# City of Key West Debris Removal Monitoring Services RFP 09-015

September 29, 2015













#### Submitted To:



City Clerk City of Key West 3126 Flagler Ave. Key West, FL 33040

Submitted By:



2501 Avenue J, Suite 120, Arlington, TX 76006

A Wholly Owned Subsidiary of



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September 28, 2015

City of Key West City Clerk 3126 Flagler Avenue Key West, FL 33040

#### Re: Debris Removal Monitoring Services - RFP# 09-015

True North Emergency Management/Neel-Schaffer (the True North team) is pleased to present our qualifications to the City of Key West to provide Debris Removal Monitoring Services. True North Emergency Management is a wholly owned subsidiary of Neel-Schaffer Engineers and Planners, Inc. specializing in emergency management and debris monitoring services.

The True North team has the experience and capability to provide debris removal monitoring services to the City of Key West. As shown in our proposal, the True North team has debris management and monitoring experience with numerous communities, following disasters both large and small. We have monitored the removal of more than 16 million cubic yards of debris from public and private property in more than 100 communities, following hurricanes, tornadoes, floods, wind storms, and severe winter storms. We have monitoring experience on all types of disaster debris, including vegetative debris, C&D debris, hazardous trees, marine debris, beach sand cleaning, derelict cars and vessels, white goods, structure demolition, hazardous waste, asbestos, and contaminated debris. True North debris removal projects have included both public and private property as well as structure demolition and other specialized monitoring. We understand the issues/challenges (private properties, FEMA rules/regulations, public involvement, etc.), have an organized approach to the project, and are prepared to mobilize and begin work immediately.

We sincerely believe the True North team is the best qualified firm to provide debris management and monitoring for the City of Key West. Our primary focus will be providing the highest level of service to you, the applicant. Our extensive experience in managing contractors enables the True North team to manage debris removal contractors to best serve the client and its citizens. Our experience in debris monitoring efforts to date has shown that securing qualified personnel, providing timely responses, and maintaining proper documentation are the keys to the recovery from the devastation left by disasters. The True North team provides qualified managers and supervisors, who will hire local residents to be debris collection monitors. Our debris collection monitors will be thoroughly trained on all aspects of debris eligibility, recognizing ROW, properly completing documentation, and safety.

The True North team is committed to minimizing costs through competitive hourly rates along with careful management of working hours. We will work closely with the City in developing staffing needs to ensure adequate oversight and documentation of the project, while minimizing costs to the City and public. We take very seriously the challenge of managing a quick, effective debris removal project, while maximizing federal and state reimbursement. The True North team has a strong track record of full reimbursement of debris removal and monitoring costs.

The True North team's staff and companywide disaster management response team are prepared to respond immediately in the event of future disasters in the City of Key West. We will mobilize a core team of debris management professionals in advance of predicted disasters to begin preparation for full scale debris operations and to work with your staff to develop an

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event-specific Debris Management Action Plan customized to address each specialty waste stream, such as sea weed, to provide only that monitoring work force necessary for proficient monitoring. We will assign proven managers and field supervisors to ensure we have a comprehensive understanding of the City's disaster debris recovery needs. We will track and report daily progress for each waste stream. Our professional debris project manager with years of experience and expertise will ensure an efficient overall operation to minimize recovery time and cost while maximizing eligible funding reimbursement.

The True North team is ready and able to serve the City of Key West should you need us. We encourage you to contact our references to inquire about the professionalism, ethics, integrity and hard work of our staff in disaster debris management services. If we can be of any assistance, or if you have any questions regarding this proposal, please feel free to call me at 601.506.3298.

Sincerely,

True North Emergency Management, LLC

Derrick Tucker, P.E. Sr. Project Manager







# **COMPANY PROFILE**

True North Emergency Management, LLC is a wholly owned subsidiary of Neel-Schaffer Engineers and Planners, Inc., specializing in emergency management and debris monitoring services. We deliver comprehensive Emergency Management services in local, state, Tribal, and commercial locations throughout the nation. Our services include all-hazards mitigation, preparedness, response, and recovery activities in the form of planning, training, exercises, debris monitoring, and public assistance consulting. Our top priorities include client satisfaction and customized services to fit client operations. We have a deep understanding of the intricacies, details, and best practices of disaster mitigation, preparedness, response, and recovery, and that helps our clients achieve an effective response and efficient recovery.

True North has monitored the removal of more than 16 million cubic yards of debris and has provided services following every major U.S. hurricane since 2005. We have experience with state and federal programs, funding sources and reimbursement processes.

Neel-Schaffer, True North's parent company, has been in business since 1983. Neel-Schaffer has approximately 400 full-time employees. In 2010 Neel-Schaffer reorganized its emergency management activities and formed True North Emergency Management. This was done in order to enable in-house subject matter experts in Emergency Management to focus on emergency preparedness and response services to its clients.

True North will respond to the City of Key West with trained, experienced managers and personnel. This will reduce costs to the project, and help to support the City of Key West. The team will use a combination of local monitors, experienced employees from our permanent offices, and debris management experts from across the South. We will establish a Command Center in the disaster affected areas and will implement our comprehensive debris management training program to ensure all monitors are thoroughly trained and supervised. True North will meet all requirements of the City of Key West's proposal.

True North will respond days in advance of predicted disasters and within eight hours of notification following unpredicted disasters. We will have staff and equipment in place within hours to begin the truck certification and monitoring process. This includes Site Monitors and Field Debris Monitors prepared to begin field work within hours. If needed, we will mobilize additional experienced personnel from nearby offices to begin monitoring operations as we hire and train local employees as monitors.

We are prepared to provide more than 100 monitors, ready to work within four days if needed. We will increase monitors as needed to meet the needs of the City of Key West and respond to monitoring needs and contractor schedules. We will provide an experienced management, supervisory, and data team. We will hire, train, and supervise local employees as monitors to support the local economy and minimize travel costs. Depending on the timing of startup, we will be able to provide full-time company employees from other offices around the Southeast as monitors for start-up of operations. These employees would return to their normal jobs as local monitors are hired and trained.

True North has the capacity and experience to deliver complete debris monitoring services to the City of Key West. We have extensive experience and the ability to mobilize several hundred employees to ensure that all needs are met. Our ability to hire, train, and successfully manage hundreds of monitors in an organized and timely manner is critical to the City of Key West's success. Additionally, True North includes experienced managers, trainers, supervisors, and data managers who will ensure the project is mobilized and run in the most efficient and cost-effective manner. True North understands the monitoring needs of the City of Key West following a major disaster. We are prepared to mobilize and respond immediately.

## **OFFICE LOCATIONS**

True North is headquartered in Arlington, TX and shares offices with Neel-Schaffer in Maitland, Florida and other offices throughout the Southeast. True North will establish temporary local offices to support recovery efforts.

Nelson Lucius, PE, Manager will serve as the authorized negotiator for True North.

True North Emergency Management, LLC

MAITLAND 2301 Lucien Way, Suite 300 Maitland, Florida 32751 ARLINGTON 2501 Avenue J, Suite 120 Arlington, Texas 76006

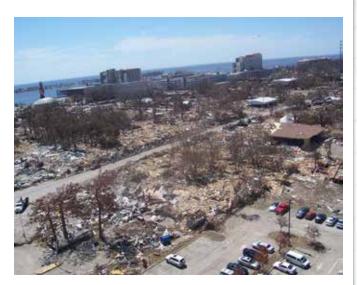




# TRUE NORTH CONSULTING SERVICES

EMERGENCY MANAGEMENT SERVICES					
FEMA Public Assistance Grant Consulting	Disaster Debris Removal Monitoring				
Comprehensive Emergency Management Planning	Structure Demolition Monitoring				
Disaster Debris Management Planning	Mitigation Grant Program Development				
Continuity of Operations and Continuity of Government Planning	Emergency Management and Homeland Security Grant Development				
Departmental / Organizational Strategies	Impact and Damage Assessment Staff Augmentation				
All-Hazards Training	Risk and Vulnerability Assessments				
All-Hazards Exercises	Emergency Operations Staff Augmentation Services				





ENGINEERING-RELATED SERVICES				
Transportation Engineering	Civil Engineering			
Environmental Engineering	Surveying Services			
Geotechnical Engineering	Forensic Engineering			
Structural Engineering	Telecommunications Services			
Water / Wastewater Engineering	Airport Engineering			
Expert Witness	Planning Services			





# **DEBRIS MANAGEMENT** EXPERIENCE

ACTIVE PROJECTS					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris	
Texas Department of Transportation including Austin, Ft. Worth, Houston and Tyler Districts	2015 Severe Storms, Tornadoes, Straight-line Wind and Flooding DR-4223	May 2015 to Current	• 146,000 CY	<ul><li>C &amp; D Materials</li><li>Vegetative</li></ul>	

	HURRICANES					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris		
Township of Toms River, New Jersey / Louis Berger Group	2012 Hurricane Sandy DR-4086	Nov. 2012 to Sept.2013	• 35,000 CY	C & D Materials		
Ocean County, New Jersey (including Townships of Barnegat, Berkley, Jackson, Long Beach Island, and Stafford, and the Boroughs of Beach Haven, Mantoloking, Seaside Heights, and Ship Bottom / Louis Berger Group	2012 Hurricane Sandy DR-4086	Nov. 2012 to Sept. 2013	• 1,350,000 CY	<ul> <li>C&amp;D Materials</li> <li>Vegetative</li> <li>White Goods</li> <li>Household Hazardous Waste – HHW</li> <li>E-Waste</li> </ul>		
Borough of Belmar and City of Elizabeth, New Jersey	2012 Hurricane Sandy DR-4086	Nov. 2012 to Mar. 2013	• 87,000 CY	<ul> <li>C&amp;D Materials</li> <li>Metals</li> <li>White Goods</li> <li>Household Hazardous Waste – HHW</li> <li>Vegetative</li> </ul>		
Jackson County, Mississippi	2012 Hurricane Isaac DR - 4081	Sept. 2012	• 7,037 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li></ul>		





HURRICANES Cont'd.				
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris
Dauphin Island, Alabama	2012 Hurricane Isaac DR - 4082	Oct. 2012 to Dec. 2013	• 166,007 CY	<ul><li>Sand Screening</li><li>Beach Restoration</li></ul>
Biloxi, Mississippi	2012 Hurricane Isaac DR - 4081	Sept. 2012 to Oct. 2012	• 25,000 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>Sand</li></ul>
Pascagoula, Mississippi	2012 Hurricane Isaac DR - 4081	Sept. 2012 to Oct. 2012	• 10,700 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>Sand</li></ul>
Magnolia, Mississippi	2012 Hurricane Isaac DR - 4081	Sept. 2012 to Oct. 2012	• 1,735 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li></ul>
McComb, Mississippi	2012 Hurricane Isaac DR - 4081	Sept. 2012 to Oct. 2012	• 12,929 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li></ul>
Tyrrell County, North Carolina	2011 Hurricane Irene DR - 4019	Sept. 2011 to Dec. 2011	• 5,260 CY	Vegetative
Virginia Department of Transportation / Lewis Berger Group	2011 Hurricane Irene DR - 4024	Aug. 2011 to Nov. 2011		<ul><li>Vegetative</li><li>Trees and Hazardous</li><li>Limbs</li></ul>
Passaic County, New Jersey	2011 Hurricane Irene DR - 4019	Sept. 2011 to Oct. 2011		Debris Consulting Only
Upper Texas Gulf Coast Beaches including: Galveston and Brazoria Counties, Galveston, Surfside, Quintana and Jamaica Beach	2008 Hurricane Ike DR-1791	Dec. 2008 to Mar. 2009	• 1,255,490 CY	<ul><li>Sand Screening</li><li>C&amp;D Materials</li><li>Concrete</li></ul>
Five major bays and the Gulf of Mexico in and adjacent to: Galveston County, Brazoria County, Harris County, Chambers County, Jefferson County, Orange County	2008 Hurricane Ike DR-1791	Mar. 2009 to Sept. 2009	<ul><li>350,000 Acres Water</li><li>130 Vessels Extracted</li></ul>	Marine Debris     Monitoring





HURRICANES Cont'd.				
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris
Shoreacres, Texas	2008 Hurricane Ike DR-1791	Sept. 2008 to Mar. 2009	<ul><li>93,000 CY</li><li>1,100 White Goods</li><li>450 Trees removed</li></ul>	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>White Goods</li><li>Trees and Hazardous Limbs</li></ul>
La Porte, Texas	2008 Hurricane Ike DR-1791	Sept. 2008 to May 2009	<ul><li>270,000 CY</li><li>3,100 Trees Removed</li></ul>	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>White Goods</li><li>Trees and Hazardous Limbs</li></ul>
Morgan's Point, Texas	2008 Hurricane Ike DR-1791	Sept. 2008 to Oct. 2008	<ul><li>17,000 CY</li><li>134 Trees Removed</li></ul>	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>Trees and Hazardous Limbs</li></ul>
Taylor Lake Village, Texas	2008 Hurricane Ike DR-1791	Sept. 2008 to Nov. 2008	<ul><li>93,000 CY</li><li>1,100 White Goods</li><li>450 Trees removed</li></ul>	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>White Goods</li><li>Trees and Hazardous Limbs</li></ul>
Lafayette Consolidated Government, Louisiana	2008 Hurricane Gustav DR-1786	Sept. 2008 to Dec. 2008	• 348,000 CY • 15,235 Trees Removed	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>Trees and Hazardous Limbs</li></ul>
Scott, Louisiana	2008 Hurricane Gustav DR-1786	Sept. 2008 to Oct. 2008	• 8,196 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li></ul>
Biloxi, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Aug. 2007	<ul><li>2,900,000 CY</li><li>3,500 Right of Entry (Private Property)</li></ul>	<ul><li>Vegetative</li><li>C&amp;D Materials</li><li>White Goods</li><li>Trees and Hazardous Limbs</li></ul>
Gautier, Mississippi	2005 Hurricane Katrina DR-1604	Jan. 2007 to Jun. 2007	<ul><li>8,337 CY</li><li>2,700 Trees Removed</li><li>757 Right of Entry (Private Property)</li></ul>	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>
Hattiesburg, Mississippi	2005 Hurricane Katrina DR-1604	Jan. 2006 to Apr. 2006	• 100,000 CY	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>
Mississippi Department of Transportation District Six	2005 Hurricane Katrina DR-1604	Feb. 2006 to June 2006	• 500,000 CY	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li><li>Contractor Selection Assistance</li></ul>





HURRICANES Cont'd.				
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris
Jackson County, Mississippi	2005 Hurricane Katrina DR-1604	Jan. 2006 to Aug. 2006	<ul> <li>1,248,000 CY</li> <li>3,500 Trees removed</li> <li>5,000 Right of Entry (Private Property</li> </ul>	<ul> <li>Vegetative</li> <li>C&amp;D Materials</li> <li>White Goods</li> <li>Wet Debris</li> <li>Trees and Hazardous Limbs</li> </ul>
Hancock County, Mississippi	2005 Hurricane Katrina DR-1604	Aug. 2006 to Aug. 2007	• 208,479 CY	<ul> <li>Vegetative</li> <li>C&amp;D Materials</li> <li>Trees and Hazardous Limbs (26,304 trees)</li> <li>2,800 Right of Entry (Private Property)</li> </ul>
Madison, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Nov. 2005	• 41,000 CY	<ul> <li>Vegetative</li> <li>Trees and Hazardous         Limbs         </li> <li>Contractor Selection         Assistance     </li> </ul>
Jackson, Mississippi	2005 Hurricane Katrina DR-1604	Nov. 2005 to Sept. 2006	• 270,000 CY	<ul> <li>Vegetative</li> <li>C&amp;D Materials</li> <li>White Goods</li> <li>Wet Debris</li> <li>Trees and Hazardous Limbs</li> </ul>
McComb, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Nov. 2005	• 90,000 CY	<ul> <li>Vegetative</li> <li>Trees and Hazardous         Limbs         </li> <li>Contractor Selection         Assistance     </li> </ul>
Magee, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Oct. 2005	• 23,232 CY	<ul> <li>Vegetative</li> <li>Trees and Hazardous         Limbs     </li> <li>Contractor Selection         Assistance     </li> </ul>
Magnolia, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Nov. 2005	• 11,000 CY	<ul> <li>Vegetative</li> <li>Trees and Hazardous         Limbs         </li> <li>Contractor Selection         Assistance     </li> </ul>
Rankin County, Mississippi Excluding Cities of Pearl and Richland	2005 Hurricane Katrina DR-1604	Sept. 2005 to Oct. 2005	• 126,000 CY	<ul> <li>Vegetative</li> <li>Trees and Hazardous         Limbs         </li> <li>Contractor Selection         Assistance     </li> </ul>





HURRICANES Cont'd.					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris	
Canton, Mississippi	2005 Hurricane Katrina DR-1604	Sept. 2005 to Nov. 2005	• 19,000 CY	<ul><li>Vegetative</li><li>Contractor Selection Assistance</li></ul>	
Vero Beach / Indian River County, Florida	2004 Hurricanes Frances DR-1545 and Jeanne DR-1561	Aug. 2004 to Oct. 2004	• 800,000 CY	<ul> <li>Vegetative</li> <li>C&amp;D Materials</li> <li>Trees and Hazardous Limbs <ul> <li>Contractor Selection</li> <li>Assistance</li> </ul> </li> </ul>	

TORNADO					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris	
Louisville, Mississippi	2014 Tornado	May 2014 to July 2014	<ul><li>28,402 tons</li><li>489 trees removed</li></ul>	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>	
Lee County, Mississippi	2014 Tornado	May 2014 to July 2014	• 64,113 CY • 311 trees removed	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>	
Lowndes County, Mississippi	2014 Tornado	May 2014 to July 2014	<ul><li>43,038 CY</li><li>314 trees removed</li></ul>	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>	
Kentucky Transportation Cabinet	2012 Tornado	Mar. 2012 to May 2012	• 7,900 tons	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>	
Chattanooga, Tennessee	2011 Tornado	May 2011 to Oct. 2011	• 60,000 CY	<ul><li>Vegetative</li><li>C&amp;D Materials</li></ul>	
Leeds, Alabama	2011 Tornado	June 2011 to July 2011	500 Trees removed	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>	
Bradley County Cleveland, Tennessee	2011 Tornado	May 2011 to Aug. 2011	• 126,000 CY	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li><li>C&amp;D Materials</li></ul>	
Hoover, Alabama	2011 Tornado DR-1971	May 2011 to July 2011	• 43,000 CY	<ul> <li>Vegetative</li> <li>C&amp;D Materials</li> <li>White Goods</li> <li>Household Hazardous Waste - HHW</li> </ul>	





TORNADO Cont'd.					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris	
Jackson, Clinton, Mississippi	2011 Tornado	May 2011 to June 2011	• 28,402 tons	Vegetative     Trees and Hazardous Limbs	
Yazoo and Holmes Counties, Mississippi	2010 Tornado	April 2010	<ul><li>22,000 CY</li><li>500 Trees removed</li></ul>	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li><li>Contractor Selection Assistance</li></ul>	
Columbus, Mississippi	2002 Straight Line Winds	Nov. 2002 to Oct. 2003	<ul><li>240,000 CY</li><li>900 Right of Entry</li></ul>	<ul><li>Vegetative</li><li>Contractor Selection</li><li>Assistance</li></ul>	
Columbus, Mississippi	2001 Tornado	March 2001 to June 2001	• 50,000 CY	<ul><li>Vegetative</li><li>Contractor Selection</li><li>Assistance</li></ul>	

	WINTER STORM					
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris		
South Carolina Department of Transportation	Severe Winter Storm DR-4166	Feb. 2014 to Jan. 2015	• 1,200,000 CY	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>		
Orange County, North Carolina	Severe Winter Storm DR-4167	Mar. 2014 to August 2014	• 32,933 CY	Vegetative     Trees and Hazardous Limbs		
Hillsboro, North Carolina	Severe Winter Storm DR-4167	Mar 2014	• 7,000 CY	Vegetative     Trees and Hazardous Limbs		
Worthington, Minnesota	2013 Severe Winter Storm DR-4113	May 2013 to June 2013	<ul><li>86,088 CY</li><li>937 Trees Removed</li><li>798 Hazardous Limbs</li></ul>	Vegetative     Trees and Hazardous Limbs		
Southington, Connecticut	2011 Severe Winter Storm DR - 3342	Nov. 2011 to Jan 2012	<ul><li>62,651 CY</li><li>2,957 Hazardous</li><li>Limbs</li></ul>	Vegetative     Trees and Hazardous Limbs		
Granby, Connecticut	2011 Severe Winter Storm DR - 3342	Nov. 2011 to Dec. 2011	<ul><li>94,625 CY</li><li>133 Trees Removed</li><li>1,453 Hazardous</li><li>Limbs</li></ul>	Vegetative     Trees and Hazardous Limbs		





WINTER STORM Cont'd.						
Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris		
Brookfield, Connecticut	2011 Severe Winter Storm DR - 3342	Nov. 2011 to Dec. 2011	• 55,870 CY	Vegetative     Trees and Hazardous Limbs		
Simsbury, Connecticut	2011 Severe Winter Storm DR - 3342	Nov. 2011 to Dec. 2011	<ul><li>335,422 CY</li><li>240 Trees Removed</li><li>5,856 Hazardous</li><li>Limbs</li></ul>	Vegetative     Trees and Hazardous Limbs		
Paducah, Mayfield, McCracken County, Graves County, Kentucky	2009 Severe Winter Storm and Flooding DR-1818	Feb. 2009 to Aug. 2009	<ul><li>1,150,000 CY</li><li>1,242 trees removed</li></ul>	<ul><li>335,422 CY</li><li>240 Trees Removed</li><li>5,856 Hazardous Limbs</li></ul>		

	FLOODING						
	Client	Event	Dates of Service	Quantity of Debris Monitored	Types of Debris		
	Cedar Rapids, Iowa	2008 Flooding DR-1763	June 2008 to December 2014	<ul><li>3,087 CY,</li><li>36,325 tons</li><li>1,817 white goods</li></ul>	<ul> <li>C&amp;D Materials</li> <li>Metals</li> <li>White Goods</li> <li>Household Hazardous         Waste – HHW</li> <li>Regulated Asbestos-         Containing Materials –         RACM</li> <li>Demolition of Impacted         Structures</li> </ul>		
	Boulder County, Colorado	2013 Flooding DR - 4145	Oct. 2013 to March 2014	• 7,600 tons	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li><li>C&amp;D</li></ul>		
	City of Boulder, Colorado	2013 Flooding DR - 4145	Sept. 2013 to June 2014	• 9,925 tons	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>		
	University of Iowa	2008 Flooding DR-1763	June 2013 to Sept. 2014		<ul> <li>Demolition debris from five Commercial, Institutional Buildings</li> </ul>		
- 1	afayette Consolidated overnment, Carencro Louisiana	Flood Damage (Undeclared)	Mar. 2012 to April 2012	• 4,720 CY	<ul><li>Vegetative</li><li>Trees and Hazardous Limbs</li></ul>		





## **PAST** PERFORMANCE

The debris management matrix shown on previous pages and the following project summaries demonstrate satisfactory performance and our ability to monitor the removal and disposal of storm-related debris from ROW and ROE in tornado, hurricane and storm damaged areas. Vegetative debris, dead standing trees, leaners/hangers, automobiles, marine vessels (i.e. boats, recreational vehicles), white goods and building materials (i.e. shingles, bricks/mortar, wood/siding, etc) are examples of debris commonly found during monitoring. In addition, our team is trained and equipped to handle special waste concerns, including asbestos. To date, more than 16 million cubic yards of debris have been monitored by our team, as well as more than 12,000 ROEs. True North has not had a contract related to debris monitoring activities cancelled.

#### REIMBURSEMENT SUCCESS RATE

True North has monitored and managed disaster debris removal for more than 100 communities over the past 15 years, related to more than a dozen federally declared disasters. We have monitored the removal of over 16 million cubic yards of debris, with removal and disposal costs of more than \$150 million. Of all the projects we have managed, only one project received any deobligation. The de-obligation of less than \$50,000 on a \$24 million project. This single de-obligation represents less than two-tenths of 1 percent of the debris removal cost of that project, and a very small percent of the debris removal cost of projects we have monitored over the past 15 years.

True North has a strong track record of full reimbursement of eligible project costs. In order to continue to receive full reimbursement, the True North team is very diligent in Project Management, documentation, training, eligibility determination, and Quality Control/Quality Assurance.

Listed below is a summary of selected projects representative of our services. The following pages provide further project details including reference information.

**2014 Winter Storm, South Carolina Department of Transportation:** The True North team was activated on a pre-event contract with the SCDOT to monitor the removal of debris generated by Winter Storm Pax. The True North team monitored the removal of debris from SCDOT ROW, as well as the removal of hazardous trees and hazardous hanging limbs.

Multiple Communities (Hurricane Katrina 2005): Neel-Schaffer/True North provided hurricane debris removal monitoring for over 4 million cubic yards of debris for affected communities following Hurricane Katrina. This also included numerous structure demolitions in the City of Biloxi (MS) and Jackson County, MS.

Multiple Communities and Texas General Land Office (Hurricane Ike 2008): Neel-Schaffer/True North provided debris removal monitoring in the Houston-Galveston area following Hurricane Ike. This included debris monitoring for several municipalities and involved vegetative debris, C&D debris, surge zone debris, white goods, management sites, recycling and disposal. Neel-Schaffer/True North also monitored marine debris removal from 350,000 acres of open water for the Texas General Land Office, as well as debris removal and/or sand screening on 50 miles of beaches along the Upper Texas Coast.

Cedar Rapids (IA) and University of Iowa (2008 Flood): Neel-Schaffer/True North continues to provide monitoring services in support of the recovery from 2008 flooding. True North has monitored demolition of more than 1,000 structures and has provided consulting and monitoring services regarding asbestos abatement to the City of Cedar Rapids. This asbestos abatement work involves approximately 100 commercial and public buildings and over 2,000 residential structures. True North has extended these services to the University of Iowa for recovery resulting from the same flood.

Ocean County, NJ (Hurricane Sandy 2012): True North monitored removal of over 1 million cubic yards of debris and is currently providing asbestos abatement consulting and monitoring in support of demolition of approximately 150 residential properties as a sub-consultant to the Louis Berger Group in Ocean County. True North has assisted Ocean County with Category A (Debris) Public Assistance as a result of Hurricane Sandy. Our staff developed initial estimations to assist in development of an initial FEMA Project Worksheet for all Right of Way debris. We collected, analyzed, and provided the client and FEMA full documentation to support the development of an initial project worksheet for all ROW debris. The initial costs were approximately \$125 million. True North performed these services as a sub-consultant to the Louis Berger Group.





# **PROJECT PROFILES & REFERENCES**

# **DEBRIS MONITORING SERVICES, WINTER STORM PAX**

#### SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

The South Carolina Department of Transportation selected True North Emergency Management for a pre-event contract in September of 2013. In February of 2014 a severe winter storm ravaged a large swath of South Carolina, and the True North debris management and supervision team mobilized while the winter storm was ongoing. True North Operations Managers and Field Supervisors assisted the SCDOT during the PUSH efforts, providing timesheet and equipment log management. These efforts ensured required documentation qualifies for reimbursement for the initial debris clearance response phase. During the PUSH efforts, other Operations Managers and Field Supervisors managed project logistics, out-reach programs, and local staffing

#### **REFERENCE:**

David Cook, State Maintenance Engineer 955 Park Street

Columbia, SC 29202-0191 Office: 803-737-1290 Email: CookDB@scdot.org

#### **PROJECT TERM:**

February 2014 - January 2015

efforts. We successfully hired over 500 local monitors and staff throughout the 8-county project scope to assist with debris removal monitoring services. More than 450 debris monitors worked to clean up the rights-of-way (ROW) of more than **1.5 million cubic yards** of eligible vegetative debris along with monitoring almost 230,000 trees, to include trees with hazardous hanging limbs and leaner removals. A local engineering firm, CHAO and Associates, Inc., provided assessment of numerous debris management sites to facilitate the SCDOT with meeting DHEC permit and review requirements. Our Project Manager, a US Army Corp of Engineers' certified Subject Matter Expert, along with other Operations Managers and Field Supervisors worked shoulder-to-shoulder with FEMA project members to ensure a successful project validation process.









## **DEBRIS MONITORING SERVICES, HURRICANE SANDY**

#### **OCEAN COUNTY, NEW JERSEY**

True North provided disaster debris management services to over 20 cities, counties and townships in New Jersey following Hurricane Sandy, which made landfall in October 2012. Our monitoring in New Jersey included ROW debris removal, public property debris removal, hazardous tree work, private property work, and waterway debris. These projects included the monitoring of operation and closeout of 22 temporary debris storage and processing sites.

We worked as a sub-consultant to the Louis Berger Group to monitor the removal of over **1.2 million cubic yard**s of debris from Ocean County, including several towns within the County. The removal of ROW debris was completed in approximately 90 days, involving over 200 monitors. The project included C&D debris, vegetative debris, white goods, HHW, and deposited sand removal. The project also included monitoring a large storm sewer cleaning effort to remove sand and sediment deposited by Hurricane Sandy. Hazardous hanging limbs were removed from over 35,000 trees.

#### **REFERENCE:**

Julie Tarrant, Comptroller / CFO 101 Hooper Avenue Toms RIver, NJ 08754 Office: 732.929.2148 jtarrant@co.ocean.nj.us

Alternate Reference:

Charles E. Maschal, Jr. Councilman

300 Engleside Ave. Beach Haven, NJ 08008 Office: 609.492.0111

Fax: 609.492.6262

mayormaschal@beachhaven-nj.gov

#### **PROJECT TERM:**

November 2012 - November 2013

"The Borough of Beach Haven was fortunate to have True North retained to explain and guide us through a process that could be extremely costly to our taxpayers had we not followed your advice and counsel."

Charles E. Maschal, Jr. Mayor, Beach Haven, NJ









## **DEBRIS MONITORING SERVICES, SEVERE FLOODING 2008**

#### CEDAR RAPIDS, IOWA

In June 2008, Cedar Rapids was impacted by the most significant flood event in centuries. The 500-year flood plain was surpassed, flooding more than 4,000 homes and hundreds of businesses. Most of the impacted structures were submerged in more than eight feet of water when the Cedar River overflowed its levees. A disaster of this magnitude, duration, and intensity posed unique debris management challenges including Construction and Demolition (C & D) materials, demolition of flood impacted structures, metals, white goods, Household Hazardous Waste (HHW), Regulated Asbestos Containing Materials (RACM), mold and other airborne and surface contaminants. True North/Neel-Schaffer monitored the removal of approximately 49,000 tons of debris removal from the ROW and demolition

#### **REFERENCE:**

John Riggs, Project Manager -Flood Demolitions 3851 River Ridge Dr. NE Cedar Rapids, IA 52402-7531 Ph: 319.538.6545

#### **PROJECT TERM:**

June 2008 to November 2014

properties. Neel-Schaffer addressed these concerns as well as the reality and sensitivities of addressing the needs of disaster victims who had lost everything in a professional and responsive management effort.

Once the initial debris removal effort were completed, the City of Cedar Rapids conducted numerous projects from 2009 through 2014 to demolish homes and other buildings that were damaged beyond repair. The various projects were funded from a number of state and federal sources beyond the initial FEMA project. Recovery projects also included demolition and debris removal of commercial structures. Neel-Schaffer/True North provided demolition and debris removal monitoring for these projects from 2008 through 2014 to ensure reimbursement from FEMA and other funding sources.









#### KENTUCKY SEVERE WINTER STORM AND FLOODING - FEMA DR-1818

In January, 2009, the State of Kentucky was smothered by a sheet of ice almost two inches thick. The storm-toppled trees, downed utility lines, and left hundreds of thousands without power or phone service for weeks after the storm. FEMA estimated the damage to exceed \$185 million. A cumulative total of **1.15 million cubic yard** of debris were monitored during simultaneous projects.

CITY OF PADUCAH - Neel-Schaffer was aw arded an Agreement to Monitor Performance by the City of Paducah. We began by preparing Request for Proposal for Debris Removal (RFP) and assisting in the evaluation of the 17 contractor proposals received. Neel-Schaffer monitored the removal of almost 10,000 cubic yards of

#### **REFERENCE:**

Rick Murphy 300 S. Fifth Street Paducah, KY 42002 Office: 270.444.8511 rmurphy@ci.paducah.ky.us

#### **PROJECT TERM:**

February 2009 - August 2009

vegetative debris daily, averaging 175,000 cubic yards total. Furthermore, we validated, addressed, documented hangers totaling over 8,000 trees, and removed approximately 18 City trees.

**MCCRACKEN COUNTY** - With more than 38,000 residents, McCracken County covers roughly 268 square miles and borders the Ohio and Tennessee Rivers. Neel-Schaffer was awarded the County's Agreement to Monitor Performance contract. We began assisting the County and local officials with the development of the overall project scope. Neel-Schaffer removed an average of 7,769 cubic yards of vegetative debris daily, with an average weekly totaling more than 44,000 cubic yards. We were able to assess 3,733 potentially hazardous trees by the end of week four, and monitoring the removal of hangers from an average of 329 trees daily. All of the debris removed, taken to a Temporary Debris Storage Reduction Site (TDSRS) then hauled to another location and used for fuel at various paper mills.

**CITY OF MAYFIELD** - Mayfield, Kentucky is home to 10,349 residents. In working with the City's Mayor, Neel-Schaffer was able to assist in the development of a plan for the City's debris removal project, along with the preparation of the RFP. Neel-Schaffer was awarded the Agreement to Monitor Performance. In a two week period, a total of over 30,000 cubic yards has been hauled way.

**GRAVES COUNTY** - Graves County received the worst damage in the entire state of Kentucky due to its rural acreage. Neel-Schaffer was awarded the Agreement to Monitor Performance contract and began its fourth project in the state of Kentucky. This project was significant because of its size and scope. There was over six hundred miles of road that sustained tree damage from the storm. Each circumstance was addressed, documented, and removed. Within the first week, Neel-Schaffer cleared a total of 16,037 cubic yards of debris.

KENTUCKY TRANSPORTATION CABINET - The Kentucky Transportation Cabinet (KTYC) hired True North Emergency Management to assist in the completion of Project Worksheets under the FEMA Public Assistance Program. These Project Worksheets needed to be completed as the result of the 2009 Severe Winter Storms (FEMA-DR-1818). This included collection and analysis of all supporting data, including previously-completed initial Project Worksheets, to ensure maximum reimbursement of Category A (debris) costs. True North was also asked to work on behalf of the KYTC to assist in the recovery of over \$45 million in funds that FEMA stated were to be de-obligated due to FEMA findings. True North examined evidence related to the de-obligation of funds and assisted KYTC in challenging FEMA based on FEMA policy and standard operating procedures. True North was successful in getting the entire de-obligation overturned. Additionally, True North found over \$20 million in costs that

#### **REFERENCE:**

Kentucky Transportation Cabinet Frank Castle, FEMA Coordinator 200 Metro Street

Frankfort, KY 40622 Office: 502. 782.5574 Fax: 502.564.9540

Email: frank.castle@ky.gov

#### **PROJECT TERM:**

February 2012 - June 2014

were not captured on previous Project Worksheets. This project is ongoing, and KYTC is awaiting the final review of the Project Worksheets. True North is currently on standby to assist with any appeals processes that may occur as a result of the final review.





# DEBRIS MONITORING SERVICES, SEVERE STORMS, TORNADOES, STRAIGHT-LINE WINDS AND FLOODING

#### TEXAS DEPARTMENT OF TRANSPORTATION

The Neel-Schaffer/True North project team began providing debris monitoring services to the Texas Department of Transportation in late May 2015 for the Fort Worth District in Johnson County due to localized flooding and wind damage resulting from the event entitled Texas Severe Storms, Tornadoes, Straight-line Winds (DR-4223) with an incident period spanning May 4, 2015 to June 22, 2015. Beginning in June, the Texas Department of Transportation (TxDOT) expanded our monitoring responsibilities to the Tyler District including Van Zandt County, City of Van, Rusk County, City of Henderson, and Cherokee County, including municipal, county, and state roads. We then mobilized to the Houston District in July to provide disaster debris monitoring services for vegetative wind damage in Montgomery and Waller Counties. During the latter part of July, TxDOT activated

#### **REFERENCE:**

Lori Wagner, Contract Administrator P.O. Drawer 15426

Austin, Texas 78761-5426 Office: 512.832.7380

Email: lori.wagner@txdot.gov

#### **PROJECT TERM:**

May 2015 to Present

the Neel-Schaffer / True North team for debris monitoring services in 7 counties (Bastrop, Blanco, Caldwell, Hays, Lee, Travis, Williamson) maintained from the Austin District office. Currently, we are completing current contract commitments, which TxDOT has in place with debris hauling contractors. The TxDOT Austin District has requested that our team be on standby for additional debris removal passes in a couple of weeks.

The Neel-Schaffer and True North team was also tasked by the Texas Department of Transportation to assist with the compilation of data and development of documentation in support of the Federal Highway Administration (FHWA) Emergency Relief (ER) program and the FEMA Public Assistance disaster recovery grant reimbursement programs. Currently, we are working for all districts that received damage to include the Austin, Dallas, Houston, and Tyler Districts. In support of the Federal Highway Administration – Emergency Relief program we developed Program of Projects (POP), Detailed Damage Inspection Reports (DDIR), and Damage Survey Summary Reports (DSSR) meeting tight deadlines and specifications. We also fast-tracked the paperwork for the FHWA Quick Release Program. Additionally, our staff compiled professional engineering opinion of costs, other cost estimates, permits, inspection reports, and other detailed information to support the development of draft Project Worksheets for the applicant.











