DEVELOPMENT & CONSTRUCTION GROUP, INC.

SAFETY MANUAL

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DEVELOPMENT & CONSTRUCTION GROUP, INC.

CONSTRUCTION SAFETY MANUAL

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DEVELOPMENT & CONSTRUCTION GROUP, INC.

Policy Statement

Safety is Sense

It is the policy of NYC Development & Construction Group, Inc. (herein referred to as NYCDC) to maintain a safe working environment for all employees and the public. The Construction Safety Program has been designed in accordance with the William-Steiger Occupational Safety and Health Act of 1970. The success of the safety program requires the full support of every employee and subcontractor working along with NYC Development & Construction Group, Inc.

Regardless of the urgency or monetary cost of a job; all safety precautions must be observed. Prevention of personal injury or damage to property and equipment must always remain paramount in the minds of every employee and subcontractor.

CONSTRUCTION SAFETY MANUAL

PREFACE

THE CONSTRUCTION SAFETY MANUAL (CSM) is one of NYC Development & Construction Group, Inc. Contract Documents. Subcontractors are required to assure that all employees, subcontractors, and their suppliers, while on the work site and in the conduct of NYC Development & Construction Group, Inc, comply with the provisions of the CSM and the minimum standards set forth under the William-Steiger Occupational Safety and Health Act of 1970 and as amended, The Construction and General Industry Standards (29CFR1926/1910), and all other applicable Federal, State and Local laws. The Contractors are expected to be familiar with the contents applicable to their operations. The provisions set forth in this CSM will be strictly enforced. Non-compliance with the CSM will be treated the same as non-compliance with any contract provision. Willful or repeated non-compliance shall result in the suspension of part or all work.

Safety at the work site shall be the sole responsibility of the Subcontractor. The CSM shall be used as a guide in developing the Subcontractor's Accident Prevention Program. The State and Local safety related regulations and for complying with this Construction Safety Manual during the performance of all activities.

CONSTRUCTION SAFETY MANUAL

TABLE OF CONTENTS

TABLE OF CONTENTS – (Continued) PAGE

Appendices

A. DEFINITIONS

The following definitions apply for the purpose of this Construction Safety Manual.

ACCIDENT **-** An unforeseen event or occurrence which causes death, injury or damage to property.

ACCIDENTS PREVENTION PROGRAM (APP) - A program designed to provide for the protection to life and health of employees and other persons; and for the prevention of damage to property, materials, supplies and equipment. The Subcontractor's APP shall be developed by the Subcontractor using the Contractor's Safety Manual as a guide. Once approved by NYCCG, the Subcontractor's APP shall be used by the Subcontractor to insure the safe prosecution of the work.

COMPETENT PERSON – A person who is capable of identifying existing or predicting hazards in the surroundings, or working conditions which are unsanitary hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them.

CONSTRUCTION SAFETY - The optimum degree of safety within the constraints of construction effectiveness, time and cost through specific application of safety management throughout all phases of the construction.

CONTRACTOR - The corporation, NYC Construction Group, Inc. (NYCCG) who is referred to throughout the Contract Documents by singular in number and masculine in gender.

DEGRADATION - Falling from an initial level to a lower level in quality or performance.

EMERGENCY – A situation which is life threatening or which can cause serious damage on or in the immediate vicinity of any transit facility, structure, bus or train.

EMPLOYEE – A person employed by the Contractor or Subcontractor.

EQUIPMENT FAILURE – The state in which equipment no longer meets the minimum acceptable specified performance and cannot be restored through operator adjustment or control.

FAILURE – An inability to perform an intended function.

HAZARD – Any real or potential condition that can cause injury or death; or damage to or loss of equipment or property.

HAZARD MANAGEMENT (LOSS CONTROL) – An element of the system safety management function that evaluates the safety effects of potential hazards considering acceptance, control or elimination of such hazards with respect to expenditure or resources. (The feasibility of hazard elimination must be considered in light of financial, legal, and human considerations).

HAZARD SEVERITY – A qualitative measure or the worst potential consequences that could be caused by a specific hazard.

Category I – Catastrophic. May cause death, serious injury/illness or major system loss.

Category II – Critical. May cause injury/illness, or major system damage.

Category III – Marginal. May cause minor injury/illness, or minor system damage.

Category IV – Negligible. Will not result in injury/illness, or system damage.

HAZARD INDEX – A quantitative measure, combing the numerical probability of occurrence with a hazard severity

HAZARD RESOULTION – The analysis and subsequent actions taken to reduce to the lowest level practical, the risk associated with an identified hazard.

HAZARD PROBABILITY **-** The probability that a hazard will occur during the planned life of the system. Hazard probability may be expressed in quantitative or qualitative terms. An example of a hazard probability ranking system is:

A Frequent
B Probable
C Occasional
D Remote
E Improbable

IMMINENT DANGER – Refers to any condition or practice where there is reasonable certainty that a danger exists that can be expected to cause death or serious physical harm and/or serious property damage immediately or before the danger can be eliminated through normal enforcement procedures.

INCIDENT – An unforeseen event or occurrence that does not necessarily result in injury or property damage.

MAINTENANCE – All actions necessary for retaining an item in or restoring it to an operable condition.

MALFUNCTION – Any anomaly or failure wherein the system, subsystem, or component fails to function as intended.

MISHAP – An unplanned event or series of events that result in death, injury, occupational illness, or damage to or loss of equipment or property. (See also ACCIDENT).

NYCCG – NYC Development & Construction Group, Inc., located at 2161 Palm Beach Lakes Boulevard, Suite 406 – West Palm Beach, FL 33409

OPERATOR - That person having direct and immediate control of the movement of a vehicle or machinery.

OPERATING TIME – The time period between turn-on and turn-off of a system, subsystem, component or part during which time operation is as specified. Total operating time is the summation of all operating time periods.

OSHA – The Occupational Safety and Health Administration. An agency of the US Government that sets standards to provide for the safety of employees in the workplace. The area office is located in Ft. Lauderdale, Florida, phone (305) 424-0242.

PERSONAL PROTECTIVE EQUIPMENT (PPE) – Equipment designed and worn to provide protection against hazard to some part of any employee's body. Examples of PPE are safety glasses, respirators, hard hats, gloves, etc. All PPE used at NYCCG work sites must comply with applicable OSHA standards.

PROCEDURES - Established methods to perform a series of tasks.

REPAIR – The maintenance activity, which restores a failed item to operable state.

RULE – A law or order authoritatively governing conduct or action.

SAFE – Secure from danger or loss.

SAFETY – A reasonable degree of freedom from those conditions that can cause injury or death to personnel; damage to or loss of equipment or property; and freedom from danger.

SAFETY CHECKLIST – A list for examining the safety aspect of equipment, procedures and personnel.

SAFETY DEVICES – Protective devices, which do not alter the fundamental nature of a hazard but which don control the extent of the hazard in some manner.

SAFETY MANAGEMENT – An element of management that establishes safety programs requirements and ensures the planning, implementation and accomplishment of task and activities to achieve work place safety.

SAFETY PROGRAM – The combined task and activities of safety management and safety engineering that enhance operational effectiveness by satisfying the safety requirements in a timely, cost-effective manner throughout all phases of the work.

SAFETY SUBCONTRACTOR – A subcontractor who satisfies the Florida Department of Labor and Employment Security Industrial Safety and Health Program, Chapter 38F-44.

SERVICE CONTRACTS – Those operations that are providing any services or repairs, replacement or maintenance functions that are indigenous to the construction process on the work site.

STATE – The State in which the work is being performed.

SUBCONTRACTOR – Any person, firm or corporation, other than the employees of the Contractor, who contracts with the Contractor to furnish labor and/or materials under this Contract. The subcontractor shall be responsible for complying with this manual.

SUPPLIER/VENDOR – Those entities whose sole responsibility to the project is the delivery of goods or materials, exclusive of direct labor.

SYSTEM – A composite of people, procedures and equipment operating in a specific environment to accomplish a specific mission or task.

UNUSUAL OCCURRENCE – An unforeseen event or incident that does not necessarily result in injury or property damage.

UNSAFE CONDITIONS – Any condition which if not corrected will endanger human life or property.

WARNING DEVICES – Sensors that monitor or detect conditions and provide visible and/or audible alerting signals as desired for selected events.

WORK SITE – The area enclosed by the limit of work indicated in the Contract Documents and boundaries of local streets and public easements in which the Contractor is to perform the work under the Contract. It shall also include areas obtained by the Contractor for use in connection with the Contractor, when contiguous to the limit of work.

B. CONTRACTOR'S ACCIDENT PREVENTION PROGRAM (APP)

1) OBJECTIVES OF THE ACCIDENT PREVENTION PROGRAM

- To achieve an injury-free experience for the Project.
- To achieve maximum property conservation
- To reduce direct and indirect costs.

Accomplishing the above objectives will provide for:

a) A greater efficiency as a result of a safer working environment

b) A reduction of the construction work interruptions which develops when unsafe environments are created and when accidents occur.

2) METHODS OF ATTAINING OBJECTIVES:

Effectiveness of the Accident Prevention Program depends on the comprehensive participation and cooperation extended by all participants in support of the basic requirements listed below.

The Subcontractor or employee shall immediately inform the Contractor's Authorized Safety Representative of any recognized hazards or potential hazards, related to health & safety, which may impact on the effectiveness of the Project's Accident Prevention Program that cannot be handled promptly as set forth herein.

