA and DOL requirement by all Balfour Beatty employees, our workforce, our subcontractors and suppliers
- SHE expectations are clear and measurable and everyone is held accountable for safe performance at every level of the company
- All reports of potential unsafe acts or conditions will be promptly investigated by company management
- Measure SHE performance through systematic compliance assessments and implement prompt corrective measures to address any issues
- Always seek continual opportunities for improvement and progress on all SHE related goals

Authorization



Leon Blondin
CEO US Buildings
Balfour Beatty US

Balfour Beatty Construction
Potomac River Generating Station
SUBCONTRACTOR SAFETY PACKAGE TABLE OF CONTENTS

1. **SUBCONTRACTOR SAFETY SUBMITTALS LIST**
 - 1.1 – Hazard Communication – Chemical List and M/SDS
 - 1.2 – Subcontractor’s Safety Program
 - 1.3 – Drug Policy & Program – Compliance Assurance Letter
 - 1.4 – Job Hazard Analysis (JHA)
 - 1.5 – Pre Task Plan (PTP)
 - 1.6 – Cranes & Heavy Equipment
 - 1.7 – Hot Work (Burn) Permit
 - 1.8 – Excavation Plan & Dig Permit
 - 1.9 – Energized Equipment/Systems Plan/Permit

2. **OVERVIEW OF PROJECT SAFETY REQUIREMENTS**
 - 2.1 – Subcontractor Safety Representative
 - 2.2 – Pre-Construction Safety Meeting
 - 2.3 – Lower Tier Subcontractors
 - 2.4 – First Aid trained Competent Person
 - 2.5 – Safety Inspections
 - 2.6 – Visitors
 - 2.7 – Project Safety Committee
 - 2.8 – Incident and Hours Reporting
 - 2.9 – Drug & Alcohol Testing
 - 2.10 – Job Hazard Analysis (JHA) & Pre Task Plan (PTP)
 - 2.11 – Safety, Health, Environment and Project Specific Orientation
 - 2.12 – Worker Safety Training
 - 2.13 – Weekly Tool Box Talk Safety Meetings
 - 2.14 – Chemicals and Other Potentially Hazardous Materials
 - 2.15 – Proper Dress/Personal Protective Equipment (PPE)
 - 2.16 – Cell Phone & Radio Usage within limits of Project
 - 2.17 – Electrical
 - 2.18 – Energized Equipment/Systems
 - 2.19 – Pressurization Of Piping Systems
 - 2.20 – Pneumatic Tools
 - 2.21 – Power Actuated Fastening Devices
 - 2.22 – Ladders
 - 2.23 – Excavations
 - 2.24 – Confined Spaces
 - 2.25 – Fall Protection
 - 2.26 – Overhead Protection
 - 2.27 – Cranes & Lifting Equipment
 - 2.27.1 – Cranes
 - 2.27.2 – Hoists – Material / Personnel
 - 2.28 – Heavy Equipment, Mobile Elevated Work Platforms and Rotating Aerial Lifts
 - 2.29 – Housekeeping
 - 2.30 – Fire Prevention & Protection
 - 2.31 – Moisture Damage Prevention
 - 2.32 – Structural Precast Erection

3. **STANDARD SAFETY FORMS**
 - SAMPLE BBC Drug/Alcohol Policy & Program – Compliance Confirmation Letter
 - #1 - Site Specific Chemical Inventory List
 - #2 – Job Hazard Analyses (JHA)

- #3 – Pre Task Plan
- #4 – Hot Worker (Burn) Permit
- #5 – Excavation (Dig) Permit

SECTION 1

SUBCONTRACTOR SAFETY SUBMITTAL REQUIREMENTS LIST

Submittals are required for, but not limited to the following:

- 1 – HAZARD COMMUNICATION -- SITE SPECIFIC CHEMICAL INVENTORY LIST WITH SITE SPECIFIC M/SDS (standard form #1)
- 2 – SUBCONTRACTOR’S SAFETY PROGRAM
- 3 – BBC DRUGS, ALCOHOL AND OTHER PROHIBITED ITEMS PROGRAM
SUBCONTRACTOR LETTER OF COMPLIANCE
- 4 – JOB HAZARD ANALYSES (JHAs) (standard form #2)
- 5 – PRE TASK PLAN (PTP) (standard form #3)
- 6 – CRANES & HEAVY EQUIPMENT (if applicable – see Cranes & Heavy Equipment sections)
- 7 – HOT WORK (BURN) PERMIT (standard form #4)
- 8 – EXCAVATION PLAN & DIG PERMIT (if applicable – standard form #5 – See also Excavation section)
- 9 – ENERGIZED EQUIPMENT/SYSTEMS PLAN & and BBC AUTHORIZATION (if applicable)
- 10 – SILICA EXPOSURE CONTROL PLAN
- 11 – PRESSURIZATION OF PIPING PLAN (if applicable)

SECTION 2

Balfour Beatty Construction

Potomac River Generating Station

OVERVIEW OF PROJECT SAFETY REQUIREMENTS

**NOTE This "Subcontractor Safety Package" contains an overview of the general Balfour Beatty Construction (BBC) Project Safety Program and may include trade specific attachments. It is prepared as a convenience for Subcontractors, but is not a substitute for a Subcontractor's Program, which must meet or exceed the requirements of the Balfour Beatty Project Safety Program (available on site/upon request), the contract documents, applicable parts of the Project Specifications and Health, Safety & Environmental Requirements, and Federal, State, Local or other applicable regulations.*

NOTE: Balfour Beatty Construction is continuously trying to improve safety on its project and as such, significant changes have likely been made to this revision. It is strongly advised that this Subcontractor Safety Package be reviewed in its entirety for applicable changes.

2.1 The Subcontractor must appoint a **Safety Representative (Competent Person)** as the primary, on-site contact for safety related issues. The Safety Representative may be a Supervisor and they must have as a minimum, OSHA 10 Hour construction safety training or the equivalent.

2.2 The Subcontractor's on-site Supervisor and/or the Subcontractor's Designated on-site Safety Representative must schedule and attend a **Pre-Construction Safety Meeting** with the Balfour Beatty Project Safety Representative to discuss the Subcontractor Safety Requirements. The Pre-Construction Safety Meeting should take place at least five (5) working days before startup to allow for review of required documentation.

2.3 Subcontractors who in turn contract out parts of their work, have the total responsibility to see that their **lower tier contractors** comply with project safety requirements. Additionally, the Company's Project Manager and/or the Company's Project Safety Representative must be notified that the lower tier contractors are arriving at least five (5) days before work starts. Subcontractors are responsible for, and will be held accountable for all lower tier contractors.

2.4 The Subcontractor must provide a **First Aid trained Competent Person** when one or more of the Subcontractor's is actively working on the site.

Work is not permitted by an individual without line-of-sight or within ear shot of another unless another plan for maintaining contact/rendering assistance is approved by BBC.

2.5 The Subcontractor's Supervisor(s) and Safety Representative must make **frequent inspections** of their work areas and activities. Hazards identified that are under their control must be corrected immediately and all other identified hazards must be reported to the Balfour Beatty Project Superintendent.

2.6 **Visitors** to the site must first obtain permission from an authorized Balfour Beatty Representative, sign a Visitor's Release Form and obtain and wear a hard hat and safety glasses. It is recommended that each visitor leave a driver's license or other appropriate ID card to ensure that the visitor is accounted for and returns any borrowed personal protective equipment. Visitors must receive a Safety Orientation before entering work areas. This orientation may be modified from the standard BBC orientation to address only specific aspects of the visit.

2.7 **The Project Safety Committee**, comprised of BBC Supervision and Safety, Subcontractor Safety Representatives and Worker Representatives, must conduct a "Weekly Project Safety Inspection" to help identify and eliminate hazards, and plan upcoming work. Observations made by the Committee will be documented by entering issues in a Weekly Project Safety Inspection Checklist.

Members of the Project Safety Committee must meet weekly to discuss walkthrough findings and plan issue resolution. Minutes of the Safety Committee Meeting must be written, distributed to the weekly "Safety Walk" participants and filed.

2.8 Incident Reporting. “Dangerous Occurrence” incidents, (with or without injury) including, near-miss incidents, “service (utility) strikes,” and general public incidents must be reported immediately to BBC. Subcontractor must list Dangerous Occurrence Incidents (if any), and Hours Worked (Hourly and Salaried) on the required “Daily Manpower Report.”