# SAND SCREENING AND BEACH RESTORATION - HURRICANE ISAAC FEMA DR-4082

#### DAUPHIN ISLAND, ALABAMA

True North entered into a disaster debris monitoring contract with the Town of Dauphin Island following Hurricane Isaac in 2012. The project included the monitoring of sand screening and beach restoration for more than 166,000 cubic yards of beach sand from public rights-of-way and public property. The primary roadway into the impacted area of Dauphin Island was covered in several feet of sand covering more than 60 percent of the project area or roadway. The project also consisted of removing sand and silt from drainage canals on the north side of Dauphin Island. True North utilized mobile debris management sites (DMS) and towers to allow progression along the impacted project area. The progression of the "DMS," totaling 8 sites, facilitated more than 250 daily loads utilizing only 4 trucks. The project was completed in 60

#### **REFERENCE:**

Corey Moore, Building Inspector 1011 Bienville Blvd. Dauphin Island, Alabama, 36528 Ph: 251.861.5525 ext. 224

#### **PROJECT TERM:**

October 2012 - December 2012

days and closed out in 90 days which assisted the applicant in receiving maximum reimbursement.











## **DEBRIS MONITORING SERVICES, APRIL 2011 TORNADOES**

#### CITY OF CHATTANOOGA, TENNESSEE

The City of Chattanooga selected True North as the primary contractor to manage and monitor the debris removal and disposal as a result of the tornadoes on April 27, 2011. The City selected Byrd Brothers as its debris hauling contractor. The True North team managed several sub-contractors working under the contractor, Byrd Brothers. True North properly certified all equipment involved with the debris cleanup operation. True North coordinated the contractor to erect inspection towers at each debris management site (DMS) and the landfill.

The City of Chattanooga had used force account labor to remove and haul vegetative debris to two of the three DMSs used during the project. Although the City had approximate volumes based on truck counts and manufacturer struck volumes, it was necessary to develop an estimate of the stockpiled debris for further management

#### **REFERENCE:**

Donald L. Norris, Deputy Administrator, Public Works 1250 Market Street, Suite 2100 Chattanooga, TN 37402-2713 Office:423.643.6000 Fax: 423.757.4857

Email: Norris\_I@chattanooga.gov

#### **PROJECT TERM:**

May 2011 - October 2011

and reduction by the contractor for subsequent payment. The City requested True North develop an estimate of the two stockpiles. True North coordinated this effort with representatives from FEMA, the City, and the contractors.

Following the truck and equipment certification process, in accordance with the City's Solid Waste Route Zones, systematically, eligible vegetative debris was removed from public ROW and hauled to the DMS allocated to the zone. This zone-by-zone approach ensured that the True North team effectively managed and monitored the contractor during the removal and hauling of eligible vegetative debris. Since most of the storm eligible debris was vegetative in nature, construction and demolition debris was removed and hauled directly to the local landfill utilizing force account labor and equipment. Following vegetative debris reduction by the Contractor via tub grinders, all mulched debris was loaded and hauled to the local landfill while being properly monitored and documented at the loading and unloading points.

During the course of the storm debris clean up, approximately 2,700 hazardous hangers, 58 hazardous trees, 40 hazardous stumps, and over 135,000 cubic yards of eligible ROW vegetative debris was removed, reduced, and disposed of properly. The True North team monitored and documented the debris stream from its origination, the ROW, to final disposal, this ensured maximum FEMA reimbursement to the City of Chattanooga.









# BEACH SAND CLEANING AND MARINE DEBRIS REMOVAL - HURRICANE IKE FEMA DR-1791

# TEXAS GENERAL LAND OFFICE (GALVESTON, HARRIS, CHAMBERS, AND BRAZORIA COUNTIES)

After successfully monitoring the removal of Hurricane Ike debris from municipalities along Galveston Bay, Neel-Schaffer was hired by the Texas General Land Office (Texas GLO) to monitor debris removal from state property. Neel-Schaffer monitored the cleaning of beaches affected by Hurricane Ike as well as the removal of marine debris from Galveston Bay, the Gulf of Mexico, and other waters along the upper Texas Coast. Neel-Schaffer monitored more than \$10 million of debris removal and beach cleaning by two contractors.

**Beach Cleaning:** The first stage of this project consisted of removal of storm debris and cleaning of sand on more than 50 miles of beach on Galveston Island, Bolivar Peninsula, and the beaches of Brazoria County. Three primary methods were

#### **REFERENCE:**

Tony Williams, Coastal Leasing PO Box 12873

Austin, TX 78711 Office: 512.463.5055 Fax: 512.305.8937

Email: tony.williams@glo.state.tx.us

#### **PROJECT TERM:**

September 2008 - March 2009

put into action to clean the affected beaches: The first included loading large debris items onto trucks. The second consisted of "raking" the sand using front end loaders with teeth to remove buried debris. Finally, the sand was loaded and hauled to a large screen, roughly the size of an 18 wheeler. The sand was then sifted to remove small debris, loaded onto trucks, replaced on the beach, and graded. Neel-Schaffer monitored, quantified, documented and graded more than 40,000 loads of sand, completing this cycle more than 250 times a day.

Additionally, Neel-Schaffer, the Texas GLO, and HNTB, the Program Manager, determined the most cost-effective methods for cleaning sections of the beaches. Additionally, Neel-Schaffer developed and implemented modifications to the standard five-part load ticketing system specifically for the Texas GLO beach cleaning project. To ensure adequate beach cleaning, efforts were monitored carefully to verify:

- · complete debris removal
- quality of screening operations
- areas of sand screened
- quantities of sand replaced to grade
- depth of sand removed
- · hauling, reduction, and disposal of debris
- · security of stockpiles

A total of 1.2 million cubic yards of sand was removed to a 12-inch depth, screened, replaced, and graded.

Marine Debris: As the beach cleaning process neared completion, the process of removing marine debris began. The primary focus of this project consists of removing large submerged and semi-submerged debris (i.e. vessels, white goods, etc.) that posed a hazard to boats entering the waterways.

Several thousand targets were identified over 350,000 acres of water in five major bays and the Gulf of Mexico. These target items were identified by side scan sonar and were reviewed by the state for historical significance. Neel-Schaffer placed monitors on boats to document the removal of approved items by description, photographs, and GPS coordinates during the removal/loading operation. Monitors issued load tickets and photographed vessels, cars, and debris at the marine extraction point, as material was transferred from boats to land based vehicles.

Efforts were made to reconcile vessels with owners prior to disposal. Neel-Schaffer completed load tickets with volumes and photographed debris loads at the Debris Management Sites (DMS) and for vessels received at the Vessel Management Sites (VMS).





# DEBRIS MONITORING SERVICES, HURRICANE IKE CITY OF LA PORTE, TEXAS

Neel-Schaffer was selected for a pre-position monitoring contract by the City of La Porte, TX, several months prior to Hurricane Ike in 2008. This allowed our team to be in place prior to landfall and to begin management and monitoring activities immediately after the storm. We provided assistance in mobilizing the debris removal contractor, certifying haul vehicles, and working with FEMA and GDEM in developing Project Worksheets. Neel-Schaffer monitored the removal of vegetative debris, C&D debris, hazardous hanging limbs, and leaning trees.

Neel-Schaffer monitored the entire debris removal process, including origination of load tickets, completion of load tickets at the DMS, hauling/disposal of reduced debris, and data management for the entire project. We also managed the debris removal process for the neighboring communities of Shoreacres, Morgan's Point, and Taylor Lake Village. This included debris removal, tree work, and management of white goods. The four projects involved removal of more than 400,000 cubic yards of debris and work on more than 3,000 trees.

#### **REFERENCE:**

Kristin Gauthier, Emergency Management Coordinator

Office: 281.470.0010 Fax: 281.470.1590 suggsj@laportetx.gov

#### **PROJECT TERM:**

September 2008 - May 2009

#### DEBRIS MONITORING SERVICES, HURRICANE GUSTAV

# LAFAYETTE CONSOLIDATED GOVERNMENT LAFAYETTE, LOUISIANA

Hurricane Gustav entered the Gulf of Mexico and began to impact Texas, Louisiana and Mississippi with torrential rain and wind storms on August 30, 2008.

Neel-Schaffer had been selected as Primary contractor by the Lafayette Consolidated Government (LCG) to provide Debris Monitoring in September 2006. This pre-position contract allowed for the LCG officials to take a pro-active approach for preparing their staff, City, and citizens for future disasters. Neel-Schaffer met with LCG officials following the award of the contract to discuss pre-planning operation procedures. This effort paid off when Hurricane Gustav (DR-1786) made landfall in the state of Louisiana on September 1, 2008.

#### **REFERENCE:**

Terry Cordick, Associate Director of Public Works 1515 E. University Ave. Lafayette, LA 70501

Office: 337.280.8502 Fax: 337.291.5696

Email: TCordick@LafayetteLA.gov

#### **PROJECT TERM:**

September 2008 to December 2008

Our debris response team was deployed to Lafayette prior to landfall in an effort to expedite

debris recovery services. The storm passed through the Lafayette area on September 2, 2008 and work quickly began for initiating the 70-hour push contract to clear primary roads which concluded on September 5, 2008. This initiative allowed for City and emergency crews to begin a preliminary damage assessment of the city and report this vital information to the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) in order to substantiate the need for a presidential major disaster declaration.

The next phase of the recovery process began September 6, 2008 for Neel-Schaffer to monitor the debris removal process performed by DRC Emergency Services, LLC throughout the City of Lafayette. In three months, Neel-Schaffer monitored the removal of more than 276,000 cubic yards (cy) of vegetative debris and trimmed 15,235 trees that were damaged from the storm. The City elected to recycle the vegetative debris into 72,000 cy of mulch that will be used for various landscaping projects throughout the City.

Neel-Schaffer also provided the LCG with a Debris Management Plan that was approved by FEMA and as a result provided the City with an additional 5% of federal funding. This effort saved the City an estimated \$250,000.





## **DEBRIS MONITORING SERVICES, HURRICANE KATRINA**

#### JACKSON COUNTY, MISSISSIPPI

Neel-Schaffer entered into a contract as the primary contractor with Jackson County to monitor the removal and disposal of over 1 million cubic yards of storm-related debris from the ROW and over 5,000 ROEs in Jackson County. Our services included removal of debris from drainage ways as well as removal of cars, boats, and coordination of debris removal from commercial property.

Neel-Schaffer assisted the County in the administration of the contracts with the three independent contractors hired for debris removal. The general contractors subsequently employed multiple subcontractors to meet reimbursement guidelines established by the FEMA.

#### **REFERENCE:**

Brian Fulton, PE, County Administrator Office: 228.769.3088 Fax: 228.769.3348

**PROJECT TERM:** 

## Brian\_Fulton@co.jackson.ms.us

September 2005 - August 2007

Our staff met with the County twice a week to provide updates on the debris removal program. The work commenced on Jan. 2, 2006, and concluded on Aug. 1, 2006. A total volume of over 1 million cubic yards of debris was collected at a cost of more than \$24 million, including cars, boats and hazardous trees.

"Perhaps because post-Katrina disaster recovery represents the most massive clean-up in America's history, maintaining an orderly clean-up process was a challenge. Once we enlisted the services of Neel-Schaffer, everything began to run much better."

John McKay, Jackson County Supervisor







# ORGANIZATIONAL CHART



#### **OFFICER-IN-CHARGE**

**Nelson Lucius, PE** 

#### **PROJECT MANAGER**

Jim Garner

#### **QA/QC MANAGER**

Derrick Tucker, PE

#### **FEMA COORDINATOR** / SPECIALIST

Jason Dobronz, FPEM, CEM Carla Baze

**BILLING INVOICE** 

**ANALYST** 

Miguel Angel Sanchez, PE

**Tracy Enlow** 

#### **DATA MANAGEMENT**

**Bryan Milling Mark Glass** 

**LOAD TICKET DATA ENTRY CLERKS** 

DISPOSAL					
Kingsley McCallum Steve Dempsey					
Whit Barton					
David Galvan					

# FIELD SUPERVISORS

**Renee Wilson Cindie Nettles** 

#### COLLECTION **MONITORS**

**Travis McCoy** 

**Olen Burditt** 

**Chris Lynch** 

Locally hired, trained and supervised monitors.

## **DISPOSAL SITE** MONITORS

Locally hired, trained and supervised monitors.





# K. NELSON LUCIUS, PE

#### **PROFESSIONAL HISTORY**

Mr. Lucius joined Neel-Schaffer in 1990 and has 32 years of experience in emergency management and civil engineering. He is a Senior Vice President of Neel-Schaffer and Manager of True North Emergency Management. Mr. Lucius has extensive experience in managing and monitoring debris removal related to all types of disasters, including hurricanes, tornadoes, wildfires, winter storms, floods, and man-made disasters. He completed several debris monitoring projects for public entities over the past 10 years that included over 1 million cubic yards of debris. Mr. Lucius has experience working with federal, state and local government emergency agencies and reimbursement programs. He also has experience with solid and hazardous waste management programs, policies and procedures. Mr. Lucius has participated in special disaster recovery program management services, including private property/right-of-entry work, waterways clean-up and reimbursement, leaning tree and hanging limb removal, hazardous material removal, vessel and vehicle recovery, asbestos abatement, data management, hauler invoice reconciliation and contracting, and FEMA appeals assistance.

#### **EDUCATION**

Bachelor of Science, Civil Engineering, Mississippi State University, 1982

Master of Business Administration, Houston Baptist University, 1988

#### **REGISTRATIONS**

Professional Engineer: Mississippi, 10619 Texas, 65649 ICS 100,200,300 400,700,800

Mr. Lucius also has project management and design experience on several debris site, roadway, utility and landfill projects, including planning, conceptual design, site development, final design and permitting. Mr. Lucius has been responsible for project management during the planning, design, bidding and construction phases of projects.

#### RELATED EXPERIENCE

- Debris Removal Monitoring, South Carolina Department of Transportation (SCDOT): On-site Officer-in-Charge for monitoring the removal of debris generated by Winter Storm Pax in 2014. True North monitored the removal of debris from SCDOT ROW and the removal of hazardous trees and hanging limbs. The project included removing, hauling, processing, and recycling more than 1.1 million cubic yards of ice storm debris and removing or trimming more than 225,000 storm damaged trees. Work areas covered more than 7,000 miles of roadway.
- Hazardous Tree Removal Monitoring, El Paso County, CO: Mr. Lucius was Officer-in-Charge for monitoring the mitigation of approximately 10,000 fire damaged trees following the Black Forest Wildfire in 2013. Trees killed by the wildfire (and trees not expected to survive due to fire damage) were removed from public property and public ROW, to mitigate the hazard of damaged trees falling on people, property, and roadways. True North utilized the North Track E-ticketing and Data Management System to document the tree removal process. Eligible hazardous trees on public property and public ROW were identified and documented by True North prior to removal. Our documentation included marking trees, recording GPS coordinates, photographing trees, and recording other critical information such as date and street location. The project included removal of hazardous fire damaged trees that posed hazards along public roads and numerous public park trails.
- **Debris Removal Monitoring, CO:** Mr. Lucius was on-site Officer-in-Charge on debris monitoring projects for several clients in Colorado following severe flooding in 2013. Projects included monitoring the removal of disaster debris and flood deposited stream sediment for Boulder and Louisville. True North utilized its proprietary North Track electronic load ticketing system.
- Debris Removal Monitoring, Orange County, NC: Mr. Lucius was Officer-in-Charge for debris monitoring projects following the 2014 severe winter storm. The project included monitoring disaster debris removal for the Town of Hillsborough and monitoring a debris management site (DMS) for Orange County. The Orange County DMS received disaster related debris from citizens of Orange County, the North Carolina DOT, and from contractors working for citizens and municipalities within Orange County.
- Debris Removal Monitoring, NJ: Mr. Lucius was on-site Officer-in-Charge for several debris monitoring projects following Hurricane Sandy in 2012 and 2013. Clients included the State of New Jersey, Ocean County and numerous townships and boroughs. Most of these projects were handled as a sub-consultant to the Louis Berger Group. The Ocean County project included monitoring the removal of over 1.3 million cubic yards of debris. Work included removal of C&D debris, vegetative debris, hazardous trees, white goods, HHW, etc. Our team was selected for the Southern Section of waterway debris monitoring by the New Jersey Department of Environmental Protection. This region included four zones and over 115,000 acres of bays, rivers, lagoons, and portions of the Atlantic Ocean.





# JIM GARNER

#### **PROFESSIONAL HISTORY**

Mr. Garner joined True North in 2014 and has 25 years of experience in emergency management. He served 34 years with the U.S. Army Corps of Engineers, filling roles as a Debris Project Manager, National Debris Subject Matter Expert, and primary POC for all phases of debris management, including traditional and Contaminated Debris Management (CDM) for both internal and inter-agency operations. As the National Debris SME, Mr. Garner maintained a working knowledge of FEMA debris policies and procedures that guide federal, state and local partnerships for debris management. He supported FEMA by providing policy reviews concerning debris management, provided reviews of state and local debris management plans for FEMA, and served as the USACE point of contact for the FEMA debris operations. His 38 debris missions included Hurricane Katrina (Sr. Debris SME), Hurricane Rita (Sr. Debris SME) and Hurricane Irene (FEMA Debris Task Force Leader). Mr. Garner serves as one of our in-house Project Managers for disaster relief projects providing guidance on debris management strategies, planning, and FEMA coordination.

#### **RELATED EXPERIENCE**

- **Debris Removal Monitoring, Severe Winter Storms, SCDOT, SC:** Project Manager for monitoring the removal of debris generated by severe winter weather. Included monitoring debris removal from ROW, reduction and hauling of reduced debris. Also included in the project was the removal of hazardous hanging limbs and leaning trees.
- Hurricane Sandy NY/NJ, 2012: Lead Debris SME. Technical assistance support to USACE and FEMA for all phases of debris management operations.
- **Hurricane Isaac LA, 2012:** Lead Debris SME. Technical assistance support to state/local governments and FEMA for all phases of debris management operations.
- TS Lee NY, 2012: Lead Debris SME. Technical assistance support to state/local governments and FEMA for all phases of debris management operations.
- **Hurricane Irene NY, 2012:** FEMA Debris Task Force Leader. Led a combined FEMA/USACE team performing technical assistance support to state/local governments for all phases of debris management operations.
- **ND Floods, 2011:** Lead Debris SME. Led a USACE team performing direct federal assistance support to state/local governments for all phases of debris management operations.
- MS River Floods, 2011: Lead Debris SME. Technical assistance support to state/local governments and FEMA for all phases of debris management operations.
- **Project Manager:** Responsibility for training in debris planning and response teams (PRT), to Include assembling an instructor cadre, developing training curriculum, budgeting for required funding and program management of all training funds, and scheduling and conducting training.
- **Project Manager:** FEMA-funded initiative to improve debris quantity estimation capabilities in advance of natural disasters through application of statistically based ground sampling procedures in the immediate, post-disaster period. Mr. Garner collected historical, volumetric debris data, and developed new empirical relationships to validate and improve the current USACE debris estimation model. Led a team of field estimators to test new estimation techniques as part of recovery from Arkansas ice storm.

#### **EDUCATION**

Henderson State University

#### **TRAINING**

FEMA Debris Task Force Leader

40 hrs. FEMA Debris Task Force Leader

USACE Asst ESF 3 Team Leader Training

> 32 hrs. Assistant TL Training

USACE Level Two PRT

40hrs. Debris Planning and Response

USACE Level One PRT Training

40 hrs. National Response Plan (IS 800 equivalent),

Introduction to NIMS (IS 700 equivalent), and ICS 100/200

**FEMA Debris Operations** 

36 hrs. FEMA Debris Operations





# DERRICK P. TUCKER, PE

#### **PROFESSIONAL HISTORY**

Derrick Tucker joined Neel-Schaffer in 2002 and has more than 16 years experience in civil and environmental engineering. He has managed debris operations and all aspects of water and sewer improvement projects including: conceptual development, grant and loan funding procurement, environmental clearance, production of construction plans and specifications, right-of-way / easement acquisition; and construction engineering and administration. Mr. Tucker has managed debris operations for Neel-Schaffer following Hurricanes Ike and Katrina. He was Project Manager for debris removal following Hurricane Ike for the City of La Porte as well as sand cleaning at Galveston and Boliver. He was also responsible for marine debris removal from the Gulf of Mexico, Galveston Bay and four other bays. He has participated in several debris monitoring projects for public entities over the past eight years, that included over 1 million cubic yards of debris each.

#### **EDUCATION**

Bachelor of Science, Civil Engineering, Mississippi State University, 1996

Master of Science, Civil Engineering, Mississippi State University, 1997

#### REGISTRATIONS

Professional Engineer: Mississippi, 15380

Mr. Tucker has experience working with Federal, State and Local government emergency agencies and reimbursement programs. He also has experience with solid and hazardous waste management programs, policies, and procedures. Mr. Tucker has participated in special disaster recovery program management services including private property/right-of-entry (ROE) work, waterways clean-up and reimbursement, leaning tree and hanging limb removal, hazardous material removal, vessel and vehicle recovery, asbestos abatement, data management, and hauler invoice reconciliation and contracting, and FEMA appeals assistance.

His experience also includes design and construction phase engineering of several urban drainage improvement projects and several site improvement projects involving utilities (water, sewer, electrical), parking, drainage and facilities access. Mr. Tucker's varying experiences provides him with the ability to plan, design, and administer complex urban projects.

#### **RELATED EXPERIENCE**

- Debris Removal Monitoring, Ocean County, NJ: Mr. Tucker served as Project Manager for several projects following Hurricane Sandy. Projects included waterway debris monitoring for the New Jersey DEP, ROW debris monitoring and storm drain cleaning for Ocean County, and private property debris removal for Toms River, New Jersey. Responsibilities included monitoring the removal of C&D debris, vegetative debris, hazardous trees, white goods, HHW, etc. Our team was selected for the Southern Section of waterway debris monitoring by the New Jersey Department of Environmental Protection. This region included 4 zones and over 115,000 acres of bays, rivers, lagoons, and portions of the Atlantic Ocean.
- Marine Debris Removal, Texas General Land Office: Project Manager, This project consists of monitoring the removal of marine debris caused by Hurricane Ike in 2008. The project included removal of debris from the Gulf of Mexico, Galveston Bay and four other bays along the upper Texas Coast.
- Hurricane Ike Beach Cleaning, Texas General Land Office: Project Manager, Responsible for monitoring the cleaning of approximately 80 miles of beaches following Hurricane Ike. The project included cleaning beaches for the State of Texas involving more than 1 million cubic yards of beach sand on Galveston Island, Boliver Peninsula and Brazoria County, Texas.
- Hurricane Ike Debris Removal, City of La Porte, TX: Project Manager, Responsible for monitoring the removal of debris generated by Hurricane Ike. The project of monitoring debris removal from rights-of-way, reduction and hauling of reduced debris. Also included in the project was the removal of hazardous hanging limbs and leaning trees.
- Hurricane Irene Debris Removal, Tyrrell County and Town of Columbia, NC and Virginia DOT: Project Manager, Responsible
  for monitoring the removal of debris generated by Hurricane Irene. The project of monitoring debris removal from rights-ofway, reduction and hauling of reduced debris. Also included in the project was the removal of hazardous hanging limbs and
  leaning trees.
- Hurricane Katrina and Rita, South Louisiana: FEMA Technical Assistant Contractor, Served from January 2006 through April 2006 as an Assistant Project Officer. Primary role was assisting local governments with debris removal operations as well as data collection and project worksheet documentation.





# JASON A. DOBRONZ, MS, CEM, FPEM

#### **PROFESSIONAL HISTORY**

Mr. Dobronz joined True North in 2013 and has experience in handling the planning and operations for 13 federally declared disasters and five undeclared events.

#### Areas of Expertise

- Project Management
- Problem Resolution
- FEMA Programs & Guidelines
- Strategic Analysis
- · Team Collaborations
- Business Continuity Planning
- Policies and Procedures
- Disaster Recovery Planning
- Public Health
- Program Implementation
- Training & Development
- · Microsoft Office

#### **CERTIFICATIONS**

**EDUCATION** 

Master of Science, Emergency Planning in

Lynn University, 2009

Bachelor of Science, Geography,

Pennsylvania State

University, 2003

Administration.

Certified Emergency Manager (CEM) by International Association of Emergency Managers (IAEM)

Certified Florida Professional Emergency Manager (FPEM) by Florida Emergency Preparedness Association (FEPA)

Certified FEMA Advanced Professional Series (APS) Certified FEMA Professional Development Series (PDS)

#### **RELATED EXPERIENCE**

#### Emergency Management Specialist II (2013 to present), True North Emergency Management:

- Provides a wide array of emergency management, business continuity, and homeland security consulting services to numerous public, tribal and private clients.
- Serves as a corporate-wide subject matter expert for all hazards planning, training, exercises, and recovery services.
- Developed and delivered Table Top Exercises to various clients.

# Director of Emergency Management (2012 to 2013), Operations Manager (2011 to 2012), Emergency Management Planner/ Coordinator (2008 to 2011), Seminole Tribe of Florida:

- Under the direction of the Tribal Council, maintained accountability for all administrative and supervisory work involving planning, organizing, implementing and managing all elements of the Seminole Tribe of Florida Government Comprehensive Emergency Management Program.
- Managed Seminole gaming business continuity and emergency preparedness program which includes
  the Hard Rock Hotels and Casinos in Hollywood and Tampa as well as four other Seminole casinos for
  a total of six in Florida, which averaged four million visitors per month and over \$15 billion in revenue
  - per year, to develop standard operating procedures, business continuity plans, table top exercises, pandemic plans and planning for special events to include Republican National Convention.
- Responsible for eight federally recognized Tribal reservations in Florida, stretching 141,000 acres across eight counties, from central to south Florida.
- Managed, developed, implemented, and delivered Tribal emergency preparedness, response, recovery, and mitigation planning policies and procedures for Tribal government, Tribal business, and Tribal educational institutions.
- Created, facilitated, and directed various table top, discussion based, and functional exercises to illustrate and process real life emergency management scenarios.
- Served as a Tribal liaison with Federal agencies and various Tribal organizations.
- Spoke at numerous conferences on preparedness, business continuity and disaster recovery.
- Acted as the Tribal Public Assistance Coordinator developing plans to apply directly to the State of Florida and the Federal Government for public assistance reimbursement and responsible for closing out \$20 million worth of project worksheets.
- Acted as WebEOC Administrator.

#### Adjunct Professor (2009 to 2013), Curriculum Developer (2009), Broward College, Fort Lauderdale, FL:

• Taught college level classes and professional continuing education courses focused on emergency management. Designed and implemented college curriculum courses on Emergency Management and Continuity of Government.

# Coordinator (2007 to 2008), Emergency Management Coordinator (2006 to 2007), Broward County Emergency Management, Plantation, FL:

- Served as the County's 404-Hazard Mitigation Program Coordinator; collaborated with various county and municipal officials to reduce vulnerability to natural and man-made hazards.
- Managed 30 Hazard Mitigation Grant Program projects totaling over \$30 million and developed and delivered Hazard Mitigation Grant Program (HMGP) workshops.
- Supervised and coordinated all HMGP projects ensuring projects stayed within FEMA regulations and funding allocations and all documents were timely submitted to the State of Florida.
- Developed and implemented the County's Continuity of Operations Plan.
- Served as Planning Section Chief during Emergency Operations Center (EOC) activations.
- Served on numerous public safety committees throughout the region, including the State of Florida.
- Port Security Grant Fiduciary for Port Homeland Security Grant.
- Served as municipal coordinator for all 31 municipalities, including Broward County Health District, ensuring all procedures and policies of Broward County were followed.





# **BRYAN MILLING**

#### **PROFESSIONAL HISTORY**

Mr. Milling joined Neel-Schaffer / True North Emergency Management in 2005 managing debris removal data entry and processing following Hurricane Katrina. For the past several years, Mr. Milling has served as Data Manager and IT Manager for our debris monitoring projects. This has included numerous hurricane, tornado, oil spill, winter storm, and flood projects. Mr. Milling has data experience on all types of monitoring including ROW, ROE, tree work, beach restoration, marine debris, demolition, condemnation, asbestos, white goods, HHW, and abandoned car and boat removal. He has been involved with the start up and closeout of more than 35 debris removal projects and maintains a comprehensive database of all projects and personnel. Mr. Milling also led the development of our electronic ticketing system. Mr. Milling has experience working with Federal, State and Local government emergency agencies and reimbursement programs. He also has experience with solid and hazardous waste

#### **EDUCATION**

Bachelor of Science, Landscape Management Technology, Mississippi Gulf Coast Community College

#### REGISTRATIONS

Certified Horticulturist Licensed Arborist

management programs, policies, and procedures. Mr. Milling has participated in special disaster recovery program management services including private property/right-of-entry (ROE) work, waterways clean-up and reimbursement, leaning tree and hanging limb removal, hazardous material removal, vessel and vehicle recovery, asbestos abatement, data management, and hauler invoice reconciliation and contracting, and FEMA appeals assistance.

Mr. Milling began his disaster work as part of the Army Corps of Engineers Blue Roof team following Hurricane Katrina. Since joining Neel-Schaffer, he has provided services as a Rights-of-Entry (ROE) Inspector, Field Monitor, Tower Monitor, Field Supervisor and Data Manager.

#### **RELATED EXPERIENCE**

- Data Manager / IT Specialist -Debris Removal Monitoring Ocean County, NJ: Mr. Milling was Data Manager for numerous
  debris monitoring projects in the northeast, following Superstorm Sandy. He was responsible for managing data for removal of
  numerous hazardous tree and debris streams. Data Management included validation of debris removal contractor invoices for
  payment approval
- Data Manager / IT Specialist Debris Removal Monitoring Severe Winter Storms Southington, Simsbury, Granby and Brookfield, CT: Responsibilities included data management for four concurrent projects including the implementation of electronic ticketing technology.
- **Project Manager Debris Removal Monitoring Tornado Outbreak Chattanooga, TN:** Project responsibilities from start up to closeout included data and IT management as well as the hiring, training and supervision of field staff.
- Data Manager Hurricane Ike Debris Removal Monitoring City of La Porte, TX: Responsible for monitoring the removal of debris generated by Hurricane Ike. The project of monitoring debris removal from rights-of-way, reduction and hauling of reduced debris. Also included in the project was the removal of hazardous hanging limbs and leaning trees.
- Data Manager Hurricane Ike Beach Cleaning Texas General Land Office: Responsible for monitoring the cleaning of approximately 80 miles of beaches following Hurricane Ike. The project included cleaning beaches for the State of Texas involving more than 1 million cubic yards of beach sand on Galveston Island, Boliver Peninsula and Brazoria County, Texas.
- Data Manager Marine Debris Removal Texas General Land Office: This project consists of monitoring the removal of marine debris caused by Hurricane Ike in 2008. The project included removal of debris from the Gulf of Mexico, Galveston Bay and four other bays along the upper Texas Coast.
- Data Manager Ice Storm Debris Removal McCracken and Graves Counties and the Cities of Paducah and Mayfield, KY: The project consists of monitoring the removal of debris resulting from the ice storm in 2009. Elements of the project included removal of debris, hazardous hanging limbs and leaning trees from McCracken and Graves Counties and the Cities of Paducah and Mayfield, Kentucky. The project involved the removal of more than 1 million cubic yards of debris.





# M. ANGEL SANCHEZ, PE

#### **PROFESSIONAL HISTORY**

Mr. Sanchez has over six years of civil engineering design experience. His design experience includes roadway, traffic signalization, pavement striping, drainage, sanitary sewer and water line improvement projects. His experience includes design and preparation of construction plans, construction documents and cost estimates using the latest tools and software available. His work experience includes working for both private and municipal clients. Mr. Sanchez has served as a field monitor and supervisor overseeing debris, hazardous tree, hazardous limb and hazardous stump removals from the right of way and within public parks. He now serves as a Data Manager overseeing Right of Way, Right of Entry, Storm Sewer Cleaning, and Marine Debris operations for Hurricane Sandy related work.

#### **EDUCATION**

Bachelor of Science, Civil and Environmental University of Texas at Arlington, 2007

#### REGISTRATIONS

Professional Engineer: Texas, 11025

#### **RELATED EXPERIENCE**

- Data Manager, Severe Winter Storms, SCDOT, SC Data Manager for monitoring the removal of debris generated by severe
  winter weather. Included monitoring debris removal from ROW, reduction and hauling of reduced debris for eight counties.
  Also included in the project was the removal of hazardous hanging limbs and leaning trees.
- **Field Supervisor Hurricane Sandy Ocean County, New Jersey** Responsible for training and overseeing monitors for the removal of debris and hazardous limb, tree, and stump removal. Prepared hazardous stump removal documentation for the FEMA pre-approval process. Other responsibilities include, data management for numerous debris monitoring projects in the northeast, as well as validation of debris removal contractor invoices for payment approval.
- Data Manager Hurricane Sandy Ocean County, New Jersey Implementing quality control of data, reconciling contractor invoices, maintaining communication with clients, contractors and field supervisors.
- Various Paving, Drainage and Utility Improvement Assisted and/or and prepared construction plans and documents for over 30 projects including: roadway reconstruction, paving, drainage, water line and sewer line improvements for municipalities in North Central Texas, Southern Mississippi and Oklahoma.
- **Drainage Studies** Assisted in the preparation of flood studies and proposed improvements to hazardous roadway crossings and repetitive loss structures in North Central Texas and Mississippi.
- Wastewater Analysis Assisted in the preparation of studies that analyzed and proposed improvements for existing
  wastewater systems, lift stations and force mains in south Mississippi and north central Texas.
- Varidian Sanitary Sewer Analysis, Arlington, TX Performed analysis, provided design calculations and preliminary design for a sanitary sewer trunk main serving a proposed 2,000 acre mixed use development near the intersection of I.H. 30 and Highway 360.
- Various Water and Sewer Renewals, Arlington, TX Designed and prepared construction plans, documents, and cost estimates for 8,000 feet of water and 11,000 feet sanitary sewer renewals. Utility renewals were contained within several residential streets as well as major thoroughfares including Pioneer Parkway and Matlock Road.
- Copeland Road Water Main, Arlington, TX Designed and prepared construction plans for 12 inch water main paralleling Copeland Road from Nolan Ryan to Ballpark Way. The project required intense coordination with ongoing construction of I.H. 30 improvements designing to accommodate future roadway conditions.
- Sanitary Sewer Rehabilitation Contract 81, Fort Worth, TX Aided in the design and preparation of construction plans and documents for the replacement of approximately 9,350 feet of sanitary sewer lines by open cut, pipe bursting and horizontal directional drilling. The project also included approximately 600 LF of waterline replacement and a TxDOT permit.





# **GRADY CLAY**

#### **PROFESSIONAL HISTORY**

Mr. Clay has over 16 years of experience in debris management. He served as a senior debris Subject Matter Expert (SME) for the U.S. Army Corps of Engineers (USACE). He also served as a SME and a member of the Fort Worth District Planning and Response Team (PRT). Grady provides technical knowledge and management abilities to insure the mission is scoped and executed properly. Under normal circumstances, he supplied an extra "set of hands" wherever needed. He worked with the PRT to help solve any issues that arise, whether mission or personality related. As the SME he also evaluated the performance of the PRT and made recommendations as needed. As an SME he is knowledgeable of all aspects of a Debris mission.

#### **RELATED EXPERIENCE**

- Hurricane Dennis, 2005 Debris SME TA/Rapid Needs Assessment
- Hurricane Katrina MS/LA, 2005 Debris SME
- · Hurricane Rita, 2005, Resident Engineer
- Wind/Tornadoes, St. Louis, MO and Caruthersville, MO, 2006 Debris SME for TA mission
- Oklahoma Ice Storms, 2007-2008 Debris SME for TA mission Arkansas Tornados, 2008 Debris SME for TA mission
- Wildfires, California 2007 Resident Engineer
- Oklahoma Tornados, 2008 Debris SME for TA mission
- Midwest Floods, 2008 Debris SME for TA mission
- Hurricane Dolly, 2008 Debris SME for TA mission
- Hurricane Gustav, 2008 Debris SME for TA mission
- Hurricane Ike, 2008 Debris SME for TA and DFA mission
- Arkansas Ice Storms, 2009 Debris SME for TA and served as the FEMA Debris Task Force Leader
- Ice Storm, New Hampshire, Maine 2009 Debris SME
- Spring Floods, Rhode Island, 2009, Debris SME
- Oklahoma Ice Storms, 2010 Debris SME for TA mission
- St Louis Tornado, 2011 Debris SME for TA mission
- Alabama Tornado, 2011 Debris SME for DFA mission
- Hurricane Irene MA, 2011 Debris SME for TA mission
- Hurricane Irene NY, 2012 Debris SME for TA mission
- Floods, Nebraska, 2011, Debris SME
- TS Lee NY, 2012 Debris SME for TA mission
- Hurricane Isaac LA, 2012 Debris SME for TA mission

#### **EDUCATION**

Bachelor of Science, Recreation Resources, Arkansas Tech

#### **TRAINING**

USACE Professional Certification as Debris Subject Matter Expert (SME)

USACE Level Two PRT 40hrs. Debris Planning and Response

> USACE Level One PRT Training 40hrs. Bational Response Framework (IS 800 equivalent)

> Introduction to NIMS (IS 700 equivalent), and ICS 100/200

FEMA Debris Operations 36 hrs. FEMA Debris Operations





# **GREG WILLIAMS**

#### **PROFESSIONAL HISTORY**

Mr. Williams has over 20 years of experience in debris management. He served as a senior debris Subject Matter Expert (SME) for the U.S. Army Corps of Engineers (USACE). Mr. Williams served as a SME and a member of the Vicksburg District Planning and Response Team PRT.