The major accident prevention requirements are:

a) Initiation and maintenance of programs, plans, training, etc. as necessary to comply with the requirements of this manual, and applicable Federal, State and Local standards.

b) Allocating manpower, as required, for professional safety personnel assistance.

c) Planning and coordinating all work to avoid personnel injury, property damage and loss of productive time.

d) Establishing and maintaining a system for prompt detection, reporting and correction or control or unsafe practices and unsafe conditions.

e) Assuring the availability, and enforcing the use of appropriate personal protective equipment.

f) Establishing and maintaining an effective and comprehensive system of tools and equipment inspection and maintenance including records required by applicable regulations or internal directives. The tool and equipment inspection and maintenance program shall include all employee-owned items brought onto the work site.

g) Establishing and supporting an educational and job sill-training program designed to foster and maintain accident prevention knowledge and cooperation at all levels of employment by:

1. Providing for new employee's orientations.

2. Conducting targeted subject safety meetings.

3. Posting adequate safety and health requirements for all operations.

4. Maintaining a list of adequately trained and licensed employees authorized to operate specific equipment.

5. Maintaining a list of the trained and certified crane operators.

6. Maintain a list of "Competent Person" employees who satisfy OSHA standard requirements to perform specific functions under the OSHA standards. A partial list of standards that require a competent person is included in appendix G of this CSM.

7. Investigating all accidents to determine cause (s) and taking prompt, reasonable and prudent necessary action to eliminate or control responsible factors.

h) Providing visitor control and hazard protection.

i) Providing work site security.

j) Establishment and maintenance of a first aid and/or medical facility.

k) Controlling the safe placement of materials or equipment received, or used, consistent with the traffic control pattern established and progression of construction on the work site.

l) Providing maintenance of traffic control plans and procedures consistent with the work to be performed in accordance with the Contract Documents.

m) Providing work site fire prevention/protection in coordination with local authorities and applicable standards.

n) Establishment and maintenance of an effective program in accordance with Federal, State and Local regulations for the storage, use, and disposal of hazardous substances.

o) Conducting accident/incident investigations.

3) **NYC DEVELOPMENT & CONSTRUCTION GROUP:**

a) The Contractor will:

1. Receive from the Subcontractor an Accident Prevention Program no later than 25 days after an approved Contract of Award Recommendation by NYC Development & Construction Group, Inc., and no less than 15 days before the projected date for notice to proceed of the Contract. The Subcontractor shall assume full responsibility for compliance with all applicable Federal, State and Local safety related regulations and for complying with this Construction Safety Manual during the performance of all work performed prior to the approval of the Subcontractor's Accident Prevention Program. (See definition of Accident Prevention Program).

2. Verify the Subcontractor plans and executes the work in compliance with the stated objectives of the Accident Prevention Program and applicable regulations.

3. Authorize work site inspections by NYCDC representatives to monitor Subcontractor compliance with this manual.

4. Require prompt remedial action to correct substandard or illegal safety and/or health conditions reported or observed by NYCDC representatives.

5. Verify that the Subcontractor has adequate fire prevention/protection equipment contained in ready-operating status at all times.

6. Verify that the Subcontractor has temporary lighting and power systems during the construction phase set up and utilized in such a manner as to reduce hazards to a minimum.

7. Ascertain that trained first aid personnel are available and certified for their work.

8. Verify that good housekeeping procedures are maintained at all times by the Subcontractor.

9. Establish procedures for the reporting of all fire incidents or damages as stated herein.

10. Instruct the Subcontractor to establish an identification program for all employees at the work site.

11. Verify that the Subcontractor reports all accidents immediately, as required by this manual and State and Federal regulations.

12. Establish procedures for timely reporting/notification to OSHA for accidents and injuries.

4) **SUBCONTRACTOR: The Subcontractor Shall:**

a) Submit in writing to NYCDC an Accident Prevention Program for approval no later than 25 days after an approved Award Recommendation by NYCDC and no less than 15 days before the projected date for notice to proceed of the contract. Provide the name, qualifications, and a "24 hour" phone number of the Subcontractor's Authorized Safety Representative who shall devote his time to the work site as defined by the definitions section of this Construction Safety Manual. No work shall begin until NYCDC approves the Subcontractor's authorized safety representative. The Subcontractor shall assume full responsibility for compliance with all applicable Federal, State and local safety related regulations and for complying with this Construction Safety Manual during the performance of all work performed prior to the approval of the Subcontractor's Accident Prevention Program. (See definition of Accident Prevention Program). For furnish and install equipment contracts (non-construction), the stated approval period will commence ten (10) days prior to the beginning of work.

b) Substantiate in writing to NYCDC that the Subcontractor's Authorized Safety Representative possesses at least two years of construction safety experience, is in a managerial supervisory capacity, related to the work contemplated under this Contract.

c) Maintain responsibility for project safety on the work site for his own employees at all times, under any circumstances.

d) After approval of the Subcontractor's Authorized Safety Representative, the Subcontractor, his Authorized Safety Representative and NYCDC representative will be required to attend a preconstruction meeting. At that time, a formal presentation and discussion of the Accident Prevention Program will be conducted.

e) Follow all of the requirements and procedures of the Accident Prevention Program.

f) Promptly provide NYCDC with a detailed written submission of the safety and/or health hazards not consistent to his work at the work site and a detailed program to control all such hazards. Such program must

be consistent with the Accident Prevention Program and conform in all respects to all legal and safety requirements, including those of OSHA and Federal, State, and Local regulations. All such programs must be approved by NYCDC prior to the commencement of this work.

g) Require each new employee, before he starts work, to be oriented by his supervisor on the safety and health rules, procedures, and requirements established for the work task (s) to be performed and procedures to be adhered to. Toolbox safety meetings are not an acceptable substitute for new employee orientation. The name of the employee and orientation date shall be on record at the work site.

h) Provide an overall traffic control plan for pedestrians, vehicular traffic and construction operations; and establish a general visitor control program.

i) Set up and implement a program to protect persons and property in the event of emergencies.

j) Complete supervisory investigation reports of all injuries.

k) Require supervisory employees to attend monthly supervisor's safety meetings.

l) Schedule weekly "tool-box" safety sessions to be held by the job foremen for all employees. A record including date, employee attendance, and subject covered shall be kept of these meetings for the duration of the Construction Project. NYCDC shall be advised of the time and location of the scheduled meetings. (See Appendix B for suggested format).

The meeting should be used to review safety and health rules and procedures, applicable Federal, State or Local standards, and to discuss any problems related to safety at the work site. This would include information as to storage, use and disposal of hazardous materials at the work site.

m) Schedule and preside at safety meetings to be held monthly at which appropriate supervisory staff of the Subcontractor will be required to attend. NYCDC shall be advised of the time and location of the scheduled meetings.

n) Take immediate action to correct unsafe practices and unsafe conditions

o) Report to NYCDC observed conditions or violations of job safety regardless of whether they are within the observer's power or responsibility to correct.

p) Assure that supervisory employees at all levels have a good working knowledge of applicable safety and health standards as they pertain to their areas of supervisory control and encourage all supervisory personnel and employees to improve their accident prevention awareness.

q) Provide the establishment of first aid facilities for treatment of employees.

r) Obtain a personal copy of the OSHA Construction Industry Standards 29CFR1926 and OSHA General Industry Standards 29CFR1910 to be available for the Subcontractor's reference as required by this manual. (The OSHA standards may be obtained free, or at a minimal cost, by contacting the OSHA area office, phone (305) 424-0242, in Ft. Lauderdale).

s) Ensure that prior to accessing restricted areas on property; he has provided proper notifications to and received proper authorization from NYCDC.

t) Ensure that during all times that employees are at the work site, an acceptable and reliable means of communication with local emergency response personnel is available.

u) In addition to complying with this manual, comply with all applicable safety & health governmental standards including the OSHA Construction Industry Standards 29CFR192611910, the Florida Right to Know Law, the Federal Hazard Communication Act, Florida Worker's Compensation Laws, etc. Maintain the necessary documentation, program, and/or training required by such standards.

v) Ensure all of his employees comply with the requirements of this Manual and applicable Federal, State and Local regulations

w) Comply with the current edition of the Florida Building codes.

5) EMERGENCIES

For the purposes of the Accident Prevention Program, emergencies are classified as follows:

a) A fire, or major hazardous material leak or spill, requiring the response of the local fire or environmental protection department.

b) Unplanned collapse of equipment used in the course of-construction.

c) Unplanned collapse of a substantial part of any structure at the work

site.

d) Any serious accident involving an employee.

e) Any serious accident involving a member of the public.

f) Any other occurrence which would require immediate protection of life or property.

6) **HOW TO REPORT AN ACCIDENT TO NYCDC:**

a) The Subcontractor and all other participants in the Program shall instruct their employees and all other concerned personnel in how to report an accident which must include, at a minimum, the following procedures:

1. Report the matter immediately to the supervisor who shall arrange for first aid or other required emergency medical treatment.

2. In the event of serious injury or a death, in the absence of emergency first aid facilities on the work site, the supervisor of the injured employee is to arrange for necessary treatment. There shall be full compliance with all requirements of the Contractor's insurance carrier(s) with regard to accident reporting.

3. The emergency phone number is: **911**

4. In case of a death, or if three or more employees are seriously injured in the same accident, NYCDC's Authorized Safety Representative shall, no later than 8 hours after the occurrence report the same to:

   a. Office of the Area OSHA Director within the State.

   b. OSHA, Bureau of Industrial Safety and Health.

5. The employer of any injured employee shall be required to complete the Notice of Injury Form, as required by State Worker's Compensation Division. (See appendix A).

6. The employer of any injured employee shall be required to record all work related injuries on Form 301 (or equivalent), Form 300 and complete/post the summary (Form 300A) at the beginning of the calendar year as required by OSHA 29CFR1904. (See appendix XXXXXX).

7. The supervisor of the injured employee shall be responsible to immediately report the injury to the Engineer, to fill out the Supervisor's Report of Accident (Appendix A), and make it and the notice of Injury report available to NYCDC.

8. All participants in this Accident Prevention Program shall cooperate fully in the investigation of any accident and/or occurrence.

b) The subcontractors and other participants in the Accident Prevention Program shall instruct employees and all other concerned personnel of the following procedures if there is loss or damage to property of others, including damage to equipment or tools being used at the work site.

1. Promptly report the loss or damage to the office of NYCDC's Authorized Safety Representative.

2. In the event of a substantial loss or damage to the property of others, the Subcontractor is to immediately notify NYCDC's Authorized Safety Representative.

3. There shall be full compliance with all requirements of the Subcontractor's insurance carrier (s) with regard to property loss and damages.