Emergencies should be handled through the Balfour Beatty Field Office according to the posted Emergency Procedures when possible.

All non-emergency, work related injuries must be reported by the injured worker to his/her supervisor and to Balfour Beatty project management.

A Supervisor’s Incident Investigation Report must be completed by the appropriate Subcontractor Supervisor and submitted to Balfour Beatty within 24 hours following an accident/incident. (Form available from Balfour Beatty). Post incident drug/alcohol testing of all individuals involved in an incident is mandatory. All incidents that result in a Lost Time injury require daily written updates by the employer as to the condition of the worker until a written approval from a licensed medical provider is received allowing the them to return to work.

2.9 Drug & Alcohol Testing -- Subcontractors and others performing work on Balfour Beatty Projects must have a Company Drugs, Alcohol and Other Prohibited Items Program that is substantially similar to the Balfour Beatty Program that applies to all employees working on the Project and includes the following Test Types, (1) Pre-Employment, (2) Post Incident, and (3) Random Testing of the Company’s workers on the site each month. (See Subcontract Agreement - Exhibit D – Attachment D-A Drugs, Alcohol and Other Prohibited Items Program)

An Officer of the Company for each Subcontractor must submit a Letter of Compliance on Company letterhead to the BBC Project Manager. (See BBC Form Letter)

2.10 Job Hazard Analysis (JHA) & Pre Task Plan (PTP)

Supervisors must complete Job Hazard Analyses (JHAs) using the BBC Standard JHA form which includes a Risk Assessment, for activities involving: (a) above average hazard levels (as determined by a Balfour Beatty Representative), (b) new to site workers, and/or (c) non-routine tasks. (Standard Form #2)

NOTE: The JHA is a PLANNING TOOL – the key to value for the JHA process is to focus *less* on general safety and training, and *more* on job specific hazards and challenges, and the solutions for same. General training and safety items should be completed before and addressed separately from the JHA Process.

Each day prior to the start of work, a Pre Task Plan (PTP) must be developed and discussed with each crew, to include every task, and then be documented. An JHA may be part of a PTP, but the PTP should also include considerations beyond the job itself, such as the impact on or from other trades working in the area, change in weather from the previous day or anticipated severe weather, etc. (Standard Form #3)

The JHA has a focus on the job and the associated hazards, i.e. *How might we get injured by the work?* If the job activity doesn’t change, the JHA may not change. The PTP should also look beyond the task to surrounding influences on safety. i.e. *How might others hurt us, or how might we hurt others?* E.g. working over/under another trade is a classic example of what might be identified during the PTP process as a safety issue.

Common hazards, including Fatal Four (falls, electrocutions, being struck by objects, and caught in or between hazards; to include energized and pressurized systems)

2.11 Safety, Health, Environment and Project Specific Orientation

Every worker must attend the Balfour Beatty Safety, Health, Environment and Project Specific Orientation before starting work on the Project. The Balfour Beatty Representative conducting the Orientation must ensure that as a minimum, the contents of the Balfour Beatty ZERO HARM VIDEO, Project Sight Logistics Plan and any specific SH&E or Security policies/procedures are covered and that attendance is documented on the Balfour Beatty "Safety, Health, Environment and Project Specific Orientation Log.”

The ZERO HARM VIDEO is available in English and Spanish.

New to Construction - Worker Identification - Workers new to the construction industry (less than 1 year) and all temporary workers are identified with a Balfour Beatty Construction New Worker hard hat sticker. Subcontractors identify these new to construction workers to Balfour Beatty Construction at the orientation.

2.12 Worker Safety Training

Additional OSHA Construction Standards that require specific training include, but are not limited to:

- **Hazard Communication Training** – (29 CFR 1926.59)
- **Stairway and Ladder Safety Training** - 29 CFR 1926.1050
- **Fall Protection Training** - 29 CFR 1926. 503
- **Personal Protective Equipment** - 29 CFR 1926.95
- **Scaffold Training** - 29 CFR 1926.450
- **Confined Space in Construction** – 29 CFR 1926.1200

2.13 Weekly Tool Box Talk Safety Meetings - Project workers must attend at least one "Tool Box Talk" safety meeting each week. Copies of meeting minutes must be submitted to Balfour Beatty Construction with the Subcontractor Daily Progress Report for the day the meeting is held. Meeting minutes must indicate the name of the Subcontractor and date of the meeting. Minutes must be signed by the supervisor(s) and the attendees. Balfour Beatty Construction will make available new Tool Box Talk Topics for optional use each week. Specific topics can be provided upon request with advance notice. Employees must receive task specific safety training as determined applicable by their Supervisor and/or the Safety Director for task assignments that may expose an employee to unfamiliar chemicals, tools & equipment or procedures. "Day of" training must include planning in the form of Job Hazard Analyses (JHAs) review and Pre Task Plans (PTPs).

2.14 Chemicals and Other Potentially Hazardous Materials

A copy of the Subcontractor's **site specific Chemical Inventory List** (Standard Form #2) and **site specific** (Material) **Safety Data Sheets M/SDS** must be submitted to Balfour Beatty and updated as applicable. A **Project HazCom Station** is provided and maintained in the Balfour Beatty Project Office, and a copy of Balfour Beatty's Hazard Communication Program is available at that location. The Subcontractor should familiarize itself with the requirements of the Hazard Communication Program. The Balfour Beatty HazCom Station does not eliminate the need or requirement for the Subcontractor to establish and maintain a HazCom Program including training for its workers.

In the event unknown and/or potentially **hazardous materials** are encountered during construction, that portion of the work must stop and Balfour Beatty must be notified immediately. Work must not resume until it is authorized by the Balfour Beatty Project Manager, Project Superintendent or the Director of Safety, Health and Environment.

2.15 Proper Dress/Personal Protective Equipment (PPE)

- Hard Hats are required at all times (i.e. 100%) while on site. Cowboy-style hard hats are not permitted.
- Safety Glasses (with side-shields) are required at all times (i.e. 100%) while on site, including prescription glasses and other street-ware glasses.
- Long pants, shirts with sleeves and proper work shoes/boots must be worn at all times. Shorts, sleeveless shirts and athletic or tennis type shoes are not permitted.
- Welding Hoods must be worn with a hard hat.
- Cutting goggles must be worn with oxyacetylene cutting activities.
- Face Shields must be worn in addition to safety glasses when operating equipment/tools where flying and/or falling metal or other debris is likely. (i.e. chop saws, hand-held cut-off saws, drilling overhead, chipping gun, etc.)
- Safety-Toed Boots may be required based on project specific requirements or based upon Job Hazard Analysis.

- Foot Covers must be used with “jumping jack” compactors and jackhammers.
- Chaps must be worn when using a chain saw or a hand-held cut-off saw.
- High Visibility apparel is required. **Class II** apparel is required for Traffic Control and other activities in or next to roadways, and may be the required high-visibility apparel on the project for general duty. **Class III** apparel is required for night work activities around heavy equipment and/or for road work.
- Gloves shall be worn at all times while on site. This requirement applies to all craft workers, supervisors, managers, visitors, vendors or any other individuals. Each task being performed shall be analyzed to determine the appropriate cut level of gloves that is required. Gloves shall be a minimum of ANSI Cut Level 3. Specialty gloves may be required for handling sharp materials, chemicals, electrical work, etc. Minimum Cut Level 3 sleeves shall be worn by any craft workers working above ceilings or work will be performed through or next to materials with sharp edges.

2.15 Proper Dress/Personal Protective Equipment (PPE) continued

- Adequate Hearing protection and Hearing Protection Plans based upon anticipated or measured exposure must be used when workers are exposed to high noise levels.
- Respiratory Protection will be acceptable as a last resort after feasibility of Engineering and/or Administrative Controls has been evaluated. If required, Respiratory Protection must be used in accord with an adequate Respiratory Protection Program (RPP). The RPP must be submitted to and accepted by BBC Project Representative or SH&E Director.

2.16 Distracted Worker/Radios

Actively using mobile devices such as cell phones within the limits of the project is prohibited while walking or operating motor vehicles or equipment, except when used to guide operations. Music and/or entertainment devices are prohibited. Communication radios only. Personal phone calls are restricted to breaks except for emergencies.