He has deployed on approximately 23 disaster missions, and served on the elite cadre of National Debris Subject Matter Experts and Specialists. He served approximately 211 days as a debris planning and response team member during the aftermath of Hurricane Katrina. He has also volunteered to serve the Midwest for Ice Storms and Floods as well as Puerto Rico in 1998 for Hurricane George clean up. More recently, he served in the massive recovery efforts of the devastating tornadoes that struck Alabama in 2011, for the Northeast during Super Storm Sandy, Severe Ice Storms South Carolina, and 2014 tornado outbreak in Mississippi. As a SME he has to be knowledgeable of all aspects of the Debris mission.

#### **RELATED EXPERIENCE**

- Mississippi River Floods, 1992
- Hurricane Georges, 1998 PRT member
- Oklahoma Tornadoes 1999 QA Supervisor
- Hurricane Floyd, 2000, Debris Specialist
- Hurricane Lili, 2002 Debris Technical Assistance (TA)
- Tropical Storm Allison, Texas 2003 QA Supervisor
- Hurricane Isabel, 2003 SME for TA, and trained debris monitors from other federal Agencies
- Hurricane Francis 2004 Mission Manager
- Hurricane Ivan, AL, 2004 Debris SME
- Hurricane Dennis, 2005 Debris SME TA/Rapid Needs Assessment
- Hurricane Katrina MS/LA, 2005 Debris SME
- Oklahoma Ice Storms, 2007-2008 Debris SME for TA mission Arkansas Tornados, 2008 Debris SME for TA mission
- Oklahoma Tornados, 2008 Debris SME for TA mission
- Midwest Floods, 2008 Debris SME for TA mission
- Hurricane Gustav, 2008 Debris SME for TA mission
- Hurricane Ike, 2008 Debris SME for TA and DFA mission
- Oklahoma Ice Storms, 2010 Debris SME for TA mission
- Alabama Tornado, 2011 Debris SME for DFA mission
- Hurricane Isaac LA, 2012 Debris SME for TA mission
- Super Storm Sandy, 2012 Debris SME for TA mission
- Ice Storms South Carolina 2014, Area Supervisor
- Mississippi Tornados 2014, Operations Manager

#### **EDUCATION**

Hinds Community College (2years)

#### **TRAINING**

USACE Professional Certification as Debris Subject Matter Expert (SME)

USACE Level Two PRT 40hrs. Debris Planning and Response

USACE Level One PRT Training 40hrs. Bational Response Framework (IS 800 equivalent)

Introduction to NIMS (IS 700 equivalent), and ICS 100/200

FEMA Debris Operations 36 hrs. FEMA Debris Operations





# STEVE DEMPSEY

#### **PROFESSIONAL HISTORY**

Mr. Dempsey has over 15 years of experience in debris management. He served as a senior debris Subject Matter Expert (SME) for the U.S. Army Corps of Engineers (USACE). In his last 10 years with USACE he served as a SME and a member of the Fort Worth District Planning and Response Team (PRT). While serving as an SME he was familiar with all aspects of a debris mission. Provided technical knowledge and management abilities to insure the mission was scoped and executed properly. As an SME he was knowledgeable of all aspects of the Debris mission.

#### RELATED EXPERIENCE

- Arkansas Tornados, 2008 Debris SME for TA mission
- Oklahoma Tornados, 2008 Debris SME for TA mission
- Hurricane Dolly, 2008 Debris SME for TA mission
- Hurricane Gustav, 2008 Debris SME for TA mission
- Hurricane Ike, 2008 Debris SME for TA and DFA mission
- Arkansas Ice Storms, 2009 Debris SME for TA mission
- Oklahoma Ice Storms, 2010 Debris SME for TA mission

Alabama Tornado, 2011 Lead Debris SME for TA mission

- Hurricane Irene MA, 2011 Debris SME for TA mission
- Hurricane Irene NY, 2012 Debris SME for TA mission

#### **EDUCATION**

Bachelor of Science, Civil Engineer, Texas A&M

#### **TRAINING**

USACE Professional Certification as Debris Subject Matter Expert (SME)

USACE Level Two PRT 40hrs. Debris Planning and Response

> USACE Level One PRT Training 40hrs. Bational Response Framework (IS 800 equivalent)

Introduction to NIMS (IS 700 equivalent), and ICS 100/200

FEMA Debris Operations 36 hrs. FEMA Debris Operations

# WHIT BARTON

#### **PROFESSIONAL HISTORY**

Mr. Barton has over 20 years of experience in debris management. He served as senior debris Subject Matter Expert (SME) for the U.S. Army Corps of Engineers (USACE). In his last 9 years with USACE he served as a SME. He has deployed on approximately 23 disaster missions, and served on the elite cadre of National Debris Subject Matter Experts and Specialists. More recently, he served in the massive recovery efforts of the devastating tornadoes that struck Oklahoma City – Moore, OK in 2013 and for the Northeast during Super Storm Sandy. As the SME he also evaluated the performance of the PRT and make recommendations as needed. As an SME he was knowledgeable of all aspects of the Debris mission.

#### RELATED EXPERIENCE

- Mississippi River Floods, 2011
- Spring Tornado Mississippi, 2011, Debris SME for TA mission
- Spring Disaster Response, 2011 North and South Dakota, Debris SME for TA mission
- Hurricane Irene, 2011 Debris SME for TA mission
- October Nor'easter Connecticut and Massachusetts, 2011, Debris SME for TA mission
- Hurricane Isaac LA, 2012 Debris SME for TA mission
- Super Storm Sandy New Jersey, 2012, Debris SME for TA mission
- Oklahoma Severe Storms and Tornados, 2012, Debris SME for TA mission
- Alaska Spring Flood Event, 2013, Debris SME for TA mission
- Colorado Flooding, 2013, Debris SME for TA mission
- Arkansas Severe Storms and Tornados, 2014, Debris SME for TA mission

#### **TRAINING**

USACE Professional Certification as Debris Subject Matter Expert (SME)

USACE Level Two PRT 40hrs. Debris Planning and Response

USACE Level One PRT Training 40hrs. Bational Response Framework (IS 800 equivalent)

Introduction to NIMS (IS 700 equivalent), and ICS 100/200





# KINGSLEY A. MCCALLUM, III

#### **PROFESSIONAL HISTORY**

Mr. McCallum joined True North in 2013 with over 15 years of experience in disaster management. His recent experience includes the supervision of debris removal monitoring following Hurricane Sandy in Ocean County, NJ. He is an accomplished senior-level professional with demonstrated expertise in the areas of estimating, finance, operations and staff management within the commercial and residential construction sectors. Mr. McCallum's experience includes P&L management, contract negotiation, finance planning/strategy, state and local policy compliance and vendor sourcing/negotiation. He has managed commercial and residential projects ranging in size from \$90,000 to \$6.5 million.

#### **RELATED EXPERIENCE**

- Debris Removal Monitoring, Ocean County, NJ: Served as Operations Manager for several projects
  following Hurricane Sandy. Responsibilities included supervision of debris removal monitoring of
  over 1.3 million cubic yards of debris from more than 17 townships and boroughs in Ocean County.
  ROW debris monitoring work included removal of C&D debris, vegetative debris, hazardous trees,
  white goods, HHW, etc.
- Waterway Debris Removal Monitoring, New Jersey Department of Environmental Protection: As
  Operations Manager provided supervision of marine debris removal monitoring of four zones and
  over 115,000 acres of bays, rivers, lagoons, and portions of the Atlantic Ocean.
- Hurricane Sandy, New York and New Jersey: Responsible for site inspections, which included ROE, PPDR, demo, foundation, interior, exterior, roof systems and Xactimate estimating for commercial and residential properties.
- **Hurricane Isaac, Louisiana and Mississippi:** Responsible for site inspections, which included: ROE, PPDR, demo, foundation, interior, exterior, roof systems.

# **CINDIE NETTLES**

#### **PROFESSIONAL HISTORY**

Ms. Nettles joined Neel-Schaffer in 2005 as a Debris Collection Monitor and Tower Monitor for Hancock County, Mississippi following Hurricane Katrina including monitoring the removal of C&D, vegetative, asbestos and concrete debris. Ms. Nettles has also served as Field Supervisor for beach restoration and marine debris projects following Hurricane Ike. Her experience also includes the supervision of debris removal and operations management after the severe winter ice storms of 2010 in Oklahoma.

#### **CERTIFICATIONS**

HAZWOPER CPR/First Aid FEMA Safety

#### RELATED EXPERIENCE

- Tornado Debris Removal Monitoring, KY: Field Supervisor
- Debris Removal Monitoring, Severe Winter Storms, Towns of Simsbury, and Granby, CT: Field Supervisor. These projects included the monitoring of debris following several severe winter storms in 2011. The project had to be expedited quickly due to additional incoming weather. Responsibilities included, supervising several monitoring crews that monitored tree removal of hazardous trees and hanging limbs as well as the monitoring of debris removal and haul out from four separate cities.
- Hurricane Irene Debris Removal Monitoring, Tyrrell County, NC: Field Supervisor.
- Tornado Debris Removal Monitoring, City of Hoover, AL: Field Supervisor.
- Tornado Debris Removal Monitoring, City of Chattanooga, TN: Field Supervisor. Tornado debris removal from the public Right Of Way. Responsibilities included monitoring debris removal, reduction and final disposal.
- Deepwater Horizon Oil Spill Health and Safety Monitoring: Safety Leader.
- Severe Winter Storm Debris Removal Monitoring, Comanche County, OK: Field Supervisor. Monitored debris removal from County Right of Way. Responsibilities included, monitoring the removal of hazardous leaning and hanging tree limbs. Monitored the removal, hauling and reduction of vegetative debris.
- Hurricane Ike Debris Removal Monitoring, City of La Porte, TX: Field Supervisor.
- Hurricane Katrina Debris Removal Monitoring, Hancock County, MS: Tower Monitor.





#### **EDUCATION**

Associate of Arts, Business/Economics, Louisiana State University, 1991

#### **LICENSES**

Haag Engineering Certified Roof Inspector

Louisiana Residential Contractor

South Carolina Residential
Home Inspector

Alabama Residential Home Inspector

Alabama Adjuster Louisiana Commercial Contractor

> Alabama Electrical Contractor

#### **SUMMARY OF STAFF QUALIFICATIONS**

The True North team has the experience and capability to provide debris removal monitoring services to the City of Key West. The True North team has extensive debris management and monitoring experience with numerous communities, following both large and small disasters. We have monitored the removal of more than 16 million cubic yards of debris from public and private property in more than 100 communities, following hurricanes, tornadoes, floods, wind storms, and severe winter storms. We have monitoring experience on all types of disaster debris, including vegetative debris, C&D debris, hazardous trees, marine debris, beach sand cleaning, derelict cars and vessels, white goods, structure demolition, hazardous waste, asbestos, and contaminated debris. True North debris removal projects have included both public and private property as well as structure demolition and other specialized monitoring.

We believe the True North team is the best qualified firm to provide debris management and monitoring for the City of Key West. Our primary focus will be providing the highest level of service to the City of Key West. Our extensive experience in managing contractors enables the True North team to manage debris removal contractors to best serve the City and its citizens. Our experience in debris monitoring efforts to date has shown that securing qualified personnel, providing timely responses, and maintaining proper documentation are the keys to the recovery from the devastation left by disasters. The True North team provides qualified managers and supervisors, who will hire local residents to be debris collection monitors. Our debris collection monitors will be thoroughly trained on all aspects of debris eligibility, recognizing ROW, properly completing documentation, and safety.

One of our professional debris project managers with years of experience and expertise will ensure an efficient overall operation to minimize recovery time and cost while maximizing eligible funding reimbursement.





## TECHNICAL APPROACH / GENERAL OPERATIONS PLAN

True North will respond to the City of Key West's authorized representative with trained, experienced managers and personnel. This will reduce costs to the project, and help to support the City of Key West. The team will use a combination of local monitors, experienced employees from our permanent offices, and debris management experts from across the South. We will establish a Command Center in the disaster affected areas and will implement our comprehensive debris management training program to ensure all monitors are thoroughly trained and supervised. True North will meet all requirements of the City of Key West's request for proposal.

True North will respond within eight hours of notification following unpredicted disasters. We will have staff in place within hours to begin the truck certification and monitoring process. This includes Site Monitors and Field Debris Monitors prepared to begin field work within hours. If needed, we will mobilize additional experienced personnel from nearby offices to begin monitoring operations as we hire and train local employees as monitors.

We are prepared to provide more than 100 monitors, ready to work within three days if needed. We will increase monitors as needed to meet the needs of the City of Key West and respond to monitoring needs and contractor schedules. We will provide an experienced management, supervisory, and data team. We will hire, train, and supervise local employees as monitors to support the local economy and minimize travel costs. Depending on the timing of startup, we will be able to provide full-time company employees from other offices around the Southeast as monitors for start-up of operations. These employees would return to their normal jobs as local monitors are hired and trained. True North understands the monitoring needs of the City of Key West following a major disaster. We are prepared to mobilize and respond immediately.

DMS/tower monitors are the most critical monitoring positions on a disaster debris project because of the judgment required in rating loads and the number of load tickets finalized at DMS/disposal sites. True North provides a higher level of training to fully prepare Tower Monitors for these challenges.

True North has developed a state-of-the-art data management system that will be utilized on this project. The system provides for automated generation of standard and custom reports, as well as automatic checks on data. The North Track data system can also provide electronic load ticketing if requested by the City of Key West. North Track electronic load ticketing is fully compliant with the USACE ADMS requirements and is not dependent on cell towers for communication.



True North has very broad debris experience, including the monitoring of marine debris, waterway debris, beach debris, and nature facilities. True North monitored the debris removal from all affected state-owned waters in Texas following Hurricane Ike. This included monitoring debris removal from numerous waterways and marinas as well as debris removal from over 350,000 acres of water. Our monitoring experience includes private property/ROE work, waterways clean-up and reimbursement, sand recovery and beach remediation, leaning tree and hanging limb removal, hazardous material removal, vessel and vehicle recovery, asbestos abatement, data management, and hauler invoice reconciliation and contracting, and FEMA appeals assistance. True North monitored the sand removal and beach cleaning in Dauphin Island, AL, following Hurricane Isaac in 2012, and monitored tornado debris removal for the cities of Hoover and Leeds, AL and simultaneously Bradley County and Chattanooga, TN.

We will work closely with the City of Key West to develop a specific communication systems to ensure continuity of communications. We will establish a local command center to provide for communications, computer equipment, data management, meetings, etc. True North will utilize our extensive experience to manage the contractor to meet the goals of the City of Key West. We have managed and monitored debris removal on numerous projects involving multiple contractors.

True North has a strong track record of full FEMA reimbursement of eligible debris removal. True North has capacity with a history of providing hundreds of monitors following major disasters, including Hurricanes Katrina, Ike and Sandy, as well as the outbreak of tornadoes across the South and Mid-West in 2011 and 2012.

Following a disaster, lodging and supplies are often limited or totally unavailable. As we have done in the past, True North is prepared to provide supplies and equipment for key personnel, including food, water, and lodging, as well as communications, transportation, computer, and generator equipment. During all phases of mobilization and operations, we will provide for adequate





personnel supplies and equipment, including radios, vehicles, cell phones, GPS units, digital cameras, and safety equipment.

#### **PROJECT MANAGEMENT & ADMINISTRATION**

True North is committed to providing the highest level of services to ensure the satisfaction of the City of Key West. We have the qualifications and experience to successfully monitor debris removal. Key goals are local hiring, management of contractor, and full reimbursement of eligible project costs. We will provide collection monitors to observe and ticket all debris loading operations, as well as tower monitors to observe and document all debris site activities. We will enter all load ticket and debris site data into an electronic database daily. This database will include multiple backups and will track key project data. True North's data system has numerous cross checks to flag any suspicious data such as unusual cycle times, capacities, loading locations or types of debris. Early detection of problems by experienced data personnel is a key to avoiding larger problems later in the project. The data system will generate reports for the City of Key West and will support invoice reconciliation and validation of debris hauler invoices.

We will provide project management and supervision of all activities. True North's monitors will prepare incident reports to document any contractor damage to public or private property. True North may also provide planning, training, permitting and damage assessment services as requested. We have extensive experience in all of these areas, both pre- and post-disaster.

True North understands that the City of Key West expects us to manage the entire debris removal and disposal process. Our Project Manager(s) and Operations Managers will communicate effectively with the City of Key West's debris removal contractor(s), establishing equipment and personnel project needs, zone priorities, project/disaster debris eligibility and classification priorities, outlining anticipated production goals, and project goals and milestones to ensure the City of Key West's schedule requirements are met.

**Debris Estimation Methodology:** True North will provide estimates on likely debris quantities based on model storms if selected. We will immediately begin debris estimates and damage estimates. We can provide damage assessments for buildings, roadways, utilities, and other facilities. Quick, accurate estimates will help get a presidential disaster declaration more quickly. Our experienced teams will first do a quick overall survey and divide the affected areas into geographical areas for a more detailed assessment. True North will coordinate with staff in establishing several representative areas with various levels of damage. We will then do block-by-block detailed estimates of debris quantities.

**Cost Tracking:** True North's data management system can be used for detailed tracking of project costs. Costs will be tracked by zones, by contractor, and other relevant categories as requested by the City of Key West. This system will be used to develop periodic reports, to reconcile contractor invoices and to develop documentation to support FEMA reimbursement.

**Staff Mobilization:** Our monitoring staff is an extension of your staff, reacting and responding to your requests. Our monitors are typically locally hired employees who are displaced or out of work as a result of the declared disaster and are trained and supervised by our experienced permanent staff.

With eight permanent offices in Gulf and Atlantic coastal communities, True North understands the importance of this contract in restoring the quality of life for those impacted by a disaster. Our experience in debris recovery to date has shown that securing qualified personnel, providing timely responses, and maintaining proper documentation are the keys to the reconstruction from the devastation left by disasters.

Because we employ former public employees such as Public Works Directors, Emergency Management Coordinators, and retired military personnel, we understand the stress a disaster has on your employees. Thus, we are able to assist in the staffing and operations of all aspects a disaster may cause. If the demand for temporary assistance goes beyond what we have immediately available, our Human Resources Department will support the effort and assist our local management staff in recruiting, screening, hiring, and training the additional monitors and other personnel required throughout the life of a project.

**Project Management Meetings:** Effective communication is vital to the success of all recovery projects. To ensure that all personnel involved in monitoring the debris removal operation are kept up to date, the following meetings and communications are conducted:

Daily Communication and Safety Meetings: Prior to the start of operations each morning, all monitors are
required to sign-in at a predetermined location. Meetings are held in each zone and are headed up by the Field Supervisor.
At these meetings, ongoing training is conducted, changes in FEMA guidance are reviewed, safety issues are addressed, and





any pertinent information is exchanged. The Field Operations Manager will generally attend daily meetings.

- Periodic Client Meetings: We recommend meeting with the City of
  Key West on a regular basis, to exchange relevant project information and
  progress. True North will provide detailed Daily Operations Reports to the
  Debris Manager. Typically, regular client meetings will be held daily, or multiple
  times, as desired by the City of Key West. Our periodic meetings offer another
  opportunity to meet with staff on operational matters.
- Coordination Meetings with Contractors: True North will initiate meetings with the debris removal contractor to help expedite the work and to discuss any issues that may arise during the week. City of Key West personnel will be made aware of the time and place of these meetings and invited to join. It is important that the monitor and contractor are coordinating with each other to ensure a successful project. In conjunction with these meetings, our staff will coordinate with City of Key West personnel as needed on any issues that may arise in the field.

#### FIELD STAFFING PLANS

True North will coordinate work schedules with contractors 24 hours in advance and provide work schedules to the City of Key West's Authorized Representative. Accurate scheduling is critical to ensure adequate monitoring is provided to document debris removal without unneeded cost of excess monitors. Realistic schedules are also necessary to allow the City of Key West to track and oversee the project effectively. Monitors and contractors will be expected to follow these schedules to ensure efficient, effective project performance, management, documentation and reimbursement.

**General Operation Requirements:** In order to control costs and save public money, True North is diligent in minimizing hours spent on monitoring activities. We will consult with the City of Key West on staffing and work planning, with the City of Key West having final say on staffing levels. We understand and appreciate the City of Key West's visits to review the efficiency and effectiveness of our monitoring program.

#### **COLLECTION MONITORING**

All field monitoring will be managed and executed to maximize federal and state reimbursement. True North has a strong track record of full reimbursement of eligible project costs.

**Debris Monitoring Employees:** All debris monitors and City of Key West staff, as requested, will attend a training program designed by our debris management specialists. This training will be conducted at no cost to the City of Key West. The True North training program ensures that all staff are knowledgeable on FEMA protocol, requirements, and where possible or required by FEMA or rules or regulations, and will involve personnel from either or both of these agencies. All True North employees will be adequately trained prior to performing any work on the project. Our experienced disaster response team provides training in a classroom setting followed by field training that is designed to verify experience



and knowledge of work assignments. All disposal site monitors, collection monitors, and project coordinators are required to attend a training program that includes identification of eligible debris, proper documentation, communication protocols, and safety requirements. True North managers, supervisors, and monitors will wear photographic identification at all times during project operations. Our badges will be visibly displayed on the exterior of our safety gear. All field personnel are required to have good communication skills to work effectively with other project personnel and for efficient interactions with the public.

**Daily Field Monitor Operations:** Field monitors will initiate electronic load tickets as debris is loaded from City of Key West property. Information will include address, project, type of debris, and truck number and capacity. These tickets and an activity log will be available for review by the City of Key West. This log will contain the number of tickets inventoried, issued and/or voided.





Field Supervisors will be assigned to teams of monitors. Our field supervisors are the key to True North's success in ensuring that owners receive full FEMA reimbursement on all projects. True North will stop work in progress that is not being performed or documented in the appropriate manner or which is not in compliance with task orders issued by the City of Key West. Such work will be noted for nonpayment. We will inspect work in progress to ensure that removal efforts include only eligible debris in eligible locations. Field Supervisors and Field Monitors will enforce the "clean as you go" policy.

Our field supervisors have extensive experience and capabilities in debris management, as well as the ability to effectively train, lead, and supervise monitors. All Field Supervisors are thoroughly familiar with FEMA processes/procedures, and have field experience performing all major monitoring activities, including load ticketing, collection monitoring, disposal monitoring, vehicle certification

Field Supervisors will be responsible for ensuring compliance of:

- O Proper loading and compaction
- O Adherence to the Debris Management Action Plan
- O Special needs assessment such as stumps, leaners/hangers, etc.
- Required documentation such as photos and GPS coordinates

monitoring, disposal monitoring, vehicle certification, communications, and daily reporting. Field Supervisors will report critical information to the City of Key West daily.

Collection Monitoring Support Services: True North has experience in all aspects of debris management, including planning, operations, management, monitoring, and accounting systems. Our experience includes all types of debris removal programs, such as ROW debris, leaner/hanger programs, Freon removal, white goods, public property debris, waterway debris, comprehensive private property/ROE debris, marine debris, drainage canal debris, demolition, abandoned vehicles and vessels, beach sand cleaning, animal carcasses, condemnations, hazardous materials, asbestos, and tires.

We have also developed numerous supplemental forms and documentation processes for various types of projects. We utilize daily monitor reports, incident reports, tower logs, etc., on typical projects and we have developed specialized forms for projects involving items such as sand cleaning, vessel removal, and demolition. We document debris every time it moves, i.e., cutting hazardous limbs, loading, unloading at DMSs, reduction, and final haul/disposal or recycling. True North will provide all necessary security and oversight for all operations.

One to one ratio of monitors to equipment is not practical for seaweed removal. The True North team will assign two Collection Monitors and one "Tower" Monitor for the seaweed removal and staging process. The first Collection Monitor will provide load tickets, the second Collection Monitor will rove the project area, and the "Tower" Monitor will complete and close out the load ticket. We will record and photograph before and after conditions to document the removal of seaweed. To help ensure reimbursement, we will attempt to get FEMA pre-vailidation of eligible seaweed where possible.

#### **ELECTRONIC TICKETING SYSTEM**

Automated Debris Management Systems are changing the Debris Monitoring and Recovery Process. Properly implemented systems eliminate traditional paper tickets and provide valuable data during the recovery process. True North has invested considerable resources in developing our state of the art data management system, known as North Track.

The North Track Data Management System (North Track) uses tried and true Microsoft technology to operate a cutting edge, resilient system. North Track allows for a complete and accurate electronic ticketing process following a disaster event. Our complete system establishes, stores, and provides documentation required by FEMA, FHWA, and all other applicable Federal, State, and Local agencies to assist in maximizing your eligible reimbursements. Additional North Track information is provided at the end of this section.

#### TICKET FLOW/DATABASE

Monitors initiate electronic load tickets as hauling units are loaded. Basic information is recorded, including address and/or GPS location, debris type/pay







item, monitor, driver, vehicle certification number, date, time, and other relevant information. At completion of loading, the electronic data is encrypted and stored on an electronic medium such as a thumb drive, which is electronically labeled for a specific driver and certified hauling unit. This electronic medium is provided to the driver to be delivered to the tower monitor at the landfill or DMS. The driver provides this encrypted data medium to the tower monitor, who downloads the electronic load ticket into North Track, and then rates the load based on percent full.

Although the primary data is electronic, a paper ticket is printed at the landfill or DMS to provide archive copies for the Client, contractor,



and driver, as a record of the load. The electronic medium is cleared when the electronic ticket is completed and is returned to the driver to allow another e-ticket to be initiated. The North Track electronic ticketing and data management system has numerous cross checks and internal controls to ensure accurate data capture and to minimize errors. The North Track database, with electronic load tickets, forms the basis for contractor invoice reconciliation and recommendation to the owner for payment.

All entities will work from the same data set. The system provides same day transmission of ticket data. Only the data relevant to each party will be available via secure website, and will be available by project, contractor, subcontractor, and independent hauler. Monitors are provided with Windows HHU's customized with North Track. The use of multiple backup servers and frequent data system backups virtually eliminates the risk of data loss. Since True North owns the hardware and software, we can easily and quickly implement project specific applications and updates, and set up new hardware.

#### LOAD TICKET PROCESS DEVELOPMENT

Field monitors will initiate electronic load tickets as debris is loaded from public property and ROW. Debris site/tower monitors complete each electronic load ticket with a load rating. As directed by the City of Key West, True North tower monitors will collect a digital photograph of each debris load from the tower. Each photograph will be time-stamped and linked to the corresponding electronic load ticket for project QA/QC and archived in the project database. Paper load tickets are printed at this point in addition to the database, as a hard-copy record for the truck driver, landfill and owner. Monitors will keep a log that contains information such as debris loading site location, loading site monitor's name, supervisor's name, number of load tickets issued during the shift, a listing of load ticket numbers issued or voided, and any problems encountered or anticipated. Load tickets and logs will be available to the City of Key West. In addition to the tickets and logs, cumulative data and activity reports on completion progress and issues will be submitted to the City of Key West. These reports will include detail of the quantities and types of debris hauled. This information will be used by True North to reconcile pay requests from the contractor.

Since the load ticket process forms the basis of reimbursement, very close observation of debris loading operations is critical, including types of debris and loading site location. Field supervisors will be utilized along with control points to ensure thorough documentation and ticketing of debris loading operations.

#### DATABASE REPORTING

**Data Administration:** All load tickets and debris site data will be entered daily into North Track. This system has proven to be invaluable on complex projects. Managing ROW vegetative and C&D debris is relatively simple. Tracking numerous communications, types of debris, and inspections for each individual ROE property requires a well-designed data base system.

Cross-checks are built into our proprietary data system, which shows caution flags when unexpected parameters are detected. Examples of data base "flags" could be short turn-around of a hauling unit, discrepancy on capacity, or high loads per day. Our data management system can be organized and sorted by an array of factors to generate comprehensive reports. We will work with you to develop an automatic daily report format to meet your information needs. We can generate custom reports from the data base to provide a wide range of project information. This reporting will be valuable in determining the need for additional passes, new programs, modifications to the scope of the project, etc. GPS coordinates are recorded and digital photographs are gathered to document critical activities, including all unit price tree removals, to meet FEMA requirements.

Daily Operational Reports: True North will provide you detailed daily status reports. These reports will be developed for





automated generation by our comprehensive data management system. Relevant project statistics and cumulative statistics will be shown in a straight forward graphical manner, for officials to provide information to the media or to their constituents. These reports will be customized to fit the specific needs of the Client, and will also include information such as number of vehicles operating, total loads hauled, and cubic yards hauled. The data will be reported in categories by zone, contractor, debris type, average load volume, and citizen drop-off sites.

#### PAYMENT MONITORING AND RECONCILIATION PROCESS

We reconcile quantities with the contractor on a regular basis to ensure load ticketed quantities match as the project progresses. This avoids stress at the end of pay cycles in the event of different interpretations by the parties. True North reconciles data ticket-by-ticket and performs all tasks in compliance with FEMA standards. We review all contractor invoices for accuracy and consistency with load tickets, tower logs, and project spreadsheet quantities. Accurate, complete invoices/pay requests with correct quantities are forwarded to our clients on a timely basis, with a recommendation for payment. Our team's monitoring, documentation, and review processes provide the quality control and backup needed for maximum reimbursement by FEMA. We will keep you informed of the effect of recommended payments on the project/overall budgets, project worksheets, and purchase orders. This will assist in planning for purchase order adjustments and the need for additional versions of project worksheets.

#### **DEBRIS VEHICLE CERTIFICATION**

Certification, documentation, and validation of truck measurements are required by FEMA. Our staff will provide the measurements of the truck and trailer beds and review the compliance with requirements such as limitations of extensions above metal rails. The truck measurements will be recorded and entered into a spreadsheet for validation. Whenever load tickets and truck numbers are entered throughout the project, the database will verify that the truck bed capacity matches the truck number and recorded volume. For additional documentation, each measured truck will be photographed. Summary books of all certified vehicles will be maintained at each DMS and final disposal site to verify vehicles and equipment and for quality control purposes. Potential attributes of vehicles subject to modification will be documented. During the truck certification process, True North will develop and implement a TxDOT criteria checklist for inclusion with each truck certification. True North understands the significance of enforcing vehicular safety and maintenance criteria as a measure to protect the public and project personnel. Periodic or suspicious spot checks and re-certifications will be utilized to discourage vehicle alterations, especially when reasons for concern are observed. The team will perform periodic and random volume capacity verifications of certified recovery vehicles.

#### **SAFETY**

Safety and training are key components that we stress to our employees. Safety is of the utmost importance to protect our monitors and personnel involved in the project. We will conduct regular safety meetings to inform and remind employees of the importance of project safety. Each safety meeting will generally summarize overall monitor safety, then provide detailed discussion of particular elements of project safety, such as safe driving, roadside traffic safety or safety around heavy equipment. Additionally, we have a dress code and safety gear requirements for our employees.

All monitors will have access to safety equipment that is compliant with federal, state, and local requirements. That includes eye protection, hearing protection, reflective safety vests, hard hats, and wet and cold weather clothing. All debris monitors will wear safety shoes and DOT Class II reflective safety vests.

The safety record of True North is reflected by our corporate Experience Modification Rate (EMR) of 0.80 along with not having any lost workdays in the past three years. Safety is always our first consideration on any job. No job is worth the death or injury of an employee. Our safety procedures are followed in accordance with our Neel-Schaffer Safety Program (updated March 2015) along with a specific Project Safety Plan. The nucleus of our safety plan is the Job Hazard Analysis (JHA) identifying specific job-site hazards. Along with the JHA, we conduct an initial safety meeting followed by a daily tail-gate meeting and a weekly inspection. Our plan provides specific guidance to employees working alone. We also follow the safety guidance of on-site contractors.

#### **QA/QC PROGRAM**

The True North team will implement a QA/QC Program to minimize errors on all project documents. The True North team will





provide Field Supervisors to observe the activities of our monitors and provide Quality Assurance/Quality Control reviews on the entire project. Adequate project control and full FEMA reimbursement can only be assured if our policy and procedures are accurately implemented in the field.

Every debris project is carefully managed from the FEMA kick-off meeting through project closeout. We communicate thoroughly with key players of the project including, the City of Key West, FEMA, FHWA, regulatory agencies, contractors, supervisors and employees. Frequent and effective communication is important to ensure we understand and achieve the goals of the City of Key West. A clear understanding of the Stafford Act, disaster specific guidance and local FEMA staff are critical in project control and management to ensure full reimbursement.

Accurate complete record keeping, documentation and data management are as important as the physical work in meeting the goals of the City of Key West and receiving full FEMA reimbursement. The True North team follows the basic five-part FEMA load ticket process in monitoring ROW debris. Eligibility of debris and complete, accurate documentation lead to full reimbursement. These basic functions must be performed correctly in the field. We place great emphasis on training and supervising monitors in the basic monitoring functions to ensure they are performed consistently, and correctly.

#### **FUNDING SUPPORT**

True North has a strong record of full reimbursement on projects monitored by our staff. We will assist the City of Key West in developing a cash flow strategy to maximize early reimbursement of project costs. The True North team is thoroughly familiar with the requirements and guidelines of the Federal Emergency Management Agency. This includes an understanding of the Hurricane Sandy Recovery Act. We have a track record of full FEMA and state reimbursement on projects we have monitored. We will work with the City of Key West to develop a strategy to maximize early reimbursement of project costs. We will also coordinate meetings with FEMA Public Assistance (PA) staff early in the project and focus on disaster specific guidance to maximize reimbursement of project costs. The True North team will be a resource to the City of Key West on federal requirements and financial recovery.

**Development of Project Worksheets:** The team will establish a relationship with the public assistance coordinator (PAC) and staff responsible for writing the PWs for the project. Our staff will provide estimated debris quantities and cost estimates to assist the PAC in developing the PWs and any versions required. We will provide assistance to FEMA PA personnel to develop total debris quantities at the outset of the project. Although not anticipated, True North will assist the City of Key West throughout any needed appeal process based on our in depth knowledge of FEMA reimbursement policies. We will assist in identifying additional funding sources as necessary, such as project expansion, additional debris categories, mitigation opportunities, additional declarations, etc. True North will provide assistance in identifying eligible damage to public facilities under other FEMA Category assignments.

**Federal Routes:** True North will keep accurate records on all functionally classified "federal" roadways as well as "first pass" efforts in order to maximize eligible funding. True North recognizes how important the quick removal of debris from streets and roads is to the community, and we also understand how critical the federal reimbursement program is to the City of Key West. True North will process and reconcile the debris-related invoices accurately and efficiently, and keep precise and detailed records of monitoring information, including reports, load tickets, equipment and vehicles, and all data pertinent to the full reimbursement of all eligible costs.

**Pre-Storm Coordination:** True North will meet with the City of Key West's Representative at least once each year prior to June 1, to coordinate and plan for the upcoming hurricane season. At the annual meeting, we will submit an operations report that identifies key personnel and positions/classifications dedicated to the contract. The team will update the operations report for any changes, such as additions or deletions of staff. The City of Key West retains the right to request personnel replacements. These preseason and pre-storm travel and meetings will be conducted at no cost to the City of Key West, and will serve to improve coordination efforts, communicate the City of Key West's expectations of True North, and prepare to expedite recovery in the event a disaster strikes. Meetings may be attended by debris haulers, contractors, regulators, and other parties as desired by the City of Key West. True North, with the assistance of City of Key West officials, can develop and implement disaster training exercises.

**Site Selection:** True North, with the assistance from our team of geologists, will provide technical and permitting assistance associated with the need to locate DMSs. If requested by the City of Key West, we will perform the necessary environmental data collection process, including baseline data, and apply for required permits per local, state, and federal requirements for designated emergency DMSs.





**Debris Management Planning:** True North's staff of debris management specialists and emergency management planners has the experience to develop and/or review Debris Management Plans (DMP) in accordance with FEMA 327-Public Assistance-Debris Management Guide. We have successfully developed plans for many communities. We pride ourselves in developing a DMP that is a "living document" that is taken off the shelf and used for annual training purposes, as well as coordination with other planning initiatives such as mitigation, land-use, and other community planning efforts.

Our team will gather data regarding past debris-generating events in an effort to forecast debris projections for future events. Our approach is to identify the needs of the City of Key West by listening to your stories of past events, how you handled the recovery process, and what lessons were learned. This valuable data will enable our team to prepare a useful plan for the City of Key West to follow if a disaster strikes.

**Debris Quantity Estimates, Mapping and Zone Development:** Through the development/review of a DDMP, our staff will provide debris estimates based on existing conditions. In addition, zones will be identified throughout the District and mapped within the DMP for debris removal from City of Key West property, rights-of-way, parks, and beaches. This pre-planning activity will allow City of Key West officials to prepare for future events and better prepare their staff for responding.

#### **PUBLIC INFORMATION ASSISTANCE**

True North will assist the City of Key West in developing and implementing public communication tools as requested. We will develop and implement programs to communicate disaster and debris removal information to the public. To coordinate these efforts, we will provide experienced local employees with excellent communication skills, as well as thorough knowledge of the community and debris removal operations. If requested by the City of Key West, our communications assistance may include press releases, public notices, public service announcements, project status updates, and other public communication tools.

The team will establish and staff a "debris hot-line" and/or website to address public complaints and concerns, as requested by the City of Key West. We will provide a local phone number and trained staff to manage phone calls and website activity regarding all aspects of disaster debris, including debris removal schedules, eligibility for pickup, processes, recording public needs/concerns, complaints, and property damage claims. All complaints and damage reports will be documented and investigated, with resolution reported to the City of Key West. True North has broad experience in public communications and call center management following major hurricanes and other disasters. All public information support activities will be managed and executed to maximize federal and state reimbursement.

**Confractor Damages:** The team will coordinate with the City of Key West to respond to residential, commercial, and public property damages occurring in the field throughout the course of the project. We will maintain and update a log of damages reported, damage corrections, and releases for work by either the property owner or the City of Key West. We will track and monitor any complaints or damage reports, work with the contractors to resolve issues, and communicate this process to the City of Key West.