C. **GENERAL SAFETY AND HEALTH PROVISIONS**

1) The Subcontractor shall ensure employees do not work under conditions, which are unsanitary, hazardous, or dangerous to their health or safety.

2) The Subcontractor shall initiate and maintain such programs as may be necessary to comply with this manual, and all applicable government regulations.

3) Such programs shall provide for the frequent and regular inspections of the job sites, materials, and equipment to be made by competent persons designated by the Subcontractor; and shall include a program for the performance of work, to promote its orderly and expeditious progress and ensure its safe completion within the prescribed time.

4) The use of any machinery, tool, material or equipment not in good working order, or which has had a safety feature removed or tampered with, is prohibited. Such machine, tool, material or equipment shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from the work site.

5) The Subcontractor shall permit only those employees qualified by training or experience to operate equipment and machinery Applicable laws requiring employee to have a current license or certification (i.e., Class A Commercial Drivers License, etc.) to operate equipment are to be complied with.

6) The Subcontractor shall be solely responsible for the performance of the work in a manner, which will not create safety hazards, objectionable noise

or other nuisance to the public.

7) Employees of the Subcontractor who are found to be intoxicated or appear to be under the influence of alcohol or drugs (other than as prescribed by a doctor) while on the work site shall be removed from the work site NYCDC for the duration of the Contract. Employees who are found to be in possession of alcohol or drugs (other than as prescribed by a doctor) at the work site shall be removed from the work site by NYCDC duration of the Contract. An employee who is under a doctor's care and taking prescription drugs should inform his supervisor of same to determine if restrictions should be imposed.

8) Prior to the start of, and during the course of, any work, above or below ground level, the Subcontractor shall make a through survey of the entire work site to determine the type and locations of all utilities or other lines on the work site. The Subcontractors must verify this information by notifying the Underground Utilities Notification Center at 1-800-432-4770, other utilities not members of the Underground Utilities Notification Center, and notify NYCDC.

9) The Subcontractor shall instruct employees as to any precautions and procedures to be followed while working in the proximity of any utility or power line.

10) The Subcontractor shall develop and have readily available at the work site an emergency plan with the locations of any utility or line shut-offs or disconnects so that if any emergency arises, immediate action may be taken.

11) The Subcontractor will be required to identify and provide a notification procedure for all contingencies where cutting off a utility could adversely affect any operation or render inoperative any protective apparatus in the surrounding area.

12) All structural repairs, alterations or reconstruction of any equipment used on the work site shall be certified in accordance with all applicable laws and regulations.

13) Portable toilets shall be chemical type or equal and shall be located convenient to work crews and maintained in proper sanitary conditions at all times.

14) Construction operations will normally be confined to those hours between dawn and dusk. Any work done other than during daylight hours must be approved by NYCDC. In requesting approval during other than daylight hours, the Subcontractor must present a written statement outlining the special precautions to be taken to control the extraordinary hazards presented by night work. This program shall include, but not limited to such items as supplementary lighting of work areas, illuminated barricades,

proper supervision, availability of medical facilities, and security precautions.

15) Emergency lighting facilities, (i.e. battery operated or equivalent) shall be required in all construction areas where normal light failures would cause employees to be subjected to hazardous conditions. Such systems shall be maintained monthly.

16) Employees required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the precautions to take, and the use of protective and emergency equipment. The Subcontractor shall comply with all regulations applicable for working in dangerous or potentially dangerous areas.

17) No open burning of any kind shall be permitted without permits from appropriate local authorities and NYCDC.

18) Flammable storage cabinets shall be labeled in conspicuous lettering "Flammable - Keep Fire Away" and "No Smoking".

19) The use of torpedo or salamander type heaters, are prohibited.

D. MEDICAL SERVICES AND FIRST AID

1) At least one person who has valid certificates in first-aid training from either the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the work site to render first aid. Further, a minimum ratio of one such qualified person to 50 employees shall be maintained throughout the course of the construction. A suitable emblem shall be affixed to the qualified person's hardhat, or other suitable means of identification shall be used.

2) First-aid supplies, approved by a physician licensed to practice within the State, shall be accessible for immediate use. One 16-unit first-aid kit (or equivalent) shall be provided for each 50 persons or fraction thereof.

3) First-aid kit (s) shall be provided in a weatherproof container with individual sealed packages for each type item. The Subcontractor shall check the kits before being sent out on each job and at least weekly on each job to ensure that the expanded items are replaced.

4) A telephone shall be made available at the site before construction begins. Telephone numbers and locations of emergency facilities including emergency hospitals, physicians, ambulance service, police and fire department, as well as the complete street address of the work site, shall be posted in conspicuous locations at the work site, and at all telephone locations. The communication system for contacting necessary ambulance service or other emergency response personnel shall be operable at all

times personnel are on the work site.

5) The location and number of approved stretchers provided for each contract shall be submitted to NYCDC for approval immediately after work commences on site. They will be maintained, properly protected and easily accessible at all times.

6) The Subcontractors, his supervisors and foreman, shall assure that any of his employees who suffers a job-related injury shall receive first aid and medical attention consistent with and as required by law.

7) The Subcontractor's first aid facility shall maintain a daily log of all injuries, both first aid and doctor cases. The log shall contain information to reflect the date, name of employee, employer, craft, supervisor, type of injury, how accident happened, time, disposition of patient and name of attendant. A copy of the Subcontractor's accident log shall be made available to the Contractor at all times.

8) The subcontractor shall ensure that all OSHA recordkeeping and reporting requirements are met.

E DRINKING WATER

1) An adequate supply of potable water shall be provided in all places of employment.

2) Portable water containers shall be capable of being tightly closed and be equipped with a tap.

3) A common drinking cup is prohibited. Disposable cups shall be furnished.

4) Unused disposable cups shall be kept in a sanitary container, and a receptacle shall be provided for used cups.

(5) All containers utilized for potable water shall be labeled as "Potable/Drinking Water Only".

F PERSONAL PROTECTIVE AND LIFE SAVING EQUIPMENT

1) **GENERAL**

a) The Subcontractor is responsible for requiring and enforcing the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions.

b) The Subcontractors is to comply with all OSHA regulations (29CFR 1926 Subpart E) regarding personal protection· devices and life saving

equipment.

c) All persons on the Work Site shall utilize the proper foot protection which meets ANSI Z41 (toe), Z41.2 (metatarsal) and Z41.4 (electrical) standards.

d) All persons on the Work Site shall utilize hand and body protection which meets ANSI/ISEA 105 and ASTM F23 standards.

2) **HEAD PROTECTION**

a) All persons on the Work Site shall be protected by NON-METALLIC protective helmets, which meet ANSI Z89.2 standards. Helmets for the protection of employees against impact and penetration of falling and flying objects shall meet the specifications contained in ANSI Z89.1 Safety Requirements for Industrial Head Protection. Bump caps are not acceptable.

b) All Work Sites shall have posted approved signs alerting all persons that hard hats are required on the site. The use of hard hats at the Work Site will be strictly enforced.

3) **RESPIRATORY PROTECTION**

a) Whenever feasible administrative and/or engineering controls fail or are inadequate to prevent harmful exposures to employees, the Subcontractor shall provide and require the use of appropriate respiratory protective devices in accordance with OSHA, 29 CFR 1910.134.

b) Respiratory protective devices must be approved by the U.S. Bureau of Mines or acceptable to the U.S. Department of Labor for the specific contaminant to which the employee is exposed.

c) Employers must have written respiratory protection program as defined in 29 CFR 1910.134.

d) Employees required to use respiratory protective equipment must be trained in the use and limitations of such equipment, tested fit annually and medically approved to wear respiratory protection as required by 29 CFR 1910.134.

e) Respiratory protective equipment shall be inspected regularly and maintained in good condition. Defective or worn parts shall be replaced.

4) HEARING PROTECTION

a) Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in the table below.

b) When engineering or administrative controls fail to reduce sound levels within the limits of the Table below, protective hearing devices in accordance with OSHA (29 CFR 1926.101) shall be provided by NYCDC.

c) Exposure to impulsive or impact noise should not exceed 140-db peak sound pressure level.

d) In all cases, where the sound levels exceed the values shown in the Table below, a continuing, effective hearing conservation program shall be administered.

e) PERMISSIBLE NOISE EXPOSURE TABLE (Source: 29CFR1926.52)

Duration per day, hours	Sound level DBA slow response
8	90
6	92
4	95
3	97
2	100
1 – ½	102
1	105
½	110
¼ or less	115

f) Plain cotton is not an acceptable protective device. Hearing protection shall be used only when it meets OSHA requirements and is suitable to correct the exposure.

5. EYE AND FACE PROTECTION

a) Eye and face protection shall be provided and worn when machines or tool operations present potential eye or face injury.

b) Eye and face protective equipment shall meet the requirements of ANSI Z87. 1 - 2003, "Occupational and Educational Eye and Face Protection"

c) Employees involved in welding operations shall be furnished with a welding helmet with minimum grade 10-shade filter lens for shielded arc welding or cutting. Welding goggles with a minimum grade 4-shade filter lens may be worn only for oxyacetylene gas welding or burning.

d) Employees exposed to laser beams must be furnished suitable laser safety goggles, which will protect for the specific wavelength of the laser and be of optical density (0.0) adequate for the energy involved.

6. SAFETY NETS

a) Safety nets shall be provided when workplace are over roads, guide ways, or more than 25 feet above other surfaces where the use of ladders, scaffold catch platforms, temporary floors, safety lines, or safety belts is impractical. Safety net systems shall conform to OSHA 29 CFR 1926 502.

b) Where nets are required, operations shall not be undertaken until the net is in place and has been tested & inspected by the Resident Engineer.

7. SAFETY BELTS, LIFELINES AND OTHER PERSONAL FALL ARREST SYSTEMS

a) Approved personal fall arrest systems (in accordance with OSHA; 29 CFR 1926.104 and 29 CFR 1926.502) shall be worn by those employees whose work exposes them to falling from the perimeter of a structure or through shaft ways and openings. Protection must also be provided for employees who are exposed to the hazard of falling into/onto dangerous equipment.

b) Employers must provide a training program for employees who might be exposed to fall hazards. The training shall include how to recognize such hazards and how the employees can minimize their exposure to such hazards. The training shall, at a minimum, comply with 29 CFR 1926.503. Re-training or refresher training must also be provided when necessary. Records of such training must be available for inspection by NYCCG.