2.17 Electrical

- Ground Fault Circuit Interrupter (GFCI) protection is required for all 120v, 15 & 20 Amp receptacles, electrical extension cords and tools, including for those plugged into permanent power, portable generators and welding machines.
- Ensure electrical extension cords are three-wire, rated for hard or extra hard usage and rated for the required amperage.
- Elevate extension cords and/or keep to the side to reduce exposure to damage

2.18 Energized Equipment/Systems - Work on energized equipment/pressurized systems (e.g. Electrical, Fluid, Air, Mechanical, etc.) is prohibited unless a plan is submitted to and accepted by a Balfour Beatty Construction executive or SHE Director.

Enclose or guard fan powered (VAV) HVAC Box heating coils to prevent contact with coils that may be totally or partially energized during testing and balancing.

2.19 Pressurization of Piping Systems – Prior to any pressurization of piping systems and/or the use of pneumatic plugs a detailed plan must be submitted to and have written authorization by a Balfour Beatty Construction (BBC) Project Executive and/or SHE Director.

2.20 Pneumatic Tools

Excess Flow Safety Valves are required on all air compressor outlets *except* for blow pipe cleaning operations that cannot be done with the valve in use. All hose-connections must be safety wired. “Whip-Checks” may be used in addition to safety wire, but may not be the only means of securing hose-connections.

2.21 Power Actuated Fastening Devices

Actuation of the firing mechanism on power fastening devices must require two (2) separate, non-linear actions by the operator. An example of a device that *does not meet* the requirements is the “push-push” (bump-fire) pole-mounted,

powder actuated ceiling gun. An example of a device that *does meet* the requirements is the “squeeze-handle” (push-squeeze) pole-mounted, powder actuated ceiling gun.

2.22 Ladders

USE OF LADDERS LAST, WHEN SUBCONTRACTOR REACHES CONCENSUS WITH BALFOUR BEATTY SUPERINTENDENT THAT NO OTHER SAFER MEANS OF ACCESS TO SUBCONTRACTOR’S WORK IS POSSIBLE THE FOLLOWING GUIDELINES APPLY:

- If Subcontractor intends to use a ladder as a work access platform, Subcontractor will submit to Balfour Beatty a written plan with descriptions of work for which Subcontractor intends to use ladders as well as explanations why other safer means of accessing their work is not possible. **NO A-FRAME TYPE LADDERS ARE ALLOWED ON BALFOUR BEATTY PROJECTS.** This plan must be submitted at least 5 days in advance of Subcontractor’s planned work allowing adequate time for discussions / review. Subcontractor’s written plan shall provide “Safe Work Access Platforms Use” training details that certify their employees for safe ladder use at work heights below 6 feet as well as above 6 feet. Subcontractor’s written plan will prescribe how Subcontractor will identify their employees that have been certified in “Safe Ladder Use”, as well as disciplinary actions that will be taken by Subcontractor should their certified employees be found to be in non-compliance with Subcontractor’s “Safe Ladder Use” plan. Subcontractor’s identified competent person is required to monitor their plan, update their plan daily, and advise Contractor of any changes to their “Safe Ladder Use” plan whether required by Subcontractor or Contractor.
- Podium Type 1A ladders (1AA is weight imposed on ladder exceeds 300 pounds (max. 375)) shall be used for accessing work at height on the project. When working on podium Type 1A ladders, fall protection is required when the worker is at a standing height greater than six (6) feet above the floor (see subcontract Exhibit D – Addendum #1, Section 2, 2.24 B. Fall Protection) unless tie off is physically not possible, then proper height podium Type 1A ladder (min.) equipped with ladder manufacturer fitted safety gate shall be used.
- Subcontractor is encouraged to utilize safer means of accessing Subcontractor’s work such as the work access platforms included in attachment “WP”. The use of mobile scaffolds, and aerial, platform and scissor lifts with weights suitable for floor design live loads when used for interior work in building is also encouraged with appropriate load data and use plan provided. These safer alternative type work access platforms also require “Safe Use / Assembly (if applicable)” training certification by Subcontractor as well as Subcontractor monitoring / inspections for the safe use of same on a daily basis. Consideration must be given to planned use for open floor base building work access verses work access in finish workspaces.
- Extension ladders shall not be used as work platforms unless no other safer options are possible and the extension ladder is properly set up (4 to 1 rule) secured at the top and the bottom and a proper fall restraint system is provided and the associated “BBC Ladder Use Permit” is submitted to Balfour Beatty Superintendent ,reviewed and approved.
- Safer Alternative Type Work Access Platforms will require “Safe Work Access Platform” training certification by Subcontractor as well as Subcontractor monitoring / inspections for the safe use of same daily.

Concrete Subcontractor planning to use job-built wood ladders for temporary access to work areas (for example elevated decks during concrete structure work and foundation excavations), must provide a written plan that is reviewed with and approved by Balfour Beatty Superintendent. Job built ladders must be built in accordance with ANSI standards. Subcontractor’s plan shall provide training certification for employees building, moving and re-installing job-built wood ladders and will identify their employees that have been certified to Contractor. Subcontractor’s plan shall provide “Safe Use” training details that Subcontractor will cover with their employees for safe use of job-built wood ladders. Job-built wood ladders are to no longer be used once concrete is

placed and formwork is stripped. **AdjustaStairs or equal and scaffold stairs are preferred for floor to floor temporary access to work areas in lieu of job built wood ladders.**

2.23 Excavations

- Use methods such as electromagnetic, GPR, tomography, hand digging, etc. in addition to traditional, required utility location services (e.g. "Miss Utility") to locate utilities. Never operate mechanized equipment within two feet (2') of any underground utility.
- Conduct a perimeter sweep or similar measures to check for the potential of underground utilities within the site footprint, as applicable.
- Machine (heavy equipment) disturbance of soil (digging, backfilling, etc.) within twenty-four inches (24") of an underground utility is prohibited on Balfour Beatty Construction projects. Check local jurisdiction requirements for greater safe distance requirements for certain utilities.
- Prior to soil disturbing activities, such as backfilling operations, driving ground rods, augering/driving fence posts, etc., submit the Balfour Beatty Construction "Dig Permit" for review and signature by Balfour Beatty Construction. Include a site plan on the back of the permit to show where excavation activities are planned. (See Standard Form #5)
- Excavation plans showing "worst case" section and plan view sketches (detailed plan view sketch at cross sections and a general site location) are submitted to, and authorized by a Balfour Beatty Construction Representative prior to starting new excavations over four feet (4') in depth. Anticipated potential impacts on others trades and/or the general public along with control measures should be included in a JHA and daily PTPs.
- Protective systems are required for excavations four feet (4') or more in depth on Balfour Beatty Construction Projects.
- Provide fall protection that prevents or arrests a fall where there is a free-fall exposure of greater than six feet (6') at excavations.
- Ensure the manufacturer's or tabulated data for excavation protective systems in use (other than sloping or benching) is available on site.
- Use end-plates with trench boxes, except when an alternative plan has been authorized by a Balfour Beatty Construction SHE Director or responsible SHE Manager.
- Provide effective means to separate and protect others from excavation activities.

2.24 Confined Spaces

No one may enter a Confined Space on the Project without advance notification. Submit an advance notification and an entry plan to the Balfour Beatty Construction representative for review and acceptance prior to entry into a confined space. Entry into a permit-required confined space is prohibited without authorization by the Balfour Beatty Construction SH&E Director. (A confined space is a space with limited egress, not designed for continuous human occupancy and has or could reasonably be expected to have physical hazards and/or a hazardous atmosphere). Ventilation/exhausting may be required as well as gas monitoring using devices with audible alarms.

Prior to requesting permission to enter a confined space, alternate methods for completing the job without entering the space must be considered. Ask "Do I really need to enter the space in order to complete the work?" Can a mirror or video camera be used to inspect, can a remotely lowered laser scanning device be used to measure the interior dimensions of a confined space?

2.25 A. Scaffolds and Work Platforms

All aerial lifts (boom or articulating) must have an occupant crush protection feature and that feature must be engaged at all times the equipment is in operation. All MEWPS must have Tenax Hardware Net or equivalent on the interior of the basket to preclude materials and tools from being dropped from platform.

Fall protection is required on scaffolds more than two feet (2') above an adjacent surface and within six feet, to include scaffold erection and dismantling activities. A fall protection system is required where the work platform height is greater than two feet (2') above an adjacent surface. Work platforms include, but are not limited to, all supported and suspended scaffolds, walkways and bridges between scaffolds, and aerial lifts.