#### RECOVERY SERVICES

The City of Key West can be exposed to substantial damages as a result of a large emergency or disaster. This can include flood damage, beach erosion, sand displacement, property devastation (requiring structure demolition and/or vegetative debris removal) and inland waterway disruption in the wake of a large storm. True North has the ability to provide financial tracking services, and the coordination typically required in coastal communities to help ensure the City of Key West receives reimbursements from FEMA.

#### We have experience in coastal community recovery, including the recovery services listed below:

- Ordinance analysis to determine the best legal method to remove debris from private property.
- Easement/ Rights-of-Entry administration and data base management.
- Private property hazard tree and limb removal monitoring.
- Private property demolition coordination and monitoring.

#### **EVENT CLOSURE**

True North will complete project closeout within 30 days following completion of debris removal operations.





The following Project Plan and Timeline is an initial approach that can be adjusted based on client needs following a debris-generating disaster.

Pre-Event Coordination	n & Trainina
Timeline	Annually
Scope of Work/Tasks	Upon award of Contract:  • Meet with client and establish project point(s) of contact;  • Review all debris management plans and procedures; and  • Discuss project expectations and specific client needs related to debris management.  Prior to hurricane/storm season:  • Review debris plans;  • Make introductions of new personnel if necessary;  • Ensure that all parties are adequately prepared and familiar with established debris related policies and procedures prior to a disaster event; and  • As necessary, True North will assist in identifying debris management sites and reviewing
	Debris Management plans to ensure compliance with FEMA Public Assistance requirements.
Project Initiation & Da	
Truck Certification	<ul> <li>Immediately prior to event or upon receipt of Notice to Proceed</li> <li>Pre-positioning of staff when possible;</li> <li>Deploy within 4 hours of disaster when not able to pre-position staff; Make contact with the Project Point(s) of contact to determine any known magnitudes of debris caused by the event and identify any known special issues that have arisen as a result of the disaster;</li> <li>Develop Quality Assurance/ Quality Control program to ensure contract compliance and maintenance of performance goals and standards;</li> <li>Develop a Project Action Plan; and</li> <li>Coordinate with local, and when available, State, and Federal staff to conduct an initial assessment of the damage and debris caused by the disaster and make a determination as to the size of the debris project and what resources will be required to effectively manage the debris management operations. This task can be typically completed within 24-48 hours of activation.</li> </ul>
Iruck Certification	
	<ul> <li>Within 48 hours after Notice to Proceed and continuing as needed during project.</li> <li>Identify locations to certify debris collection and hauling equipment;</li> <li>For cubic yard operations, concise measurements of truck capacity will be taken and documented in the presence of debris collection company representatives;</li> <li>For tonnage operations, concise measurements of the tare truck weight will be taken and documented in the presence of debris collect ion company representatives;</li> <li>Ensure all trucks and trailers have pre-printed placard, have been digitally photographed, and logged to eliminate duplication and contractor fraud; and</li> <li>Randomly check trucks to ensure that payload volumes are consistent with the initial certification documents. This is done to prevent fraud.</li> </ul>
Staffing of Debris Proje	
	<ul> <li>Within 48 hours after Notice to Proceed and continuing as needed during project.</li> <li>Upon receiving Notice to Proceed, provide project managers, operations managers, field supervisors, data managers, and an initial set of debris monitors to handle the initial 70 hour debris push; and</li> <li>Simultaneously, recruit, screen, and train locally-hired monitoring and clerical staff.</li> </ul>





Health & Safe	ty Program
	48 - 72 Hours after Notice to Proceed is issued.
	Initiate Health and Safety Awareness and Compliance program; and
	Ensure that all debris sites and personnel are equipped with appropriate safety equipment and
	guidance.
Debris Manag	gement Site Establishment & Staffing
	48 - 72 Hours after Notice to Proceed is issued.
	Work with project POC(s) to identify potential Debris Management Sites (DMS);
	Document conditions of identifies sites and gain permits to conduct debris processing at those
	Sites;
	Coordinate set up of DMS locations with collection/hauling contractors; and
	Staff each DMS with a minimum of 2 trained debris monitors to assess load volumes and
	inspect all incoming debris.
Debris Cleard	nce Coordination ("Push") & Monitoring
	First 70 hours of debris clearance work.
	Work with project POC to confirm and prioritize roads, critical facilities, and areas for initial
	debris clearance;
	<ul> <li>Document and Time and Materials Contract Work (Labor and/ or Equipment); and</li> </ul>
	Track any other contractor costs that could be reimbursed under the FEMA Public Assistance
	grant program.
Debris Site To	wer Monitors
	48 - 72 Hours after Notice to Proceed is issued.
	Deploy trained monitors to debris site towers to grade incoming debris loads in accordance
	with the load ticket versus the certified capacity of the truck; and
	<ul> <li>Complete load tickets and ensure tickets are completed and the appropriate logs and copies or</li> </ul>
	the tickets are kept for record and reimbursement.
Field Supervis	ors
	48 - 72 Hours after Notice to Proceed is issued.
	Deploy experienced Field Supervisors to oversee monitoring activities; and
	Ensure field supervisor to monitor ratio is appropriate for the size of the project.
Data & Docur	ment Management and Reporting
	48 - 72 Hours after Notice to Proceed is issued.
	Collect data from the field, analyze the data, scan the data, and enter it into the appropriate
	project database; and
	Provide project reports at an agreed upon interval.
Contractor In	voice Reconciliation
	3 - 5 days after receiving invoices
	Review contractor invoices for accuracy against True North's independently maintained data-
	base; and
	Provide client reports on any discrepancies and approvals for payments to the contractor.





<b>Final Pass Comp</b>	letion
	Last weeks of debris collection operations
	<ul> <li>Assist project POC in developing and publishing public announcements regarding last pass schedules;</li> <li>Deploy roving monitors to conform clearance of all public Rights of Way (ROW);</li> </ul>
	<ul> <li>Provide maps of any remaining eligible debris that needs to be collected and hauled away; and</li> <li>Provide verbal and written confirmation of completion of debris removal operations.</li> </ul>
Haul Out of Mulc	h and Processed Debris
	Last 2 - 3 weeks of project.
	<ul> <li>Monitor and the document the removal of all reduced and processed debris from the OMS; and</li> <li>Confirm and document the final disposition of all reduced and process debris.</li> </ul>
Closure of Debris	Management Sites
	After all debris is cleared from the site
	<ul> <li>Confirm and document removal of all debris, towers, equipment, and materials;</li> <li>Document site restoration/remediation, work, costs, and completion; and</li> <li>Confirm compliance with all local, state, and federal environmental regulations.</li> </ul>
FEMA Public Assi	stance Grant Claims Report
	From beginning to end of project.
	<ul> <li>Work with the client's staff, the State, and FEMA to ensure that all eligible costs for debris removal are appropriately documented and submitted for reimbursement.</li> <li>Advise client on the current FEMA Public Assistance Alternative Procedures (PAAP) and ensure that all operations, invoicing, and billing are consistent with the program if the client opts into the Program.</li> </ul>





## **CAPABILITY**, CAPACITY & AVAILABILITY

While True North/NSI has extensive debris management experience in Florida and across the eastern half of the country, we are not over committed in the City of Key West area. True North has six existing primary pre-event debris monitoring agreements within 200 miles of the City of Key West; South Broward Drainage District, City of Miami Gardens, Islamorada, Village of Islands, Seminole Tribe of Florida, Miami-Dade Public Schools, and the City of North Miami. The True North team stands ready to respond to the needs of the City of Key West in the event of a disaster.

MOBILIZATION: Following the notice to proceed from the City of Key West, our team members will be deployed to help assess the volume of debris and needed response to meet the contractor's mobilization effort. The size of our firm (about 400 full-time employees) allows us the ability to draw resources from many offices to meet the immediate needs of the community. These employees are returned to their home offices as soon as local employees can be hired to fill the majority of the hourly monitoring positions. Using local monitors is key to the success of our debris removal program, and consistent with the goals of the Stafford Act to help the local economy recover.

Our team mobilized more than 450 temporary employees following the 2014 winter storms in South Carolina. We mobilized 250 temporary employees to meet the needs from Hurricane Sandy in 2012 and 2013 in the Northeast. True North / Neel-Schaffer also mobilized hundreds of monitors following Hurricane Katrina (MS) in 2005/2006 and Hurricane Ike (TX) in 2008/2009. We provided monitoring of thousands of workers during cleanup of the BP Gulf of Mexico oil spill in 2010 and 2011. These are just a few of the projects for which we have

#### Schedule for the management of an event:

- O Debris Management and Emergency Response Planning: 30 days after selection
- O Pre-Disaster Response: two to five experienced personnel, two to 10 days prior
- O Damage Assessments: additional experienced personnel within 24 hours
- O Mobilizing Debris Contractors: supervisory personnel within 12 hours
- O DMS Preparation Assistance: two experienced personnel within 24 hours
- O Loading/Hauling Vehicle Certifications: up to 10 personnel within three days
- O Debris Monitors: over 100 monitors within three days as needed
- O FEMA Meetings: two supervisory personnel available prior to disaster
- O Monitoring Operations: trained personnel, up to hundreds after major hurricane
- O Project Closeout: within 30 days following completion of debris removal operations

provided monitoring services over the past 10 years. We had more than enough supervisory staff to oversee the debris monitoring services. Our ability to mobilize, train and supervise hundreds of people in an organized and timely manner is key to our past success at debris removal monitoring and the corresponding recovery of the community.

True North's success in managing disaster debris removal, in particular following hurricanes Sandy, Isaac, Irene, Ike, Rita, and Katrina, is a testament to our ability to work effectively in complex situations. We have highly trained professionals who can complete the job in a cost-effective manner. Our company values are based on quick response, local hiring, client service, ethical practices, full reimbursement, and sensitivity to the environment. Our staff places the utmost importance on accounting procedures and implementing accurate and comprehensive reporting. The True North team's objective is to achieve full reimbursement for all eligible disaster recovery costs from appropriate federal and state agencies. We have been activated on a pre-event contract with the Texas Department of Transportation (TxDOT) to provide debris monitoring services related to the May tornados and flooding event. The project currenlty involves approximately 10 personnel. This represents less than 10 percent of our capacity, in monitors management personnel.

CORDINATION OF SERVICES IN MULTIPLE LOCATIONS: True North will respond two to three days in advance of predicted disasters. We will respond within six hours of notification of need following unpredicted disasters. We will utilize employees based in our Florida office, with support from our 38 other True North/Neel-Schaffer offices, followed by local hiring and training of local monitors.

True North has handled debris monitoring for multiple government agencies numerous times. On three separate occasions, we have responded and provided services in 10 to 20 communities simultaneously. This occurred following Hurricane Katrina in 2005, Hurricane Ike in 2008, and Hurricane Sandy in 2012. Following Hurricane Katrina, we responded to over 10 communities. This response included the City of Biloxi ,where we successfully monitored the removal of approximately 3 million cubic yards of debris from 5,000 right-of-entry properties, and 10,000 trees. In 2009, True North monitored debris removal simultaneously in over 10





communities in five different states across three separate FEMA regions.

True North has more than 10 Project Managers with experience managing major debris monitoring projects along with numerous experienced Field Supervisors and Data Managers. We are organized to respond quickly with an adequate supervisory and management team to commence truck certification and monitoring operations. True North will assign a project manager to the City of Key West at the time of responding to a Notice to Proceed. The Project Manager will be able to perform all duties set out herein. We begin operations with existing staff, while advertising, hiring, and training local monitors. True North has not contracted and will not enter into pre-event contracts that exceed our ability to respond. We will assign an experienced Project Manager to every project

True North Managers and Supervisors are knowledgeable of the FEMA Public Assistance (PA) Program, including the following:

- o Public Assistance Guide (FEMA 322),
- o Applicant Handbook (FEMA 323),
- o Public Assistance Debris Management Guide (FEMA 325),
- o Public Assistance Debris Monitoring Guide (FEMA 327),
- o Debris Estimating Field Guide (FEMA 329),
- o FEMA's Recovery 9500 Series,
- o FEMA Disaster Assistance Policies,
- o FEMA PA Program guidelines,
- o FEMA Recovery Fact Sheet RP9580.201,

that is activated. In the event where several projects are activated in a certain region, we would also have an area manager coordinating resources between multiple projects.

True North will report within eight hours after notification of need. True North will begin work within 24 hours of issuance of Notice to Proceed. Commencement of operations will include providing qualified, trained personnel to perform debris removal monitoring services. Monitoring services shall include certification of vehicles, verifying eligibility of work, documenting removal services, DMS monitoring, data management, and hauling contractor invoice reconciliation.

Monitors will be available seven days per week, 12 -14 hours per day, as needed. True North will arrive able to sustain itself and its employees, including meals, lodging, materials, and supplies. We will primarily utilize locally hired, trained, and supervised monitors for this contract. True North employees will have all needed tools, supplies, and equipment, including digital cameras, laptop computers, field communication equipment, and GPS units.

True North will include all personnel positions listed in the RFP and all positions required for a complete debris monitoring and documentation project. Final staffing level determination will be made by the City of Key West. Debris Monitors will be primarily local and will be a minimum of 18 years of age, with a valid driver's license issued in the U.S. All True North documents shall be in compliance with FEMA regulations.

WORKFORCE REQUIREMENTS: True North has the capacity and experience to deliver complete debris monitoring services to the City of Key West. We have extensive experience and the ability to mobilize several hundred employees to ensure that all needs are met. Our ability to hire, train, and successfully manage hundreds of monitors in an organized and timely manner is critical to the City of Key West's success. Additionally, True North includes experienced managers, trainers, supervisors, and data managers who will ensure the project is mobilized and run in the most efficient and cost-effective manner.

AN EXTENSION OF YOUR STAFF: True North is familiar with working within existing government structures. We will provide public information support, such as press releases, public service announcements, and project updates, as well as provision of other public communication tools as required. Additionally, if requested, we will establish a debris management call center to respond to public inquiries on debris-related issues.

The team has extensive experience in hiring and training hundreds of debris monitors following disaster across the country. We intend to hire and train the majority of our debris monitors locally. This is looked upon favorably by FEMA, will reduce costs to the project, and helps support the local economy. We will provide experienced management and supervisory staff to provide oversight of the monitors. We are committed to delivering the highest level of service.

True North will provide debris monitoring training to your staff at no cost to the City of Key West. Training will be customized with direction from Emergency Management, and will include topics similar to our debris monitor training with more in depth discussion on Debris Management Plans (DMP), Debris Management Sites (DMS), debris management progress reporting, and chain of reporting of True North to the City.





## **North Track Data Management System**

## **Electronic Ticketing System - Overview**

#### North Track Features:

- Meets the Corps of Engineers (USACE) debris specifications
- ADMS Specification Based Design
- Secure:
  - o 3DES Encryption
  - Username/Password protected
- Sync Mode for Off-line use:
  - Regardless of cellular network availability, North Track maintains complete functionality
- Geospatial Data:
  - o per ticket haul/tree work/marine (multiple GPS points)
  - Digital Photos with text/data/GPS point (when required)
- Cloud Based Data:
  - North Track offers a user name/password protected web-based accessible system.
  - o Easily accessed by all authorized parties (Client, Contractors, Consultants, FEMA, etc.)
  - o Client dictates authorizations
- Scalable:
  - In addition to our 100+ inventoried Hand Held Units (HHU's), our system uses readily available, commercially sourced hardware and can be scaled to handle any size event.
- Redundant Backup Servers
- \* Real Time/Near-Real Time Reporting
  - o North Track Windows proprietary system allows reports to be exported into MS Excel
  - o Reporting is authorized based and is available to all required parties
  - o Customizable reporting available
- Payment Monitoring and Reconciliation
  - o True North can monitor the entire invoicing process from hauling contractors
  - North Track allows for reconciling contractors data for accurate invoicing
  - Ensures complete data sets for reimbursement
- Truck Certification
- Unlimited Zones/Areas
- Unlimited and Customizable Debris Types
- Right-of-Way (ROW) Collection
- Tree Work (Leaner/Hanger/Stump)
- Private Property Debris Removal (PPDR)
- Demolitions
- markHaul Out/Disposal
- Monitor Management
- Complete QA/QC of all data with internal reports







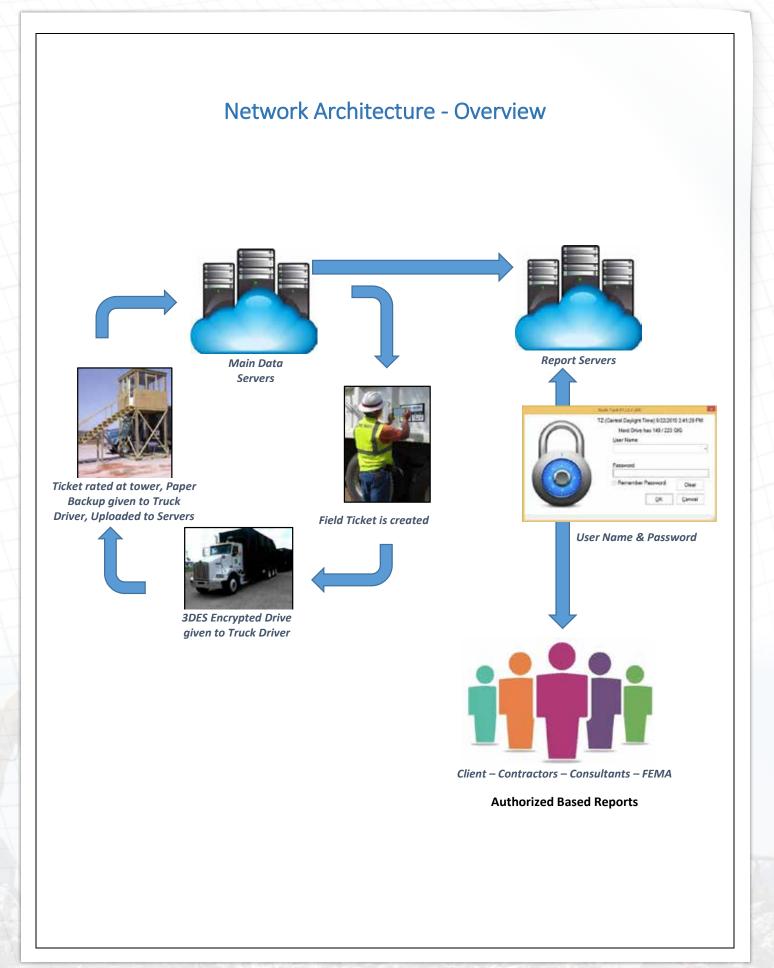
















## **ADDITIONAL** SERVICES

#### **ELECTRONIC TICKETING SYSTEM**

North Track Data Management System provides the client with almost real-time project progress information. Not only does E-Ticketing assist the project collection and disposal monitors with data collection efficiency, accuracy, and completeness, it potentially eliminates thousands of hours of manual data entry of load tickets into a project database. Therefore, overall project management benefits from the implementation of E-Ticketing. Progress summary reports, utilizing un-reconciled data, can be generated daily within hours of completion of field operations. True North can use this data for debris removal mapping for an overall picture of project progress without the delays normally associated with manual data entry. At the City of Key West's request and written approval, True North will provide electronic ticketing units and tower operations at a cost of \$4.00 per hour per unit. True North can tailor our project load ticketing approach (paper versus electronic) to meet the needs and directives of the City of Key West.

#### FEMA PUBLIC ASSISTANCE GRANT SERVICES

True North Emergency Management has experience in assisting its clients through the Public Assistance Grant process. True North can assist clients by capturing data and eligible costs that can be used to develop projects to be put onto a PW. True North can assist with initial estimates as well as final actual costs related to each project in the client PA process.

#### Services included in True North's services include:

- Identification of eligible emergency and permanent work (Category A-G);
- Damage Assessment
- Assistance in attaining Immediate Needs Funding;
- · Prioritization of recovery workload;
- Loss measurement and categorization;
- Insurance evaluation, documentation adjusting and settlement services;
- Project Worksheet formulation, generation and review.
- FEMA, FHWA, HMGP, CDBG, NRCS and additional reimbursement support;
- Staff augmentation with experienced Public Assurance Coordinators and Project Officers;
- Interim inspections, final inspections, supplemental Project Worksheet generation and final review;
- Appeal services and negotiations;
- · Reconstruction and long-term infrastructure planning; and
- Final review of all emergency and permanent work performed.

True North can also assist clients in maximizing FEMA reimbursement from previous disaster. True North has experience in reviewing PWs, and their associated documentation, to determine if all eligible costs have been captured. In cases where it has not, True North will work with its clients to submit additional eligible costs to FEMA to get reimbursement.

#### HAZARD MITIGATION PLANNING SERVICES

True North staff members have extensive experience in developing Hazard Mitigation Action Plans (HMAPs) and Local Mitigation Strategies (LMSs) for multiple jurisdictions. True North understands the steps and tasks required to meet requirements for LMSs under the Robert T. Stafford Act and Title 44 Code of Federal Regulations (CFR) Parts 201 and 206 Interim Final Rule and the Disaster Mitigation Act of 2000. These include requirements set forth by FEMA, effective Oct. 1, 2011. True North employees continually review and update themselves on all regulations and requirements set forth for mitigation plans and other mitigation planning efforts.

True North ensures that all-hazards mitigation plans are consistent with steps and methodologies set forth in FEMA's The Local Mitigation Plan Review Guide, dated Oct. 1, 2011, and FEMA's Local Mitigation Planning Handbook. This includes consistency and compliance with the FEMA Local Mitigation Plan Review Tool / Crosswalk. True North also makes certain that any state guidelines and review processes relating to all-hazards mitigation plans are adhered to during the development and approval of client mitigation plans.

True North ensures that all-hazards mitigation plans are consistent with steps and methodologies set forth in FEMA's The Local





Mitigation Plan Review Guide, dated Oct. 1, 2011, and FEMA's Local Mitigation Planning Handbook. This includes consistency and compliance with the FEMA Local Mitigation Plan Review Tool / Crosswalk. True North also makes certain that any state guidelines and review processes relating to all-hazards mitigation plans are adhered to during the development and approval of client mitigation plans.

#### MITIGATION GRANT PROGRAM SERVICES

True North Staff have experience in helping clients in developing grants for the following mitigation grant programs:

- Hazard Mitigation Grant Program (HMGP)
- · Repetitive Flood Claims Program Grant
- Flood Mitigation Assistance Grant (FMAP)

True North assists its clients in identifying potential mitigation projects, performing a benefit-cost analysis (BCA), developing the grant application, and applying for the grant. True North stays aware of current regulations and eligibility criteria associated with each hazard mitigation grant program to better ensure client success in getting the grant. **This includes all requirements set forth as follows:** 

- Hazard Mitigation Grant Program (HMGP): Section 404 Robert T Stafford Disaster Relief and Emergency Assistance Act (PL 93-288 as amended)
- Repetitive Flood Claims Program: Section 1323 National Flood Insurance Act of 1968 (as amended by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004)
- Flood Mitigation Assistance Program: Section 1366 of the National Flood Insurance Act of 1968 (42 United States Code 4104c), as amended by the National Flood Insurance Reform Act of 1994 (Public Law 103-325)

True North also has in depth knowledge of the National Flood Insurance Program (NFIP), which is necessary in applying for many hazard mitigation grants. True North's Hazard Mitigation Grant Services can be coupled with the Public Assistance Grant Services mentioned below in a post-disaster scenario.

#### **EMERGENCY MANAGEMENT & HOMELAND SECURITY GRANT SERVICES**

Along with all-hazards mitigation grants mentioned above, True North assists its clients in developing emergency management and Homeland Security grants for both preparedness and recovery needs. **Examples of potential grant programs include:** 

- Emergency Management Performance Grant (EMPG)
- Urban Area Security Initiative (UASI)
- State Homeland Security Program (SHSP)
- Tribal Homeland Security Grant Program (THSGP)
- Nonprofit Security Grant Program (NGSP)

True North works with clients to identify grant opportunities, formulate costs for potential grants, and identify and fulfill cost-matching requirements. True North will also assist clients in completing and submitting the grant applications. When applicable, True North will assist the client in implementing the grant project.

True North staff continually reviews eligibility and application requirements for both state and federal grant programs. This is necessary in order to ensure maximum success for clients in receiving grant funds for their emergency management projects.

True North Emergency Management also provides Public Assistance Grant Services under the FEMA Public Assistance program. This is discussed below.

#### COMPREHENSIVE EMERGENCY MANAGEMENT PLANNING SERVICES

True North staff members have extensive experience in developing custom and cost-effective plans and Standard Operating Procedures. These include:

- Emergency Operations Plans / Comprehensive Emergency Management Plans
- Hazard-Specific Plans
- Debris Management Plans
- Capability Assessments
- Public Outreach Plans





- Shelter Plans
- National Incident Management System (NIMS) Implementation Plans

True North reviews and remains updated on all state and federal regulations related to the many specific types of plans. True North will ensure all plans that are developed for clients are compliant with applicable state and federal regulations, to include National Incident Management System (NIMS), Emergency Management Accreditation Program (EMAP), and FEMA Community Preparedness Guide (CPG) 101.

#### CONTINUITY OF OPERATIONS & GOVERNMENT PLANNING SERVICES

True North has experience in developing Continuity of Operations Plans (COOPs) and Continuity of Government plans (COG). True North Emergency Management has a COOP Professional Continuity Practitioner on staff to oversee all COOP and/or COG plan projects. True North Emergency Management understands the requirements for the development of COOP and COG Plans set forth under the FEMA Continuity Guidance Circular 1, Continuity Guidance for Non-Federal Agencies (CGC-1).

#### Elements includes in each COOP and/or COG plan include:

- Readiness and Preparedness Actions
- Plan Activation and Relocation Procedures
- Continuity Operations
- Reconstitution Procedures

True North works with its clients to ensure that a customized and functional COOP and/or GOG plan is developed by including client stakeholders in the planning process to ensure buy-in and understanding of the elements of the COOP and/or COG plan.

#### **RISK & VULNERABILITY ASSESSMENT SERVICES**

True North offers Risk and Vulnerability Analysis services to its clients. This service is typically included in many planning projects, but can be a stand-alone service. True North takes an all-hazards approach to Hazard Risk and Vulnerability Assessments. True North will work with its clients to identify the likelihood

of particular hazards affecting their jurisdiction or organization. Once this is complete, True North will work with the client to determine the overall impacts of a hazard on life, property, and the environment.

True North is familiar with current standards and guides related to Risk and Vulnerability Assessments. This includes FEMA's Threat and Hazard Identification and Risk Assessment Guide (THIRA), Community Preparedness Guide (CPG) 201 that was published in April 2012. True North has updated its Hazard Risk and Hazard Vulnerability services to incorporate the methodologies set forth in the THIRA. This will ensure updated and comprehensive Risk and Vulnerability Assessment services for True North clients.

#### ALL-HAZARDS TRAINING SERVICES

True North understands the criticality of training clients in order to empower them to do their jobs effectively and efficiently.

#### True North offers various training courses for its clients to include courses related to:

- Debris Monitoring and Management
- National Incident Management System (NIMS)
- Emergency Operations
- Impact and Damage Assessment
- · Public Outreach
- Departmental Strategy Development
- · Hazard Mitigation
- Continuity of Operations / Continuity of Government
- General Emergency Management

True North Emergency Management will work with its clients to customize classes and delivery to ensure that the material being delivered is most effective for the clients and their training objectives.

#### ALL-HAZARDS EXERCISE SERVICES

True North staff understands client needs to drill or exercise plans in part or in their entirety. This is necessary in order to define





gaps in capabilities and/or processes before and emergency or disaster occurs so that they can be corrected. **True North Emergency Management can provide the following services to its clients:** 

- Drills
- Tabletop Exercise (TTX) Services
- Functional Exercise (FX) Services
- Full-Scale Exercise (FSX) Services
- Exercise Evaluation
- · After Action Meeting and Reporting

True North staff has expertise in the Homeland Security Exercise and Evaluation Program (HSEEP), and will use this approved methodology and set of tools to develop drills and exercises for clients.

#### **DEPARTMENTAL/ORGANIZATIONAL STRATEGIES**

True North understands emergency management from both the public sector and private sector. True North understands that emergency managers are often asked to justify their programs and the direction of their programs for a variety of reasons. True North will work with its clients in developing a Department or Organization Strategy that will be customized and will illustrate the accomplishments, current projects, and future direction of the client's agency. Not dissimilar to a business plan, strategic planning is designed to provide a roadmap for the department to proceed into the future.

True North's will work with its clients to develop goals and objectives based on current and anticipated resources. These goals and objectives will be based on current standards and requirements, as well as a desired direction that the client would like to take their organization. True North will further assist clients by determining capabilities for meeting set goals, which can help clients outline future funding priorities. Additionally, True North will assist clients in developing a preliminary work plan in order to achieve the set goals and objectives.

#### **EMERGENCY OPERATIONS STAFF AUGMENTATION SERVICES**

True North offers emergency operations staff augmentation services to its clients both in "peacetime" as well as during disasters. True North understands that many emergency management offices and organizations are understaffed, particularly in a post-disaster scenario. True North staff has experience in emergency operations center environments in a variety of roles.

#### These roles include:

- Incident Commander
- Emergency Manager
- Emergency / Disaster Operations
- Planning
- Data Collection and Maintenance
- Engineering

True North Emergency Management offers these services on a pre-event contract basis to its clients.

#### **IMPACT & DAMAGE ASSESSMENT, STAFF AUGMENTATION**

True North provides impact and damage assessment services to its clients. Following a disaster, it is critical that jurisdictions and organizations understand how the disaster has affected them. This includes determination of how infrastructure, critical services and facilities, businesses, residents, and the environment have been affected.

The impact assessment services provided by True North are designed to give the client an idea of how the disaster has affected their jurisdiction, and how they may need to prioritize response and recovery resources. To accomplish this, True North staff can incorporate with local representatives to expedite the completion of the initial assessment.

The damage assessment services provided by True North are designed to take a more detailed look at exact damages. True North will work with clients to develop detailed reports on damages. This information can then be used in the public assistance process to begin the development of PWs.

True North offers these services on a pre-event contract basis to its clients.





## **REFERENCES**

#### **Ocean County, New Jersey**

#### **Township of Long Beach**

Andrew Baran, Superintendent of Public Works

6805 Long Beach Boulevard

Brant Beach, NJ 08008

Phone (609)361-1000 ext 6672

Fax:(609)494-5421

Email: barana@longbeachtownship.com

Date of Contract: November 2012 to November 2013

#### City of Chattanooga, Tennessee

Donald L. Norris, Deputy Administrator, Public Works

1250 Market Street, Suite 2100

Chattanooga, TN 37402-2713

Office:423.643.6000 Fax: 423.757.4857

Email: Norris\_L@chattanooga.gov

Date of Contract: May 2011 to October 2011

#### Town of Dauphin Island, Alabama

Corey Moore, Building Inspector

1011 Bienville Blvd.

Dauphin Island, Alabama, 36528 Office: 251.861.5525 ext. 224

Email: cmoore@townofdauphinisland.org

Date of Contract: October 2012 to December 2012

#### Jackson County, Mississippi

Brian Fulton, PE, County Administrator

2915 Canty Street Pascagoula, MS 39567 Office: 228.769.3088 Fax: 228.769.3348

- " - " - " - "

Email: Brian\_Fulton@co.jackson.ms.us

Date of Contracts: January 2006 to August 2006 & September 2012

#### **South Carolina Department of Transportation**

David Cook, State Maintenance Engineer

955 Park St., Room 324 Columbia, SC 29202-0191 Office: (803) 737-1290 Fax: 803.737.4530

Email: CookDB@scdot.org

Date of Contract: February 2014 to January 2015

#### City of Cedar Rapids, Iowa

John Riggs, Project Manager - Flood Demolitions

3851 River Ridge Dr. NE Cedar Rapids, IA 52402-7531

Office: 319.538.6545 Fax: 319.286.5130

Email: johnriggs@gmail.com

Date of Contract: June 2008 to December 2014





#### City of Hoover, Alabama

Allen Pate, Executive Director

100 Municipal Lane Hoover, AL 35216 Office: 205.444.7500 Fax: 205.444.7572

Email: patea@ci.hoover.al.us

Date of Contract: May 2011 to July 2011

#### City of La Porte

Jeff Suggs, Emergency Management Coordinator

2963 N. 23rd Street La Porte, TX 77571 Office: 281.470.0010 Cell: 281.639.9258 Fax: 281.470.1590

Email: suggsj@laportetx.gov

Date of Contract: September 2008 to May 2009

#### **Texas GLO Marine Debris**

Tony Williams, Coastal Leasing

PO Box 12873 Austin, TX 78711 Office: 512.463.5055 Fax: 512.305.8937

Email: tony.williams@glo.state.tx.us

Date of Contract: December 2008 to March 2009





#### ADDENDUM NO. 1 RFP 09-015 **Debris Removal Monitoring Services** City Of Key West

To All Proposers:

The following change is hereby made a part of RFP 09-015 Debris Removal Monitoring Services, as fully and as completely as if the same were fully set forth therein:

- 1. NEW:
  - PROPOSALS MUST BE RECEIVED : September 9, 2015
  - NOT LATER THAN 3:30 P.M.
- 2. ALL QUESTIONS MUST BE RECEIVED: August 7, 2015
  - NOT LATER THAN 3:00 P.M.

All Proposers shall acknowledge receipt and acceptance of this Addendum No. by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive.

Derrick Tucker, PE

True North Emergency Management, LLC

Name of Business



#### ADDENDUM NO. 2

#### RFP 09-015

## **Debris Removal Monitoring Services**

### **City Of Key West**

#### To All Proposers:

The following changes are hereby made a part of RFP 09-015 Debris Removal Monitoring Services, as fully and as completely as if the same were fully set forth therein:

Table A-Unit Price

Hours below are based on 30-day time period for 1 team, 7 days a week and 10 hours a day.

Positions	Staffing Ratio	Hourly Rate	Estimated Hours	Extended Cost
Principal In Charge	1	135.00	280	37,800.00
Project Manager	1	110.00	280	30,800.00
Deputy / Operations Manager	1	100.00	280	28,000.00
IT Specialist	1	85.00	280	23,800.00
Project Coordinator	1	100.00	280	28,000.00
Data Manager	1	85.00	280	23,800.00
GIS Analyst	1	85.00	280	23,800.00
Field Supervisor	1	75.00	280	21,000.00
Debris Site / Tower Monitors	3	29.00	840	24,360.00
Collection Monitor	7	29.00	1960	56,840.00
Citizen Drop Off Site Monitor	3	29.00	840	24,360.00
Data Entry Clerk/ Clerical	4	28.00	1120	31,360.00
Billing / Invoice Analysts	2	75.00	560	42,000.00
Billing / Invoice Manager	1	85.00	280	23,800.00
FEMA Coordinator / Specialist	1	110.00	280	30,800.00
Public Information Support Manager	1	110.00	280	30,800.00
Call Center Staff	3	28.00	840	23,520.00
Total Estimated Cost				\$504,840.00

Are we supposed to provide current contract within 150 or 200 miles of the City of Key West?

This contract is for the city of Key West only.

• In order to calculate an accurate cost estimate, will the City create a scenario with a timeline of the events to estimate the total number of hours and staff needed for the project?

Use Table A chart provided above.

#### In the grading criteria, Cost # 1 Staffing ratio

What is the basis in which the staffing ratio will be scored in order to acquire the 15 points?

Use Table A chart provided above.

#### Technical Approach \ General Operations Plan Page 9

• Is the Technical Approach required on page 9 related to the Technical Approach in Attachment B? Is the Technical Approach on page 9 to be based on the Attachment B scenario? It does not clearly indicate the requirements of each Approach.

Yes, use Attachment B.

• Will there be 2 Technical Approach's required to be submitted? Based on the different criteria on Page 9 of the RFP and Attachment B? Each have different requirements.

No, one Technical Approach/General Operations Plan, and explain all bullets provided.

#### Attachment B Proposer Technical Approach / General Operations Plan;

What assumptions are allowable in developing the approach?

Use assumptions provided in Table A and Attachment B only.

 Will C&D be transported straight to the landfill and what is the estimated roundtrip timeline for trucks?

Debris will be transported to TDMS. Primary and Secondary sites provided in Attachment F.

 Are white good to be managed at a separate temporary sight or use of one of the existing sights?

White goods are to be separated and transported to one of the existing sites.

How many white goods crews will be assigned by the contractor?

Use Attachment B assumptions.

How many Right of way crews are to be estimated and what is the City's expectation for daily
production rates for debris removed? - Varying logistical and operation issues will greatly alter
the response to the scenario proposed.

Use Table A chart provided.

 How will the Technical Approach be graded based on each presenter using individual assumption?

Use only assumptions provided.

 Automatic data management system (ADMS) services, also referred to as e-ticketing (electronic load tickets), in most cases these services are to be provided by the debris monitoring firm.

Automatic Data Management Systems (ADMS) are required to be provided by the Debris Monitoring Firm.

 Please consider adding hours to the Hourly Fee Schedule to assist the City with evaluating the total costs, etc. ...this method instead of each monitoring firm making assumptions and entering hours.

Use Table A chart provided.

 Please consider stating how days of debris removal operations for our project approach planning purposes, etc.

Use Table A chart provided.

Please consider providing a deadline for questions.

Deadline provided in Addendum 1.

All Proposers shall acknowledge receipt and acceptance of this Addendum No. by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature

Derrick Tucker, PE

True North Emergency Management, LLC

Name of Business



# ADDENDUM NO. 3 RFP 09-015 Debris Removal Monitoring Services City Of Key West

To All Proposers:

The following change is hereby made a part of RFP 09-015

Debris Removal Monitoring Services, as fully and as completely as if the same were fully set forth therein:

1. **NEW**:

wh luch

- PROPOSALS MUST BE RECEIVED : September 29, 2015
- NOT LATER THAN 3:30 P.M.