8. WORKING OVER OR NEAR WATER

a) Employees shall be provided with a U.S Coast Guard approved life jacket or buoyant work vest.

b) Prior to and after each use, the buoyant work vest or life jacket shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used and be removed from the job site.

c) Ring buoys with at least 90 feet of line shall be provided and available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.

d) At least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water.

G. SIGNS, SIGNALS, BARRICADES AND TRAFFIC CONTROL

1) All traffic signs or devices used for protection of construction workmen or the public shall conform to the State Department of Transportation's "Roadway and Traffic Design Standards" and applicable permit(s) conditions. All work areas on or around highways, roads and streets shall follow approved maintenance of traffic plans.

2) Barricades, cones and/or similar protective devices shall be used whenever men or equipment are exposed to traffic or similar hazards.

3) When traffic lanes are closed due to work activity, advance warning signals and high level warning devices shall be used as described in the State Department of Transportation's "Roadway and Traffic Design Standards" and applicable permit(s) conditions. All work areas on or around highways, roads and streets shall follow approved maintenance of traffic plans.

4) Flagmen and signalmen will be properly trained, certified, wear high visibility clothing (as required by the State D.O.T) and use appropriate procedures following the current State D.O.T manual. Where flaggers are used, a flagger symbol or legend sign must also be used.

5) All employees within 15 feet of the edge of the travel way and/or where employees are exposed to roadway traffic shall be required to wear a high visibility vest vest/garment, per the State D.O.T manual.

6) Whenever and wherever possible and necessary, line voltage (12 volt) protected lights shall be used to mark fences and barricades and other such encroachments onto public streets or sidewalks. Warning lights shall be in accordance with the State D.O.T RTDS 600.

7) Where covered sidewalks are required they shall be provided with permanent lights to provide sufficient illumination for safe use by the public day or night. All bulbs shall be cage-protected.

8) Public walkways shall be kept clean and free of hazards at all times. When an existing pedestrian way or bicycle way is located within a traffic control work zone, accommodations must be maintained and include provisions for the disabled. Only approved temporary traffic control devices may be used to delineate a temporary traffic control zone for pedestrian and bicycle ways.

Advanced notification of sidewalk closures and detours shall be provided by appropriate signs.

9) Where the Subcontractor is required to provide public walkway, they shall have abrasive, non-slip surface.

10) Where access to bus stop is disturbed or obstructed by the Subcontractors operations, safe access will be maintained or the bus stop relocated as directed by NYCCG. Coordination for maintaining or relocating bus stops with the appropriate agencies is the sole responsibility of the Subcontractors.

11) When steel plates or similar covers are used on public ways to cover excavations they shall be substantially secured to prevent movement imposed by traffic. Covers shall have non-slip surface, conforming to OSHA Specifications.

12) When such covers are located where there is pedestrian exposure, they shall be tapered at all sides with cutback cold mix or similar material to eliminate tripping hazards. Covers shall have non-slip surface.

13) Free access shall be maintained to every fire extinguisher, fire hydrant, fire alarm box, fire escape and standpipe connection, street and traffic light control box. When required, hydrants shall be extended by suitable tube or piping to an accessible point as approved by the Engineer. No obstructions shall be allowed at any time within 15 feet of a fire hydrant. Where materials are placed in the vicinity of a fire hydrant or a fire alarm box or fire extinguisher, and to such a height as to prevent the same from being readily seen, the position of such hydrant or fire alarm box or fire extinguisher shall be indicated by suitable signals, both day and night.

14) The Subcontractor shall erect and maintain fences and barricades to enclose the Subcontractor's work area, and provide watchmen where required to prevent unauthorized access.

15) No work shall be allowed above or below an active traffic lane. Subcontractor shall establish a work zone including appropriate lane closures following the State D.O.T RTDS 600 series.

H. MATERIAL HANDLING - (STORAGE, USE AND DISPOSAL)

1) All materials stored in tiers shall be secured to prevent sliding, falling or collapse.

2) Reinforcing steel shall not be used as a lifting ("Pick") point on any load or as a guy line anchor.

3) Hooks, except special sliding choker hooks shall be securely moused when in use, or shall be provided with a functioning safety latch.

4) Scrap material of any kind, type or nature shall be placed daily into appropriate containers specifically supplied for this purpose. Containers shall be removed from the Work Site when full.

5) Loose material on open decks or other exposed locations shall be removed or secured at the end of each day to eliminate dislodgment by wind or other causes.

6) Compatibility of stored materials and storage methods will comply with all applicable OSHA, Fire Department and environmental agency standards.

7) Employees required to handle, use, or dispose of hazardous materials shall be instructed regarding the safe handling, proper procedures, potential hazards, personal hygiene, and personal protective equipment required.

8) Disposal of materials shall be in accordance with all applicable Federal, State and Local regulations. All applicable record keeping and reporting requirements will be met by the Contractors.

I. TOOLS - HAND AND POWER

1) General
   a) Keep the work area clear of clutter
   b) Keep the work area well lit
   c) Maintain and keep tools sharpened, oiled and stored in a safe place
   d) Supervisors instruct employees on using equipment and safe work practices before using equipment
   e) Inspect tools, cords and accessories prior to daily use
   f) Repair or replace problem equipment immediately
   g) Use 3-prong electrical plugs, double insulated tools and safety switches
   h) Machine guards must be in place and not removed
   i) Do not wear loose clothing or jewelry when operating equipment
   j) Install and repair equipment only if you are qualified to do so
   k) Use the right tool for the job (i.e. do not use a pipe wrench as a hammer)
   l) Carry a sharp tool pointed downward or place it in a tool belt/box
   m) Protect sharp blades with a shield/sheath
   n) Store tools in draws or chests with cutting edge down
   o) Proper personal protective equipment shall be worn
   p) All power hand tools shall be equipped with a "dead man" control where the power is shut down when the operator releases the tool
   q) Never leave a running tool unattended

r) Tools of a non-sparking material and/or intrinsically safe tools must be used if fire or explosion hazards exist
s) All fuel operated tools shall be stopped and allowed to cool prior to being refueled, serviced, or maintained and proper ventilating used when used in enclosed spaces
t) Power grinding machines shall have proper grounding. Work rests must be kept at a distance not to exceed 1/8" from the wheel surface
u) Avoid repetitive motion, hold tools in a neutral position

2) "Lock on" buttons on all hand held power drills are prohibited.

3) Powder Actuated Tools

a) High velocity tools are prohibited. Only low velocity piston drive tools are permitted.

b) Only employees who have been trained in the operation of the particular tool in use shall be allowed to operate a power-actuated tool. ANSI STANDARD A10.3-1970.

c) Firing of the tools shall be dependent upon at least two separate and distinct operations of the operator, with the final firing movement being separate from the operation of bringing the tool into firing position. The tool shall be so designed so as not to be operable other than when being held against a work surface with a force of at least five pounds greater than the total tool weight. Caution must be exercised to ascertain that the proper color-coded charge, for the materials involved, is utilized.

d) In case of misfire, the operator shall hold the tool in the operating position for at least 30 seconds. He shall then try to operate the tool a second time. He shall wait again 30 seconds, holding the tool in the operating position. Then he shall proceed to remove the explosive load in strict accordance with the manufacturer's instructions. Misfired cartridges shall be placed carefully in a metal container filled with water and returned· to the supervisor for disposal.

4) Grinding wheels shall not be operated at speeds in excess of the manufacturer's RPM rating as labeled on the wheel.

5) Face and eye protection or safety goggles shall be worn by all employees using grinding wheels, jack hammering, slag chipping, powder actuated tools or similar operations.

6) Radial Saws

a) The upper hood shall completely enclose the upper portion of the blade down to a point that will include the end of the saw arbor. The slides of

the lower exposed portion of the blade shall be guarded to the full diameter of the blade by a device that will automatically adjust itself to the thickness of the stock.

b) Radial saw for ripping shall be provided with non-kickback finger or dogs approved by the manufacturer.

c) The saw and table shall be designed to prevent the blade from traveling beyond front of table.

d) Installation shall be in such a manner so that the front end of the unit be slightly higher than the rear, so as to cause the cutting head to return gently to the starting position when released by the operator.

7) Table saws shall be equipped with a functioning hood, guard, anti-kickback device and splitter.

8) Only power saws specifically designed by the manufacturer for cutting concrete block, or similar materials, shall be used for this purpose.

9) Cutting shall be done with water spray and the operator shall wear a face shield.

10) All hose couplings or any pneumatic or hydraulic equipment or tools shall be equipped with appropriate safety clips or retainers and shall be properly installed and maintained.

11) All appropriate machine and tool guarding devices shall be provided, shall be operational, and shall be use when the equipment is in operation.

J. WELDING AND CUTTING

1) Subcontractors shall instruct employees in the safe and proper use of cutting and welding equipment prior to using that equipment.

2) Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use. Each regulator shall be provided with an anti-flashback device for protection against excessive oxygen backpressure in the fuel gas supply.

3) A minimum of one 10-pound all-purpose (ABC) dry chemical fire extinguisher shall be kept within 10 feet of any cutting or welding operation. The extinguisher shall be kept in a conspicuous place, free of any obstructions.

4) Proper personal protective equipment shall be worn while welding and

cutting.

5) Welding screens shall be used in areas where prefabrication work is to be performed.

6) Oxygen and fuel gas regulators and hoses shall be maintained and in proper working order while in use.

7) All oxygen cylinders and fittings shall be kept free of grease and oil.

8) Do not weld without the approved goggles, hood and jacket/apron.

9) Always use approved gloves when welding.

10) Do not weld or burn in an area where fellow employees are working, without protective barriers, non-combustible flameproof screens/shields (blankets, covers, curtains etc.).