2.25 B. Fall Protection

Fall protection to prevent or arrest a fall is required where there is a free-fall exposure of greater than six feet (6') for activities such as: steel and scaffold erection, overhead brick laying, leading edge work, crane assembly/disassembly, crane maintenance, and excavations. Monitors are not permitted in lieu of fall prevention/arrest systems.

Guardrail Systems must be installed by Balfour Beatty or its authorized representative for open, generally accessible, raised slab edges.

Subcontractors and Balfour Beatty Construction crews are required to install and maintain floor opening covers when openings are created as a result of their work activities.

- Construct the covers to support twice the anticipated loads. Ensure they are secured against displacement and labeled "Hole Cover" (or use the project-specific labeling system. Ensure workers are informed of any project-specific marking methods for hole covers.
- In addition to providing mesh cast into the slab and/or guardrail system, hole covers greater than one foot by one foot (1'x 1') should be fastened as well as blocked. 2x4 "curbs should be added to covers where aerial lifts could be driven over covers and "punch through"

Subcontractor personnel are responsible for notifying Balfour Beatty of the need to remove protective devices and the proper replacement of the devices. Subcontractor personnel must notify Balfour Beatty of defects or deficiencies of protective systems before starting to work in an area to avoid being held responsible for corrective actions taken by Balfour Beatty. Removal or alteration of fall protection systems is prohibited without first submitting a Guardrail Disruption Permit and receiving authorization from Balfour Beatty 48 hours in advance. Alternative provisions to ensure fall protection for others are the responsibility of the Subcontractor during activities where the Subcontractor's workers have removed or compromised the standard protection provisions, e.g. A Controlled Access Zone (CAZ) with self-supporting barricades.

Guardrail systems are not designed or permitted as attachment points for personal fall arrest or positioning device systems unless they have been engineered by a registered professional engineer (RPE-stamped) for that purpose.

Fall protection is required when working more than six feet (6') above truck beds.

In situations where there is a fall exposure, and conventional fall protection cannot be used because it would be infeasible and/or create a greater hazard risk, the subcontractor will submit a written alternative fall protection plan with alternative fall protection provisions for review by the Balfour Beatty Construction project superintendent and SH&E Director before work begins.

2.26 Overhead Protection

At no time may one trade work over/under another unless the activities are planned as such, and precautions as specified in Job Hazard Analysis are implemented to prevent injury from falling objects.

Each Subcontractor conducting overhead work will provide an exclusion zone, consisting of a barrier that clearly makes all persons aware of the work area above and restricts access. This exclusion zone will be erected below the area where overhead work is being performed. Only authorized persons will be allowed within this zone. Safety signage is required to be placed on the barrier to warn of the potential overhead hazard. Dependent on site specific conditions, spotters may be required to be used to help keep persons out of the designated exclusion zone areas.

Areas below work being performed from an elevated work platform should be controlled with a CAZ. This CAZ prevents persons from being struck by falling materials or caught between adjacent surfaces or other equipment.

Any person/persons working on a building at elevation, regardless of height, must eliminate all risks to others from the risk of falling tools or materials and always maintain a CAZ below their work. Workers must tether all tools and materials and provide systems that eliminate the fall of materials to levels below. System shall be acceptable to the Division SHE Director.

Overhead protection must be provided using designated overhead protected entrances/exits and a minimum of one of the following methods or an equivalent.

- Vertical netting (fencing) installed on all access levels below open sided exterior and atrium floors to restrict access to the protected entrances/exits. Additionally, debris and materials must be kept $\geq 10'$ from exterior and $\geq 6'$ from interior edges. A line should be painted 10' inboard from open sided floors edges where feasible to delineate "Debris and Material Storage Free Zones."
- Toeboards and/or vertical debris netting (secured at the floor) installed and maintained along open edges below which workers may walk or work.

Shafts without pits must be covered or have guardrails with toeboards, and/or be barricaded at the bottom.

Supervisors must direct the workers in their charge to comply with the building access restriction system(s), e.g. ground level perimeter barricade system, and use only the overhead protected access points.

Supervisors must instruct all of their workers as to the markings and methods of overhead protection provisions implemented by Balfour Beatty Construction and the Project Subcontractors.

Workers must not remove or by-pass any of the overhead protection devices unless they are authorized and directed to do so by the Subcontractor's Safety Representative and alternative protection is provided.

Alternative provisions to ensure overhead protection for others are the responsibility of the Subcontractor during activities where the Subcontractor's workers have removed or compromised the standard protection provisions, e.g. A Controlled Access Zone (CAZ) with self-supporting barricades.

Subcontractor personnel are responsible for notifying Balfour Beatty of the need to remove, and/or properly replace protective devices. Subcontractor personnel must notify Balfour Beatty of defects or deficiencies of protective systems before starting to work in an area to avoid being held responsible for corrective actions taken by Balfour Beatty.

Spotter(s) must be provided when workers could walk or work below activities within 6' of raised floor edges, including the stocking and removal of materials and equipment, where falling object protection is not provided for the impact zone below (work area + 20' minimum).

Materials, including those palletized and/or banded, must be moved/kept 10' or more inboard from raised floor edges. Spotter(s) must be provided during stocking and moving activities to keep personnel out of the impact zone below (work area + 20' minimum).

2.27 Cranes & Lifting Equipment

2.27.1 CRANES

Planning

Ground Support – Crane Users must obtain through BBC, ground condition information to assist in determining ground support requirements for a crane.

Tower Crane Foundation (Base Block)/Base Ballast – Design must be developed and stamped by a Registered Professional Engineer (RPE), and requires a 3rd party "peer review" and approval, i.e. 2nd RPE stamp. The double-stamped design must be submitted to BBC.

The Crane User must submit to BBC, 3rd party inspection reports for soil bearing capacity, reinforcement placement, and concrete strength.

Underground Utility (UG) Information – Crane Users & Operators must take reasonable measures to locate and identify UG Utilities as applicable to prevent damage, injury or interruption of service.

Overhead Utilities – Crane Users must conduct a site-assessment for overhead utility considerations. If lifting activities within 20' of overhead power lines will be necessary, or where voltage exceeds 350Kv, special precautions/provisions are required. (See Power Line Safety Section)

FAA Obstruction Evaluation “Permit” – Contact the Federal Aviation Administration (FAA) to establish if an Obstruction Evaluation is applicable and maximum height, lighting, flag, and/or other requirements might be applicable.

Crane Plan – A detailed plan developed and written by a crane user detailing the set-up and operation of a specific crane, which includes, but is not limited to: Crane Inspection; Operator and other crane personnel Certification documents; blocking details with ground pressure distribution and other ground support calculations; potential interaction with other cranes, overhead/underground utilities and adjacent structures; “Stop Work” action levels for wind speed and other environmental conditions.

Lift Plan – A plan developed and written by the load owner for lifting a specific load.

A Lift Plan written by the Lift Supervisor and reviewed by the Project Crane Coordinator and other applicable Crane / Lift Personnel must be completed for Critical Lifts, and may be required for other lifts as determined by the Project Crane Coordinator and/or the Crane Supervisor.

Critical Lift – (a) Lifts the BBC Crane Coordinator, the Lift Supervisor, the Crane Supervisor or the Crane Operator believes should be critical, (b) Hoisting personnel (with a crane), (c) Lifts made with more than one crane (tandem lifts), (d) Lifts where the center of gravity could change (e) Lifts made when the load weight is 75% (or more) of the rated capacity of the crane’s load chart, (f) Lifts using more than one hoist-line on the same crane, (g) Lifts involving non-routine or technically complex rigging/rigging methods. (See also USACE EM 385-1-1 “Critical Lifts” where applicable).

Collision Avoidance Plan – A Collision Avoidance Plan written by the Crane Supervisor and reviewed by the BBC Project Crane Coordinator when one Crane User has multiple cranes, or where two or more Crane Users are conducting lifting operations and crane-to-crane contact is possible.

Crane / Lift Personnel Descriptions

A Project-wide system for visually identifying Crane/Lift Personnel should be established and implemented by the Project Crane Coordinator as warranted, e.g. Hard Hat Stickers.

Project Crane Coordinator – A BBC (Crane) Competent Person.

Assembly/Disassembly (A/D) Supervisor – A Qualified and Competent Person designated by the crane supplier or BBC to supervise the assembly (erection) and disassembly (dismantling) of a crane, including climbing (jumping) of a tower crane.

Crane Supervisor – A Crane Competent Person designated by a Crane User to supervise crane activities for one or more cranes.