All Proposers shall acknowledge receipt and acceptance of this Addendum No. by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive.

True North Emergency Management, LLC

Name of Business

#### ATTACHMENT A

#### PROFESSIONAL SERVICES REQUEST FOR PROPOSAL FOR MONITORING OF DEBRIS REMOVAL AND RELATED SERVICES UNIT PRICE PROPOSAL FORM

Proposal costs are inclusive of all related expenses including, but not limited to, contract administration, technical assistance to the CITY, personnel training and certification, TDMS management, services for security, safety, and associated actions necessary for implementation of debris management monitoring operations by the Proposer as defined in the Contract.

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To furnish all materials, equipment and labor and to perform all work in accordance with the Contract Documents for construction of: **Professional Services for Monitoring of Debris Removal and Related Services**, located at various locations within CITY OF KEY WEST, Florida.

To: CITY OF KEY WEST ATTN: CITY CLERK 3126 Flagler Ave. Key West, FL 33040

- 1.0 The undersigned Proposer proposes and agrees, if this Proposal is accepted, to enter into a Contract with CITY in substantially the form as the Contract included in the Proposal Documents to perform all Work and any Additional Services as specified or indicated in the Proposal Documents at the unit prices and within the times indicated in this Proposal and in accordance with the other terms and conditions of the Proposal Documents.
- 2.0 Proposer accepts all of the terms and conditions of the Invitation to Proposal and Instructions to Proposers, including without limitation those dealing with the disposition of Proposal security. The Proposal will remain subject to acceptance for 90 days after the Proposal opening, or for such longer period of time that Proposer may agree to in writing upon request of CITY.
- 3.0 In submitting this Proposal, Proposer represents, as set forth in the Contract, that:
  - A. Proposer has examined and carefully studied the Proposal Documents, the other related data identified in the Proposal Documents, and the following Addenda, receipt of all, which is hereby acknowledged;

Addendum No.	Addendum Date
	08/04/2015
2	08/21/2015
3	08/28/2015

- Proposer has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work;
- C. Proposer is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work;
- D. Proposer has correlated the information known to Proposer, including location of the CITY in relation to any proposed final disposal sites, information and observations for CITY's Debris Separation/Reduction and Temporary Debris Management Sites obtained from visits to the Site, any reports and drawings identified in the Proposal Documents, and all additional examinations, investigations, and data provided with the Proposal Documents;
- E. Proposer has given the CITY written notice of all conflicts, errors, ambiguities, or discrepancies that Proposer has discovered in the Proposal Documents, and the written resolution thereof by the CITY is acceptable to Proposer;
- F. The Proposal Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Proposal is submitted.
- 4.0 Proposer further represents that this Proposal is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Proposer has not directly or indirectly induced or solicited any other Proposer to submit a false Proposal; Proposer has not solicited or induced any individual or entity to refrain from Proposal; and Proposer has not sought by collusion to obtain for itself any advantage over any other Proposer or over CITY.
- 5.0 Proposer acknowledges that there are no quantities guaranteed, and Unit Cost information is solely for the purpose of comparison of Proposals, and final payment for all Unit Price Proposal items will be based on actual services provided, determined as provided in the Contract Documents.
- 6.0 Proposer acknowledges that all unit costs include any necessary insurance and bonds.

#### Table A-Unit Price PER ADDENDUM 2

Positions	Staffing Ratio	Hourly Rate	Estimated Hours	Extended Cost
Principal In Charge	1	135.00	280	37,800.00
Project Manager	1	110.00	280	30,800.00
Deputy / Operations Manager	1	100.00	280	28,000.00
IT Specialist	1	85.00	280	23,800.00
Project Coordinator	1	100.00	280	28,000.00
Data Manager	1	85.00	280	23,800.00
GIS Analyst	1	85.00	280	23,800.00
Field Supervisor	1	75.00	280	21,000.00
Debris Site / Tower Monitors	3	29.00	840	24,360.00
Collection Monitor	7	29.00	1960	56,840.00
Citizen Drop Off Site Monitor	3	29.00	840	24,360.00
Data Entry Clerk/ Clerical	4	28.00	1120	31,360.00
Billing / Invoice Analysts	2	75.00	560	42,000.00
Billing / Invoice Manager	1	85.00	280	23,800.00
FEMA Coordinator / Specialist	1	110.00	280	30,800.00
Public Information Support Manager	1	110.00	280	30,800.00
Call Center Staff	3	28.00	840	23,520.00
Total Estimated Cost				504,840.00

COII	of immation of Signature of Unit. Price Proposarinformation	
True	rue North Emergency Management, LLC	Tucker, PE
Name	me of Proposer Signature of Proposer	
Sr.	r. Project Manager	
Title	е	
7.0	Proposer's Information:	
	The PROPOSER states that they are an experienced CONTRACTOR, providing Debris Monitoring Services and has completed similar Work within the last five years. This information has been provided on Contractor's Qualifications Statement Attachment D.	
0.8	Proposer accepts the provisions of the Contract. If the Proposer takes exception to any of the provisions in the Contract, the Proposer will provide a list of the exceptions under a separate Tab.	
9.0	The Proposer is familiar with the terms used in this Proposal and the meanings indicated.	
	PROPOSAL SUBMITTED on 29/09 2015.	
State	te Contractor License No. N/A	
Licens	ense Type: ———————	

An Individual
Name (typed or printed): — — — — — — — — — — — — — — — — — — —
By:(SEAL
(Individual's signature)
Doing business as: —————————————————————————————————
Business address : Phone No:
FAX No.:
If Proposer is: A Partnership
Partnership Name:(SEAL)
By:(Signature of general partner attach evidence of authority to sign)
Name (typed or printed) = ———————————————————————————————————
address z ——————————————————————————————————
PhoneNo:FAXNo:
If Proposer is: A Corporation  Corporation Name: True North Emergency Management, LLC address State of
Incorporation: Texas
Type (General Business, Professional, Service, Limited Liability): Limited Liability  By: (Signature attach evidence of authority to sign)
Name (typed or printed): Derrick Tucker, PE

Title:	Senior Project Ma	anager
(CORPOR	RATE SEAL) (Signatu	Ine of Corporate Secretary)
Business	address: 2501 Aver	nue J, Suite 120
	Arlington,	Texas 76006
Phone No	: — 817.870.2422	FAX No:-817.870.2489 Date of
Qualification	on to do business is	August 16, 2010

#### **CORPORATE RESOLUTION**

I, J. Clark Robinson, hereby certify that I am the duly and qualified Corporate Secretary of Neel Schaffer, Engineers and Planners, Inc., a Mississippi Corporation; that the following is a true and correct copy of a resolution duly adopted by the Executive Committee of the Senior Management Team of said corporation at a Special Meeting of the Executive Committee convened and held in accordance with the bylaws on the 27<sup>th</sup> day of August 2015 and that said resolution is now in full force and effect:

RESOLVED, that True North Emergency Management, LLC, a Texas Corporation, and a subsidiary company of Neel Schaffer Engineers and Planners, Inc., is desirous of entering into Pre-Event Debris Monitoring contract for the City of Key West, Florida.

WHEREAS, such contracts require the signature of a company official empowered to bind the consultant to the provisions of contract.

WHEREAS, Derrick Tucker, PE, Senior Project Manager for True North Emergency Management, LLC, is responsible for monitoring of debris removal and related services agreements for the company.

NOW, THEREFORE, BE IT RESOLVED, that, Derrick Tucker, PE, is hereby authorized and empowered to sign a Pre-Event Debris Monitoring contract for City of Key West, Florida.

IN WITNESS WHEREOF, I have affixed my name as Secretary of said corporation this 27<sup>th</sup> day of August 2015.

J. Clark Robinson

Secretary

Witness

(CORPORATE SEAL)



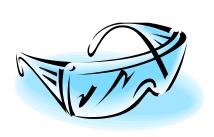






## **Safety Program**

(March 2015)







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# **Forward**

This Safety Program is applicable to all Neel-Schaffer offices and companies. The purpose of this program is to provide guidelines to help ensure employee safety under all appropriate working conditions.

Neel-Schaffer has a wide range of safety responsibilities ranging from construction administration to projects where the company has on-site safety responsibility, along with the safety responsibilities of Neel-Schaffer Inc., Maptech, True North, Soiltech Consultants and any other subsidiary companies that may be acquired and come under the ownership and management of Neel Schaffer, Inc. and its subsidiary companies.

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This Safety Program addresses the following safety environments of Neel-Schaffer by specific section:

- Section 1: General Safety Guidance: As stated, general guidance that applies to all.
- **Section 2: Office Safety:** The majority of Neel-Schaffer employees work in an office environment performing the duties of engineer design and administrative/support functions. This section applies to all employees while in the office setting.
- **Section 3: Construction Administration:** This section covers the oversight of construction at the worksite primarily by the Project Manager and/or the Resident Project Representative (RPR) where the contractor has job-site safety responsibility.
- **Section 4: Job Site Safety Guidance:** This section covers common safety hazards on the job site and primarily applies to Maptech, Soiltech, True North, Environmental Science Group, along with Neel-Schaffer Engineering when performing contractor responsibilities on a project.
- **Section 5: Job Site Specific Safety Guidance:** This section compliments Section 4, but the focus is on hazards that are less likely to be encountered by a Neel-Schaffer employee. When identified by a **Job Hazard Analysis**, the training and safety guidelines will be addressed.

The following plan provides detailed safety guidance and should be used to fit the appropriate situations.





# NEEL-SCHAFFER, INC. SAFETY POLICY AND PROCEDURES

#### STATEMENT OF SAFETY POLICY

Neel-Schaffer Inc. is committed to a safe and healthy workplace for all of our employees. Our commitment is to provide the necessary tools, equipment, supervision, training and leadership to ensure employees work with minimum risk. The commitment and responsibility for the health and safety of our employees starts at the very top of our organization and extends through every level of supervision and to each employee.

We have established this Safety Program to meet that commitment. The program is intended to serve as a guideline, and does not cover every possible situation that may be encountered. While all risks cannot be eliminated, all tasks can be evaluated to determine whether the risk is acceptable. It is the duty of everyone to analyze each task to determine whether the level of risk is at an acceptable level – a level that will allow the task to be performed without injury or adverse health effects.

An acceptable level of risk may be obtained by following safety policies and procedures, by using personal protective equipment, by following recognized safety regulations such as OSHA Standards, USACE standards, MSHA standards, this program, and by following guidance from those in charge of a project or task. Everyone is required to report unsafe conditions that may cause injury and to correct the unsafe behavior of any Neel-Schaffer employee.

By working together, we can achieve our goal of maintaining the safest work environment possible. Neel-Schaffer management is totally committed to this program. I expect management to set the example and to enforce this health and safety program to the maximum extent possible. An effective safety program is a win-win situation for everyone, and will keep our employees safe while protecting the resources necessary to successfully complete a project.

W. Hibbett Neel President and CEO Neel-Schaffer Inc.





# **SECTION 1**

# **GENERAL**

# SAFETY GUIDANCE





# 1. GENERAL SAFETY GUIDANCE

#### 1.1 Introduction

The section provides general safety guidance pertinent to all offices and employees all of the time.

Throughout this document, any reference to "Neel-Schaffer" and the "Company" will include Neel-Schaffer Inc., Maptech, True North, Soiltech Consultants and any other subsidiary companies that may be acquired and come under the ownership and management of Neel Schaffer, Inc. and its subsidiary companies.

Neel-Schaffer considers employee safety to be of paramount importance. It is our policy to provide safe working conditions for all employees. Accordingly, this Safety Program is implemented to provide a comprehensive accident prevention plan. Failure to comply with this safety program by any employee could result in disciplinary action including dismissal from the Company.

More information concerning safety and health in the Neel-Schaffer workplace can be found in Chapter 9, Safety and Health, of the Neel-Schaffer *Employee Handbook*.

# 1.2 Responsibilities

# 1.2.1 Corporate support of the Safety Program will be provided to the maximum extent possible to:

- Reasonably provide that the Safety Program is enforced and updated, in an attempt to prevent foreseeable job related accidents and health risks. The Safety Program is not a substitute for the exercise of common sense.
- Employ personnel who are mature, responsible and cognizant of safety related matters.
- Consider employee safety and accident prevention when working at all job levels and in all environments, and to provide leadership in stressing the important of safety.
- Emphasize safety at all levels and in all aspects of work and provide leadership in stressing the importance of safety.



- Provide resources to perform safety training and to require the use of safety equipment and clothing provided.
- Appoint a Safety Officer for the corporation whose name, address and telephone number shall be attached to all Safety/Accident forms. The Safety Officer shall be responsible for the implementation of and adherence to the Safety Plan by all employees.

#### 1.2.2 Office/Department Manager Responsibilities:

- Each separate office and/or department of Neel-Schaffer Inc. shall have a
  senior employee designated as a Safety Coordinator responsible for the safe
  conduct and practice of the affairs and business of Neel-Schaffer within that
  office/department by its employees and agents and of the operation, use and
  maintenance of all corporate property assigned permanently or temporarily
  for use in and by that office.
- The Safety Coordinator shall insure that all personnel assigned for employment by the corporation through said office shall be familiar with and practice the precepts of the Safety Plan. At least annually, a review of the Safety Plan shall be made by the Safety Coordinator as the same applies to the operation of the office/department of which he/she is in charge and suggested revisions sent to the corporate Safety Officer for inclusion in the Safety Plan as appropriate. A report of review is required whether revision is suggested or not.
- The Safety Coordinator is responsible for the preparation, collection and timely transmittal of all reports to corporate headquarters of maintenance, operation, accident and injury required of persons employed in or through his/her respective office.
- The Safety Coordinator shall insure the accuracy of all reports of attendance at training, instruction and practice of safety procedures by all personnel working in, out of and/or through the office/department of which he/she is in charge.

# 1.2.3 Corporate Human Resources Manager/Safety Coordinator:

- Provide the resources, direction, and audits to integrate safety into the management system.
- Establish and maintain resources for safety training and education.



- Periodically conduct or arrange for safety surveys, meetings, and inspections.
- Advise project managers, supervisors, and employees on safety policies and procedures.
- Assure that all newly hired employees have been given a thorough orientation concerning the Safety Program.
- Maintain the company's drug-testing program.
- Prepare and maintain safety records, analyses, evaluations, and reports to improve the Company's safety performance and comply with all government agencies, insurance carriers, and internal procedures.
- Work with management, project managers, supervisors, and employees to maintain and implement new and ongoing safety programs and comply with recommendations provided by outside consultants, OSHA, MSHA & USACE representatives, and insurance companies.
- Make available all necessary personal protective equipment, safety meeting material, job safety material, and first-aid training & equipment.
- Review all accidents with the appropriate committee, with management, project managers, supervisors and/or employees and ensure that corrective action is taken immediately.

# **1.2.4 Employee**:

Each employee, regardless of who they are employed by, is responsible for his/her own safety, and must perform all duties in a safe manner. No task should be completed unless it can be completed safely. Employees will:

- Comply with all (written and unwritten) project safety programs, rules, regulations, procedures, and instructions that are applicable to his/her own actions and conduct.
- Refrain from any unsafe act that might endanger themselves or fellow employees.
- Use all safety devices and personal protective equipment provided or needed for protection.



- Report all hazards, incidents, and near-miss occurrences to the immediate supervisor, regardless of whether injury or property damaged was involved.
- Promptly report all injuries and suspected work-related illnesses, however slight, to his/her immediate supervisor.
- Participate in safety meetings, training sessions, and surveys as requested and provide input into how to improve safety.
- Notify the supervisor immediately of any change in physical or mental conditions or use of prescription drugs that would affect the employee's job performance or the safety of him/herself or others.
- Notify Human Resources within five days of any serious driving, drug/alcohol, or criminal convictions.
- Be a safe employee on (and off) the job. Help employees do their job safely. Come to work every day with a safe attitude.

# 1.3 Safety Committee/ Safety Coordinator

The NSI Safety Coordinator is designated as the Chairman of the Safety Committee. The chairperson shall lead one safety committee meeting each quarter and develop an agenda for each meeting. Each meeting will include a review of all employee accident reports, vehicle accident reports, near miss events, relevant inspections, and employee safety suggestions.

A Recorder will be selected by the Safety Committee to take minutes of each meeting and ensure that all minutes are issued to each committee member, the Corporate Human Resources Manager, and upper management. The NSI Safety Committee will be established as follows:

<u>Member</u>	<u>From</u>
Chairman	Corporate
Chief Administrative Officer	Corporate
Human Resources Dir	HR - Corporate
Recorder	Corporate
Member	Southwest Area
Member	North Mississippi Area
Member	Central Mississippi Area
Member	Eastern Area
Member	True North
Member	Maptech
Member	Soiltech
Member	David Monistere (Prof Safety Svs)



These area members along with True North, Maptech—and Soiltech will compile safety data from their areas/company. They may also assist in accident investigations as required. Committee members will be chosen by corporate management and each Area Director.

Each office, regardless of the size, will appoint a safety coordinator to manage the office safety program.

# 1.4 Accident Management

#### 1.4.1 Accident & Near Miss Reporting Procedures

If we have a near-miss situation while working, notify your supervisor immediately. The situation will be investigated and corrective action implemented to prevent future injury. Employees and witnesses must fully cooperate in the investigation.

#### If you are injured on the job:

- Contact your supervisor, or the nearest co-employee (who should notify a supervisor) if you are unable to contact your supervisor due to the severity of your injury.
- The designated employee who is trained in first-aid and/or CPR should be immediately notified to assist in the situation.
- First aid kits, which are provided and maintained by your employer at this jobsite, should be made available.
- If needed, the supervisor or his other designee should transport the injured employee to the company's designated medical facility to receive appropriate medical attention. A post-accident drug and/or alcohol test will be conducted in accordance with the company's Drug-Free Workplace Policy.
- If rescue personnel are summoned, the supervisor should delegate an individual to wait for the rescue team and escort them to the injured employee.
- All witnesses to the accident should be available to speak with the Project Manager, his designee, and/or supervisor and cooperate in all accident investigations.
- The HR Manager should immediately notify the insurance company of accidents involving employees and file an employees' compensation claim.
- Sub-contractors must file their own employees' compensation claims.



Every accident or near-miss situation must be reported immediately. Injured employees and witnesses to the accident will assist the supervisor in completing an accident investigation. Injured employees must comply with the medical treatment provided by the treating physician, cooperate with the insurance company and its designees, and abide by the company's return-to-work policy.

#### 1.4.2 Accident Investigation

#### Accident Investigations will be performed on all lost time accidents.

When an accident occurs, it is an indication that something has gone wrong. Accidents don't just happen, they are caused. The basic cause(s) of accidents are unsafe acts and/or conditions. The supervisor must investigate every accident to determine the cause and to initiate corrective action to assure that similar type accidents will not recur from the same causes.

Supervisors should complete the following accident investigation form and submit a copy to the Manager for review. The Manager should evaluate the corrective action taken or suggested by the supervisor and instruct if additional changes should be made.

#### 1.4.3 Tips on accident investigations:

- Every accident is caused. Carelessness is not a cause, but the result of some deficiency. Telling employees to be more careful will not eliminate the real accident cause.
- An accident investigation is not a trial to find fault or to place blame. Its
  purpose is to find accident causes so that corrective measures may be taken
  to prevent future accidents.
- Most accidents result from a combination of human error (unsafe behavior) and a physical hazard (unsafe condition). Do not overlook the possibility of multiple errors and hazards.
- Don't stop at the obvious answer. For instance, a missing machine guard
  does not cause an accident. The accident happened because the operator
  entered the point of operation. Determine why the operator did this and why
  the guard was off the machine. Only by correcting both problems can we
  prevent future accidents.



- The accident investigation should be conducted as soon after the accident as
  possible. Facts should be gathered while the accident is fresh in the minds of
  those involved. If possible, question every employee who was involved, or
  witnessed, the incident. Delay interviewing injured employees until after
  medical treatment has been received.
- Other employees who did not witness the accident but work in the area may contribute information regarding the injured employees' activities prior to the accident and conditions at the time of the accident.
- The accuracy and completeness of the information received from the injured employee(s) and witnesses depends on how well the interview is conducted. Supervisors should:
  - > Put employees at ease.
  - Ask what happened and how it happened.
  - Permit employees to answer without interruptions.
  - > Show concern.
  - > Remember, nothing is gained with criticism or ridicule.
  - Ask why questions only to clarify the story.
  - Repeat the story as you understand it.
  - ➤ Give the employee the chance to correct any misunderstandings that you have.
  - ➤ Photographs of the conditions as they exist immediately following the accident, including photos of the damaged equipment, are very helpful.
  - Damaged equipment should be removed or secured for future testing and used as evidence.
  - Take immediate action to correct any obvious unsafe conditions.

    Determine the basic accident causes and correct or recommend action to prevent reoccurrence.



# Supervisor's Accident Investigation Report (Completed by Supervisor of Injured Employee)

Company			Address		
Name of Injured Employee	Dept		Position		How long in position?
Date of Accident		Time of Accident		Nature o	f Injury
Injury Resulted in:	jury	☐ Fatality	☐ Property Damag	ge (specify	7)
Medical Treatment None Paramedic		First <b>Aid</b>			Days Lost Time?
<b>Drug Tested?</b> Yes			☐ Yes ☐ No		
How did the accident occur			e accident?		
What environmental factor	rs (unsafe	conditions) contri	buted to the accide	nt? (see n	ext page for examples)
What behavioral factors (u	insafe acts	s) contributed to th	ne accident? (see ne	xt page fo	or examples)



What corrective act	ions have been taken to	prevent recurrence?		
Names of Witnesses				
Supervisor	Date	Reviewed by:	Date	
-		-		
		<del>-</del>		



# **Supplemental Information** for completing the Accident Investigation Report

Note: Each accident will involve at least one of the following conditions as a contributing factor.

#### Environmental Factors (Unsafe Conditions)

Conditions	<b>Definition of Condition</b>	Suggested Corrective Action
Unsafe procedures	Hazardous Process. Management failed	A. Pre-Project Planning
	to make adequate plans for safety.	B. Formulation of Safe Procedures
Improperly guarded	Work areas, machines, or equipment that are unguarded or inadequately guarded.	A. Inspection B. Checking plans, blueprints, purchase orders, contracts, & materials for safety C. Include guards in original design, order, & contract D. Provide guards for existing hazards
Defective through use	Buildings, machines, or equipment that have become rough, slippery, sharp edged, worn, cracked, broken, or otherwise defective through use or abuse.	A. Inspection B. Proper Maintenance
Defective through design	Failure to provide for safety in the design, construction, and installation of buildings, machinery, & equipment.  Too large, too small, not strong enough.	A. Source of supply must be reliable B. Checking plans, blueprints, purchase orders, contracts, & materials for safety C. Correction of defects
Unsafe clothing or personal protective equipment	Management's failure to provide or specify the use of goggles, respirators, safety shoes, hard hats, & other articles of safe dress or apparel.	A. Provide safe apparel or personal protective equipment. B. Specify the use or non-use of certain apparel or protective equipment on certain jobs.
Unsafe housekeeping facilities	Unsuitable layout or lack of equipment necessary for good housekeeping (i.e. shelves, boxes, bins, aisle markers, etc.)	A. Provide suitable layout and equipment necessary for good housekeeping.
Improper ventilation	Poorly or not ventilated area	A. Improve ventilation
Improper illumination	Poorly or not illuminated area	A. Improve illumination

#### Behavioral Factors (Unsafe Acts)

Factor	<b>Definition of Factor</b>	<b>Suggested Corrective Action</b>
Lack of knowledge or skill	Unaware of safe practice; Unpracticed	A. Job training
	or unskilled. Not properly instructed or	B. Improved hiring practices
	trained.	
Improper attitude	Employee was properly trained and	A. Supervision
	instructed, but failed to follow	B. Discipline
	instructions.	C. Improved hiring practices
Physical Deficiencies	Employee has impaired eyesight or	A. Pre-employment physicals
	hearing, heart trouble, hernia, previous	B. Periodic physicals
	injuries, etc.	C. Proper placement of employees
		D. Identification of employees with
		temporary physical deficiencies
Substance Abuse	Employee was under the influence of	
	(illegal or prescribed) drugs or alcohol	
	while completing task	



# 1.5 New Employee Orientation

New employees receive an orientation and an *employee handbook* when beginning work at Neel-Schaffer. This orientation along with the handbook covers safety awareness, injury, illness prevention, and safe practices. This initial orientation does not take the place of a job-site or job-specific safety orientation or training.

<u>Job-specific training</u> should occur at the worksite and be *provided before performing the task*. The following topics are to be covered at a minimum:

- PPE required for the work group: eye protection, class 2 vests, hard hats, gloves, goggles, face shields.
- Proper Lifting Techniques.
- General safety grinding safety, proper lifting, fall protection, pinch points, rigging, ladder safety, housekeeping, safe lifting, trench safety, ladder safety, hand tool safety, fall protection.
- Job Specific Training provide the safety training or the specific job and/or task the employee will be performing based on the **Job Hazard Analysis**.

Continual training should be provided to new hires. Each new hire should be assigned to work with an experienced employee until they know their job. The senior employee should act as a mentor and ensure that the employee is working safely and exhibits a positive safe attitude.

The work site manager should complete the attached new employee safety checklist for each new employee during their safety orientation training.



# New Employee Safety Checklist

Employee Name:	ID:	
	Date Checklist Completed:	
Checklist completed by:		
Department Assigned:	Type of Work:	
perform this job? If so, what reasonable Did the employee have a pre-employment. The worksite supervisor and new employees the supervisor and new employees.	sical conditions or handicaps that might limit your ability to the accommodation can be made by us? (Describe on reverse.) ment drug test?  \textstyle \textstyl	
Check and discuss all that apply.		
Provide the employee with a copy	•	
	ims	
	to job)	
Proper guarding of equipment		
	tive equipment	
	ocedures	
	ntability	
	ation	
	i	
Other: Drug-Free Workplace, Retu	urn-to-Work, Incentives, Lock-Out/Tag-Out, etc.	
	l training from: to	
· -	be reviewed formally on	
	y with the safety efforts of the employer, follow all safety rules, and	



Signed:	Signed:
-	8

# 1.6 Fleet Safety Program

Neel-Schaffer recognizes that its primary responsibility is to provide a safe environment for its employees and to the public it may come in contact with. To insure that we meet this responsibility, we are implementing a Fleet Safety Program. This program will assist us in keeping employees and the public safe while Neel-Schaffer employees operate motor vehicles.

The Fleet Safety Program is designed to implement safe practices with regard to motor vehicle operations. The objective of the program is to insure that drivers are licensed and qualified, that company vehicle maintenance is done and records are maintained, accidents are immediately reported with adequate detail, and each accident is thoroughly investigated to determine the root cause.

# 1.6.1 Fleet Manager

The Fleet Manager presently is the Chief Administrative Officer who will be the liaison between upper management and the work force operating motor vehicles. The implementation and enforcement of this Loss Control Program is the responsibility of the Fleet Manager. The manager will emphasize safety regarding the fleet program on a continual basis. The Fleet Manager's functions also include:

Promoting safe, defensive driving awareness with all fleet drivers



- Establishing and auditing a preventive maintenance program
- Conducting accident investigation and implementing corrective actions
- Review motor vehicle records
- Review vehicle safety records

#### 1.6.2 Fleet Safety Committee

The Corporate Safety Committee as described by paragraph 1.3 will also function as the Fleet Safety Committee. The committee will continually review the effectiveness of the program and make the necessary changes as needed. Fleet safety will be discussed and reviewed during the quarterly safety meetings to review accident investigations, any safety suggestions received by drivers, and to review the preventative maintenance program and trip reports. The committee will also be responsible for:

- Reviewing all fleet accidents to determine if they are recordable, and to determine if accidents were preventable.
- Determining what corrective action, if any, that is appropriate to prevent similar accidents from occurring in the future.
- Making a recommendation to upper management what disciplinary action, if any, to take with drivers who have been involved in preventable accidents. Discipline can take several forms, up to and including probation and termination.
- Determining content and frequency of safety training for all company drivers.

# 1.6.2 **Driver Requirements**

Drivers of Company-owned vehicles, or vehicles leased or rented for Company business, or personal vehicles used for Company purposes must comply with the following:

- Must possess a valid operator's license.
- Properly wear safety belts while in the vehicle
- Ensure that all passengers are properly restrained, including all back seat passengers, and those persons in child safety restraints;
- Ensure that the passengers do not exceed the vehicle's seating capacity;
- Never operate a vehicle when the ability to do so is impaired by alcohol, drugs, over the counter or prescription medication, illness, fatigue, or injury.



- Radar detectors or jamming devices are not allowed to be used in companyowned vehicles.
- Drivers should plan their trip and select the safest route; allow sufficient time so as not to be required to speed, allow for weather contingencies; and when visiting new areas, be familiar with local regulations.
- Immediately notify their supervisor in the event that their operator's license is revoked, canceled, denied, suspended, or restricted in some manner which would affect their legal right to drive.
- Obey all applicable laws, codes, and regulations.
- Drive defensively, anticipating and taking appropriate actions to avoid situations where incidents are likely to occur.
- Report all incidents or crashes that involve Company-owned vehicles, vehicles
  leased or rented for company business, or personal vehicles used for Company
  business, to his or her supervisor or to the person or department designated to
  receive such information. All traffic tickets must be reported to the Company.

### 1.6.3 Cell Phone Policy

Management will make the final determination prior to installation and use of cellular telephones, radios, or any other communication device in company vehicles. Written authorization from the Fleet Safety Manager will be required prior to any communication use.

Employees operating a company vehicle should attempt to pull over to a safe location when using communication devices. Preferred safe locations are parking lots and other areas out of the direct flow of traffic. If a safe location is not available, hands free devices are recommended. However, hands free devices alone will not totally eliminate the hazards associated with the use of communication devices while driving. In every situation where the conversation requires distraction such as looking for a number or taking notes, the vehicle shall be stopped and parked in a safe location prior to doing so.

#### **Texting & e-mail Policy**

Texting and sending e-mail communication while driving is prohibited under Neel–Schaffer fleet safety policy. There are no exceptions to this policy – violation will result in disciplinary action and may result in loss of driving privileges.

The only tasks being performed when operating a vehicle should be safe driving. Distractions draw attention away from the road and reaction time to emergencies is



diminished. If you need to perform any tasks that take your full attention from driving, pull off the road until you can once again give your full attention to operating the vehicle.

#### 1.6.4 Vehicle Inspection

Inspections shall be conducted on each vehicle on a regular basis. The inspection should be performed by the employee operating the vehicle. An inspection checklist is provided on the next page that can be used for each vehicle. Employees shall immediately notify their supervisor if an inspection reveals any deficiencies.

#### 1.6.5 Employee Working Alone or Isolated

There will be times when an employee will be working alone or in an isolated situation. A good example is an On-Site Observer (Resident Project Representative) traveling to and observing construction. This individual must be cognizant of the environment hazards and take all possible precautions. As a minimum, the following actions will be taken:

- Have first aid kit in the vehicle
- Have serviceable and inspected fire extinguisher in vehicle
- Have a cell phone with them at all times (do not leave in vehicle)
- Check in periodically
- Let office personnel know where you will be
- Know contractors safety guidance

# Vehicle Safety Checklist

The following checklist is intended to assist employees in determining the safety of the vehicle within his/her operation. Any "no" answer should be cause for concern and corrective action. Prior to each out-of-town trip and at least once a week, drivers with assigned company vehicles should complete the following checklist. Drivers using a vehicle out of the pool of vehicles will complete this checklist prior to each trip.

Vehicle License Number:_	 Date:	

Checklist Item  The following items should be checked for proper operation and a good state of repair.	Yes	No
Headlights working and adjusted properly		
Tires in good repair with safe tread wear		
Tire pressure appears appropriate		
Rearview mirrors		
Safety belts		



Windshield wipers blades		
Windshield washer fluid level		
Horn		
Turn signals		
Brake lights		
Tail lights		
Emergency brake		
Intact windshield with no major cracks		
Tight muffler system		
Employee Signature	(Date)	
—····	(- 5.10)	



### 1.6.5 Accident Reporting

All accidents and near misses shall be reported to the Fleet Manager. Accidents shall be reported within four (4) hours of the accident. If death or serious injury is incurred, immediate notification is required.

#### **Accident Analysis**

Investigation into each accident can uncover inadequacies in policies, training, or employee conduct. An accident investigation should determine corrective actions in policies and training not place fault on individuals. If an unsafe condition or act is not determined through the investigation, then there has not been a thorough investigation.

Each accident should be investigated by a supervisor and/or the Fleet Manager, along with someone who is intimately familiar with the operation of the vehicle and processes involved. The investigation should begin within 24 hours of the accident. Interviews with involved persons, site investigation and analysis, and vehicle inspection are critical parts of the investigation.

A report will be issued for every accident. This report will, at a minimum, give a detailed description of the accident, a description of all injuries and property damage incurred, and



any significant findings. A summary of the investigation will also be included in the report. The summary will include the root causes of the accident and the corrective actions that have, or will be taken in order to prevent future accidents of this nature. All corrective actions should be rolled out to all members of the organization immediately, as well as discussed at the next fleet safety committee meeting. If you are involved in an accident:

- First, assess the condition of any passengers in your vehicle;
- If there are injuries, request medical assistance immediately;
- Call the police –an accidents must be reported to the police and a report completed no matter how minor the incident;
- Remove the vehicle from the street if leaving it there creates a safety hazard, but do not leave the scene of the accident until released by the police officer.
- Complete the Vehicle Accident Report as soon as possible.
- You may provide the other party involved in the accident with your name, the company name, the company phone number, vehicle identification, and insurance information, BUT do not accept responsibility or admit liability. This is a "legal call" that should be made by our insurance company's claims department.
- Photographs of the scene should be taken to show positions and location of the vehicles. Take photographs from all four (4) sides and take a photograph of the license tags of other vehicles involved in the incident. Do NOT take photographs of injured persons.





# **Vehicle Accident Report**

Note: This form should be in an envelope marked "Accident Kit" and placed in the glove box of each company vehicle.

Employee's Name		Age	
Type of Vehicle: Year			
Drivers License Number			
☐ Company Owned		Employee Owned	
☐ Business Use		Personal Use	
Other Vehicle			
Driver's Name			
Address		 	
Drivers License Number		 	
Vehicle License Plate Number			
Description of Damage			
Note: Police must be called.		□ Yes□ No	
If report was made, note where it car	n be obtained	 	
<b>Personal Injuries</b>			
Name		 	
Address			
Description of Injury			
Treated at			
Name			
Address			
Description of Injury			
Treated at			
Name			
A ddmaga			
Description of Injury			
Treated at			
<b>Property Damage</b>			
Owner		 	
Address		 	



Description	of Damage	e							_
Owner									
Address								_	
Description	of Damage	<u> </u>						-	
Accident In	formation	 l							
Date		Т	ime	A.N	1	P.M.			
Location									
			(St	reet, Highwa	ay, etc.)				
		((	City)				(State)		
Weather	□ Clea	ar		Raining		Snowing			
	$\Box$ Fog			Sleeting					
	□ Oth	er					_		
Area				Commercia					
	□ Oth	er					_		
Road	$\Box$ Asp	halt		Concrete		Gravel			
	$\Box$ Oth						_		
Condition	$\Box$ Dry			Wet		Slippery			
	$\Box$ Oth	er					_		
Direction	- > 1		-	- G 1					
You								=	
			East		1 L	WestOther		-	
If Intersecti		Cia Cianal	İ						
		fic Signal tion Signa							
	Stop Sig	_	11						
		yay □	3 Way	v □ 2 W	/av				
		•	•		-				
<b>Brief Descr</b>									
Accident Dia	agram								
Draw detail Show number			_				on of vehicles in which we have below.	involv	ved.
Your Vo	ehicle	A			Stop Sign	S	Pede	strian	ıΡ
	ehicle(s)	1-B, 2- ]	В		Caution S			Sign	
Direction	. ,	N,S,E, o			Yield	Y	Railr	_	RR
		, , , -							



Internal Accident Analysis	
Internal Accident Analysis	
Fleet Safety Manager: (A) Was this accident avoidable?	
(B) What action should have been taken to avoid the accident?	
(C) What training needs to happen or what policies need to be imp	lemented so that our company
avoids this type of accident in the future?	
Supervisors Signature	Date
Manager Signature	Date





#### 1.7 Disciplinary Policy

The primary objective of the Safety Program is to provide a safe work environment for all of our employees. Superintendents, Supervisors and Foremen are responsible for issuing appropriate specific safety instructions to all employees and conducting a visual inspection of the work area prior to assigning them work. Superintendents and Foremen are also responsible for coordinating work with other supervisors in the work area to insure that all work can be accomplished safely. Each employee is responsible for complying with the Safety Program; however, when safety policies and procedures are violated or individuals continue to be involved in accidents or unsafe behavior, disciplinary action must be considered. All employees will go through a safety orientation process as a part of general hiring practices. During this orientation, the policy on positive attitude toward working safely will be stressed and the employee advised that safety is a **condition of employment.** The Safety Program will be explained and safety responsibilities clearly defined.

Should any employee or employee under our direct control commit an unsafe act, intentional or not, this action should be addressed immediately by the work site supervisor and reviewed by the project or work site manager. Disciplinary actions may be initiated, depending upon the seriousness of the violation and the impact of the violation upon the conduct of company business. It is not required to complete all steps of the disciplinary procedure in every case. Discipline may begin at any step appropriate to the situation. Always coordinate with Human Resources prior to any disciplinary actions. Discipline includes, but is not limited to:

#### **Verbal Reprimand**

When an employee is observed by a supervisor committing an unsafe act, the employee will be issued a verbal reprimand. The exact nature of the violation and what is acceptable behavior must be thoroughly explained to the employee.