11) Do not weld where flammable or combustible material, such as waste, rags, paper, etc. can be ignited by the sparks or molten metal.

12) Do not weld in any location where open flame is not permitted.

13) Do not weld on a wooden bench or other structure that can burn.

14) Do not use leaky regulators, hose or other defective gas welding tools.

15) Do not use leaky gas cylinders.

16) Do not operate gas welding or cutting torches at pressure in excess of prescribed maximum.

17) Do not change or adjust pressure on regulators with torch valve closed.

18) Do not leave valves of gas cylinders open when not in use.

19) Do not leave valve key on gas cylinders when not in use.

20) Always remove all scale, rust, grease, protective surface coatings, oil and other foreign matter from metals before welding.

21) Always keep welding bench clear of dirt.

22) Always locate electric welding machine where it is protected from dirt, dust and harmful fumes.

23) Always see that the material being electrically welded is well grounded, and the ground connection from machine is tight.

24) Avoid fires on personal clothing from sparks or hot metal.

25) Always use protective clothing (welders legging, aprons, sleeves, jacket, etc.) when welding or burning.

26) Oxygen must not be used near flammable or combustible materials, such as grease, oil, etc., or any substance likely to cause fire.

27) Do not weld or cut in confined spaces without adequate ventilation.

28) Protect welding hose from being burned, trampled on or run over. Do not leave hose where it may be tripped over.

29) Valves on acetylene and oxygen tanks must be tightly closed when work is completed.

30) Carrying a lighted torch while climbing is forbidden.

31) Put rod stubs in a container. Stubs thrown on the floor become a slipping hazard.

32) Do not direct the flow of oxygen, from the torch, at clothing to remove dust, etc. This is a fire hazard.

33) Always have good ventilation when welding and gas cutting.

34) In the open air, when welding, cutting or heating metals having toxic substance(s), such as zinc, lead, cadmium, or chrome bearing metals, approved respirator shall be used

35) When required have a certified fireguard while burning or welding. Fireguard must have a functional fire extinguisher present.

36) Use caution when removing eye protection. Hot slag may pop during cooling.

37) Remove manifold and replace protective caps on cylinders before storing welding unit (overnight, etc.).

38) Manifold hoses must be equipped with flash arrestors.

K. COMPRESSED GAS CYLINDERS

1) Valve protection caps shall be in place when compressed gas cylinders are transported, moved, or stored.

2) Cylinder valves shall be closed when work is finished and when cylinders

are empty or are moved.

3) Compressed gas cylinders shall be secured in an upright position at all times, except when cylinders are actually being hoisted or carried.

4) Cylinders shall be kept at a safe distance or shielded from welding or cutting operations. Cylinders shall not be placed where they can contact an electrical circuit.

5) You are forbidden to lift or transport gas cylinders with hoisting equipment. Rough handling of loaded or empty gas cylinders is dangerous. Install protective caps onto cylinders before moving same. Transport cylinders on handcarts equipped with chains and secure the cylinder during movement. Do not accept cylinders, which do not have a protective cap.

6) Grease or oil on acetylene cylinders or oxygen cylinders is forbidden. It is extremely dangerous.

7) Avoid freezing acetylene cylinders.

8) Always remove leaky gas cylinders to open air, place them clear of flammable material or anything that might ignite them.

9) Always secure cylinders in an upright position. When a cylinder is empty, it must be marked "empty" and stored separately from full cylinders.

10) Protect cylinders from excessive heat. Do not store near steam pipes, furnaces, etc.

11) Oxygen cylinders should not be stored with acetylene or other highly combustible materials, including welding units. A minimum of 20 feet must be maintained from combustible and flammable gases.

12) All cylinders must be transported and stored with the protective cap securely in place. Never store cylinders with regulators/manifolds attached.

13) All cylinders must be clearly labeled as to content.

L. ELECTRICAL

1) Extension cords and temporary lighting electrical cords shall conform to the current edition of the National Electrical Code table 400.11. "Hard Usage" or "Extra Hard Usage", and shall be protected against all types of abrasion and damage.

2) All male plugs and female receptacle connections shall have cords

physically interlocked to prevent accidental or unintentional separation and provide complete and positive continuity and grounding.

3) All power cords connected to panels of breaker boxes shall be connected using plugs. No direct wiring is permitted.

4) Temporary (extension) cords used to supply tools shall be limited to a maximum length of 200 feet, except that additional length may be used if supplemental positive equipment grounding is maintained within 200 feet of the tool or power use.

5) All portable power generators shall be grounded.

6) Ground-Fault Circuit Protection:

   a) Ground-Fault Circuit interrupters will be installed on all 120 volts, single-phase, 15 and 20-ampere receptacles, on the Work Site.

   b) An assured equipment grounding conductor program may be substituted for ground-fault circuit protectors, only after the following has been provided.

      1) Submit a written program, developed by a licensed electrician, including specific procedures adopted by the Subcontractor to NYCDC.

7) All Work Site conditions will comply with requirements in OSHA 1926 Subpart K.

8) Before starting work on electrical equipment and lines, inspections and tests must be made to determine if they are alive or dead.

9) Use only tools or devices provided and see that they are in good condition.

10) Never touch two parts at different potentials or a single exposed live part at a dangerous potential to ground unless employee is insulated from other conducting surfaces, including ground.

11) Standing with hands behind back, with back toward generator or switchboard, is prohibited.

12) Employees working near live equipment and lines must protect themselves from tripping, slipping or falling, or from touching equipment or lines with body, tools or material.

13) Work on or about electrical circuit, apparatus or equipment only if qualified and with a thorough knowledge of its operating voltage and service, and then only when authorized by the immediate supervisor.

14) Do not use appliance, device, tool, flashlight, material or equipment that is not designed and approved for the maintenance and operation of the circuit on which it is to be used.

15) Insulation, weather proofing or covering on electrical wire, apparatus or equipment must not be depended upon for protection against shock.

16) Do not use bolt, rivet, cotter key or other object as a jumper in place of fuse.

17) Do not place clothing, lunch, tools, clothes hanger, or other unauthorized items in or about the power or control cabinet, switch box, battery box or on top of electrical apparatus.

18) Place "DO NOT OPERATE" warning tag on switch, set to de-energize line, apparatus or equipment. "Lock Out" procedures are preferred where feasible. At all times, when working on equipment that has the potential to cause harm or create a hazard, "LockoutlTagout projection Televisions" procedure shall be followed. Lockout!Tagout procedure requires each employee to place a lock (if possible) or a safety tag on the energy source of any equipment that has the potential to cause harm if the equipment is activated while it is being worked on. Refer to OSHA Standard 1910.147. "Control of Hazardous Energy".

19) Consider every circuit to be alive.

20) Use extreme care when using "snakes" in preparation of installing wire or cable. The coiled "snake" may fly loose and strike a person or electrified equipment.

21) Do not allow wet clothing, raincoats, etc., to come in contact with electrified equipment.

22) Do not lubricate electrical apparatus with power on.

23) Do not use water to put out electrical fires.

24) Do not change any wire or connections with power on.

25) Do not shift brushes in electrical motors with power on.

26) Do not leave the secondary of a current transformer open-circuited, or open up the secondary with power on.

27) Never wear ring(s) or jewelry on fingers on person when working near or handling electrical equipment.

28) Inspect all temporary cords and plug equipment for damage prior to use.

Cords with damaged insulation, covers, plugs or missing grounding pins are not to be used.

29) Do not pass temporary cords through door openings or other areas where they are likely to be cut.

30) When temporary cords are used, care must be taken to ensure a trip hazard is not created.

31) Portable extension lights shall be visually inspected by employees using them. Lamp guards must be in place on all extension lamps.

32) Electrical plugs of portable extension cords, or cords attached to any electrical apparatus, shall be disconnected by grasping the plug and not be pulling the cord.

M. LADDERS AND SCAFFOLDS

1) **Ladders:**

a) The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from service.

b) Portable ladders shall be placed on a substantial base at a 4-1 pitch, have cleat access at top and bottom, extend a minimum of 36 inches above the landing, and be secured against movement while in use.

c) Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.

d) Jon-made ladders shall be constructed for this intended use. Cleats shall be inset into side rails ½ inch, or filler blocks used. Cleats shall be uniformly spaced, 12 inches, top-to-top.

e) Wooden ladders must not be painted. Split or rotted conditions would not be easily seen and constitute a hazard.

f) The foot of a ladder shall be placed 1/4 of its length away from vertical plane of its support and must be secured to prevent all possibility of slipping.

g) Before climbing ladders, see that your shoes are free and clean of slippery substances. Watch out for broken rungs.

h) Face the ladder while climbing either up or down.

i) Never place a ladder in front of an unlocked door.

j) Employees must not reach out from a ladder more than an arm's length.

k) Ladders must be inspected by employees using them daily. Defective ladders are to be marked and kept separate from serviceable equipment and must be repaired before using.

I) Do not "walk" a ladder while on it.

m) Do not jump from or slide down any portion of any kind of ladder.

n) When getting off a ladder, make certain of secure footing and avoid stepping on loose stones, debris or into a depression before releasing handhold on the ladder.

0) A stepladder must be fully opened and spread properly before being used. Never stand on the top step of a stepladder.

p) When carrying tools or other objects up a ladder presents a hazard, they should be raised with a rope and bucket.

q) Two or more persons should raise, extend, shorten or move extension ladders. Never use the top section of an extension ladder as a single ladder, since it has no safety feet.

r) Always rope off the area directly beneath ladders.

s) Never leave extended ladders unattended. Remove ladders when there is a temporary stoppage of work.

2) **Scaffolds:**

a) Platforms shall be tightly planked for the FULL width of the scaffold except for any necessary entrance opening. Platforms shall be secured in place, with proper guardrail and toe boards.

b) Workmen shall not be allowed to climb or stand in cross bracing, or scaffold bucks.

c) Adjustment screws on scaffold legs shall not be extended beyond the manufacturer's recommendations, or two-thirds of the threaded length, whichever is shorter.

d) Casters shall be properly designed for strength and dimensions to support four times the maximum intended load. All casters shall be provided with a positive locking device to hold the scaffold in position.