Lift Director – A Load Rigging & Crane Signaling Competent Person designated by the Crane User to direct lifting operations.

Crane Inspector – 3rd Party Qualified Crane Inspector who has met the BBC Inspection and Reporting Criteria.

Crane Operator – A crane operator who possesses a current NCCCO Certification (or a BBC accepted equivalent) with the applicable crane-type designation, and a current, passing Physical Examination verification. e.g. DOT Physical Examination Card (or a BBC accepted equivalent).

Crane User – Company responsible for directing the on-site operation of a crane.

Rigger – A person with verifiable training, qualified to rig loads and inspect load rigging.

Signal Person – A person with certified (typically 3rd party) qualification, trained to provide signaling to Crane Operators.

Ground Guide – A person with verifiable training who’s qualified to perform crane guidance duties that do not include load signaling, but may include guiding cranes while relocating, spotting when a swing-radius barricade is not feasible, spotting when there is potential interaction with other cranes, power lines and adjacent structures. A certified Signal Person is required when the operator cannot see the travel path.

Required Crane / Lift Personnel Qualification Documentation Verification

Employer Certification must be submitted to Balfour Beatty for the following Crane / Lift Personnel.

- [1] Assembly/Disassembly (A/D) Supervisor
- [2] Crane Supervisor
- [3] Lift Director
- [4] Crane Operator – Also required in addition to Employer Certification:
 - [4a] NCCCO Or equivalent Nationally Accredited Certification (acceptable to BBC Crane Coordinator, current and for applicable crane)
 - [4b] Physical Card / Medical Examination (acceptable to BBC Crane Coordinator, current and passing – e.g. DOT)
 - [4c] Evaluation documentation.
 - [4d] Local Crane Operator’s License (where applicable)
- [5] Rigger
- [6] Signal Person
- [7] Ground Guide

Crane Inspections / Tests

3rd Party Crane Inspections/Tests: The following Inspections/Tests must be completed by a 3rd party Crane Inspector acceptable to the Balfour Beatty Safety Representative and/or Project Crane Coordinator.

Periodic Comprehensive Inspection & Operational Test - (Annual – *ANSI-ASME B30.5/EM 385-1-1 / OSHA 1926.1400*). Applies to all Cranes (as defined by OSHA, which includes boom trucks). Must be current (less than one year old) and have no (uncorrected) deficiencies noted. This Inspection *and* Test is intended to verify that the crane is in proper operating condition *and* functioning properly. The Operational Test functional test included in the comprehensive inspection should be done with a load on not to exceed 75% of the charted capacity of the crane (this does not constitute a rated load test).

Post-Assembly/Erection Inspection and Rated Load Test – Applies to Cranes that require significant on-site assembly (as determined by BBC Safety Director). This inspection is intended to verify that the crane is assembled and *configured* properly. Applies to all Tower Cranes, “assembled” Mobile Cranes, and all cranes for USACE / NAVFAC Projects.

Rated Load Test - A Load Test at 100% of the cranes charted capacity. Applies to all Tower Cranes, “assembled” Mobile Cranes, and may be required for all cranes on USACE / NAVFAC Projects.

Post-Repair / Modification Inspection and Test – Inspection and Testing as required by the Manufacturer.

Crane User / Supplier Inspections/Tests:

Pre-Erection Inspection – (Tower Cranes only) Inspection of Tower Crane components for damage and/or excessive wear prior to erection.

Post-Assembly/Erection Inspection – Applies to all Cranes that require significant site-assembly (as determined by BBC Safety Director). Conducted by the A/D Supervisor and/or the A/D Supervisor’s designated, qualified appointee. This inspection is intended to verify that the crane is assembled (configured) properly.

Pre-Shift Operational Inspection & Test – Must include a written report. The Crane Supervisor must be notified immediately of any deficiencies.

Monthly Inspection Report – A written Pre-Shift Operational Inspection & Test (and Report) that includes review and comment on any recommendations made in the Periodic Comprehensive Inspection & Operational Test Report.

Required Crane Documentation Verification

The following documents must be submitted to BBC as noted.

[1] Crane Plan	BBC acceptance
[2] Post-Erection/Assembly Inspections and Tests	(where applicable)
[3] Passing, current Comprehensive Inspection Report	BBC acceptance
-Supplemental Deficiency Correction Report	(if applicable)
[4] Maintenance Log - Most recent three (3) services	(initial visual)
[5] Latest Monthly Inspection Report	(initial copy)
[6] Operating Manual	(initial visual)
[7] Load Chart(s)	(initial visual)
[8] Pre-Shift - Operational Inspection & Test Report	(initial copy, then random visual)
[9] Lift Plan/Critical Lift Plan	BBC acceptance
[10] Power Line Permit	(for work within 20' of Power Lines)
[11] Local Crane License	(where applicable)
[12] Local Equipment License	(where applicable)
[13] Rigging Inspection Log	(initial copy, then random visual)

Power Line Safety

Lifting Operations within a boom's / jib's length of a power line:

Electrical Hazard & Safety Awareness Training – Crane/Lifting Personnel engaged in Lifting Operations within the boom's/jib's length of a power line must receive documented Electrical Hazard Awareness & Safety Training and be directed not to conduct lifting activities within a Lifting Exclusion Zone.

Work Zone 20' or more from Power Line(s) up to 350Kv – Determine power line voltage and Crane Work Zone (maximum intended working radius). Delineate a Crane Hoisting Exclusion Zone 20' from nearest power line with a raised, high-visibility, warning system.

Work Zone less than 20' from power line(s) or Voltage greater than 350Kv – Contact BBC Safety and Complete BBC Power Line Permit. (See BBC Power Line Permit)

Environmental Considerations

Weather – The Project Crane Coordinator should monitor local weather conditions using means such as a weather radio, a lightning/storm detector, local weather website, etc.

- Maximum operating wind speeds established by the manufacturer shall not be exceeded. A wind-speed indicator (anemometer) is required for Tower Cranes and may be required for other crane types
- Functional speed should be reduced as warranted during Lifting Operations conducted during weather conditions that produce limited visibility or icing hoist function conditions.
- The Project Crane Coordinator must implement the BBC Severe Weather Plan, when a local Storm Warning has been issued. (See BBC Severe Weather Plan which includes lightning protection procedures)
- The manufacturer's recommendation must be followed for securing cranes during periods of severe weather or inactivity.
- The Crane User must properly dispose of any spilled, leaked or drained liquids associated with the operation of a crane.
- Banners, flags, lighting and other items must not be attached to cranes except as permitted by the manufacturer.

Lighting – For operations in dark conditions, lighting adequate to illuminate the working area(s) while not interfering with the Crane Operator's vision must be provided.

General Items

Tower Crane Electrical – **(i)** Plan for back-up power, e.g. Battery back-up for FAA Lights; Source for quick response generator to operate block and trolley to prevent weathervane snag/collision hazards. **(ii)** Labeled and lockable power disconnect **(iii)** Ensure necessary clearance at deck openings and other obstructions to prevent power cable pinch/crush hazard.

Load weighing and similar devices. - Equipment shall have at least one of the following: load weighing device, load moment indicator (LMI), rated capacity indicator or rated capacity limiter (does not apply to digger derricks)

manufactured prior to November 8, 2011). Temporary alternative measures: The weight of the load shall be determined from a reliable source (i.e., load manufacturer), by a reliable calculation method (i.e., calculating a steel beam from measured dimensions and a known per foot weight), or by other equally reliable means. This information shall be provided to the operator prior to the lift.

Crane Access Security – A means of preventing access to Mobile Crane cabs and Tower Crane towers must be provided.

Prohibited Lifting Conditions – Crane/Lifting Operations Personnel must understand that the Operator is prohibited from lifting when the plan /conditions are questionable.

“Anti-Two-Block” Device – Cranes must have a properly functioning “anti-two-block” device for each load lifting line (load-line). This requirement may be waived by the BBC Crane Coordinator for certain crane operations, e.g. pile driving leads.

Tower Crane Anti-Collision/Anti-Encroachment - Tower Crane Zone Control/Anti Encroachment System - Tower cranes must be fitted with “zone control devices” that automatically prevent loads from entering public spaces and other restricted areas as determined by Balfour Beatty Construction. Only a Balfour Beatty Crane Coordinator (Usually a Balfour Beatty Superintendent) may authorize the system to be disabled – and only for a specific lift and duration.