#### **Written Reprimand**

A second offense after a verbal warning has been issued will lead to a written reprimand. A copy of the reprimand will be given to the employee and a copy will also be sent to the Corporate Human Resources Manager as well the employee's personnel file.

#### **Suspension**

A repeat violation of a written reprimand will result in a suspension of 1 to 5 days.

#### **Termination of Employment**

Repeated violation of safety policies will result in termination of employment.





# **SECTION 2**

# **OFFICE**

# SAFETY GUIDANCE





# 2. Office Safety Guidelines

#### 2.1 Introduction

The majority of Neel Schaffer employees work in an office environment most of the time. Accidents do happen in the office. Few office workers realize that they are twice as likely to be injured in a fall as a non-office worker. Nationally, only automobile accidents out number falls as the leading cause of all accidents. In the office slips, trips and falls are the number one cause of disabling injuries.

Thinking and working safely can prevent most accidents. We can become aware of the most common hazards in the office environment. The following are some examples of common hazards and what you can do to prevent them from becoming accidents.

# 2.2 Types of Hazards

The following are examples of typical hazards you may encounter in the workplace:

- Chemicals are used in every aspect for a workplace. Chemicals that a trade
  worker might use can be different than chemicals an office worker uses.
  However, if you are not trained on proper usage, storage and safety procedures
  for chemicals, then you are putting yourself in danger. All office chemicals will
  be used for their intended purpose and in accordance with published directions.
  Label warnings will be observed.
- **Electrical cords** can pose a hazard if they are damaged or frayed. This hazard can be reduced by inspecting electrical cords and removing damaged cords at once.
- **Ergonomic issues** can exist at workstations if proper adjusting has not been completed. Items like your chair, keyboard, mouse, monitor, etc. can potentially cause harm if the task is not fitted to the user.
- **Fire and explosion hazards** can exist at any location with storage of large amount of combustibles, flammable solids or liquids and explosive material. This is unlikely to occur in our office environment. No materials of this nature will be stored in our office environment.
- **Furniture** and the layout of the furniture can pose a hazard if not properly placed or arranged in your office. Problems that furniture can cause are blocked or difficult means of exit, and tripping hazards.
- Hand powered tools and equipment can pose many hazards if not used properly. Always use the correct tool for the task intended. These types of tools



can cause pinch hazards, lacerations, punctures, and contusions if not used correctly;

- **Heat-generating sources** can be a fire hazard if they are not properly maintained. Never store combustible or flammable material near heat generating equipment.
- **Housekeeping** is the number one accident prevention action and is everyone's responsibility in the workplace. Keeping the floors clear from tripping hazards, cleaning the break room or lunch area, not overfilling your waste basket, and reporting broken or damage equipment are all components of good housekeeping.
- Office equipment (copiers, paper cutters, shredders) can pose a real hazard if you are not trained on how to maintain the equipment. Examples of hazards that office equipment can pose are hot surfaces, sharp parts, and pinch points (areas where body parts can become caught.)
- Slips, trips, falls are one of the leading causes of injuries in the workplace. The probability of them occurring can be reduced by practicing good housekeeping. If you see something on the floor that can cause a person to slip, trip and fall, pick it up. If the hazard on the floor is a substance that you need help with, block off the area to keep people from entering and contact your supervisor.
- **Workplace violence** can take place in any department or office at any time. This violence can be physical or verbal and can be of different extremes. Refer any perceived violence to your supervisor.

# 2.3 Dress for Safety Success

### **Safe Office Attire**

- Wear loose, comfortable clothing that best fits the job task and working environment unless doing so would increase the potential for injury (i.e. necktie or loose sleeves around rotating parts.)
- Whenever possible, avoid open-toed shoes and sandals. This type of footwear is not allowed in laboratories or areas where material handling is conducted.
- Wear comfortable footwear with a good sole to reduce leg and back strain, and to help prevent slips and falls.



# 2.4 Slips, Trips, and Falls

### **Preventing Slips, Trips and Falls**

Slips, trips, and falls are the leading injury causing events in any workplace. It is also one of the most avoidable injuries in a workplace. Simple steps, like good housekeeping and being aware of your surroundings, can help reduce your chances of becoming injured by a slip, trip, or fall.

- Level surfaces can cause tripping hazards if you are not aware of your surroundings. Even though the surface is level, other objects such as curbs, planters, speed bumps and other protrusions can still be present;
- Elevated surfaces standing on chairs, working on a ladder, falling up or down stairs are examples of elevated surfaces that can cause an injury;
- Parking lots with curbs, parking wheel stops, oil patches, and loose gravel or asphalt can all cause tripping and slip hazards in a parking lot;
- Transition surfaces, such as street to curb or smooth surface to rough surface like rocks, gravel and sand;
- Electrical cords, furniture, chairs, boxes and other miscellaneous items can create tripping hazards in aisles;
- Walk with caution on wet surfaces as they may have become increasingly slippery when they are wet with any type of substance;
- Use the handrail when provided to help maintain balance while both ascending and descending stairs. Also use handrails while carrying items in your other hand;
- Report unsafe conditions to your supervisor as soon as they are noticed.
   Don't assume that just because you saw it and did not get hurt, that someone else will have the same luck;
- Hold on to something solid when attempting to sit or while you stand from a sitting position;
- Use approved step stools and ladders in the workplace. If the ladder seems
  damaged or does not fit the task at hand, don't attempt to do the task until
  you have located a different ladder. Report all unsafe ladders to your
  supervisor;
- Wear the most appropriate shoes for your work environment;



- Wipe up spills as soon as they are noticed. If you are required to leave the area to get supplies or call for additional help, attempt to block off the area to prevent others from entering the area;
- Always walk, don't run. Awareness is the key to preventing injuries.

# 2.5 Office Layout and Lighting

### **Office Layout**

- Emergency exits and passageways must be kept clear and free of any obstructions at all times:
- Furniture and equipment should be arranged, so:
  - Chairs and equipment are not stored in walkways;
  - File and desk drawers are not left open in the walkways, and;
  - ➤ No obstructions are created that block the view around corners or partitions.

## **Office Lighting**

Lighting is one of the most important factors affecting personal comfort on the job. The best lighting system is one in which the lighting level is geared to the task, where brightness ratios are controlled (no intensely bright or dark areas) and where ceiling, wall, and floor surfaces minimize glare. Glare is defined as a harsh, uncomfortable bright light that shines directly in the eyes. Glare may be either direct, coming from lights or sunshine, or indirect, coming from a reflected surface.

Different tasks require different levels of lighting. Areas in which intricate work is performed, for example, require brighter illumination than other areas. Lighting needs vary from time to time and person to person as well. One approach is to use adjustable task lighting that can provide the needed illumination without increasing general lighting. There are a number of measures that can be used to prevent and control poor lighting conditions in the work environment:

- Regular maintenance of the lighting system should be carried out to clean or replace old bulbs and faulty lamp circuits.
- A light-colored matte finish on walls, ceilings, and floors to reduce glare.



- Whenever possible, office workers should not face windows, unshielded lamps, or other sources of glare.
- Adjustable shades should be used if workers face a window.
- Diffused light will help reduce shadows. Indirect lighting and task lighting are recommended, especially when work spaces are separated by dividers.
- Task lamps are very effective in supplementing general office lighting for those who require or prefer additional lighting. Some task lamps permit several light levels.

# 2.6 Housekeeping

All areas of employment including outside areas should be kept as clean as the nature of the work allows but must be kept free and clear of debris, trash, scrap, spills or other extraneous materials which could create a health hazard or cause an accident. Proper layout, spacing and arrangement of equipment, facilities, and machinery are essential to good housekeeping, allowing orderly operation and avoiding congestion. Some examples of good housekeeping include, but are not limited to:

- Every floor, work area, and passageway should be kept clear of obstructions that protrude into the walkway or have the potential to result in unsure footing, such as loose parts, boxes, packing material, or tools;
- Keep stairwells clear at all times. Do not store boxes, files, or other debris in the stairwells or landings;
- Pick up dropped pencils, paper clips, and rubber bands that can cause you or a co-worker to slip or fall.
- Wipe up spills immediately. If a spill is too large to clean up quickly, contact your supervisor.
- Report uneven, defective flooring, worn spots in carpets, chipped tiles, and worn stair treads to your supervisor.
- In areas where wet or damp conditions are likely to routinely exist, appropriate drainage should be maintained. Grating, mats, raised platforms, or anti-slip strips should be evaluated and considered for control or prevention of slippery conditions.
- Avoid overfilling wastebaskets and dumpsters.
- Avoid dust accumulations.



 Maintain clean and organized conditions of office equipment, storage, and work areas.

# 2.7 Workstation Set-up

#### **Ergonomics**

Ergonomics is defined as fitting the workstation or task to the worker by modifying or redesigning the job, workstation, tool or environment. Workstation design can have a big impact on employee's health and well-being. There are a multitude of discomforts which can result from ergonomically incorrect computer workstation setups. The most common complaints relate to the neck, shoulders, and back. Others concern the arms and hands and occasionally the eyes. For example, poor chairs and/or bad postures can cause lower back strain; or a chair that is too high can cause circulation loss in legs and feet. Certain common characteristics of Video Display Terminals (VDT) have been identified and associated with increased risk of musculoskeletal problems. VDT considerations should include:

- Design of the workstation.
- Nature of the task.
- Repetitiveness of the job.
- Degree of postural constraint.
- Work pace.
- Work/rest schedules.
- Personal attributes of individual workers.

The key to comfort is in maintaining the body in a relaxed, neutral position. The ideal work position is to have the arms hanging relaxed from the shoulders. If a keyboard is used, arms should be bent at right angles at the elbow, with the hands held in a straight line with forearms and elbows close to the body. The head should be in lined with the body and slightly forward.

# 2.8 Material Handling

# **Back Injury Prevention**

Proper lifting techniques are critical to back safety, but perhaps more important is proper planning. Before you lift that box, or tool, or piece of equipment, take a moment to consider your action:

- Do you need to lift the item manually?
- How heavy is it?
- Where are you moving the item from?



- Where are you moving it to?
- What route do you have to follow?

Many times the item you are moving could be moved with a piece of equipment - a dolly, a hand truck, or a forklift. Consider using mechanical help wherever possible. If the item needs to be moved manually, and it is heavy and/or awkward, ask for help. When using mechanical help, remember to push, do not pull. When moving an item from a hard-to-reach place, be sure to position yourself as close to the load as possible. Slide it out to get it closer, and be sure that you have adequate room for your hands and arms. Be aware of adjacent obstructions, on either side, above and below the load. Think about where the item will be placed once you've lifted it – remember plan ahead.

Try to allow yourself as much room as possible to set the load down. You can always shift it a little later. Check your path from start to finish - remove tripping hazards, protect openings, and get help if you need to get heavy materials up a ladder. Make sure that the lighting is sufficient to see where you are going. Stabilize uneven or loose ground, or choose an alternate route. The shortest route isn't always the fastest, or the safest.

Most back injuries are avoidable if employees make the correct lifting choices. Moderation and balance are important considerations in care and maintenance of your back. By correcting proportions of strength, flexibility, and overall quality of life you can eliminate or minimize back injuries. You need to exercise, eat right, and stretch as often as possible to help prevent injuries, and to recover more quickly if you do get injured. Remember that most back injuries can be attributed to one of these five causes:

- Posture.
- Body mechanics/work habits.
- Stressful living.
- Loss of flexibility.
- Poor conditioning.

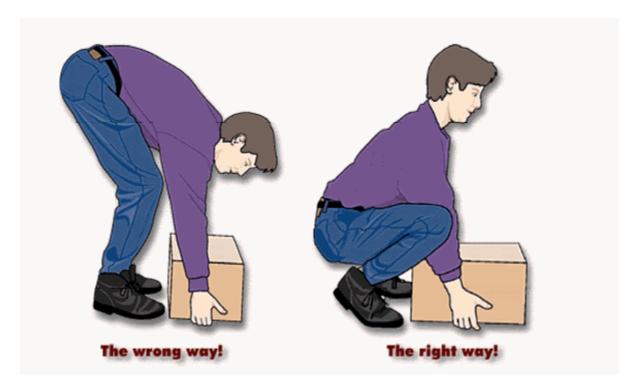
## **Use Proper Lifting Techniques**

Also consider that not all back injuries are a result of sudden trauma - most are cumulative in nature, where a repeated minor injury has flared up, or continued use of a heavy tool in the same position has caused pain, or a great deal of time is spent in the same position. Familiarize yourself with, and practice these techniques when lifting items on the job and at home:

- Plan your lift.
- Stand with your feet apart, alongside the object to be lifted.
- Squat down, getting as close to the load as possible.
- Get a good grip on the object.
- Lift with your legs, not your back.
- Keep the object close to your body.



- Center the weight over your feet.
- Avoid twisting.



# 2.9 Office Equipment Safeguarding

# **Electronic Office Equipment Hazards**

#### • Unsafe/Non-Approved Equipment

All poorly maintained or unsafe, poor quality, non-rated (Underwriters Laboratory) coffee makers, radios, lamps, space heaters, etc. (often brought in or provided by employees) cannot be used in office. Such appliances can develop electrical shorts creating fire and/or shock hazards. Equipment and cords should be inspected regularly, and a qualified individual should Make repairs.

#### • Live Parts Unguarded

Wall receptacles should be designed and installed so that no current-carrying parts will be exposed. All receptacle cover plates should be kept tight to eliminate the possibility of shock. All broken and/or cracked cover plates, as well as any unsafe electrical conditions should be reported to your supervisor immediately.



#### • Working on "Live Equipment"

Disconnect electrical equipment before cleaning, adjusting, or applying flammable solutions. If a guard is removed to clean or repair parts, replace it before testing the equipment and returning the equipment to service.

#### • Blocking Electrical Panel Doors

If an electrical malfunction should occur, the panel door, and anything else in front of the door will become very hot. Electrical panel doors should always be kept closed; to prevent "electrical flashover" in the event of an electrical malfunction and nothing can be stored within 30" of the panels.

#### • Recommendations

Based on these hazards it is important that all staff understand how to properly operate electronic office equipment. Reading and following operation instructions is essential, but so is communicating restrictions. In particular, all staff must understand the appropriate response when a piece of equipment malfunctions. For instance, a paper jams in a photocopier. Reaching into a copier to retrieve a piece of jammed paper can result in burns or even electrocution. Certain materials such as plastic transparency sheets should not be used in some copiers. At the end of the day, be sure to power down all electrical equipment.

# 2.10 Electrical Safety

# **Necessity for Electricity**

Electricity is essential to the operations of a modern automated office as a source of power. Electrical equipment used in an office is potentially hazardous and can cause serious shock and burn injuries if improperly used or maintained.

#### Nature of the Hazard

- Electricity travels through electrical conductors, which may be in the form of wires or parts of the human body.
- Most metals and moist skin offer very little resistance to the flow of electrical current and can easily conduct electricity.
- Other substances such as dry wood, porcelain, or pottery offer a high resistance and can be used to prevent the flow of electrical current.



- If a part of the body comes in contact with the electrical circuit, a shock will occur.
- The electrical current will enter the body at one point and leave at another. The passage of electricity through the body can cause great pain, burns, destruction of tissue, nerves, and muscles and even death.
- Factors influencing the effects of electrical shock include the type of current, voltage, resistance, amperage, pathway through body, and the duration of contact. The longer the current flows through the body, the more serious the injury.
- Injuries are less severe when the current does not pass through or near nerve centers and vital organs.
- Electrical accidents usually occur as a result of faulty or defective equipment, unsafe installation, or misuse of equipment on the part of office workers.

#### **Using Electricity Safely**

- Turn off all electrical equipment when not in use.
- Cords must be properly equipped with grounding prongs.
- Electrical cords should be visually inspected on a periodic basis to identify frayed and worn cords.
- Keep all electrical cords out of walkways and passageways.
- Extension cords are not permitted in office for continuous use.
- Use approved surge protectors. Never plug extension cords into surge protectors or "daisy chain" surge protectors (surge protectors plugged into each other.)
- Don't overload or split outlets and surge protectors.
- Combustible material, such as paper, should not be stored on or in close proximity to electrical outlets and connections.
- Nothing should be stored within 30" of electrical panels.



# 2.11 Heat Generating Equipment

Heat generating equipment, like electrical equipment, can be very safe if used and maintained correctly. However, improper care, storage, or placement of any type of equipment that generates heat can cause a fire, bodily injury, or even death.

### **Types of Heat Generating Equipment**

- Coffee pot
- Cooling fans
- Glue gun
- Heaters
- Irons
- Microwave
- Mug warmer
- Toaster oven
- Other electrical equipment

#### Safe Practices for Heat Generating Equipment

- Nothing can be stored within 30" of electrical panels.
- Use only Underwriters Laboratory listed equipment.
- Insure that grounding prongs are attached.
- Plug into outlet directly.
- Only use heaters equipped with tip-over protection.
- Turn-off all items when not in use.
- Do not leave equipment unattended.

#### 2.12 Hazard Communication

The purpose of the Hazard Communication Standard is to ensure that the hazards of all chemicals are evaluated, and that information concerning their hazards is understood by the employees. This is communicated by hazard communication programs including labeling and other forms of warning, Material Safety Data Sheets (MSDS's) and employee training.

General hazard communication guidance for normal office operations is that office chemicals will be used for their intended purpose and in accordance with published directions. Label warnings will be observed. Employees should always follow the written procedures provided by the Manufacturer. Containers must be properly labeled.



# 2.13 Reporting Injuries

It is the employee's responsibility to report an injury to their supervisor immediately. Any delay in reporting an injury may cause delay in workers' compensation benefits.

It is the supervisor's responsibility to report the injury/illness to the Human Resources Department in accordance with the guidance listed in section 1.4.



# **SECTION 3**

# CONSTRUCTION ADMINISTRATION

# SAFETY GUIDANCE



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# 3. CONSTRUCTION ADMINISTRATION SAFETY GUIDANCE

The purpose of this section is to provide safety guidance for construction administration. This applies primarily to the Project Engineer and the Resident Project Representative (RPR). In this situation, the general conditions of the construction contract will specify that sole responsibility for safety on the construction site rests with the contractor. This is as it should be, for the contractor has direct control over the construction process.

For your own safety, adhere to the requirements of the contractor's safety program, as well as the guidance in this program, while you are on the site. Familiarize yourself with the Job Hazard Analysis. Wear a hard hat at all times, and other PPE as required.

We have no responsibility to seek out hazardous conditions, and it is important that we do not voluntarily assume that responsibility. The reason is, if we do, the law in most states will hold that we also assume any resulting liability. For the same reason, we should not attend the contractor's safety meetings, nor should we become involved in review of the contractor's safety program.

This does not mean we should ignore obviously dangerous conditions or clear violations of safety regulations known to be in effect. It does mean, however, that we have to be very careful in the manner in which we respond.

If you encounter an unsafe condition on the job-site, notify the contractor's supervisor immediately. Explain that you have observed what you believe to be an unsafe condition which may require immediate attention. Do not stop the work or recommend corrective action unless the activity poses an immediate injury threat. Record the notification to the supervisor in the Daily Report, but do not put it in writing to the contractor at this point in time.

If the contractor's supervisor does not take prompt action to correct the hazardous condition, notify the Project Engineer. He or she will contact the contractor and suggest that corrective action be taken at once. Monitor the situation. If there is still no response, notify the Project Engineer again. He or she will contact the owner, explain the problem, review the discussion with the contractor, and indicate that no action has been taken. The owner will be advised that a letter is being prepared (sample below) summarizing the situation and recommending immediate action to see that it is corrected. A copy of the letter will be forwarded to the contractor.

Nowhere is the need for caution in this area than more evident than chance encounters with hazardous materials. A variety of substances may be discovered during construction, including asbestos, PCB, and abandoned chemicals of unknown properties. We have no particular expertise in dealing with hazardous substances, therefore, we should not attempt to instruct or assist the contractor in their removal or handling. Instead, follow the procedures established here for reporting observation of an unsafe or potentially hazardous condition. In the usual case, the owner will call in appropriate experts. For your own protection, remain a safe distance from the hazardous material and follow the contractor's safety guidance based on his Job Hazard analysis.



# Sample Letter for Notifying an Owner of an Unsafe Condition

Dear:
On (date) the following unsafe condition was noted at the (project identification) job-site: (identify the unsafe condition).
We immediately brought this to the attention of the general contractor, (name of contractor).
To the best of our knowledge this condition has not been corrected. We believe it may represent a serious threat to the health and safety of persons working in that area.
Because safety at the construction site is the contractor's responsibility and is governed by the contractor's agreement with you, we recommend that you require (name of contractor) to correct this unsafe condition immediately.
Please let me know if I can answer any questions you might have concerning this matter.
Yours truly,
Your Name Title
XXX:xxx
cc: (name of contractor)



# **SECTION 4**

# **JOB-SITE**

# SAFETY GUIDANCE



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# 4. JOB-SITE SAFETY

# 4.1 Purpose

The purpose of this section is to provide job-site safety guidance for **True North**, **Maptech**, and **Soiltech Consultants**, as well as Neel-Schaffer Engineering when in the role as a contractor with job-site safety responsibility. This section provides safety guidance for any Neel-Schaffer entity that has job-site safety responsibility. The safe operating procedures listed in this section reflect guidance pertaining to hazards commonly encountered on the job-site. Section 5 will list guidance/hazards that do not occur on a regular basis but must be addressed based on a Job Hazard Analysis. We must be able to answer "YES" to the following questions for all jobsites:

- Do we have an effective jobsite safety plan in place?
- Is our current jobsite safety plan being used daily and on every project?
- Is jobsite safety a priority for our jobsite supervisor?
- Is our jobsite supervisor constantly alert, identifying unsafe conditions and taking appropriate corrective actions when found?
- Do we conduct regular jobsite safety inspections using a quality safety checklist?
- Are our subcontractors following appropriate jobsite safety measures that are OSHA compliant? Are we ensuring that this takes place?
- Are all visitors/buyers on a jobsite properly escorted?
- Are our jobsites compliant with OSHA standards?
- Do we talk about jobsite safety on a regular basis and include it in our training sessions with subcontractors?
- Is our organization fully committed to safety on the jobsite?

#### **4.1.1 Sub-Contractors**.

Neel-Schaffer will provide management and supervision to ensure the safety of sub-contractors under their supervision on a job-site. Each sub-contractor will be provided with a copy of the firm's safety program and a copy of the overall job-site Job Hazard Analysis and safety plan. Sub-contractors will be included in the kick-off safety meeting and all other job-site safety meetings and orientations to include the safety after-action review. They will also be included in



the preparation and input into the overall JHA. Each sub-contractor will provide a copy of their safety program and Job Hazard Analysis.

Neel-Schaffer will ascertain the competence of the sub-contractor and determine what, if any, instruction and training is needed that may affect health and safety.

# 4.2 Job Hazard Analysis (JHA)

The initial step to ensure a safe job-site working environment is to conduct a Job Hazard Analysis. This analysis must be completed for each project focusing on the worker, the tasks to be performed, the tools, and the environment. The purpose of this process is to identify hazards that are or may be associated with each specific job-site/task and to look for methods to eliminate and/or reduce the hazards. Make sure that employees are involved in the JHA process. Once the hazards have been identified, then it is critical that appropriate safe work methods, safety equipment and PPE be identified in a job-site specific safety plan to get the task to acceptable risk levels so that employees may work safely.

Once the methods and equipment have been identified, then is necessary to hold a "pre Task Briefing" with employees to go over the hazards, PPE required and safe work practices to be employed to make certain all employees understand and use safe levels of risk while performing the job. Once this process has been completed, then employees may begin their work activity associated with the job. Use the form below to guide you through the process and to serve as documentation that the "Job Hazard Analysis" has been properly followed.

NOTE: This process is also referred to as a pre-task analysis and pre-job or task briefing policy.



# **Hazard Assessment**

#	Hazard	Present Y/N	Hazard Mitigation



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# 4.3 Safety Meetings/Training

### **4.3.1** <u>Meetings</u>

The initial job-site safety meeting will cover in detail the results of the Job Hazard Analysis and the approach to deal with each identified hazard.

Thereafter, supervisors must hold a 10-minute (minimum) toolbox safety class, as a minimum, every week at the beginning of the shift. All employees are required to attend. Supervisors should update employees on any changes in procedures, new equipment, and general safety issues. Emergency procedures should be periodically reviewed.

Accidents, near misses, and safety violations along with corrective action must be reviewed at these meetings. Employees should be reminded to put safety first and look out for their fellow employees. Employees and supervisors should offer comments and safety suggestions at this time and regularly throughout the day as needed.

A topic will be provided each week for discussion. That topic must be covered in addition to the material outlined in the above paragraph. The safety meeting attendee form listed below should be completed following every safety meeting/training and kept on file.

Safety meetings are designed to train employees in safe work procedures and to help employees recognize unsafe acts and unsafe conditions and to take corrective action. This is an important part of our safety program.

# 4.3.2 <u>Inspections</u>

Inspections will be conducted to identify hazardous conditions and unsafe behaviors. Project Managers/Supervisors will set aside a specific time to complete a weekly jobsite inspection, complete an inspection report, and note deficiencies on the report and the corrective action taken. See checklist beginning on page sixty three (63.) Keep a copy for your file and for review during safety meetings. In addition, safety consultants, insurance company loss control, and others may perform jobsite inspections.

The mission is to eliminate unsafe acts and conditions that lead to accidents. Everyone is required to perform these inspections with that purpose in mind.



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# SAFETY MEETING REPORT

DATE:	PROJECT:	
CONDUCTED BY:		
TOPICS COVERED:		
VIOLATIONS NOTED T	THROUGH INSPECTIONS:	
EMPLOYEE SUGGESTI	ONS:	
COMMENTS:		
	MEETING ATTENDANCE	
Print Name	Sign Name	
* Attach other notes	and material as required.	



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# Neel-Schaffer, Inc.

# JOB SITE SAFETY CHECKLIST [General]

Job Site Identification:	Date:
(Signature of Competent Person)	

Check appropriate box	Yes	No	NA
Postings			
a. OSHA Form 3165			
b. OSHA Form 300A (February 1 to April 30)			
c. Emergency Phone Numbers			
(Hospital – Emergency Response – Main Office)			
Administrative			
a. MSDS readily accessible			
b. Hazard communication information "shared"			
c. Fire extinguishers accessible and inspected			
d. Employees appropriately trained			
Job Site			
a. First aid kits available and stocked			
b. General housekeeping			
c. Adequate restrooms facilities			
d. Potable water available			
e. Warning signs, tags, barricade tape in place			
Temporary Electrical Wiring			
a. Extension cords inspected & free of defects			
b. Ground fault circuit interrupters (GFCI) in use			



All coviement managing covered a	1 1	T
c. All equipment properly grounded		
d. Temporary wiring clear of employee & vehicular traffic		
Personal Protective Equipment (PPE) Required		
(Note: Serviceable equipment & training received)		
a. Hard hats		
b. Eye protection		
c. Hearing protection		
d. Protective footwear		
e. Safety warning vests		
f. Other PPE as required		
•		
Loddon		
Ladders		
a. Side rails extend at least 3' above upper landing surface		
b. Ladders tied-off to prevent displacement		
•		
Scaffolds		
Searroids		
a. Guard rails, full planking, bracing & ladder access		
a. Oddid falls, full planking, blacing & ladder access		
Eall Dustantian		
Fall Protection		
a. Personnel trained in fall protection		
b. Residential Construction Interim Standards used		
c. Conventional Fall Protection System Used		
1. Guardrail System		
2. Personal Fall Arrest System		
3. Warning Line System		
4. Controlled Access Zone System		
5. Safety Monitoring System: Monitor must be competent		
to recognize fall hazards & know the responsibilities of the position.		
d. Fall Protection Plan used: 29 CFR 1925.502(K); Is on site.		
Other		
a.		
b.		
c.		
<del></del>	ı	



# **Safety Enforcement**

Unsafe work practices will be corrected immediately upon discovery and if total job site safety cannot be restored, job will be shut down until corrections are made. Identify unsafe practices below and describe corrective measures taken.

Unsafe Act	Corrective Measure



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# **4.4 Safe Operating Procedures**

#### **4.4.1 General Work Place Rules**

All employees are responsible for safety. The following applies to all employees:

- Comply with all established safety rules, regulations, procedures, and instructions that are applicable to your own actions and conduct.
- Promptly report all accidents, hazards, incidents, unsafe conditions and nearmiss occurrences to your immediate supervisor, regardless of whether or not injury or property damage was involved.
- Do not visit, talk to, or distract another employee who is operating a
  machine, or who is engaged in a work activity where the possibility of injury
  exists.
- Do not use a cell phone, text, or email while operating equipment.
- Do not participate in horseplay, scuffling, pushing, fighting, throwing things, or practical jokes.
- Observe all no-smoking signs and regulations
- All materials and tools on Neel-Schaffer job sites will comply with this program and all OSHA, MSHA, and USACE requirements.
- Do not run on jobsites or work premises.
- Use handrails on steps, elevated platforms, scaffolds, or other elevations.
- Assist others and ask for assistance in lifting and carrying heavy or awkward objects.
- Personal stereos with headphones are not permitted to be worn in the workplace.
- Employees must wear appropriate clothing and safety equipment at all times.
- Only qualified employees are to operate equipment.



• The possession and/or use of alcohol or drugs on company, jobsite, or project property are prohibited. Failure to comply with this policy may result in immediate removal from the jobsite and dismissal.

#### 4.4.2 First Aid/CPR

Arrangements must be made by the Supervisor prior to the mobilization of each project to provide for prompt medical response and treatment in the event of an emergency. In areas where severe injuries can occur, a 3 to 4 minute response time is required to be met. If this response cannot be met by medical professionals, a person trained in CPR/First Aid will be available at the jobsite at all times. A posting will be kept at all job sites that indicate emergency numbers to be called in the event of an injury or other incident.

If the injured person is required to seek medical attention beyond the jobsite, the first responder will arrange for transportation to the appropriate medical facility.

All required First Aid supplies will be kept in weatherproof First Aid kits with individually sealed packages located in the work site temporary office – if no office is set up at the site then a first aid kit will be available in a vehicle that remains on the jobsite. The kits will be inspected weekly by the vehicle operator to insure that adequate supplies are available to employees as well as prior to going out to each job site.

Management will designate which employees will act as first responders. These employees will be trained by qualified persons in rendering first aid and CPR. All training will be American Red Cross or equivalent.

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable eye wash and/or emergency shower facilities shall be provided within the work area.

# 4.4.3 Housekeeping

- Unless otherwise specified, waste material and scrap must be put in the proper containers and removed from the job site routinely.
- Work areas, passageways, and stairs must be kept clear of debris. Materials should be stored in an orderly manner. Storage areas and walkways must be maintained free of dangerous depressions, obstructions, and debris.
- The entire work site should be cleaned daily and debris must be disposed of in dumpsters, or off site, in accordance with all EPA regulations.
- Failure to maintain adequate housekeeping and clean-up will result in action by Company management.
- Adequate lighting shall be provided in all work areas, stairways, and ladders.



• All employees must have unobstructed access at all times to electrical panels, disconnect switches, fire extinguishers, and emergency exits.

### **4.4.4 Personal Protective Equipment (PPE)**

#### • Training

Proper employee training on the correct usage of PPE will likely eliminate many accidents and injuries from occurring. Before performing any work that requires the use of PPE, the supervisors, or his/her delegate, must train employees on the following:

- When and what types of PPE are necessary documented inspection.
- ➤ How the PPE is to be used.
- ➤ What are the PPE's limitations?

Proper training includes at least, when PPE is necessary, what PPE is necessary; how to properly don, doff, adjust & wear PPE; the limitations of PPE; the proper care, maintenance, useful life & disposal of PPE. Retraining of the employee is required when the workplace changes, making the earlier training obsolete; the type of PPE changes; or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding. The certification must include the employee name, the dates of training, and the certification subject.

In many cases, more than one type of PPE will provide adequate protection. In such cases, employees should have their choice of which type of protection they would like to use. Company policy is to provide annual training on the use of PPE and to make certain that employees understand the material they have been trained in. Written documentation should contain the names of all employees trained, the date(s) of training, and the PPE requirements.

The company will provide all PPE other than steel toed shoes and gloves if the employee wears these off the job. The supervisor has the responsibility to check employee owned PPE to ensure that standards are met.

In our business, each project offers a different location and possibly a different set of hazards encountered. This necessitates the formulation of a job-site safety plan along with a detailed Job Hazard Analysis (JHA). This JHA will dictate what PPE is required. Once the hazards are identified, then the required PPE can be determined. At this point, any additional training requirements will be identified, training conducted and documented.



#### Hard Hats

This program requires that hard hats are to be worn anytime employees are working in areas where there is a possible danger of head injury from impact, falling objects, or from electrical contact or burns. Non-metallic caps only are to be used. Hard hats which have been altered by drilling or cutting will not be permitted. When it is necessary to use additional protective equipment which must be attached to the hard hat, only hard hats designed for that purpose will be used. Hard hats are to be worn with the bill in front unless the employee has a welding hood attached. Hard hats, where required, will be provided to employees.

#### • Eye Protection/Face Protection

Employees are required to wear eye protection equipment when machines or operations present a potential eye or face injury from physical, chemical, or radiation agents. A minimum eye protection of approved safety glasses with side shields is required. Minimum eye protection includes approved safety glasses with side shields or mono-goggles meeting the standards specified in ANSI Z87.1-1968. Safety glasses, full face shields, and goggles will be provided when that PPE is required. Additional eye and face protection should be used by employees when:

Welding, burning, or using cutting torches. Burning goggles with a minimum No. 3 density and plastic cover plate on both sides of the filter lens are required for all gas welding and cutting. Employees using lasers must use suitable laser safety goggles. Employees engaged in welding must use filter lenses on plates of at least No. 9 shade. The welders' helmet must attach to approved hard hats if overhead hazards are present.

Using abrasive wheels, grinders, or files.

Chipping concrete, stone, or metal. Full face shields are required in addition to safety glasses when chipping, hammering, pouring tar, using acids or creosote, and grinding.

Working with any materials subject to scaling, flaking, or chipping

Drilling or working under dusty conditions

Sanding or water blasting

Waterproofing

Using explosive actuated fastening or nailing tools

Using pneumatic actuated fastening or nailing tools

Working with compressed air or other gases



Working with chemicals or other hazardous materials

Using chop, chain, or masonry saws

Working near any of the above named operations

#### Safety Shoes

All employees must provide and wear leather work boots/shoes in good condition. Sneakers, sandals, tennis shoes are prohibited. Boots that offer ankle support are recommended. Some projects may also require the use of boots/shoes with safety toes.

#### Gloves

Gloves shall be worn by employees when handling materials, equipment, electrical wiring or devices, and when welding to protect against burns, cuts, bruises, or punctures. Employees required to work around power saws, drill presses and similar rotating machinery should not wear gloves.

#### • Hearing Protection

When employees are subject to sound levels exceeding 85 decibels, hearing protection will be provided and used to reduce sound levels. Hearing protection will be provided whenever necessary and training in the proper use and care will be provided.

#### Personal Work Clothing

Employees should wear clothing that is reasonably snug, particularly around the neck, wrists, and ankles. Employees should be cautioned against wearing loose clothing, rings, watches, and necklaces.

The minimum work clothing that is acceptable on Projects is:

Long pants

Leather work shoes/boots

A shirt that completely covers the workmen's shoulders. Tank tops or sleeveless tee shirts are not allowed. A minimum 4 inch sleeve is required.

Necklaces and ear pieces that dangle freely are prohibited.

Long hair which extends down the back must be secured under the hard hat or cap or on the head.

Welders should be cautioned against wearing any type of highly flammable clothing, such as polyesters and double knits. Clothing that has become torn,



frayed, or ragged is not acceptable since it may become caught on rough comers or- machine parts causing the employee to trip or fall.

Neel-Schaffer reserves the right to select and/or approve all personal protective equipment to be issued and used by its employees. All PPE must be properly fitted as determined by the Supervisor on site. Neel-Schaffer requires that all PPE provided is used and maintained in a sanitary and reliable condition. Defective or damaged PPE will not be used.

#### 4.4.5 Fall Protection

It is the policy of Neel-Schaffer to ensure the safety of all its employees. To that end, fall accidents are unacceptable. 100% Fall Protection is required for all projects.

Though all requirements within this section identify height requirements at 6 feet, this does not apply if the work being performed is covered under OSHA's General Industry requirements. If work is being performed in a plant or similar environment, and the work being performed is considered maintenance and not new construction, then the fall protection requirements in this section are applicable to heights at four feet or higher, not six feet.

Neel-Schaffer will provide training for each employee who might be exposed to fall hazards. Fall hazards should be identified on the Job Hazard Analysis. Employees will be trained in the proper selection, use, and maintenance of all protection systems appropriate to the hazards identified. This training, or verification of previous training, will take place prior to beginning the job and annotated on the records of the initial job-site brief by name.

Retraining will take place when the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by paragraph (a) of this section, the employer shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

- > Changes in the workplace render previous training obsolete; or
- ➤ Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- ➤ Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

Due to the extreme danger caused by working at heights, an accident investigation will be conducted for near misses as well as falls in accordance with paragraph 1.4 of this program. Fall victims will be rescued immediately and provided medical attention based on the severity of the injury and in accordance with the job-site safety plan.