Casters shall be provided with a positive means of attachment to the scaffold legs.

e) Scaffold support bearing shall not be comprised of concrete block or similar materials and footed securely or a solid, stable base.

f) Materials shall not be stored on scaffolds in excess of the suppliers needed for the immediate operation.

g) The edges of scaffolds shall be protected with railings and toe boards.

h) When using rollers for moveable scaffolds, lock or secure wheels.

i) Do not use bent or twisted members on scaffolds.

k) Always remove a scaffold as soon as there is no more need for it. A scaffold is a constant hazard.

l) Always rope off the area directly beneath scaffolds.

m) Use extreme caution and use approved fall protection equipment on elevated surfaces lacking side rail and/or approved guard.

N. FLOORS; WALL, OPENINGS AND STAIRWAYS

1) One-half inch mild plow steel cables or equivalent, or X inch alloy steel chains may be used on bridge or guide way decks, open floor edges, and similar applications, in lieu of standard wooden top midrails. Such cables or chains shall be firmly anchored and kept taut. All connections or cables shall be looped and clamped. Standard toe boards shall be used in such instances.

2) Floor openings shall be guarded by a standard railing and toe boards or cover. In general, the railing shall be provided on all exposed sides, except at entrances to stairways. Temporary floor openings shall have standard railings.

3) Every open-sided floor or platform, six feet or more above adjacent floor or ground level, shall be guarded by a standard railing, or the equivalent, on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

4) Runways four feet or higher shall have standard railings on all open sides, except runways more than 18 inches which used exclusively for special purposes may have the railing on one side omitted where operating conditions necessitate.

O. RAILING

1) A standard railing shall consist of top rail, intermediate rail and posts, and have a vertical height of approximately 42 inches from upper surface to top rail to the floor, platform, etc.

2) The top rail of a railing shall be smooth-surfaced, with a strength to withstand at least 200 pounds. The intermediate rail shall be approximately halfway between the top rail and floor.

3) A stair railing shall be of construction similar to a standard railing, but the vertical height shall be not more than 34 inches or less than 30 inches from upper surface of top rail of tread, in line with face of riser at forward edge of tread.

4) A standard toe board shall be at least four inches in height, and may be of any substantial material either solid or open, with openings not to exceed one inch in greatest dimension.

P. CRANES, DERRICKS, HOISTS, ELEVATORS, PILE DRIVERS & CONVEYOR

1) Prior to commencement of any work using any hoisting equipment on the Work Site, the Subcontractor will provide NYCDC with a valid certification of compliance for shore-based, or water borne equipment meeting all the provisions of OSHA 29 CFR 1919.

2) Record Keeping Requirements:

a) Supervision of all testing, examinations, inspections, heat treatments and record keeping procedures shall be carried out by such persons as are so designated in OSHA 29 CFR 1919.

b) Certificates issued by an accredited person (agency) shall be signed and all register entries made only be persons authorized by such accredited person (agency).

c) Certification shall not be issued until all conditions cited for correction on the semi-annual certification report form have been corrected in a manner satisfactory to the certifying agency.

d) In the event deficiencies remain uncorrected, no certification shall be issued.

e) An accredited person (agency) shall maintain records of all work performed including reports of work or tests performed by others (nondestructive testing, heating testing, etc.), in relation to each

certification. Such records shall be available for examination upon request by NYCDC Risk Management or their authorized representatives.

f) A copy of each certificate relating to semi-annual examination and/or unit proof load test shall be available with each crane or derrick.

3) A checklist will be prepared and submitted to NYCDC by the Subcontractor for any lift where the load exceeds 80% of the load chart capacity for the crane or derrick, or where the lift involves the use of two or more cranes. (See Appendix C).

a) No lifts meeting the above criteria will be made without prior submission of a Critical Lift Checklist.

b) Where erection drawings are prepared for submittal to NYCDC, Appendix C, will not be required if all the information contained therein is shown on the drawing submitted.

c) Prior to making the lift, the conditions shown on the drawing submitted will be verified by the Subcontractor's representative at the Work Site. Any deviations from the erection drawing submitted will be reviewed and verified as safe by the Subcontractor's representative.

4) Operation of boom equipment, or other equipment such as forklifts, backhoes, and the handling of any load in the proximity of electrical transmission lines is forbidden within a minimum of 10 feet. Further, if such equipment is positioned so that it is possible by rotation or any other movement, whether anticipated or not, to possibly contact high voltage, de-energizing of the lines, restraints, "hold-backs", or other positive physical means will be required. (Note: "High Voltage" is defined as voltage In excess of 400 volts).

5) All cranes shall be equipped with spirit level, or equivalent, to indicate the level of the crane fore and aft, and across the width. As nearly as possible, the crane shall be operated in level position.

6) After normal working hours and during other extended periods of non-usage, crane booms shall be lowered to a horizontal position to minimize the chance of movement due to wind. If this cannot be accomplished, load lines shall be securely fastened to a substantial anchoring point.

7) Except for floor-controlled overhead track cranes, a bell or other effective audible warning signal shall be provided for each crane equipped with power traveling mechanism, which shall be automatically engage and immediately audible when the crane begins to travel.

8) All pinch points drive mechanisms, and other hazardous moving parts shall be effectively guarded. (See Appendix C for suggested checklist).

9. Conveyor Systems

a) Conveyor systems shall be equipped with an automatic audible warning signal sounded immediately **BEFORE** starting up the conveyor.

b) Whenever a conveyor is equipped with a catwalk, a safety cable shall be installed on the conveyor to stop it instantly in an emergency, so as it cannot be started until the actuating switch has been reset to the "On" position. The cable shall not be less than 12 inches nor more than 18 inches above the conveyor belt and shall extend the entire length of the conveyor.

10) Catwalks shall be kept clean and free of tripping hazards.

11) Any anticipated use of helicopters for lifting operations shall require advance notice and approval by the Engineer and NYCDC Risk Management.

12) No person will be allowed to ride on a suspended load or hook for any reason.

13) No person shall be allowed to stand or pass under the elevated portion of any equipment whether loaded or empty.

14) Pile driving lofts men shall use safety belts when working at elevations outside loft platforms. When the leads are to be rotated or moved, the lofts man shall descent from the leads.

15) Exhaust pipes, steam lines, and other hot surfaces, located where employees could contact them, shall be effectively guarded or insulated.

16) Do not operate cranes or hoisting machines unless qualified to do so.

17) Do not stand under load being moved by crane.

18) Always test crane brakes and limit switches before operating on your tour of duty.

19) Always be sure that path of crane travel is clear of people or alerted by signal alarm in advance of moving load and while crane is in motion.

20) Always be sure that hooks, chains or cables are secure and properly placed before raising load.

21) Always be sure that loose parts are removed from load before raising it.

22) Only the operator is permitted to be in the operators cab while crane is in operation, except when authorized maintenance is being performed or a new operator is being trained.

23) Hoisting hooks, chains or cables are to be visually inspected daily for flaws, cracks, etc., by employees using them and defects reported to their immediate supervisor. A monthly inspection with a certification record which includes the inspection date and signature of individual inspector must also be done.

24) Do not lift load with twists or kinks in the chain, rope or sling.

25) Operators of cranes that are moving loads in close proximity of exposed current carrying devices, are required to maintain a safe operating distance at least 10 feet from such devices to avoid contact with hoisting cables, blocks, hooks, etc.

26) Know the load rating of equipment when starting to raise an unusual or heavier than normal load (Load should not exceed limits of crane). Test brakes when load is a few inches from floor or ground.

27) When hoisting unusual material or machinery, attach a chain or cable well above the center of gravity to prevent the load from tilting or falling over when lift is made.

28) When hoisting long shaped objects, a red tag line or other method of control is required to prevent load from turning end on end.

29) No employee shall ride or hang onto tongs, slings, hooks or load of hoisting equipment.

30) Before removing sling or chain from load, observe arrangement of load to be sure it has settled securely.

31) Keep yourself from positioning between the loads; observe arrangement of load to be sure it has settled securely.

32) Leaving any hoisting equipment with a suspended load unattended is forbidden.

33) Before pulling a hoisting rope, wire, cable, chain or other such tackle. Secure a firm footing, assume a braced position, and move clear in the event of adverse action.

34) Before hoisting a load, one (1) person must be designated to give

signals and all persons involved in the hoisting operation shall be notified who has been designated.

35) Use both hands when climbing into or leaving the crane cab. Lift tools and materials to the cab with a hand line.

36) If repairs to crane cause it to be laid up for long period of time, lock the main switch in the open position to prevent use.

37) Make sure the controllers are in the “Off” position before opening or closing the main switch.

38) If power should go off, move the controllers to the “Off” position at once. Wait until power is restored before operating controllers again.

39) Never depend upon a limit switch to stop hoisting motor. Use your controls. Do not attempt to use two controls at the same time when approaching limits.

40) Whenever leaving the crane, place all controllers in the “Off: position, open the main switch and set the brakes.

41) When hoisting operator’s view is obstructed in the direction of movement, assign an employee to precede the hoist and warn others of its approach.

42) Do not shorten, repair or splice hoisting chain with wire, nails, bolts or other objects.

43) Use standard hoisting hand signals.

44) Do not make side pulls with a hoist, which will misalign the rope. It may cause the load to swing sideways or damage the rope itself.

45) Do not operate crane (move load) while the load is being raised or lowered.

46) Approved fire extinguishers are required in overhead cabs.

Q. WIRE ROPES, CHAINS, AND ROPES

1) Wire ropes, chains, ropes and other rigging equipment shall be inspected prior to use and as necessary to assure their safety. Defective gear shall be tagged and removed from service.

2) Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, etc., or other such attachments, shall not be used.

3) The proper type of chain is to be used for the particular application (overhead lifting, transport, cargo securement, etc.)

4) Any attachment, such as hooks or links, are to have a rated “working load limit” at least equal to the chain/rope with which it is used.

5) When U-bolts are used for eye splices, the U-bolt shall be applied so that the “U” section is in contact with the dead end of the rope.