Tower Crane Anti-Collision System - Tower cranes *must* be fitted with an “Anti-collision device” that automatically prevents tower crane jib/load-line to tower crane counter-jib contact between multiple cranes in use. The device *must* also provide an audible warning to operators to avoid tower crane jib to tower crane jib contact. Additionally, on any tower crane, a flashing light and audible alarm must be added to the exterior of the cab that will flash/beep any time the zone/collision control equipment is turned off or faulty. A weekly documented test by the Licensed to Operate crane operator is required to verify the alarm system is functioning. Only a Balfour Beatty Crane Coordinator (Usually a Balfour Beatty Superintendent) may authorize the system to be disabled – and only for a specific lift and duration.

Tower Crane Block Camera – All tower cranes where the crane operator will be making lifts in the blind will be equipped with hook cameras or equivalent to provide the crane operator proper line of sight with the blind lift being made via an in cab mounted live video screen. These video feeds will not be recorded.

Load-Line Tie-Back – Load-lines (load lifting lines) may only be “tied-back” to the crane using a method acceptable to a Balfour Beatty Representative, which must include a “back-up safety system.”

Palletized Loads – Suspension Lifting – Palletized loads may only be suspension-lifted overhead using one of the following methods:

- Lifting Forks of adequate capacity with the load stable **and secured** to the pallet. Shrink wrap is not an acceptable securing method
- Equipment Lifting Eyes with the pallet removed.
- Properly rigged Lifting Container.
- An alternative method authorized by the Balfour Beatty Crane Coordinator.

2.27.2 HOISTS – Material / Personnel

Hoist Set-Up – Hoist Base Enclosure, Landing Gates, Communication Systems and other consideration should comply with the applicable (Material/Personnel) ANSI Hoist Standards and the BBC Hoist Set-up Guidelines (See ANSI Standards and BBC Hoist Set-Up Guidelines)

Hoist Operator – Must be “Hoist User Certified” as Trained and Qualified to operate the specific hoist. Collect a hard copy of Hoist Operator Qualification Document(s), file and log in Tracking Database.

Periodic Inspection and Safety Device Test – Hoists must be inspected and the safety device must be tested (i.e. load- rated, drop-tested) by a 3rd party Hoist Inspector acceptable to the Balfour Beatty Safety Director following erection or “jumping” of a hoist and every 3 months thereafter or as specified by the manufacturer. Some jurisdictions may require a state or local Elevator Inspectors to perform Inspections and tests. A License and/or Permit may be required.

Pre-Shift Operational Inspection & Functional Test – Prior to each shift, the Hoist Operator and/or a Qualified Mechanic must conduct a Pre-Shift Operational Inspection of hoist component and lubrication conditions, and conduct a Functional Test. A report must be completed, filed on the hoist and made available for review.

2.28 Heavy Equipment, Mobile Elevated Work Platforms and Rotating Aerial Lifts

Separation of Workers and Equipment must be addressed in the daily Pre Task Plan (PTP) where applicable.

Heavy Equipment Operators must be Employer Certified (e.g. Forklift Operator Certification) and verification of same must be submitted to BBC prior operating Heavy Equipment on site. Local Operator and/or Equipment Licensing may also be required. All forklift operators must pass the BBC Forklift Operator Examination prior to operating a forklift on site.

Pre-Shift Equipment Inspections must be completed and logged using applicable Inspection Report Forms for all Heavy Equipment (including skid steer loaders and forklifts). Inspection Logs must be made available upon request to any Balfour Beatty Representative.

Suspension hoisting by Heavy Equipment (other than cranes) is prohibited, except when an attachment point and/or hoisting device designed and engineered for use with the specific piece of Heavy Equipment is used in conjunction with the applicable load chart. Potentially excessive movement of suspended loads must be controlled. (e.g. tag lines)

Heavy equipment accessory, “Quick-Hitch” attachment devices must be of the Twin-Locking (fail-safe) type and/or have a locking mechanism that prevents unintentional disconnection of an accessory in the event of a primary connection failure. The hitch-type must be verified by a Balfour Beatty Representative. Operators must conduct a visual inspection and operational test to ensure “new” accessories are properly attached.

Mobile Elevated Work Platforms “Scissor Lifts” and Rotating Aerial Lifts

Occupant crush prevention features are recommended for aerial lifts (a/k/a Mobile Elevated Work Platforms - MEWPs) and are required for rotating aerial lifts (extensible and articulating) as of January 1, 2016. All MEWPS must have Tenax Hardware Net or equivalent on the interior of the basket to preclude materials and tools from being dropped from platform.

2.29 Housekeeping -- Cleanup must be performed **daily**.

Each sub must be notified that their schedule of values for requisitions must require separate lines for general condition items such as administering effective Safety and Cleanup Programs, The acceptable value, typically 3% must depend upon variables such as duration and manpower for a sub's scope of work. The values for a subcontractor's Safety Program and Cleanup Program including the level of manpower contribution to a Composite Cleanup Crew must be determined prior to the execution of the Contract.

- **Glass containers** are not permitted on site.
- Containers must be provided by each Subcontractor for the disposal of **break trash** and **drinking cups**.
- **Protruding nails** must be bent flat or removed as the work proceeds and before disposal.
- **Off-cuts of welded wire mesh** must be tied into the pour or placed in a trash container as they are cut.
- **Banding iron** must be flattened and/or placed in a proper trash container as the bands are broken.
- **Off-cuts of round stock** such as all-thread rod and conduit must be contained as they are cut.
- **Core drilling** cores and drill slurry must be cleaned up and properly disposed of as the work proceeds.

2.30 Fire Prevention & Protection

A Hot Work (Burn) Permit is required for any high heat generating, open flame, or spark producing activity. (See standard Form #4). Workers assigned to “hot-work” duties must be trained on the potential hazards of the activity and fire prevention procedures. A Fire Watch must be provided for the duration of the work and must remain in the area for at least 30 minutes after the work is completed.

Subcontractors are required to provide their own fire extinguisher protection for hot work and work involving flammable liquids/gasses.

Subcontractors are required to participate in practice Emergency Evacuation Drills conducted by local Authorities, BBC or its authorized representatives.

2.31 Moisture Damage Prevention

Materials prone to fungal growth (mold) after becoming moist, such as drywall, insulation and lined ductwork, must be stored off the floor/ground on dunnage and covered.

Materials prone to fungal growth must be checked following a potential moisture exposure event, and then thoroughly dried or removed immediately (process completed within 72 hours) if moist conditions are discovered.

Materials with visible fungal growth (mold/mildew) must not be removed or otherwise handled without the authorization and oversight of the BBC Safety, Health and Environment Department, and compliance with the BBC Mold Prevention Plan (MPP). Consult the BBC MPP and / or BBC Safety, Health and Environment Department for details. (BBC MPP available upon request).

2.32 Structural Precast Erection

Prior to the start of erection activities, the precast erector must submit a comprehensive engineered structural precast erection plan that has been reviewed (peer review) and stamped by a third-party, professional engineer (PE) to Balfour Beatty for review/acceptance. This plan must include the erection sequence, temporary conditions such as bracing adequacy (wind loading), welding, shimming/grouting, etc.,

SECTION 3

STANDARD FORMS

BBC DRUGS, ALCOHOL & OTHER PROHIBITED ITEMS PROGRAM - LETTER OF COMPLIANCE

SITE SPECIFIC CHEMICAL INVENTORY LIST - Standard Form #1

JOB HAZARD ANALYSIS - Standard Form #2

PRE TASK PLAN (PTP) - Standard Form #3

HOT WORK (BURN) PERMIT - Standard Form #4

EXCAVATION (DIG) PERMIT- Standard Form #5

Date

David Chachu
Ops Director
Balfour Beatty Construction
1400 North Royal St
Alexandria, Virginia
RE: Drugs, Alcohol and Other Prohibited Items Program Compliance.

Dear Mr. Chachu,

I am writing to confirm that our Company has received a copy of the Balfour Beatty Construction, LLC Drugs, Alcohol and Other Prohibited Items Program; has reviewed and is familiar with its contents; has a program that applies to all our Company's employees working on the Project; and that said program is substantially similar to the Balfour Beatty Program, including the following Test Types, (1) Pre-Employment, (2) Post Incident, and (3) Random Testing of the Company's workers on the site each month.