#### • Fall Protection Plan

The site supervisor shall develop and implement a written fall protection plan including each area of the work place where employees are assigned and where



fall hazards of 6 feet or more exist. The plan should be upgraded monthly. The fall protection plan shall:

- ➤ Identify all fall hazards in the work area as work progresses.
- > Describe the method of fall arrest or fall restraint to be provided.
- ➤ Describe the correct procedures for the assembly, maintenance, inspection, and disassembly of the fall protection system to be used.
- ➤ Describe the method of providing overhead protection for other employees who may be in or pass through the area below the work site.
- > Describe the method of the required prompt rescue that will be used in the event of a fall.

#### • Primary Fall Protection Systems

When employees are exposed to a hazard of falling 6 feet or more, site supervision shall ensure that fall restraints are provided and implemented according to the following procedures. Both primary and secondary systems must meet OSHA guidelines (1926.502). Fall Restraint Protection shall consist of:

#### **Guardrail systems**

- > Standard guardrails with top edge height of top rail set at 42 inches.
- ➤ Midrail, screens, mesh, or intermediate vertical members shall be installed between the top edge of the guardrail system and the walking/working surface when there is no wall or parapet wall at least 21 inches high
- ➤ Guardrails shall be capable of withstanding, without failure, a force of at least 200 pounds in any outward or downward direction. The top edge of the guardrail must not deflect to a height of less than 39 inches or more than 45 inches in an upward direction.
- ➤ When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section shall be placed around the access opening between guardrail sections when hoisting operations are not taking place.
- ➤ When guardrail systems are used at holes, they shall be erected at all unprotected sides.
- ➤ When guardrail systems are used around holes for the passage of materials, the hole shall not have more than two sides provided with



removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

- ➤ When guardrail systems are used around holes which are used as points of access (such as ladder ways), they shall be provided with a gate, or be offset so that a person cannot walk directly into the hole. Guardrails used on ramps and runways shall be erected along each unprotected side or edge.
- ➤ Guardrails shall be constructed of a minimum 3/8" cable, or 2 x 4 wood construction.
- ➤ When cable or wire rope is used for a guardrail system, the guard rail shall be flagged every six (6) feet.

#### **Protection from falling objects**

- ➤ Toe boards, when used as falling object protection, shall be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.
- ➤ Toe boards shall be capable of withstanding, without failure, a force of 50 pounds applied in any downward or outward direction at any point along the toe board.
- ➤ Toe boards must be a minimum of 3 1/2 inches in vertical height from their top edge to the level of the walking/working surface. They shall not have more than 1/4 inch clearance above the walking/working surface. They shall be solid or have openings not over 1 inch.
- ➤ Where tools, equipment, or materials are piled higher than the top of a toe board, paneling, or screening shall be erected from the walking/working surface or toe board to the top of a guardrail systems top rail or midrail, for a distance sufficient to protect employees below.

#### Covers

All openings greater than 2 inches wide in their least direction shall be covered per OSHA requirements. Covers located in floors, roofs, and other walking/working surfaces shall meet the following requirements:

All covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed at any one time on the cover.



- All covers shall be secured when installed so as to prevent accident or displacement by wind, equipment or other co-employees.
- All covers shall be color coded or marked with the word "hole" or "cover" to provide warning of the hazard.

## • Secondary Fall Protection Systems

It is policy to ensure that primary fall protection systems are used to protect employees where possible. When this is not possible, employees must be protected by fall arrest systems when working over 6 feet in height or working above dangerous equipment.

### • Fall Arrest Systems

A full body harness is required when any employee is above six feet whether on boom lifts, work platforms, scissor lifts, or scaffolding. A deceleration device is required to be incorporated into the fall arrest system. The deceleration device is defined as a rip stitch lanyard, specially woven lanyard, or automatic self-retracting lifeline which serves to dissipate a substantial amount of energy imposed on an employee during a fall. All fall arrest systems must limit maximum arresting force on an employee to 1800 pounds.

- ➤ Body harness systems or components subjected to impact loading shall be immediately removed from service and destroyed.
- All safety lines and lanyards shall be protected against cuts and abrasions. When lanyards are attached to l-Beams, H-Beams, or any structural materials which could cut or damage the lanyard, then a protective wrap must be used around the beam. Lanyard shall not be connected to themselves unless the lanyard has been designed to do so, usually indicated by a D-Ring attachment on the lanyard.
- ➤ Body harness systems shall be rigged to minimize free fall distance with a maximum free fall distance allowed of 6 feet, and such that the employee will not contact any lower level.
- ➤ Hardware shall have a corrosion resistant finish, and all surfaces and edges shall be smooth to prevent damage to the attached body harness or lanyard. Only double locking type snap hooks will be used. Snap hooks shall not be connected to each other.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5000 pounds. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level. Body harnesses shall not be used to hoist materials.



#### • Controlled Access Zones

A controlled access zone is a work area designated and clearly marked in which certain types of work may take place without the use of conventional fall protection systems to protect the employees working in the zone. These are used to keep out employees other than those authorized to enter work areas from which guardrails have been removed. Where there are no guardrails, only employees performing work are allowed in controlled access zones.

Controlled access zones, when created to limit entrance to areas where leading edge work and other operations are taking place, must be defined by a control line or by any other means that restricts access. Control lines should consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions. Each must be:

- Flagged or clearly marked at not more than 6 foot intervals with high-visibility material.
- > Supported so that the lowest point is not less than 39 inches from the walking/working surface and the highest point is not more than 45 inches from the walking/working surface.
- ➤ Strong enough to sustain stress of at least 200 pounds. Control lines should extend along the entire length of the unprotected or leading edge and should be parallel to this edge; and
- Control lines also must be connected on each side to a guardrail system or wall.

When control lines are used, they should be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge.

Controlled access zones, when used to determine access to areas where overhead bricklaying and related work are taking place, are to be defined by a control line erected at least 10 feet but not more than 15 feet from the working edge. Additional control lines must be erected at each end to enclose the controlled access zone. Only employees engaged in overhand bricklaying or related work is permitted in the controlled access zones.



# 4.4.6 Ladder Safety

This program is to ensure the safe use, care, and serviceability of portable ladders used in the workplace.

Just as jobs and people are different, so are ladders. Ladders must be used only for their intended purpose. Most employees don't realize that factory built ladders are classified by the weight that they are designed to hold. Ladder types include:

Type III	lightweight holds a maximum of 200 pounds.
Type II	holds a maximum of 225 pounds.
Type I	holds a maximum of 250 pounds.
Type IA	holds up to 300 pounds.

Be sure to use a ladder that is strong enough to support your weight plus your tools and clothing. Also, the material the ladder is made of should be taken into consideration. Metal ladders shall not be used around energized electrical circuits or equipment or in places where they may come in contact with such circuits. If the ladder is fiberglass, avoid extreme heat; if it is wood, never paint it -- this could hide serious defects.

Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.

- Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.
- Frayed or badly worn rope shall be replaced.
- Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.
- Before each use, employees shall inspect the ladder and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use."



- Rungs should be kept free of grease and oil.
- Ladder components shall be surfaced so as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- Wood ladders shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail.

#### Ladder Use

Portable rung and cleat ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). This defines a 4 to 1 ratio.

- The ladder shall be so placed as to prevent slipping, and it shall be lashed, or held in position. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.
- Portable ladders shall be so placed that the side rails have a secure footing.
- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use.
- Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked upon, locked, or guarded.
- Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.
- Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used; improvised repairs shall not be made.
- A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.
- Short ladders shall not be spliced together to provide long sections.
- Ladders made by fastening cleats across a single rail shall not be used.
- Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes.



- Tops of the ordinary types of stepladders shall not be used as steps.
- On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of ladder (feet)	Overlap (feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

- A ladder should be used to gain access to a roof unless the top of the ladder shall extend at least 3 feet above the point of support, at eave, gutter, or roofline.
- The bracing on the back legs of step ladders is designed solely for increasing stability and not for climbing.
- When ascending or descending, the climber must face the ladder.
- Portable ladders shall have nonconductive side rails if they are used where the employee or the ladder could contact exposed energized parts.
- Except when portable ladders are used to gain access to fixed ladders (such as those on utility towers, billboards, and other structures where the bottom of the fixed ladder is elevated to limit access), when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders.
- Each employee shall use at least one hand to grasp the ladder when progressing up and/or down the ladder.
- An employee shall not carry any object or load that could cause the employee to lose balance and fall.

#### **Ladder Inspection**

Fiberglass ladders must be inspected prior to each use, and monthly for deterioration and damage. Close visual inspection is required. No employee will be allowed to use for any reason any ladder that has broken, loose, or cracked rungs, side rails, or braces. Any ladder found in this condition will be removed from service immediately. All inspections shall be documented each month.



Ladders must be not be cut or sawed off. When not in use, **all** ladders should be stored under suitable cover protected from the weather or properly attached to the company truck.

# 4.4.7 Materials Storage and Handling

The Project Manager is responsible for monitoring this procedure and should help to initiate a plan prior to construction start to safely handle and store construction materials. The Superintendent is responsible for implementing this procedure at the jobsite.

When planning material storage, a minimum of 24 inches of clearance must be allowed under sprinkle heads. Automatic sprinkler controls and electrical panel boxes must be kept free and unobstructed. There must be unobstructed access to fire hoses and extinguishers, and access to emergency exits and aisles shall always be maintained. Areas immediately outside of emergency exits shall also be left clear for egress. Materials shall be segregated as to kind, size, and length, and placed in neat, orderly piles that are safe from falling. If the piles are high, they shall be stepped back as the height increases, and shall be secured by cross-piling or cross-tying. Piles of materials shall be arranged so as to allow for passageways.

Storage of materials will be facilitated and hazards reduced, with the use of storage bins and racks which are in good condition. Storage racks shall be secured to the wall and/or floor as well as to each other. Damaged racks shall not be used for storage and employees shall not be allowed to climb racks. Depending on the value of the materials in storage, it may be considered advisable to provide some type of security to enable the preservation of the materials.

#### Pipe Storage

Pipe shall be stored on specially designed sills or racks and shall be safely blocked to prevent rolling. When removing pipe, men shall work from the end of the pile as much as possible. Two employees should carry long lengths of pipe, and care shall be maintained at corners. Employees should not lift more than 75 pounds without assistance. Stored pipe shall be blocked.

### **Petroleum Product Storage**

Petroleum products delivered to the jobsite and stored there in drums shall be protected during handling to prevent loss of identification through damage to drum markings, tags, etc. Unidentified petroleum products may result in improper use, with possible fire hazard, damage to equipment, or operating failure.

Bulk delivery and storage of petroleum products require care in identification and particular attention to fire hazards during handling and storage. Appropriate fire extinguishers must be easily accessible in the immediate storage location. The storage area is to be contained to prevent the spread of accidentally released material.

### Flammable Liquid and Gas Storage

All gases and liquids should be considered as flammable unless the label clearly indicated that no such exposure exists. Conditions on construction sites change so rapidly, that extreme care is necessary whenever flammable liquids or gases are being used. Flammable liquids and gases can be ignited by open flames, sparks, or excessive heat, so it is necessary that each of



these factors be considered when setting up safe storage facilities for these items. Oxygen cylinders shall be separated from fuel gas cylinders by a distance of **20 feet** (**or have a half hour fire rating between them**) and stored outside of buildings.

No other equipment or materials should be contained in the area where flammable or combustible liquids or gases are stored. This is especially true for compressed gases and petroleum products. All areas that are to be used for the storage of flammable liquids and gases should be conspicuously designated as such, and "No Smoking" signs posted. Combustible materials shall not be stored within 20 feet of any fuel gas or oxygen cylinder storage area.

These areas shall always be located so that local fire protection will always have access to the material. Only approved containers can be used for the storage of flammable liquids, and each container must have an emergency venting device. All containers from which flammable liquids are to be dispensed shall be grounded, and when transferring flammable liquids, the dispensing container shall be bonded to the receiving container.

## **Material Handling**

An aggressive Back Safety Program is essential in preventing situations which are capable of causing injury or impairment to the back. This program applies to all employees and subcontractors working within our controlled worksites.

Lifting and carrying heavy loads puts a severe strain on the back, and can result in a disabling back injury if done improperly. Such injuries can be avoided by planning the lift in advance. Here are a few common-sense safety rules for planning heavy lifts:

- Whenever possible, avoid manual lifting of very heavy loads or those which will be awkward to handle. Use mechanical lifting aids such as forklifts or hand trucks, etc. for such loads.
- Avoid "Lazy man's loads." Don't attempt to lift and carry more objects at one time than can be safely and comfortably handled.
- Don't carry any bulky load, which will obstruct the view when handled.
- Choose the carrying route and the place where the load will be put down, in advance.
- Clean up and remove slipping and tripping hazards in the areas where the load will be handled.
- Make sure that there is enough room to carry and turn the load while avoiding contact with other objects in the areas where the load will be handled. Move other objects out of the way.
- Choose a good handhold on the load which permits a firm and comfortable grip on the load. Check the load for sharp edges and use work gloves if needed to protect the hands.



- Size up the load, and get help if it appears to be too heavy or awkward to lift and carry alone.
- When more than one person will lift and carry a load, their activities should be the lifters.
- To prevent back injury, follow these rules for planning heavy lifts. Preventing back injuries is a lot easier than correcting them.

### **Back Injury Facts**

Structurally your back is one of the weakest members of your body. Many of you have already experienced some form of structural failure in your back -- if not; the odds are high that you will in the future.

Eight out of every ten Americans currently suffers from some sort of back pain, and most of them don't have jobs that are as hard or strenuous as yours.

Everyday your occupation requires you to perform various kinds of lifting, carrying, bending, twisting, climbing, pushing, and pulling loads that are often heavy and awkward.

We can all learn an important lesson from leading crane manufacturers -- many new models are equipped with computers that will not allow the crane to over lift -- your brain is your personal computer -- program it to do the same.

#### Slings

Whenever any sling is used, the following practices shall be observed:

- Slings that are damaged or defective shall not be used.
- All slings not in immediate use shall be removed from the work area and stored in a proper manner.
- Slings shall not be shortened with knots or bolts or other makeshift devices.
- Sling legs shall not be kinked.
- Slings shall not be loaded in excess of their rated capacities.
- All sling load capacities and other required identification will be attached to each sling
- Slings used in a basket hitch shall have the loads balanced to prevent slippage.



- Slings shall be securely attached to their loads.
- Slings shall be padded or protected from the sharp edges of their loads.
- Suspended loads shall be kept clear of all obstructions.
- All employees shall be kept clear of loads about to be lifted and of suspended loads.
- Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
- Shock loading is prohibited.
- Tag lines shall be used on all loads unless approved by a supervisor.
- Hooks on overhaul ball assemblies, lower load blocks, or other attachment
  assemblies shall be of a type that can be closed and locked, eliminating the
  hook throat opening. Alternatively, an alloy anchor type shackle with a bolt,
  nut and retaining pin may be used.
- A sling shall not be pulled from under a load when the load is resting on the sling.
- Each shift before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.
- All slings shall be used in accordance with the manufacturers' recommendations and load requirements. All employees must be trained in proper use and care of all slings. OSHA 1910.184 details sling use requirements. All employees will be trained on these requirements.

# 4.4.8 Electrical

The supervisor and/or project manager is responsible for complying with the National Electrical Code and all Federal, State, and local codes. Our employees consist of both qualified and unqualified electrical workers.

Any electrical work not in compliance should be brought to the contractor's attention immediately. Only knowledgeable, certified electricians are to perform electrical work. Employees should not work close to any unprotected electrical power circuit unless that circuit is de-energized, locked out, and grounded. De-energized equipment, wiring, parts,



etc., will be treated as live. All switches must be enclosed and grounded. Panel boards must have provisions for closing and locking the main switch and fuse box compartment.

Extension cords used with portable electric tools and appliances must be heavy duty (no less than 12 gauge conductors), of the three wire grounding type, and must conform to OSHA standards. The cords must have a marking indicating they are rated for hard service (an example of that rating would be "S, ST, SO, STO & SJ, SJO, SJT, & SJTO"). NO FLAT ELECTRICAL CORDS ARE ALLOWED ON SITE. All electrical tools and cords must be protected by a ground fault circuit interrupter.

Voltages must be clearly labeled on all electrical equipment and circuits. Circuits must also be clearly marked for the areas of service they provide. Prior to performing any work, electricians must "lockout and tagout" the equipment or machinery. The only exception is when power is required for "megging" circuits. Electrical cords and trailing cables should be covered, elevated, or otherwise protected from damage. Any exposed wiring and cords with frayed or deteriorated insulation must be reported immediately. No splicing of electrical cords is allowed. Extension cords should be used as little as possible and all plugs must be the dead front type.

Temporary lighting should be used in areas where there is not adequate natural or artificial lighting. Illumination must be of sufficient quality so as to permit the employee to work safely. Employees will not enter the area until safe lighting is provided. Temporary lights must be equipped with guards to prevent accidental contact with bulbs. Working spaces, walkways, and similar locations must be kept clear of cords.

Electrical tools and equipment must be appropriately protected when used in wet or damp areas.

Employees who face a risk for electric shock, but are not qualified will be trained and made familiar with OSHA requirements and the requirements of this program. Unqualified persons are not authorized to work within 20 feet of power lines in any circumstance.

All qualified persons will be trained on the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment. Supervisors will also insure that they are capable of determining voltage of exposed live parts.

The following chart is Table S-5 from the OSHA Electrical Safe Work Practices Standard 1910.333. These are the minimum approach distances for Qualified Workers to live electrical, including power lines, without having to wear Additional Electrical PPE. Employees are to comply with this Table.



Table S-5

Voltage range AC	Minimum Approach
(phase to phase)	Distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 inches
Over 750V, not over 2kV	1 ft. 6 inches
Over 2kV, not over 15kV	2 ft. 0 inches
Over 15kV, not over 37kV	3 ft. 0 inches
Over 37kV, not over 87.5kV	3 ft. 6 inches
Over 87.5kV, not over 121kV	4 ft. 0 inches
Over 121kV, not over 140kV	4 ft. 6 inches

Conductive apparel shall not be worn by any employee working near an energized source. Employees should also not handle long conductive equipment when working near energized parts. Side rails of ladders should be constructed on non-conductive material.

If work is to be performed near overhead lines, the lines shall be de-energized and grounded, or other protective measures shall be provided before work is started. If the lines are to be de-energized, arrangements shall be made with the person or organization that operates or controls the electric circuits involved to de-energize and ground them. If protective measures, such as guarding, isolating, or insulating, are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

All vehicular equipment capable of having parts near energized overhead lines shall be operated so that a clearance of 10 feet is maintained. If the voltage is higher than 50kV the clearance shall be increased by 4 inches for every 10kV over 50kV.

#### **Electrical Safety with Power Tools**

The use of portable power tools can make a job go faster and easier. The misuse of portable power tools can cause electric shocks, burns, cuts, and puncture wounds, severed fingers and limbs, broken bones, loss of eyesight, and even death. The slightest shock when using electrical equipment is an ominous warning of a potentially serious safety hazard. A slight



shock when using the equipment in one location might result in electrocution if the body makes a little better contact with the earth or a grounded object in another location.

Electrocution is the leading cause of fatal injury in construction related activities. Most such injuries result from the use of portable tools powered by 110 volt electricity. Here are some things you should know to protect yourself from electric shock hazards:

- Electrical shock from improper grounding or from attempting to adjust, clean, or service the tool without disconnecting the power.
- Contact with rotating and fast moving parts. Poor housekeeping, broken bits and blades, and lack of concentration can lead to serious cuts or amputations.
- Fire caused by defective electrical cords, overheated motors, sparking, and working near flammable liquids or gases.

### You Can Protect Yourself by:

- Choosing the right tool for the job. This will depend on the work to be done.
   Most commonly used power tools include drills, saws, sanders, routers, and grinders.
- Know how to use the tools safely and properly by reading the owner's manual carefully before use, by getting training from an experienced tool user, and be practicing before actually doing the job.
- Repair tools when needed. Worn or defective electrical tools should be taken out of service and repaired immediately.
- Transport and store tools properly. Power tools should be transported with extra care. Always hold the handle (not the cord) with your finger off the trigger. Place each tool in a safe storage area after use, preferably in a locked cabinet or tool box.
- Keep your work area clean, dry, and orderly. Power tools should not be used when working on slippery floors, in poorly lighted work areas, or near flammable liquids or gases.
- Electric cords also deserve attention. They may become frayed leading to electrical shock or fire. Light-duty extension cords may become overheated when improperly used. They can also present tripping hazards.



## **Ground Fault Circuit Interrupters**

GFCIs will be required whenever employees use an extension cord or a receptacle that is not part of a permanent building or structure that exceeds 12 volts.

Employees will visually inspect (pre – use) all cords, receptacles, attachment cap, that has the potential to become damaged. (external defects, such has deformed or missing pins or insulation

GFCIs shall be used on all, 120 volt, single phase, 15 and 20-ampere receptacle outlets, which are not part of the permanent wiring of the building or structure. Receptacles on a two wire, single phase portable or vehicle mounted generator rated not more than 5kw, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with GFCIs.

When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, the employer shall provide, and the employee shall use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts. Doors, hinged panels, and the like shall be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.

# 4.4.9 <u>Hazardous Communication Program</u>

Neel-Schaffer is committed to providing its employees with a healthy and safe working environment. It is our policy to provide information about the hazardous substances which may be used or stored at the job site where our employees work. Our Hazardous Communication Program, HAZCOM Program as OSHA calls it, includes container labeling, Material Safety Data Sheets (MSDS's), and employee training.

Our HAZCOM Program will be maintained at each job site and available upon request. In most situations, the presence of hazardous material will be limited to non-existent. The presence of these materials should be identified during the Job Hazard Analysis with training and precautions taken appropriately. **The identification of hazardous materials on site will activate the following actions:** 

# **Container Labeling**

It is our policy to insure that each container of hazardous material on the job site is properly labeled. It is the responsibility of the Superintendent or Foreman to verify that each substance is properly labeled such that it includes the chemical name, appropriate hazard warnings, and the name and address of the manufacturer or importer.

No container shall be used until it has been checked by the Superintendent or Foreman. If the chemical is to be transferred to a separate container, the superintendent or foreman will insure that the new container is properly labeled as noted in the paragraph above.



Container labels should contain the following information: Identity of hazardous chemicals, appropriate hazard warnings and name & address of the chemical manufacturer, importer or other responsible party. Employer or employees shall not remove or deface labels on incoming containers of hazardous chemicals.

### **Material Safety Data Sheets (MSDS's)**

MSDS's will be kept at each job site for all hazardous materials which are present at that site. It is the responsibility of the Site Safety Officer to insure that a MSDS is available for each hazardous material at the site. The job superintendent shall review each incoming MSDS for new and significant health and safety information and review this information with all employees at the site. The MSDS system shall include the following:

- A master inventory list of all MSDS's indexed alphabetically.
- The identity used for indexing the MSDS sheet shall be the same identity on the container label.
- The chemical name and all ingredients present shall appear on the MSDS
- The information on the MSDS shall include:
- Physical and chemical characteristics of the chemical.
- The fire, explosion, and reactivity hazard(s) of the chemical mixture including the boiling point, flash point, and auto ignition temperature.
- Health hazards of the chemical mixture including signs and symptoms of exposure and medical conditions recognized as aggravated by exposure with primary route(s) of entry.
- Permissible exposure limits (PEL) or any other exposure limit used or recommended by the manufacturer, importer, or employer.
- Whether on carcinogen listing (NTP) or has been found to be a potential carcinogen (IARC listing) or by OSHA.
- Control measures including fire, engineering, proper personal protective equipment.
- General precautions for safe handling and use including protective measures during repair and maintenance and procedures for clean-up of spills and leaks.
- Emergency and first aid procedures.
- Date prepared or changed.



 Name, address, telephone numbers of manufacturer, importer, or responsible party to call in an emergency

It is the responsibility of the Site Safety Officer to inform any other contractors at the job site of hazardous chemicals that Neel-Schaffer has on the job. The contractor shall be notified of the location of the HAZCOM program and associated MSDS's. The same information shall be requested from the other contractors as well. A MSDS shall be obtained from the contractor for any hazardous chemical used by other contractors that is not included in this HAZCOM Program.

Attached and made part of our HAZCOM Program is a list of the hazardous chemicals that may be used at the job sites. This list shall be updated as new chemicals are received.

## **Employee Training**

All new employees shall be trained and alerted as to all hazardous chemicals located on the job site and the information contained in this HAZCOM Program. At a minimum, all new employee training shall include:

- Instruction on safe use and health hazards associated with each chemical being used on the job site.
- An overview of this HAZCOM Program and OSHA requirements.
- A review of the Hazardous Chemicals list.
- Location of the MSDS's and the HAZCOM Program.
- Explanation of how to read and understand the MSDS
- How to prevent exposure to know hazardous chemicals through controls and Personal Protective Equipment.
- Emergency Procedures in the event of an exposure to a chemical.
- Training on the hazards of non-routine tasks

When new chemicals arrive at the job site, the MSDS shall be discussed with each employee immediately. If a MSDS is not available, the chemical shall not be used until one can be obtained. A review session on the new chemicals shall also be included in the next week's safety meeting. The review of the chemical shall be noted in the safety meeting topics of discussion and each employee shall sign the sign in sheet acknowledging that the chemical has been reviewed and that he/she understands the hazards and controls associated with the new chemical. All non-English speaking employees will be required to communicate through an interpreter.



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# **Neel-Schaffer CHEMICAL INVENTORY LIST**

1	30
2	31
3	32
4	33
5	34
6	35
7	36
8	37
9	38
10	39
11	40
12	41
13	42
14	43
15	44
16	45
17	46
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27	56
28	57
29	58



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# 4.4.10 <u>Hearing Conservation Program</u>

This hearing conservation program is developed to comply with CFR 1910.95 and to provide guidelines to protect employees from potential hearing loss. The employees of NSI do not work in an environment that causes them to be exposed to continuous noise above 85decibel-A scale (dBA.) There is, however, circumstances on the various job-sites, and equipment use, that could cause exposure to 110 dBA and above for limited periods of time. These circumstances should be identified by the Job Hazard Analysis and by the use of good common sense. When in doubt, use hearing protection. If the Job Hazard Analysis identifies an environment that exposes an employee in excess of the maximum allowable exposure based on dBA and time of exposure, the supervisor will ensure that appropriate training and protection is required.

# 4.4.11 Lockout/Tagout (LOTO)

# **Program Purpose**

Control of Hazardous energy is the purpose of the Lockout-Tagout Program. This program establishes the requirements for isolation of both kinetic and potential electrical, chemical, thermal, hydraulic and pneumatic and gravitational energy prior to equipment repair, adjustment or removal. Reference: OSHA Standard 29 CFR 1910. 147, the control of hazardous energy. An annual review will be conducted and documented to ensure compliance with this program.

**Hazards -** Improper or failure to use Lockout - Tagout procedures may result in:

- Electrical shock
- Chemical exposure
- Skin burns
- Lacerations & amputation
- Fires & explosions
- Chemical releases
- Eye injury
- Death

#### **Hazard Controls**

- Only authorized and trained employees may engage in tasks that require use of lockout-tagout procedures
- All equipment has single sources of electrical power
- Lockout procedures have been developed for all equipment and processes
- Restoration from Lockout is a controlled operation



#### **Definitions**

Authorized (Qualified) Employees are the only ones certified to lock and tagout equipment or machinery. Whether an employee is considered to be qualified will depend upon various circumstances in the workplace. It is likely for an individual to be considered "qualified" with regard to certain equipment in the workplace, but "unqualified" as to other equipment. An employee who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at his or her level of training and who is under the direct supervision of a qualified person, is considered to be "qualified" for the performance of those duties.

Affected Employees are those employees who operate machinery or equipment upon which lockout or tagging out is required under this program. Training of these individuals will be less stringent in that it will include the purpose and use of the lockout procedures.

*Other Employees* are identified as those that do not fall into the authorized, affected or qualified employee category. Essentially, it will include all other employees. These employees will be provided instruction in what the program is and not to touch any machine or equipment when they see that it has been locked or tagged out.

### **Training**

### **Authorized Employees Training**

All Maintenance Employees, Department Supervisors and Janitorial employees will be trained to use the Lockout and Tagout procedures. The training will be conducted and documented by the Maintenance Supervisor or Safety Coordinator prior to job performance. Retraining shall be held at least annually or when a change takes place in a job assignment, machines, equipment, or processes, or when a change in the energy-control procedures take place. The training will consist of the following:

- Review of General Procedures
- Review of Specific Procedures for machinery, equipment and processes
- Location and use of Specific Procedures
- Procedures when questions arise

#### Affected Employee Training

- Only trained and authorized Employees will repair, replace or adjust machinery, equipment or processes
- Affected Employees may not remove Locks, locking devices or tags from machinery, equipment or circuits.



• Purpose and use of the lockout procedures.

# Other Employee Training

- Only trained and authorized Employees will repair, replace or adjust machinery or equipment.
- Other Employees may not remove Locks, locking devices or tags from machinery, equipment or circuits

### **Preparation for Lock and Tag Out Procedures**

A Lockout - Tagout survey has been conducted to locate and identify all energy sources to verify which switches or valves supply energy to machinery and equipment. Dual or redundant controls have been removed.

A Tagout Schedule has been developed for each piece of equipment and machinery. This schedule describes the energy sources, location of disconnects, type of disconnect, special hazards and special safety procedures. The schedule will be reviewed each time to ensure employees properly lock and tag out equipment and machinery. If a Tagout Schedule does not exist for a particular piece of equipment, machinery and process, one must be developed prior to conducting a Lockout - Tagout. As repairs and/or renovations of existing electrical systems are made, standardized controls will be used.

# **Routine Maintenance & Machine Adjustments**

Lock and Tag Out procedures are not required if equipment must be operating for proper adjustment. This rare exception may be used only by trained and authorized Employees when specific procedures have been developed to safely avoid hazards with proper training. All consideration shall be made to prevent the need for an employee to break the plane of a normally guarded area of the equipment by use of tools and other devices.

#### Locks, Hasps and Tags

All Qualified Maintenance Personnel will be assigned a lock with one key, hasp and tag. All locks will be keyed differently, except when a specific individual is issues a series of locks for complex lockout-tagout tasks. In some cases, more than one lock, hasp and tag are needed to completely de-energize equipment and machinery. Additional locks may be checked out from the Department or Maintenance Supervisor on a shift-by-shift basis. All locks and hasps shall be uniquely identifiable to a specific employee. The name will be placed on the device.

### **General Lock and Tag Out Procedures**

Before working on, repairing, adjusting or replacing machinery and equipment, the following procedures will be utilized to place the machinery and equipment in a neutral or zero mechanical state.



**Preparation for Shutdown**. Before authorized or affected employees turn off a machine or piece of equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the means to control the energy.

Notify all affected Employees that the machinery, equipment or process will be out of service

*Machine or Equipment Shutdown.* The machine or equipment will be turned or shut down using the specific procedures for that specific machine. An orderly shutdown will be utilized to avoid any additional or increased hazards to employees as a result of equipment deenergization.

If the machinery, equipment or process is in operation, follow normal stopping procedures (depress stop button, open toggle switch, etc.).

Move switch or panel arms to "Off" or "Open" positions and close all valves or other energy isolating devices so that the energy source(s) is disconnected or isolated from the machinery or equipment.

### Machine or Equipment Isolation.

All energy control devices that are needed to control the energy to the machine or equipment will be physically located and operated in such a manner as to isolate the machine or equipment from the energy source.

### Lockout or Tagout Device Application.

Lockout or tagout devices will be affixed to energy isolating devices by authorized employees. Lockout devices will be affixed in a manner that will hold the energy isolating devices from the "safe" or "off" position.

Where tagout devices are used they will be affixed in such a manner that will clearly state that the operation or the movement of energy isolating devices from the "safe" or "off" positions is prohibited.

The tagout devices will be attached to the same point a lock would be attached. If the tag cannot be affixed at that point, the tag will be located as close as possible to the device in a position that will be immediately obvious to anyone attempting to operate the device.

Lock and tag out all energy devices by use of hasps, chains and valve covers with an assigned individual locks.

### Stored Energy

Following the application of the lockout or tagout devices to the energy isolating devices, all potential or residual energy will be relieved, disconnected, restrained, and otherwise rendered safe.



Where the re-accumulation of stored energy to a hazardous energy level is possible, verification of isolation will be continued until the maintenance or servicing is complete.

Release stored energy (capacitors, springs, elevated members, rotating fly wheels, and hydraulic/air/gas/steam systems) must be relieved or restrained by grounding, repositioning, blocking and/or bleeding the system.

## Verification of Isolation

Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employees will verify that isolation or de-energization of the machine or equipment have been accomplished.

After assuring that no Employee will be placed in danger, test all lock and tag outs by following the normal start up procedures (depress start button, etc.).

**Caution:** After Test, place controls in neutral position.

## Extended Lockout - Tagout

Should the shift change before the machinery or equipment can be restored to service, the lock and tag out must remain. If the task is reassigned to the next shift, those Employees must lock and tag out before the previous shift may remove their lock and tag.

## Release from LOCKOUT/TAGOUT

Before lockout or tagout devices are removed and the energy restored to the machine or equipment, the following actions will be taken:

- 1. The work area will be thoroughly inspected to ensure that nonessential items have been removed and that machine or equipment components are operational.
- 2. The work are will be checked to ensure that all employees have been safely positioned or removed. Before the lockout or tagout devices are removed, the affected employees will be notified that the lockout or tagout devices are being removed.
- 3. Each lockout or tagout device will be removed from each energy isolating device by the employee who applied the device.

### **LOTO Procedure for Electrical Plug-Type Equipment**

This procedure covers all Electrical Plug-Type Equipment such as Battery Chargers, some Product Pumps, Office Equipment, Powered Hand Tools, Powered Bench Tools, Lathes, Fans, etc.

When working on, repairing, or adjusting the above equipment, the following procedures must be utilized to prevent accidental or sudden startup:



- 1. Unplug Electrical Equipment from wall socket or in-line socket.
- 2. Attach "Do Not Operate" Tag and Plug Box & Lock on end of power cord.

An exception is granted to not lock & tag the plug is the cord & plug remain in the exclusive control of the Employee working on, adjusting or inspecting the equipment.

- 3. Test Equipment to assure power source has been removed by depressing the "Start" or "On" Switch.
- 4. Perform required operations.
- 5. Replace all guards removed.
- 6. Remove Lock & Plug Box and Tag.
- 7. Inspect power cord and socket before plugging equipment into power source. Any defects must be repaired before placing the equipment back in service.

**NOTE:** Occasionally used equipment may be unplugged from power source when not in use.

## **Group Lockout/Tagout**

When servicing or maintenance is to be done by a crew, each member of the crew will be provided with a lock/tag. An authorized employee will assume responsibility of the crew to ascertain the exposure status of each crew member and ensure continuity of protection.

Each employee will affix a personal lockout/tagout device to a group lockout device lockbox or comparable mechanism when he or she has completed work on the machine or equipment being serviced or maintained.

#### Management's Removal of Lock and Tag Out

Only the Employee that locks and tags out machinery, equipment or processes may remove his/her lock and tag. However, should the Employee leave the facility before removing his/her lock and tag, the Maintenance Manager may remove the lock and tag. The Maintenance Manager must be assured that all tools have been removed, all guards have been replaced and all Employees are free from any hazard before the lock and tag are removed and the machinery, equipment or process are returned to service. Notification of the employee who placed the lock is required prior to lock removal.



# 4.4.12 Welding, Cutting, and other Hot Work

This procedure establishes controls of the hazards associated with welding, cutting or the use of spark producing tools for the prevention of fire or subsequent injury to personnel. It is the responsibility of all employees/supervisors/managers that will either perform or oversee the operation or employee, to adhere to the requirements of this policy. It will be the responsibility of the Supervisor to evaluate all jobs prior to the work beginning to assess hazards and the necessary controls required before any work will begin.

## Scope:

This procedure applies to any hot work performed by any employee or contractor. This procedure does not apply to hot work performed in designated Safe Work areas.

#### **Definitions:**

Hot work - Work involving the use of open flame or spark producing tools such as, but not limited to, welding, cutting, brazing, soldering, electrical motor usage, drills, saws, and other open flames or electric arc and heat producing jobs and equipment that could ignite combustibles.

Safe Work Areas - The areas which have been designated or designed specifically for cutting, welding, grinding activities. The Supervisor is responsible for designating all Safe Work Areas once he is assured of proper protection against combustibles.

#### **Procedures:**

A Hot Work Permit must be issued prior to initiating any hot work outside of a designated Safe Work Area. This site will be evaluated for potential fire and safety hazards by the Supervisor prior to starting the job. The Supervisor should carefully review activities to determine if a less hazardous mechanical method such as cutting with a hack saw can be used instead of more heat and spark producing methods.

Where practical, all flammable and combustible materials shall be relocated at least 35 feet from the work area. Where relocation is impractical, combustibles and flammables shall be protected with flame proof covering or otherwise shielded with metal or flameproof curtains. Where neither of these two options are practicable, hot work shall not be performed.

The person conducting the hot work will have a readily available fire extinguisher rated at a minimum of 2A:40BC.

Where potential for flammable or combustible vapors or gases might be present in the area, these concentrations must be determined before work begins. The Supervisor will determine the concentration of the vapors or gases, and this measurement recorded.

Hot work shall not be permitted if the concentration reaches 1% of the lower explosive limit (LEL). If combustibles gas meter indicates any concentration of flammable vapor, the hot



work permit shall not be approved until the person approving the permit understands the source of the flammable-combustible vapors and can assure that concentration will not increase to a dangerous level while work is underway.

When performing hot work overhead, if combustibles could inadvertently be moved into the area, or people enter the area, the area below must be roped off and posted. Noncombustible barriers should be placed around and under hot work areas to confine sparks.