6) When U-bolt wire rope clips are used to form eyes, the following table shall be used to determine the number of spacing of clips.

7)

NUMBER AND SPACING OF U-BOLT WIRE ROPE CLIPS

	Number of clips		Minimum
Improved plow steel, Rope diameter inches	Drop forged	Other material	Spacing (Inches)
½……	3	4	3
5/8…….	3	4	3-3/4
¾……	4	5	4-1/2
7/8…….	4	5	5-1/4
1……	5	6	6
1-1/8…….	6	6	6-3/4
1-1/4…….	6	7	7-1/2
1-3/8…….	7	7	8-1/4
1-1/2…….	7	8	9

8) Slings are to be tagged for simple inclusion of sling type, working load limit, reach, serial number, chain size and grade.

9) State and Federal regulations regarding size and number of chain systems required for securing loads on trucks are to be adhered to.

R. MOTOR VEHICLES AND MECHANIZED EQUIPMENT

1) All equipment that is left unattended adjacent to a roadway in normal use shall have appropriate lighted barricades placed around the location of the

equipment.

2) Loaders, backhoes, bulldozer and other similar equipment shall have their blades or buckets fully lowered and engines shut-off when left unattended.

3) All vehicles and equipment shall be checked at the beginning of each shift to ensure that the equipment is in proper operating condition and that accessories that affect safe operations are free from defects.

4) Heavy equipment, machinery, or parts thereof shall be blocked to prevent falling or shifting before employees are permitted to work under or between them.

5) All equipment and vehicles with cabs shall have safety glass or equivalent windshields hat are free of cracks and defects. Broken or cracked glass shall be replaced.

6) No person shall be allowed to ride in or on any equipment or vehicle except in seats, which are provided by the manufacturer.

7) Only trained, qualified and/or licensed persons are to operate equipment/vehicles.

8) All vehicles are required to have visual and audio back-up alarms.

S. EXCAVATION, TRENCHING AND SHORING

1) The Subcontractor shall inform the Contractor six days prior to any digging, who shall call the Underground Utilities Notification Center prior to any excavation regarding utilities. All initial excavation which is done to expose all subsurface utilities, shall be done by hand to prevent damage. When exposed, they shall be protected at all times by suitable bridging, boxing, hangers or other supports during the prosecution of the work.

   a) To provide access in emergencies, and for routine inspections of valves on water, gas or other mains, and to electrical power, communications, signal alarm and other service boxes, junction boxes and manhole that are decked over; trap door of a suitable size with suitable identifying steel plates securely attached thereto, shall be provided at all times in the decking.

   b) The Subcontractors shall have a copy of the water main and gas drawings, clearly marked to show the valves that control flow in the area and at the construction site. At least two valves in all directions outside the net lines shall be shown. The Contractor's superintendent shall mark and keep clear the location of valves for ready identification, should

trouble develop.

2) Walkways shall be kept clean and free of all hazards at all times.

3) Internal combustion engines used in confined areas, such as in excavations or utility vaults where natural ventilation is limited, shall have exhaust fumes dispelled with forced ventilation or equivalent means.

4) All excavations and similar work areas where an exposure to the public or work personnel exists shall be promptly and completely fenced or barricaded as shown in the Contract Drawings, except in those areas temporarily required to be opened for the conduct of the work, then these openings shall be guarded to prevent access.

5) Adjustment screws on cross braces or trench jacks shall not be extended beyond the manufacturer's recommendations or 2/3 of the threaded length, whichever is more restrictive.

6) No one shall be permitted to climb or work from cross bracing.

7) Supervision – Excavation work shall at all times be under the immediate supervision of someone with authority to modify the shoring system or work methods, as necessary, to provide greater safety. He shall frequently examine the material under excavation and improve the shoring or methods beyond the minimum requirements, as necessary, to insure protection of workmen from moving material.

8) Removal of Shoring – No part of the shoring system of any excavation shall be removed until proper steps have been taken to avoid hazard to workmen from moving material. If a newly installed masonry or concrete wall is to be depended upon for this protection, it must have attained adequate strength to sustain resulting pressures.

9) Access and Egress – Convenient and safe means shall be provided for workmen to enter and leave the excavated area. This shall consist of a standard stairway, ladder, or ramp securely fastened in place at suitably guarded or protected locations where men are working and shall not require movement farther than 25 feet to reach such egress.

10) Blasting will not be permitted on the Work Site without prior approval or the Engineer and NYCDC Risk Management.

11) If any excavation(s) are required or requested to be left open by a utility company(s), municipality(s), or governmental agency, the excavation(s) will remain the sole responsibility of the Subcontractor for proper barricading and protection.

T. LASERS

1) Only qualified and trained employees shall be assigned to install adjust and operate laser equipment.

2) Employees shall wear proper eye protection where there is potential exposure to laser light greater than 0.005 watts (5 mill watts).

3) Beams, shutters or caps shall be utilized or the laser turned off when laser transmission is not actually required. When the laser is left unattended for a substantial period of time, such as during lunch hour, overnight or at change of shifts, the laser shall be turned off and shall be secured in a manner, which will preclude indiscriminate or unauthorized activation.

4) Employees shall not be exposed to light intensities above: direct staring – 1 microwatt per square centimeter; incidental observing – 1 mill watt per square centimeter; diffused reflected light – 2 ½ watts per square centimeter. Employees shall not be exposed to microwave power densities in excess of 10 mill watts per square centimeter.

5) NYCDC shall be notified of the location, time and qualifications of person or persons operating the laser.

U. ROLLOVER PROTECTIVE STRUCTURES, OVERHEAD PROTECTION AND REVERSE WARNING ALARMS

1) On **ALL** rubber-tired or crawler scrapers, bulldozers, front-end loaders, backhoes, motor graders, industrial tractors and forklift trucks, Rollover Protective Structures (ROPS) and Falling Object Protective Structures (FOPS) are required. (Note: See OSHA for structural performance standards).

2) On equipment where ROPS are required (above), seat belts shall be installed and worn by operators.

3) In lieu of a signalman, all bi-directional earthmoving, haulage or compacting equipment, and all trucks with a body capacity of 1½ yards or more used to haul dirt, rock, concrete or other material shall be equipped with an automatically operated reverse signal alarm (such as buzzer, horn or bell) which is audible from a distance of 100 feet from the rear of the vehicle in operation. If shall be the duty of the contractor to inform his suppliers of these requirements.

V. CONCRETE

1) All equipment and materials used in concrete construction and masonry work shall meet the applicable requirements for design, construction, inspection, testing, maintenance and operations as provided in OSHA.

2) Employees working more than six feet above adjacent working surfaces, placing and typing reinforcing steels in walls, piers, columns, etc., shall be provided with a personal fall arrest system (29CFR 1926.502), or equivalent

device.

3) Employees shall not be permitted to work above vertically protruding reinforcing steel unless it has been protected to eliminate the hazard of implement.

4) Guying – Reinforcing steel for walls, piers, column and similar vertical structures shall he guyed and supported to prevent collapse.

5) Wire mesh rolls – Wire mesh rolls shall be secured at each end to prevent dangerous recoiling action.

6) Pumpcrete systems – Pumpcrete or similar systems using discharge pipes shall be provided with pipe supports designed for 100 percent overload. Compressed air hose in such systems shall be provided with positive fail-safe joint connectors to prevent separation of sections when pressurized. Safety chains shall be provided on all line two inches in diameter or larger.

7) Concrete buckets equipped with hydraulic or pneumatically operated gates shall have positive safety latches or similar safety devices installed to prevent aggregate and loose material from accumulating on the top and sides of the bucket.

8) Riding of concrete buckets for any purpose shall be prohibited, and vibrator crews shall be kept out from under concrete buckets suspended from cranes or cableways.

9) When discharging on a slope, the wheels of ready-mix trucks shall be locked and the brakes set to prevent movement. The use of chocks is also required.

10) Nozzle men applying a cement, sand, and water mixture through a pneumatic hose shall be required to wear protective head and face equipment.

11) When temporary storage of reinforcing rods, materials, or equipment on top of formwork becomes necessary, these areas shall be strengthened to meet the intended loads.

12) The sills for shoring shall be sound, rigid and capable of carrying the maximum intended load.

13) All shoring equipment shall be inspected prior to erection to determine that it is as specified in the shoring layout. Any equipment found to be damaged should not be used for shoring.

14) Erected shoring equipment shall be inspected immediately prior to, during and immediately after the placement of concrete. And shoring equipment that is found to be damaged or weakened shall be immediately reinforced or re-shored.

15) Re-shoring shall be provided when necessary to safety support slabs and

beams after stripping or where such members are subjected to superimposed loads due to construction work done.

16) Metal tubular frames used for shoring shall not be loaded beyond the safe working load recommended by the manufacturer.

17) All locking devices on frames and braces shall be in good working order; coupling pins shall align the frame or panel legs; pivoted cross braces shall have their center pivot in place; and all components shall be in a condition similar to that of original manufacture.

18) When checking the erected shoring frames with the shoring layout, the spacing between towers and cross brace spacing shall not exceed that shown on the layout, and all locking devices shall be in the closed position.

19) Devices for attaching the external lateral stability bracing shall be securely fastened to the legs of the shoring frames.

20) Formwork and shoring shall be designed, erected, supported, braced, and maintained so that it will safely support all vertical and lateral loads that may be imposed upon it during placement of concrete.

21) Working drawing showing the jack layout, formwork, shoring, working decks, and scaffolding, shall be available at the Work Site for review by the engineer.

22) Stripped forms and shoring shall be removed and stockpiled promptly after stripping. In all areas which persons are required to work or pass, protruding nails, wire ties, and other form of accessories not necessary to subsequent work shall be pulled, cut or other means taken to eliminate the hazard.

23) Imposition of any construction loads on the partially completed structure shall not be permitted unless such loading has been considered in the design and approved by the Engineer.

24) Jacks and vertical supports shall be positioned in such a manner that the vertical loads are distributed equally and do not exceed the capacity of the jacks.

25) When checking the erected shoring towers with the shoring layout, the spacing between posts shall not exceed that shown on the layout, and all interlocking of tubular members and tightness of couples shall be checked.