Sincerely,

Name

Title

Company Name

Working over or adjacent to Water

- A lifesaving skiff will be immediately available at any locations where employees are working over or adjacent to water.
- When workers are working over or adjacent to water throw ring buoys with at least 90 feet of rope will be provided and readily accessible for emergency rescue.
- All workers working over or near water, where the danger of drowning has not been eliminated by other means must be provided and wear a U.S. Coast Guard-approved life jacket or buoyant work vest.

--	--	--	--	--

Contractor: _____

Job Hazard Analysis (JHA)

Job/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	Risk Assessment Code (RAC) Matrix					
Contract Number:	Severity	Probability				
Date Prepared:		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	E	E	H	H	M
Reviewed by (Name/Title):	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
Notes: (Field Notes, Review Comments, etc.)	Negligible	M	L	L	L	L
	Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above) "Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely. "Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on JHA. Annotate the overall highest RAC at the top of JHA.					RAC Chart E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk
Job Steps	Hazards	Controls			RAC	
Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements				

This form must be completed as a requirement of the Project Safety Program . It is meant to be used as a safety training and planning tool. It must be filled out and reviewed by Balfour Beatty before starting the job. The information should then be used to train workers about the hazards of the job they are to perform. This form may also be required for a specific task as determined by the Supervisor and/or Balfour Beatty. Clean-up/housekeeping for each task should be addressed to include who cleans up what, and when. **Key to value for JHA process: Focus *less* on general safety and training, and *more* on job specific hazards and challenges, and the solutions for same.** General Training and Safety Issues should be addressed before and aside from the JHA Process.

INSTRUCTIONS FOR COMPLETING THE JOB HAZARD ANALYSIS FORM

Job Hazard Analysis (JHA) is an important accident prevention tool that works by assisting with hazard identification, elimination and control methods before a job is started. Use JHA for job clarification and hazard awareness, as a guide in new worker training, for retraining of experienced workers, as a refresher on activities performed infrequently, and as an accident investigation tool. Set priorities for doing JHA's: jobs that have a history of incidents, jobs with high potential for injury, and new or non-routine jobs. **Key to value for JHA process: Focus *less* on general safety and training, and *more* on job specific hazards and challenges, and the solutions for same.** General Training and Safety Issues should be addressed before and aside from the JHA Process.

Select a job to be analyzed. Before filling out this form, consider the following: The purpose of the job - What has to be done? Who has to do it? - How is it done?

In summary, to complete this form you should consider the purpose of the job, the potential related hazards, and actions to eliminate or control the hazards. If you are not familiar with a particular job or operation, interview a worker who is. In addition, observing a worker performing the job or "walking through" the operation step by step may give additional insight into potential hazards. You may also wish to videotape the job and analyze it. Here's how to do each of the three parts of a Job Hazard Analysis (JHA).

SEQUENCE OF BASIC STEPS OF JOB	POTENTIAL HAZARDS	RECOMMENDED ACTION OR PROCEDURE
<p>Examining a specific job by breaking it down into a series of steps or tasks, will help enable you to identify potential hazards workers may encounter.</p> <p>Each job or operation must consist of a set of steps or tasks. For example, the job might be to move a box from a conveyor in the receiving area to a shelf in the storage area. To determine where a step begins or ends, look for a change of activity or change in direction or movement.</p> <p>Picking up the box from the conveyor and placing it on a hand truck is one step. The next step might be to push the loaded hand truck to the storage area (a change in activity). Moving the boxes from the truck and placing them on the shelf is another step. The final step might be returning the hand truck to the receiving area.</p> <p>Be sure to list all the steps needed to perform the job. Some steps may not be performed each time; an example could be checking the casters on the hand truck. However, if that step is generally part of the activity, it should be listed.</p>	<p>A hazard is a potential danger. The purpose of the Job Hazard Analysis is to identify ALL hazards, both those produced by the environment or conditions and those connected with the activity procedure.</p> <p>To identify hazards, ask yourself these questions about each step:</p> <p>Is there a danger of the worker striking against, being struck by, or otherwise making injurious contact with an object?</p> <p>Can the worker be caught in, by, or between objects?</p> <p>Is there potential for slipping, tripping, or falling?</p> <p>Could the worker suffer strains from pushing, pulling, lifting, bending, or twisting?</p> <p>Is the environment hazardous to safety and/or health (e.g. toxic gas, vapor, mist, fumes, dust, heat, or radiation)?</p> <p>Close observation and knowledge of the job is important. Examine each step carefully to find and identify hazards -- the actions, conditions, and possibilities that could lead to an accident. Compiling an accurate and complete list of potential hazards will allow you to develop the recommended safe job procedures needed to prevent accidents.</p>	<p>Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the hazards that could lead to an accident, injury, or occupational illness.</p> <p>Begin by trying to: 1) engineer the hazard out; 2) provide guards, safety devices, etc.; 3) provide personal protective equipment; 4) provide activity instruction training; 5) maintain good housekeeping; 6) insure good ergonomics (positioning the person in relation to the machine or other elements in such a way as to improve safety).</p> <p>List the recommended safe operating procedures. Begin with an action word. Say exactly what needs to be done to correct the hazard, such as, "lift using your leg muscles". Avoid general statements, such as, "be careful". List the required or recommended personal protective equipment necessary to perform each step of the activity.</p> <p>Give a recommended action or procedure for each hazard. Serious hazards should be corrected immediately.</p> <p>The JHA should then be changed to reflect the new conditions.</p> <p>Finally, review your input on all three columns for accuracy and completeness. Determine if the recommended actions or procedures have been put in place. Re-evaluate the job hazard analysis as necessary.</p>

PRE TASK PLAN (PTP)

Project Name: _____ **Work Areas (Building/Floor/Area):** _____ **Subcontractor:** _____
Date: _____ **Start Time:** _____
Did any injuries, incidents, or near misses occur yesterday? If yes, explain below: YES ___ NO ___
Was BB notified, and was an Incident Report submitted to BB? YES ___ NO ___
Which OSHA "Fatal Four" risks will you and your crews be challenged with today?
FALLS ___ STRUCK BY ___ CAUGHT IN OR BETWEEN ___ ELECTROCUTION ___
Describe how you will manae those risks below. _____
What is the weather forecast today? Are there any special needs related to the weather? _____

--	--	--

TASK (Detailed sequence):	HAZARDS ASSOCIATED W/THE TASK:	SAFE PLAN TO ELIMINATE/MITIGATE HAZARDS:

Permit required: Yes Not <input type="checkbox"/> Confined Space <input type="checkbox"/> Hot Work (FPP) <input type="checkbox"/> Dig Permit <input type="checkbox"/> Energized Electrical Work <input type="checkbox"/> Proximity to Haz Electrical Source <input type="checkbox"/> Crane Pick <input type="checkbox"/> Fall Protection Plan <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Other _____	Tools & Equipment (List) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____	Required Personal Protective Equipment (PPE): <input checked="" type="checkbox"/> Hard Hat <input type="checkbox"/> Hand (Glove Type Required) _____ <input type="checkbox"/> Arm (sleeves, normal or cut resistant?) <input type="checkbox"/> Hearing <input type="checkbox"/> Eyes/Face (Goggle, Shfeld, Other) <input type="checkbox"/> Fall Arrest <input type="checkbox"/> Respirator (fit test completed?) <input type="checkbox"/> Foot protection (metatarsal protection as required) <input type="checkbox"/> Other _____
--	---	--

CREW MEMBER SIGNATURES (Print and Sign)

4.	5.	6.
7.	8.	9.
10.	11.	12.

SUPERVISOR: I DISCUSSED THIS PLAN WITH MY TEAM BEFORE STARTING WORK. X _____
Phone Number _____

HOT WORK (BURN) PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to: Brazing; Cutting; Grinding; Soldering; Thawing; and Welding.

<u>INSTRUCTIONS FOR SUPERVISOR</u>	<u>HOT WORK CHECKLIST</u>
1. Verify precautions listed at right (or do not proceed with the work).	Yes No N/A <u>Precautions</u>
2. Complete Permit, sign and submit to BBC.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> An AHA has been completed for the specific operation.
3. Obtain signature from BBC Supervisor/Safety	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> An SPA has been completed and includes notification of other trades in the area.
4. Post a copy in vicinity of the work.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Automatic Smoke/Fire Detection System(s) (actuation) disabled for area.
Date _____ Project Name _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Automatic Fire Sprinkler and other suppression systems and equipment are operable.
Location (Building & Floor) _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Portable Fire Extinguisher available and in serviceable condition. (Charged)
Description of Work _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Area clean and work in place protected.
Name of Person & Company Performing Hot Work _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Flammables and Combustibles removed from area and/or covered.
Expected Duration of Work _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Atmosphere verified non-explosive / non-hazardous.
Person #1 Performing Hot Work – Print & Sign _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Work will result in creating a Permit Required Confined Space (i.e. hazardous atmosphere in a confined space), for which another Permit is Required.
Person #1 Performing Hot Work – Print & Sign _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> An SPA has been completed and includes notification of other trades in the area.
Person #1 Performing Hot Work – Print & Sign _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Ventilation intakes closed or covered.
Hot Work Supervisor – Print & Sign _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Trained and Qualified Fire Watch assigned for during and for 30 minutes after work.
Balfour Beatty Construction Supervisor/Safety – Print & Sign _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Method for notifying Balfour Beatty and/or Fire Department known by those involved with Hot Work.
Permit Expires – Date & Time (AM/PM) _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Left half of this Permit has been completed including all signatures.
Hot Work Started – Date & Time (AM/PM) _____	
Hot Work Completed – Date & Time (AM/PM) _____	

BALFOUR BEATTY CONSTRUCTION - DAILY DIG PERMIT

Types of Excavation Activity

<input type="checkbox"/>	Site Grading	<input type="checkbox"/>	Hand Digging	<input type="checkbox"/>	Directional Boring	<input type="checkbox"/>	Drilling/Augering
<input type="checkbox"/>	Mass Excavation	<input type="checkbox"/>	Trenching < 4'	<input type="checkbox"/>	Trenching > 4'	<input type="checkbox"/>	Other _____

Dig Location _____

Company Name _____

A. Utility Locates Prior to Excavation

Public Utility Locate (i.e. One Call, Miss Utility etc.) # _____

Private Locating Company Name: _____

Public and Private Utilities identified in my excavation area

Electrical _____ Water _____ Sewer _____ Gas _____ Fuel _____ Fiber Optic _____ Control _____ Oxygen _____

HVAC Piping _____ HVAC Duct _____ Interior Plumbing _____ Communication _____ Other _____

(Y) (N) (N/A)

- | | | | |
|-------|-------|-------|--|
| _____ | _____ | _____ | I have reviewed field locates and markings and confirmed locations with: |
| _____ | _____ | _____ | Existing As-built utility drawing(s) |
| _____ | _____ | _____ | Current Construction utility drawing and verified their location(s) |
| _____ | _____ | _____ | Existing monuments, manholes, valves, meters, transformers, etc. |

- _____ I will treat all utilities encountered as "Live"
- _____ I will confirm utilities are abandoned prior to removing.
- _____ I will hand dig and visually observe utilities at all utility crossing according to Local/State Federal requirements
- _____ I will accurately "as-built" any changes to utilities made under this permit and submit same to BBC.

B. Soil Conditions Prior to Excavation

(Y) (N) (N/A)

- | | | | |
|-------|-------|-------|---|
| _____ | _____ | _____ | I have identified the soil classification (Class of soil _____) |
| _____ | _____ | _____ | I will slope/bench the excavation according to soil classification requirements |
| _____ | _____ | _____ | Will protective systems be used? |
| | | | If yes, what type? _____ |
| _____ | _____ | _____ | Do you have a copy of the engineered drawing for the system or tabulated data on-site? |
| _____ | _____ | _____ | Is the excavation deeper than 20 feet? |
| _____ | _____ | _____ | If yes has a copy of the engineered excavation plan been submitted to BBC? |
| _____ | _____ | _____ | I have evaluated, and will continue to evaluate, the soil conditions during our operations. |
| _____ | _____ | _____ | I will maintain proper slope and/or protection systems at all times. |

C. Digging/Excavation Checklist

(Y) (N) (N/A)

- | | | | |
|-------|-------|-------|--|
| _____ | _____ | _____ | I have controlled ground water, rain runoff and/or other sources of water in my excavation |
| _____ | _____ | _____ | I have a minimum of 2 means of access/egress and at least 25' from any work point |
| _____ | _____ | _____ | I have identified and eliminated overhead hazards. |
| _____ | _____ | _____ | I will monitor air quality in all excavation 4 - feet or greater as needed. |
| _____ | _____ | _____ | Excavation has been properly backfilled barricaded or protected |
| _____ | _____ | _____ | Utilities have been secured |
- _____ I will keep spoil piles, materials and equipment at least 2' from the top edge of excavation.
 - _____ I will maintain barricades to keep vehicles, pedestrians and workers away from excavations/equipment.

Competent Person Signature: _____ Time: _____

BBC Acknowledgement or permit activity: _____ Time: _____

Project Competent Person Designation (Attachment 1)

Project Name: _____
 Subcontractor's Name and Address: _____
 Subcontractor's Home Office Phone: _____
 Off Hour Emergency Contact & Phone Number: _____

OSHA 1926.32 (Definition of a "Competent Person"): A "competent person" is defined as one who is capable of identifying existing and predictable hazards in the surroundings or work conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authority to take prompt corrective measures to eliminate them.

Valid "certification" card or documentation of training must be submitted if box is checked below. Valid certification cards or training are considered expired after five (5) years from training date, unless otherwise noted.

As an officer of the company named, I acknowledge the company's obligation to ensure that a "Competent Person" (per OSHA or State equivalent) is present at the Project site any time our employees or lower tier subcontractors are performing work on site. Accordingly, I represent and certify the person named as a competent person was selected by the company for assignment to the Project site based on their possessing sufficient training or knowledge such that they:

- Are familiar with the systems, equipment, conditions and procedures the company will utilize in the performance of the activities designated below, including without limitation the proper use, maintenance and inspection, as well as any manufacturer's recommendations and instructions with respect to such systems and equipment;
- Are capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees; and
- Have authorization to take prompt corrective measures to eliminate any such conditions.

Competent Person Name & Mobile Number: _____
 The information below must be completed and submitted to Balfour Beatty prior to any work being performed on the site. Check all

<input type="checkbox"/> GENERAL SAFETY AND HEALTH – 1926.20 <input type="checkbox"/> OSHA 30 – 1926.21 <input type="checkbox"/> PPE – 1926.28 <input type="checkbox"/> FIRST AID/CPR – 1926.50 <input type="checkbox"/> IONIZING RADIATION – 1926.53 <input type="checkbox"/> LEAD – 1926.62 <input type="checkbox"/> HEARING PROTECTION – 1926.101 <input type="checkbox"/> RESPIRATORY PROTECTION – 1926.103 <input type="checkbox"/> FORKLIFTS – 1910.178 <input type="checkbox"/> MATERIAL HANDLING (INCLUDING RIGGING) – 1926.251 <input type="checkbox"/> ELECTRICAL (ASSURED GROUNDING) – 1926.404 <input type="checkbox"/> SCAFFOLDS/MEWPs – 1926.450-454 <input type="checkbox"/> FALL PROTECTION – 1926.500-503	<input type="checkbox"/> CRANES AND DERRICKS – 1926.550 <input type="checkbox"/> MATERIAL HOISTS, PERSONNEL HOISTS, AND ELEVATORS – 1926.552 <input type="checkbox"/> EXCAVATIONS – 1926.650-652 <input type="checkbox"/> CONCRETE AND MASONRY – LIFT SLAB OPERATIONS – 1926.705 <input type="checkbox"/> STEEL ERECTION – 1926.751-756 <input type="checkbox"/> UNDERGROUND CONSTRUCTION – 1926.800-803 <input type="checkbox"/> DEMOLITION – 1926.850, 859 <input type="checkbox"/> BLASTING – 1926.900 <input type="checkbox"/> LADDERS – 1926.1053, 1060 <input type="checkbox"/> ASBESTOS, CADMIUM, SILICA – 1926.1101-53 <input type="checkbox"/> CONFINED SPACE – 1926.1200 <input type="checkbox"/> OTHER – DESCRIBE: _____
--	--

The "site safety competent person" named above is responsible for job-site safety, regular inspections, corrections of unsafe conditions, or work procedures, employee orientation, weekly safety meetings, Pre-Task-Plans, and site-specific safety training. **MUST BE ON SITE ANYTIME WORKERS ARE PRESENT (INCLUDING TIER SUBS).**

Printed Name of Company Officer:	Signature of Company Officer:	Date:
Safety Director/Manager (email & phone number):		