26) All base plates, shore heads, extension devices, or adjustment screws shall be in firm contact with the footing sill and the form material and shall be snug against the posts.

27) For stability, singly post shores shall be horizontally braced in both the longitudinal and transverse directions, and diagonal bracing shall also be installed. Such bracing shall be installed as the shores are being erected.

28) All base plates or shore heads of single post shores shall be in firm contact with the footing sill and the form materials.

29) Whenever single post shores are used in more than one tier, the layout shall be approved by the Engineer.

30) When formwork is at an angle, or sloping, or when the surface shored is sloping, the shoring shall be designed for such loading.

31) Adjustment of single post shores to raise formwork shall not be made after concrete is in place.

32) Fabricated single post shores shall not be used if heavily rusted, bent, dented, re-welded or having broken weldments or other defects.

33) Timber shall not be used if it split, cut, has sections removed, is rotted or is otherwise structurally damaged.

34) Nails used to secure bracing or adjustable timber single post shores shall be driven home and the point of the nail bent over if possible. Double head nails will be permitted.

W. DEMOLITION

1) All sidewalks and walkways open to the public shall have abrasive non-skid surface and shall be kept clean and free of tripping hazards at all times.

2) “NO PARKING” zones with appropriate signs and barricades shall be displayed adjacent to building being demolished.

3) Water or other means of dust control shall be used where dust presents a health or environmental hazard, property damage potential, or nuisance.

4) See this Manual’s section for Rollover and Falling Object Protection Structures, which also applies to demolition equipment.

5) Provide adequate protection to prevent damage to pipes, conduits, wires, cables or structures above or below ground, which are not designated for removal.

6) Overhead protection shall be erected over sidewalks and shall extend at least ten feet beyond the building lines along direction of the sidewalks. Overhead planking shall be a minimum of three-inch full dimension lumber placed on adequately designed, metal or timber frames.

7) Substantial catch platforms shall be erected around all sides of the building prior to any demolition. Design must be approved by the Engineer.

8) Solid barriers of ¾ inch exterior fire rated B/D Plywood at least eight feet high

shall be erected around the structure at ground or sidewalk level to protect the public. The barriers shall be framed with, at a minimum, 2”x3” fire rated studs 16” on center.

9) Full time flagman shall be provided to assist truck egress and ingress.

10) All mechanical, electrical, air conditioning, ducting, skylights, windows, and any other equipment, material or objects on roofs or walls of adjoining or adjacent structures to building under demolishment shall be adequately protected from falling material and activity of wrecking crews and equipment.

11) No mechanical equipment (i.e. headache ball, impact equipment other than hand held) shall be used within six feet of any adjoining structure.

12) Employees engage in the demolition or removal of any pipes, structures or machinery covered or insulated with asbestos shall conform with all federal, state and local codes, rules, regulations and requirements of the State Statute including but not limited to the following

a) 29CFR 1926.1101

b) 40 CFR 61, Subpart M

c) Florida Statute 469.001-469.009

13) Employees engage in the demolition, removal or disturbance of any listed hazardous substance shall conform to all applicable federal, state and local codes, rules, regulations and requirements.

X. ADVERSE WEATHER CONDITIONS

1) Disassemble all scaffolds, loose formwork, radio antennas and secure properly.

2) All items that cannot be secured shall be stored inside secured storage areas or buildings.

3) All crane brooms shall be lowered to ground level and secured to prevent movement.

4) All office trailers shall be tied down and all straps, ground anchors, piers, etc., shall be checked for condition and operation.

5) All exposed glass on the Work Site shall be protected by a solid, rigid covering.

6) All freestanding walls shall be shored from both sides.

7) Before employee are dismissed from the Work Site, The Subcontractors shall make a thorough inspection to verify all necessary precautions have been taken, and report to NYCDC for any further instructions.

8) All precautions for construction sites during hurricane conditions, as required by the Federal Building Codes (Appendix D) shall be met.

9) All Subcontractors shall develop a project specific hurricane plan. This plan will include a detailed description of all hurricane preparation activities for each NYCDC phase of hurricane readiness including:

   a) Phase A – Pre-Season Preparedness

   b) Phase B – Hurricane Advisory (48 hours prior to landfall)

   c) Phase C – Hurricane Watch (24-48 hours prior to landfall)

   d) Phase D – Hurricane Warning (24 hours prior to landfall)

   e) Phase E – Landfall

   f) Phase F – Recovery /Post Hurricane

10) Progression through NYCDC phases of hurricane readiness will be declared by NYCDC Hurricane Disaster Preparedness Coordinator (Coordinator). The Coordinator may accelerate preparedness levels based on prevailing conditions and expectations along with the time of the day the storm is expected to arrive.

Y HOUSEKEEPING

1) All refuse piles shall be removed from the Work Site immediately

2) Stored and stacked materials shall be kept orderly, properly stacked, choked and secured.

3) Any protruding nails, etc., shall be bent, removed or clinched immediately.

4) Oil, grease, and water spills shall be cleaned up immediately.

5) Loose materials, tools, or equipment shall be kept off stairs, out of walkways, ramps, platforms at all times when not in use.

6) Depressions and potholes in vehicle or walkway surfaces on the Work Site shall be properly filled and graded immediately.

7) Walkways, vehicle travel ways, ramps, railings and stairways, shall be kept free from debris, properly installed and maintained.

8) Smoking or the use of open flames within 25 feet of flammable storage areas or fueling areas shall not be permitted.

9) Flammable storage areas shall be properly posted "**NO SMOKING**" provided with adequate fire extinguishers and free of combustible materials.

10) All sanitary facilities used on the Work Site shall be maintained on a daily basis.

11) All structures shall have a minimum of a 5-foot perimeter clearance that is to be free from any combustible debris or materials.

Z HAZARDOUS SUBSTANCES

1) The Subcontractor shall develop, implement and maintain a written Hazard Communication/Right-to-Know Program and comply with all applicable requirements of OSHA Hazard Communication Standard 29CFR 1910.1200.

2) The Subcontractor shall ensure that each container or hazardous substances in the workplace is labeled, tagged or marked with the following information:

   a) Identify of the hazardous substance(s) contained therein

   b) Appropriate hazard warnings

3) The Subcontractor's written hazard communication program shall describe how the criteria for labeling: Material Safety Data Sheets (MSDS)' employee information and training will be met and also include:

   a) A list of the hazardous chemicals known to be present and their locations at the Work Site.

   b) The methods the employer will use to inform employees of the hazards of non-routine tasks and the hazards associated with hazardous substances contained in unlabeled pipes in their work areas.

4) The Subcontractor shall maintain copies of the required Material Safety Data Sheet (MSDS) for each hazardous substance in the workplace, and shall ensure that they are readily accessible during each work shift to employees. (The Subcontractor may obtain the MSDS for a product by requesting it from the product's manufacturer, distributor or importer.

5) Where employees must travel between workplaces during a work shift, i.e., their work is carried out at more than one geographical location, the MDSD may be kept at a central location at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

6) MDSD shall also be made readily available to fire and emergency response personnel, the Engineer and NYCDC Risk Management.

7) Subcontractors shall provide their employees with the following:

   a) Information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area.

   b) Any operations in there work area where hazardous chemicals are present.

   c) The location and availability of the written hazard communication program, including the required lists of hazardous chemicals and material safety data sheets.

   d) Information as to the employee's rights under the State Right-to-Know Law:

      1) The right to know of the listed toxic substances present in the workplace.

      2) The right to obtain a copy of the Material Safety Data Sheet for each listed toxic substances present.

      3) The right to refuse to work, under specified circumstances with a listed substance, if not provided a copy of the Material Safety Data Sheet for that substance within 5 of the requesting employee's working days after submitting a written request to the employee's employer.

      4) The right to instruction, within 30 days of employment and at least annually thereafter, on the adverse health effects of each listed toxic substance with which they work in the workplace, how to use each substance safely and what to do in case of any emergency.

      5) The right to obtain further information on the properties and hazards of listed toxic substances from the Toxic Substance Information Center (1-800-367-4378).

      6) The right to protection against discharge, discipline or discrimination for having exercised any of these rights.

8) The Subcontractor shall post the State Right-to-Know Poster at the Work Site. The poster and information/assistance in complying with the Right-to-Know Law is available from the Toxic Substance Information Center (1-800-367-4378). As soon as any environmental item is discovered, the Subcontractor shall immediately inform NYCDC.

NYC

DEVELOPMENT & CONSTRUCTION GROUP, INC.

CONSTRUCTION SAFETY MANUAL

APPENDENCIES

Appendix A – State of Florida, First Report of Injury or Illness; Supervisor's Report: OSHA 300, 300A & 301

Appendix B – Tool Box Safety Meeting Document, Suggested Format

Appendix C – Safety Inspection Checklist for Crane Inspection & Critical Lifts

Appendix D – Special Hurricane Precautions

Appendix E– OSHA General Industry and Construction Standards Requiring a Competent Person

Covid-19 Guidance on Preparing Workplaces

APENDIX A

INSTRUCTION – FIRST REPORT OF INJURY OR ILLNESS
LES FORM DWC – 1

EMPLOYER - You are required by law to report all industrial accidents to the Division of Workers' compensation within seven days of your first knowledge of the accident. A civil penalty of up to $500 is provided for failure. Fully complete this form, using the employee's description of the accident, signs it, have the employees sign it and mail the original to the Division. Copies marked for the employee and your carrier (insurance company) must be sent to them.

If, for any reason, the employee cannot or will not sign the notice, **do not delay your report.**

EMPLOYEE - You are required by law to report your accident to the Workers' Compensation Division. Enter your description of the accident on this form, have your employer complete the form, then both of you should sign. If your employer refuses to sign or complete the report you should complete it. Send the original to the division, a copy to your employer.

For assistance, or for answers to questions on Worker's Compensation, call the toll free number shown on the form.

DISTRIBUTION: Part 1 – Division Copy

Part 2 – Carrier Copy

Part 3 - Employer Copy

Part 4 – Employer Copy