Open drains which lead to underground drainage systems, which could contain flammable or combustible vapors should be tested for the presence of any flammable or combustible vapors before starting work. The drains should be covered with fire blanket or similar protection to prevent access to sparks even if the atmosphere is safe and/or if determined to contain flammable or combustible vapors, the system must be purged with nitrogen to below 1% lower explosive limit (LEL).

In areas immediately hazardous to life, hose masks, hose masks with blowers, or a self-contained breathing apparatus should be used in addition to suitable rescue equipment for confined space entry situations. All breathing equipment should be approved by US Bureau of Mines, NIOSH, or similar approval authority.

Employees are required to wear the proper personal protective equipment, such as coveralls, safety goggles, face shields, welding hood, welding jacket, etc., as demanded by the type of work completed and required by the Supervisor.

# **4.4.13 Hand Tools**

Many of the accidents and/or injuries which occur each year can be attributed to improper or unsafe use of tools or the use of tools which are in poor condition. The few extra seconds required examining tools and to use them properly can reduce the number of accident/injuries. All tools used at the job site shall always remain in a safe working condition with all safety devices in proper working order.

Never remove or interfere with the operation of any tool guard or safety features.

Always use the right tool for the right job.

Keep tools clean and check their condition prior to using. If heads or striking tools become mushroomed or burred, have them dressed. If handles of tools are splintered, broken, or loose, have them replaced.

Tools must always be returned to their proper storage place and not left where they create a hazard.

Do not carry tools in pockets. It is dangerous; especially if tools are sharp or pointed.



Do not use excessive pressure or force on any hand tool or the use of cheaters to apply more force.

Metal measuring tapes having metal strands woven into fabric, brassbound rules, wire or metal bound hose, or rope with wire core **shall not be used** when working on or near energized electrical circuits or equipment.

Tools should not be dropped or thrown from place to place or from employee to employee.

Tools that must be raised or lowered from one elevation to another shall be placed in an approved tool bucket or firmly attached to hand-line (rope).

Employees shall inspect tools prior to use. Damaged or defective tools shall be tagged "Do not operate" and removed from service as soon as the defect or damage is discovered.

Guards shall be in place and operable at all times while the tool is in use. The guard may not be manipulated in such way that will comprise its integrity or compromise the protection in which intended. Guarding shall meet the requirements set forth in ANSI B15.1.

Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with particular PPE necessary to protect them from the hazard.

# 4.4.14 Working in or near Traffic

Working in or near a jobsite that has any form of active traffic presents some unique safety challenges. You must be alert and always remember that the travelling public does not always recognize the danger they pose to workers and they do not always follow safe driving practices. Be alert; look out for your safety and the safety of your fellow workers while working in traffic zones.

- Be visible a minimum of a class 2 reflective vest is required at all times when working in or near traffic. If working under low light conditions, additional protection may be required. Discuss with your supervisor if you feel additional protection is necessary.
- Be visible do not stand behind vehicles, equipment or objects that obscure your visibility or you vision. Do not step out from the front of vehicles or step out into traffic –
- Traffic do not work with your back to traffic or to the traffic flow. Position yourself such that you can watch oncoming traffic and be sure to stay out of the traffic lane.



- Park vehicle as far out of the traffic areas as possible so as not to obscure location of employees from the public and so as not to obscure employee visibility of traffic.
- If you are directing traffic, you must be trained in traffic control and follow the MUTCD (Manual of Uniform Traffic Control Devices) standards.
- Do not position yourself such that you may be caught between vehicles or equipment. Always allow yourself an escape route to be able to get away from errant traffic or equipment.

# 4.4.15 All-Terrain Vehicle Safety

- Always read the owner's manual and make sure that you understand it before operating the gator.
- There is a maximum of one person per seat and riders are not allowed in the cargo area.
- No one under 18 is allowed to drive the Equipment.
- Drive slowly and always use the brakes when going down a hill to prevent it from rolling away from you (Freewheeling).
- There should be no loads heavier than what it is equipped for and all loads should be spread evenly and tied down.
- Speeds and loads should be reduced when traveling over hilly or rough surfaces.
- The engine should be cool and all phones and radios should be turned off while fueling.
- Prevent fire and explosion by using the following tips: Use only non-metal portable fuel containers approved by either Factory Mutual (FM) or Underwritten Laboratory (UL), do not fill tank in an enclosed area, Clean up any fuel spillage with hot water and soap, do not operate or occupy vehicle if any fumes are present, do not cover or obstruct any vent slots at floor area, and close fuel cap tightly.
- Before exiting the vehicle you should always turn off the vehicle, set the parking brake, and remove the key.



- Always have the parking brake on while dumping loads and make sure that
  the vehicle is on a level surface. Also, make sure that everyone is clear of the
  load.
- The vehicle should be inspected daily for leaks, decal and label conditions, broken or missing parts, working lights, and properly inflated tires.
- The driver of the vehicle should always know where the controls are and always use turn signals and headlights.

# 4.4.16 Chainsaw Safety

- While operating a chain saw you should have all of the following on: a helmet system that consists of a helmet, face, and hearing protection, cotton or leather gloves, chainsaw chaps or protective pants, boots with a protective steel toe.
- Make sure the chainsaw has these features and they are working: Chain brake (manual or inertia), Chain catcher, working safety throttle switch, working on / off Switch, and a spark arrester.
- Make sure the carburetor is properly adjusted. If it is not the chainsaw will operate poorly and could cause injury.
- Fill a gas-powered chain saw when the engine is cool. If the saw is out of gas, let it cool 30 minutes before refueling. Do not smoke when refueling the saw! And use a chain saw outdoors only.
- Always make sure that you have plenty of sharp chains or means for sharpening your chain. A dull chain can cause the operator to become tired therefore making it more likely for injury to occur.
- ALWAYS check for hazards. Make sure no limb, tree, etc. could strike you or
  any others around you. Be aware of trees, dead ones specifically, that could
  break off at the top without you knowing and could strike and kill you or
  others. If the tree is under pressure make sure you are aware of which way it is
  going. If you are not sure then cut the tree into smaller sections from the other
  end first to alleviate some of the pressure.
- Leave dangerous trees to the professionals.
- Always carry the chainsaw with the engine off and never cut when you are tired or alone.
- When cutting down a tree make sure by-standers are always at least two "tree lengths" away.



• Always have a planned escape route free of debris. The escape path should be at a 45° angle away from the tree.

# 4.4.17 Brush Cutting

- Wear thick boots while weed eating to protect your feet, wear eye and ear protection, and wear long pants to protect your legs.
- Read the operating manual for your weed eater.
- Before beginning to cut vegetation, clear the trimming area stones, sticks, wire, and other debris prior to weed eating.
- Use a fire-safe muffler in dry conditions.
- Wear relatively tight-fitting clothing and tie back your long hair-- loose clothing and long hair can get caught in the moving parts of a weed eater.
- Cut the engine and disconnect the spark plug wire when making repairs and modifications to the weed eater.
- Wear work gloves while using/working on the weed eater to protect your hands.
- Make sure to use the correct fuel mixture if the weed eater is gas powered and make sure the engine is cooled before fueling.
- Stop the weed eater abruptly if someone comes within 30 to 60 feet of you because weed eaters can throw debris.
- Be sure your weed eater does not have loose belts or ineffective guards and check for damage or wear.
- Keep the weed eater's cutting part beneath waist height.
- Permit the weed eater's engine to return to idle speed when you are not actually trimming and only allow the blade to rotate as fast as it needs to in order to cut your objective vegetation.
- Start the engine on firm ground in an open place, holding the weed eater with two hands while having good balance and footing.



- After use, secure the weed eater in order to avoid gas spillage and or damage when moving the unit.
- Don't allow grass and other debris to pile up on the weed eater because this accumulation is a fire hazard.

## **Burning of Brush**

- Always create a safety zone when burning piles at least 30-100 feet.
- Never use gasoline to start a fire or any other explosive material. Diesel is the most appropriate to use, but if possible, it is better off avoided also.
- Make sure there are no explosive materials in the pile to be burned. An explosion could cause serious injury or death.
- Always have a way to control the fire whether it is by fire lanes or by water and always have a way to put the fire out if it were to get out of control.
- Avoid burning in dry conditions. Your local weather cast usually alerts you
  when there is a burn ban in the area. Burning piles during a burn ban can
  result in huge fines and/or a wildfire.
- If you are going to burn a really big pile it is wise to alert neighbors and the fire department in case of an emergency.

# **4.4.18 Towing Trailers**

- Always inspect the trailer and make sure all tires are inflated properly, all the
  gates, doors and hinges are working properly, and always check the floor to
  make sure there are no rotting spots.
- Make sure the brakes are working and adjusted properly for your load and that the ball is properly sized.
- Hook the safety chains and make sure they do not drag or catch on anything.
   Plug in the electrical system and make sure all the lights and signals are working properly.
- Check for wasp nest. This is a great place for wasp to build a nest since it
  probably will not be used every day and you never know who may be allergic
  to them.



- While traveling always make sure that you have the registration for both the vehicle and trailer, insurance card, and the inspections are up to date.
- Some good tools to keep handy while hauling a trailer would include the following: a basic tool kit, a jack, properly inflated spare tire, first aid kit, fire extinguisher, and chocks for tires, emergency triangles, and fresh water.
- Make sure any tools, buckets, etc. are anchored in place.
- Make sure that you are able to keep a good view of the load you are hauling at all times and be cautious of other drivers and extreme driving conditions.
- Always have someone help you back up a trailer.

# 4.4.19 Snake Bites

#### **Snakebite Treatment**

An ounce of prevention is worth a ton of first aid:

- Wear long pants and boots taller than the ankle.
- Avoid tall brush and deep, dark crevices.
- Make plenty of noise and vibration while walking.
- Do not approach snakes, avoid them.
- Do not expect rattlesnakes to make any noises.

# Self-Care

Common sense will guide your efforts if you are bitten by a snake or are witness to someone else being bitten. Even a bite from a nonvenomous snake requires excellent wound care. The victim needs a tetanus booster if he or she has not had one within 5 years. Wash the wound with large amounts of soap and water. Inspect the wound for broken teeth or dirt. Take the following measures:

- Get away from the snake to prevent a second bite or a second victim. Snakes
  can continue to bite and inject venom with successive bites until they run out
  of venom.
- Identify or be able to describe the snake, but only if it can be done without significant risk for a second bite or a second victim.
- Safely and rapidly transport the victim to an emergency medical facility unless the snake has positively been identified as harmless (non-venomous). Remember, misidentification could be fatal. A bite without initial symptoms can still be dangerous or even fatal.



- Provide emergency medical care within the limits of your training.
- Remove constricting items on the victim, such as rings or other jewelry, which could cut off blood flow if the bite area swells.
- If you are in a remote area in which transport to an emergency medical facility will be prolonged, you should apply a splint to the affected limb. If you do apply a splint, remember to check periodically to ensure that it is not cutting off blood flow. Check to make sure toes and fingers are still pink and warm, that the limb is not going numb, and that pain is not getting worse.
- If you have been bitten by a dangerous snake and have no major local wound effects, you may apply a pressure immobilizer. This technique is mainly used for Australian snakes or sea snakes. Wrap a bandage at the bite site and up the extremity with a pressure at which you would wrap a sprained ankle. Then immobilize the extremity with a splint, with the same precautions concerning limiting blood flow. This technique may help prevent life-threatening systemic effects of venom, but may also worsen local damage at the wound site if significant symptoms are present there.
- Applying mechanical suction (such as with a Sawyer Extractor) is highly
  unlikely to remove any significant amount of venom, and may increase tissue
  damage. This is in contrast to past recommendations by many experts.
- The two guiding principles for care often conflict during evacuation from remote areas.
- First, the victim should get to an emergency care facility as quickly as possible because antivenin (medicine to counteract the poisonous effects of the snake's venom) could be life-saving.
- Second, the affected limb should be used as little as possible to delay absorption of the venom.
- A number of old first aid techniques have fallen out of favor. Medical research supports the following warnings:
  - ➤ **Do NOT** cut and suck. Cutting into the bite site can damage underlying organs, increase the risk of infection, and does not result in venom removal.
  - > **Do NOT** use ice. Ice does not deactivate the venom and can cause frostbite.
  - ➤ **Do NOT** use electric shocks. The shocks are not effective and could cause burns or electrical problems to the heart.
  - ➤ **Do NOT** use alcohol. Alcohol may deaden the pain, but it also makes the local blood vessels bigger, which can increase venom absorption.



➤ **Do NOT** use tourniquets or constriction bands. These have not been proven effective, may cause increased tissue damage, and could cost the victim a limb

# 4.4.20 Heat Stress

### **Heat Stroke**

Heat stroke is the most serious heat-related disorder. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

# **Symptoms**

Symptoms of heat stroke include:

- Hot, dry skin (no sweating)
- Hallucinations
- Chills
- Throbbing headache
- High body temperature
- Confusion/dizziness
- Slurred speech

#### First Aid

Take the following steps to treat a worker with heat stroke:

- Call 911 and notify their supervisor.
- Move the sick worker to a cool shaded area.
- Cool the worker using methods such as:
  - > Soaking their clothes with water.
  - > Spraying, sponging, or showering them with water.
  - Fanning their body.

### **Heat Exhaustion**

Heat exhaustion is the body's response to an excessive loss of the water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.

#### **Symptoms**

Symptoms of heat exhaustion include:

• Extreme weakness or fatigue



- Heavy Sweating
- Dizziness, confusion
- Nausea
- Clammy, moist skin
- Pale or flushed complexion
- Muscle cramps
- Slightly elevated body temperature
- Fast and shallow breathing

#### First Aid

Treat a worker suffering from heat exhaustion with the following:

- Have them rest in a cool, shaded or air-conditioned area.
- Have them drink plenty of water or other cool, nonalcoholic beverages.
- Have them take a cool shower, bath, or sponge bath.

#### **Heat Syncope**

Heat syncope is a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

## **Symptoms**

Symptoms of heat syncope include:

- Light-headedness
- Dizziness
- Fainting

#### First Aid

Workers with heat syncope should:

- Sit or lie down in a cool place when they begin to feel symptoms.
- Slowly drink water, clear juice, or a sports beverage.

#### **Heat Cramps**

Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

### **Symptoms**

Muscle pain or spasms usually in the abdomen, arms, or legs.

#### First Aid

Workers with heat cramps should:

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous work for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.



- Seek medical attention if any of the following apply:
- The worker has heart problems.
- The worker is on a low-sodium diet.
- The cramps do not subside within one hour.

## **Heat Rash**

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.

## **Symptoms**

Symptoms of heat rash include:

- Heat rash looks like a red cluster of pimples or small blisters.
- It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

#### First Aid

Workers experiencing heat rash should:

- Try to work in a cooler, less humid environment when possible.
- Keep the affected area dry.
- Dusting powder may be used to increase comfort.

#### **Recommendations for Workers**

Workers should avoid exposure to extreme heat, sun exposure, and high humidity when possible. When these exposures cannot be avoided, workers should take the following steps to prevent heat stress:

- Wear light-colored, loose-fitting, breathable clothing such as cotton.
- Avoid non-breathing synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of day.
- Take more breaks in extreme heat and humidity.
- Take breaks in the shade or a cool area when possible.
- Drink water frequently. Drink enough water that you never become thirsty.
- Avoid drinks with caffeine, alcohol, and large amounts of sugar.
- Be aware that protective clothing or personal protective equipment may increase the risk of heat stress.
- Monitor your physical condition and that of your coworkers.



# **4.4.21 Boat Safety**

Operating a boat or travelling as a passenger in any boat, large or small, presents some unique safety issues. Even those who are excellent swimmers can be seriously or fatally injured when they are involved in a boat accident or event. The following safety policies are to be followed by all passengers and operators of boats used for Neel - Schaffer activities.

- Coast Guard approved life jackets are to be worn by all boat occupants at all times when on a boat. The life jackets are to be put on prior to getting on the boat and are to be worn until back on land. Persons loading and unloading gear onto or from the boat are required to wear life jackets.
- Boats shall be operated at speeds safe for boat size, type and for conditions on the water. Speeding is prohibited.
- Occupants of the boat shall not engage in any type of horseplay, practical jokes and the likes.
- Occupants of the boat are to remain seated at all times while the boat is in motion
- Company boats are provided for business use only and are to be occupied by assigned employees and clients who have business purpose to occupy the boat. No unauthorized personnel are to be allowed on board and no unauthorized usage of the boat is allowed.
- The consumption/use or prior consumption/use of alcohol and/or drugs or narcotics by any passenger or operator of a boat during or prior to operation of a boat is strictly prohibited. The transport or possession of alcohol and/or drugs/narcotics in any such boat/vessel is strictly prohibited. Violation of this policy shall result in termination of employment by Neel-Schaffer.
- The party chief or senior employee present is responsible for evaluating weather and visibility along with suitable water conditions prior to any boat operations. Boat operations are to be suspended when these conditions are hazardous to the safety of the crew and/occupants. Boat operations shall not be conducted when small craft advisories are in effect.
- Boats shall have adequate running lights and anchor lights which shall be
  utilized during all conditions of poor, low or limited visibility. A supply of
  signal flares (non-propellant) will be provided for each boat for emergency
  use.
- All cabin boats and skiffs provided by Neel-Schaffer have flotation tanks and buoyant material capable of floating the boat equipment and crew. Alterations to the flotation equipment are strictly prohibited.



- An anchor, properly sized for the boat, shall be maintained on the bat along with 150 feet of anchor rope.
- Cabin boats 16feet or longer shall have a U. S. Coast guard approved horn that is audible for a distance of n less than 1/4mile(1320feet).
- A U.S. Coast Guard approved fire extinguisher is provided for each boat and it shall be mounted in an accessible location on the boat. Fire extinguishers shall be inspected and approved for usage no less than once each six months.
- The boat operator shall have all applicable licenses and obey all rules and regulations regarding safe boat operation.
- A certification of boat registration shall be maintained at all times. The appropriate state registration number shall be displayed on all boats.

# 4.4.22 Benzene Exposure Control Program

# **Scope**

Benzene is a colorless, flammable liquid with a sweet odor. The United States Department of Health and Human Services has determined that benzene is a human carcinogen. Employee exposure to benzene is regulated by OSHA and is covered in 29 CFR 1910.1028. OSHA has established an 8-hour Time Weighted Average (TWA) Permissible Exposure Limit (PEL) of 1 ppm, a Short Term Exposure Limit (STEL) of 5 ppm for 15 minutes and an action level of 0.5 ppm. Benzene liquid is highly flammable and vapors may form explosive mixtures in air. The major **effect of benzene** from long-term exposure is on the blood. (Long-term exposure means exposure of a year or more.) **Benzene** causes harmful **effects** on the bone marrow and can cause a decrease in red blood cells, leading to anemia. Fire extinguishers shall be readily available. Smoking is strictly prohibited in areas where benzene is used or stored.

This procedure applies to all Neel-Schaffer's jobs where employees may be exposed to benzene, such as refining sites, while performing plant maintenance, or other field operations, at or above an 8-hour TWA action level of 0.5 ppm and provides the framework for establishing a job specific Benzene Exposure Control Plan.

# Responsibility

The Neel-Schaffer Project Manager who completes the Pre-Project Safety Planning Checklist has the responsibility for identifying potential employee exposures to benzene during the course of the project. If the work will involve employee exposures to benzene above the OSHA PEL's a site-specific exposure control plan will be required.

The Site Supervisor, with assistance from the Project Manager, has the overall responsibility for developing and implementing the site specific exposure control plan shown as Attachment 1 of this procedure.



The Project Manager and the Site Supervisor are responsible for working with the client to:

- Identify benzene regulated areas
- Identify jobs or tasks where exposure to benzene is probable
- Identify engineering and workplace controls to eliminate or reduce employee exposures
- Where engineering and workplace controls are not sufficient to adequately protect personnel, identify the types of personal protective equipment needed as required by 29 CFR 1910.133 & 1910.134
- Develop a schedule for plan implementation
- Implement an Industrial Hygiene Monitoring and Medical Surveillance Program as outlined in 29 CFR 1910.1028
- Revise the site specific program when conditions or work practices change or the results of the Industrial Hygiene Monitoring or Medical Surveillance program so indicate
- Train personnel on the provisions of this procedure and the corresponding OSHA standard
- Audit compliance with this procedure and the associated work practices
- Supervisors are responsible for:
  - Verifying that employees are properly trained and equipped for the job
  - Monitoring compliance with the provisions of this procedure and the associated work practices taking appropriate corrective action as needed
  - ➤ Neel-Schaffer's' employees are responsible for completing the required training, complying with the provisions of this procedure and the associated work practices and notifying supervision of any noted problems

## **Procedure**

Hazard Assessment and Site Specific Exposure Control Plan: Possible exposures to benzene and other hazardous materials should be considered when completing the Pre-Project Safety Planning Checklist. If employees will be exposed to benzene, a site-specific Benzene Exposure Control Plan shall be developed by the Project Manager. This will require a joint meeting between Neel-Schaffer and client personnel. Wherever practical, Neel-Schaffer will adopt and participate in the client's existing industrial hygiene monitoring and medical surveillance programs to avoid duplication of efforts. This will also aid in comparing and analyzing data if the monitoring and medical evaluations are performed by the same personnel. If the client does not have, or does not wish to allow Neel-Schaffer to participate in their programs, Neel-Schaffer will implement their own. Neel-Schaffer must obtain a copy of all records for retention in accordance with 29 CFR 1910.1020.

With respect to exposure monitoring, if the client's personnel are performing tasks identical to what our personnel will be doing, Neel-Schaffer may be able to rely on the client's



monitoring data. If the tasks are different or the client has no monitoring data, it will be necessary for Neel-Schaffer to perform the required monitoring.

**Regulated Areas:** Regulated areas shall be established wherever the airborne concentration of benzene exceeds, or can reasonably be expected to exceed, the OSHA 8-hour TWA of 1 ppm or the STEL of 5 ppm for 15 minutes. Access to regulated areas shall be limited to authorized personnel to minimize the number of exposed personnel. Signs shall be posted at the entrance to regulated areas. The signs shall bear the following legend:

# Danger - Benzene - Cancer Hazard - Flammable - No Smoking Authorized Personnel Only - Respirator Required

**Exposure Monitoring**: The OSHA Benzene Standard 29 CFR 1910.1028 specifies the frequency of exposure monitoring. Initial monitoring is required to obtain representative 8-hour TWA employee exposures for each job class in each work area. This initial monitoring must be performed within 30 days of introduction of benzene into the work area. All Industrial Hygiene monitoring will be performed under the direction of a Certified Industrial Hygienist. If the initial monitoring reveals employee exposure levels at or above the action level but below the TWA, additional monitoring shall be done for each employee at least once a year.

If the initial monitoring reveals employee exposure levels above the 8-hour TWA, additional monitoring for each such employee must be performed at least every six months. Additional monitoring must be performed if there are any changes in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to benzene. If any spills or releases occur, post incident monitoring must be performed to verify that exposure levels have returned to levels that existed before the incident. Post-incident monitoring may be done with personnel or area monitors.

**Employee Notification:** Within 15 days of receipt of monitoring data, each affected employee must be notified of the results in writing either individually or by posting the results in an appropriate location that is accessible to affected personnel. If PEL's are exceeded, the written employee notification must list the action taken or to be taken to bring exposures below the PEL.

**Engineering Controls and Work Practices**: To the extent possible engineering controls and work practices will be used to maintain employee exposure levels below the PEL's. Engineering controls and work practices may include but are not limited to; vapor control systems, venting, purging, flushing and line breaking procedures.

**Personal Protective Equipment (PPE):** PPE shall be provided at no cost to the employee and worn when:



- Engineering controls are being implemented
- Engineering controls are not feasible or do not achieve the appropriate level of control
- During emergencies

Depending on exposure, the appropriate PPE may include skin, eye and respiratory protection. This may require revision of the Neel-Schaffer site-specific Respiratory Protection and Personal Protective Equipment Procedures in accordance with the requirements of 29 CFR 1910.134 (Respiratory Protection) and 29 CFR 1910.133 (PPE). In addition, Table 1 of 29 CFR 1910.1028 must be used when selecting respiratory protection. Respiratory protection provided shall be NIOSH approved.

#### **Medical Surveillance**

A medical surveillance program must be implemented and offered to all Neel-Schaffer employees who may be exposed to benzene above the action level for 30 or more days a year and employees who may be exposed to benzene above the PEL's for more than 10 days a year. Employees who were exposed to more than 10 ppm of benzene for 30 or more days in a year prior to the effective date of the OSHA Standard must also be included in the Medical Surveillance Program. The program will be administered in accordance with the requirements of 29 CFR 1910.1028. Neel-Schaffer will select an Occupational Physician to handle all medical examinations and will provide the physician with a copy of 29 CFR 1910.1028 and 1910.134 as well as a job description for each employee. Each employee will have access to his / her personal medical records and physician's opinion letters as required by 29 CFR 1910.1020.

## Training

Neel-Schaffer personnel working on jobs where benzene is present will receive the following training when initially assigned to the area:

- Hazard Communication Training as outlined in 29 CFR 1910.1200 (h) (1) and (2)
- An explanation of the requirements of 29 CFR 1910.1028 including Appendices A and B
- Where a copy of the pertinent information and the OSHA Standard on Benzene is kept onsite and how it can be accessed
- A description of the industrial hygiene monitoring and medical surveillance program
- Site specific emergency plans

Refresher training shall be provided at least annually for all Neel-Schaffer personnel with exposure records above the level of 0.5 ppm (8-hr. TWA).



**Schedule for Plan Implementation:** The Neel-Schaffer Site Supervisor or designee and the client shall mutually agree on a schedule for implementing any identified engineering controls. However, the following program elements must be in place before Neel-Schaffer personnel are allowed to work in a benzene-regulated area:

- Regulated areas must be identified and signs posted at each entrance
- Pre-job assignment medical evaluations completed with physician's opinion letters on file
- Safe work practices have been developed
- Appropriate PPE is readily available
- Employee training has been completed and documented
- Initial employee exposure monitoring has been scheduled for completion within 30 days

**Plan Access:** This plan may be reviewed by OSHA Representatives, the client or host employer and all affected Neel-Schaffer personnel at any time during normal business hours.

**Plan Update and Retention:** A copy of this site-specific plan will be kept on the job for the duration of the project. It shall be kept up to date by the Neel-Schaffer Site Supervisor or designee. The plan shall be reviewed and revised as appropriate based on:

- Results of industrial hygiene monitoring
- Results of physician's opinion letters or recommendations
- Changes in the job including but not limited to:
- Process changes
- Work practices or procedures
- Scope of work

Upon completion of the project, the original copy of this document shall be forwarded to Corporate Safety Manager for retention in accordance with Neel-Schaffer record retention policy.

## **Evaluation**

Evaluations of the site-specific Benzene Exposure Control Plan will be conducted at least annually by the Site Safety Supervisor, or during a corporate safety audit. During the evaluation the following will be assessed:

- The site-specific exposure plan is current and readily accessible
- The required training has been performed and documented
- Medical evaluations have been completed according to schedule with physician's opinion letters on file
- Industrial Hygiene monitoring records are up to date and available for employee review
- Engineering controls are in place and effective



- Safe work practices are being followed
- The appropriate PPE is being worn correctly.

# 4.4.23 <u>Asbestos Management Program</u>

Neel-Schaffer is implementing this program to protect workers that may be exposed to asbestos on worksites to include multi-contractor worksites. It is unlikely that our employees will be using material that contains asbestos fibers or involved with the removal of asbestos. With that said, this program covers asbestos protection at the contractor level. The Neel-Schaffer Site Supervisor will ensure that the provisions of this plan are followed based on the degree of asbestos exposure determined by the Job Hazard Analysis.

Asbestos is a widely used material in many manmade products. Asbestos is made up of long, thin fibers that resemble fiberglass. These fibers are very strong and are resistant to heat and corrosive chemicals. Because of these properties, asbestos is used in heat and fire resistant fabrics and as thermal insulation.

Products that may contain asbestos include but are not limited to: pipe-covering, asbestos cloth, gaskets, packing material, thermal seals, adhesives boiler insulation, transit boards, asbestos cement pipe, fireproofing spray, joint compound, vinyl floor tile, ceiling tiles, acoustical textures, roofing products duct insulation for heating, ventilation, and HVAC systems, insulated electrical wire, brake and clutch assemblies, and fire resistant drywall. Some of these products contain a very high amount of asbestos, while others contain small amounts.

Asbestos fibers that are inhaled or ingested can create several different painful, disabling, and fatal lung and membrane tissue diseases. Some of these diseases include asbestosis, lung cancer, mesothelioma, stomach, and colon cancer. The symptoms of these diseases generally do not appear for 20 or more years after initial exposure. In 1972, Occupational Safety and Health Administration (OSHA) started to regulate asbestos exposure in general industry causing a significant decline in the use of asbestos-containing materials. OSHA also revised the standard to include provisions that apply to workers performing brake and clutch repair and to workers doing housekeeping in facilities where asbestos-containing materials (ACM) exist.

# **Permissible Exposure Limits (PELs)**

Time-weighted average limits (TWA). No employee is allowed to be exposed to an airborne concentration of asbestos in excess of **0.1 fibers per cubic centimeter** (**f/cc**) of air as an eight-hour TWA.

Excursion limit (EL). Neel-Schaffer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of **1.0** f/cc as averaged over a sampling period of 30 minutes.



# **Toxicology of Asbestos**

# **Routes of entry**

Workers are primarily exposed to asbestos by breathing in fibers suspended in air. These asbestos fibers usually come from the degradation or breakdown of manmade products. Asbestos in poor condition can be easily crumbled and will release a higher concentration of fibers then new or good condition asbestos.

Inhalation. When asbestos fibers are inhaled into the lungs, some of the fibers will be deposited in the air passages and on the cells that make up the lungs. Very few of these fibers move through the lungs into the body. Instead, most fibers are removed from the lungs by being carried away in a layer of mucus to the throat, where they are swallowed into the stomach. This usually takes place within a few hours, but fibers that are deposited in the deepest parts of the lung are removed more slowly, and some can remain in place for many years and may never be removed.

*Ingestion* - If asbestos fibers are swallowed, nearly all of them pass along the intestines and are excreted within a few days. A small number of fibers become stuck in the cells that line the stomach or intestines, and a few penetrate all the way through and get into the blood. Fibers will also stick into the lining of the abdomen (peritoneum).

Health effects The U.S. Department of Health and Human Services has determined that asbestos is a known carcinogen. Studies have shown that workers that were exposed to high levels of asbestos in the past have increased chances of getting two types of cancer: cancer of the lung tissue, and mesothelioma, a cancer of the thin membrane that surrounds the lung and other internal organs. Both lung cancer and mesothelioma are usually fatal. Workers breathing asbestos also may have an increased chance of getting cancer in other locations such as stomach, intestines, esophagus, pancreas, and kidneys. Breathing asbestos can also cause a slow accumulation of scar-like tissue in the lungs and in the membrane which surrounds the lungs. This scar-like tissue does not expand and contract like normal lung tissue and breathing becomes difficult. This lung tissue scaring is called asbestosis. Cigarette smoking can also increase the risk of developing lung cancer when combined with asbestos exposure by up to 80 times.

# Signs & Symptoms of Asbestosis

Some of the early symptoms of asbestosis include: shortness of breath; cough that produces little or no sputum; and a general sick feeling. Late symptoms include: Fitful sleep; appetite loss; chest pain; hoarseness; coughing blood; symptoms of congestive heart failure; and bluish finger nails. It is important that both management and employees are aware of these symptoms so that workers can seek medical attention to prevent any further lung damage.

# **Exposure Monitoring**

Workplaces that may contain asbestos or asbestos containing material shall be monitored to determine the airborne fiber concentration. Worker 8-hour TWA and excursion levels will be



determined and documented to indicate worker exposure. Initial monitoring also must be performed for all employees who are, or may reasonably be expected to be, exposed to airborne concentrations of asbestos at or above the TWA or EL unless monitoring results conducted after March 31, 1992, meet all other standard-related requirements and the collected data demonstrate that asbestos is not capable of being released in airborne concentrations at or above the TWA and/or EL when materials are being processed, used, or handled. If initial monitoring indicates that exposures are above the TWA and/or EL, periodic monitoring must be conducted at intervals no greater than every 6 months.

If either initial or periodic monitoring statistically indicates that employee exposures are below the TWA and/or EL, monitoring may be discontinued for those employees whose exposures are represented by such monitoring. Monitoring will be reinitiated whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to asbestos above the TWA and/or EL, or when there is reason to suspect that a change may result in new or additional exposures above the TWA and/or EL.

Affected employees and their representatives must be allowed to observe monitoring and must be notified in writing, either individually or by posting results in an accessible location within 15 working days after the receipt of the results of monitoring. This written notification must contain the corrective action being taken to reduce employee exposure to asbestos on or below the TWA and/or EL whenever monitoring results indicate that the TWA and/or EL has been exceeded. If monitoring is being observed in a regulated area, the observer must be provided PPE.

# **Regulated Areas**

A regulated area must be established and set apart wherever airborne concentrations of asbestos and/ or presumed asbestos-containing material (PACM) exceed the TWA and/ or EL. Only authorized personal may enter regulated areas. All persons entering a regulated area must be supplied with and are required to use an appropriate respirator. No smoking, eating, drinking, chewing tobacco or gum, or applying cosmetics in regulated areas is allowed. This will reduce the risk of ingesting asbestos.

Warning signs must be displayed at each regulated area and must be posted at all approaches to regulated areas. Where necessary, signs must bear pictures or graphics, or be written in appropriate language so that all employees understand them. These signs must bear the following information:

In addition, warning labels must be attached to all asbestos products (raw materials, mixtures, scrap) and to all containers of asbestos products, including waste containers. The labels must comply with the requirements of 29 CFR 1910.1200(f) of OSHA's Hazard Communication Standard and must include the following information:



# DANGER ASBESTOS

Cancer and Lung Disease
Hazard Authorized
Personnel Only
Respirators and Protective
Clothing Are Required In This Area

# DANGER Contains Asbestos Fibers Avoid Creating Dust Cancer and Lung Disease Hazard

# **Engineering Controls**

Before any work is done on a site that may contain asbestos, building owners must identify the presence, location, and quantity of asbestos containing materials (ACM) or possible asbestos containing materials (PACM) at the worksite. Asbestos work is divided into four categories, each with specific requirements.

- Class I Removal of Thermal System Insulation (TSI) & surfacing ACM/PACM
- Class II Removal of other ACM such as wallboards, resilient flooring, roofing, siding, and construction mastics
- Class III Repair & maintenance work where TSI & surfacing material is likely to be disturbed.
- Class IV Maintenance and custodial activities in contact with ACM

Regulated areas must be established for all Class I, II, and III work and for all other work in which the PEL is exceeded. Class I and II work requires critical barriers and all classes require signs and barrier tape. Heating, ventilation, and air conditioning (HVAC) systems must be isolated in the regulated area by sealing with a double layer of 8-mil-thick polyethylene; impermeable drop cloths must be placed on surfaces beneath all removal activity. Negative pressure enclosures (NPEs) are required for all class I work where it is feasible. The NPE must have a minimum of four air changes per hour and a negative pressure of at least 0.02 inches of water. The NPE must be smoke-tested at the beginning of each shift and all electrical equipment should have ground fault circuit interrupters. HEPA-filtered



exhaust should be used to move air away from the breathing zone of employees for class I jobs where the PEL is exceeded.

To the extent feasible, engineering controls must be used to reduce and maintain employee exposure at or below the TWA and/or EL. The standard requires the following measures to be instituted:

- Design, construct, install, and maintain local exhaust ventilation and dust collection systems according to the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979.
- Provide a local exhaust ventilation system for all hand-operated and poweroperated tools that produce or release fibers.
- Use a NPE / HEPA vacuum system or a low-pressure / wet cleaning method during automotive brake and clutch inspection, disassembly, repair, and assembly operations.

An equivalent method can also be used if the method being used achieves the required exposure reductions.

# **Work Practice Controls**

Proper work practice controls should be used whenever possible to reduce the concentration of asbestos fibers in the workplace air. Below is a list of several work practice methods that should be used:

- Do not remove cement, mortar, coating, grout, plaster, or similar materials containing asbestos from bags, cartons, or other containers that are being shipped without wetting, enclosing, or ventilation.
- Use only wet cleanup methods to remove ACM waste or debris when feasible.
- All waste and debris must be cleaned up promptly and placed in leak proof containers.
- HEPA-filtered vacuums should be used to remove loose dust in the area.
- Glove bags may be used for the removal of TSI or other material that can be totally enclosed within the bag. Glove bags must be smoke tested before use to insure that there are no leaks.
- Tiles must be removed intact unless it is demonstrated not possible.
- Resilient flooring must be removed using wet methods, unless heat is being used
- Roofing material must be removed intact using wet methods to the extent feasible.
- Cutting machines should be continuously misted and any dust must be immediately cleaned with a HEPA vacuum.
- Roof-level HVAC intakes must be isolated while roof work is being performed.



• Compressed air must never be used for asbestos removal unless in conjunction with enclosed ventilation system.

Employee rotation cannot be used as a means of reducing exposure to asbestos.

Where engineering and work practice controls have been instituted but are insufficient to reduce exposure to the required level, respiratory protection must be used to supplement the controls.

Where the TWA and/or EL is exceeded, a written program to reduce employee exposure to or below the TWA and EL by means of engineering and work practice controls and by the use of respirators where required and permitted must be established and implemented.

# **Respiratory Protection**

If engineering and work practice controls do not reduce the asbestos concentration to below the TWA and/or EL a respirator program must be used. Respiratory use must comply with the Respirator Program in this safety manual.

Respirators must be selected, provided, and used in the following circumstances:

- While feasible engineering and work practice controls are being installed or implemented;
- During maintenance and repair activities, or other activities where engineering and work practice controls are not feasible;
- In work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the TWA and/or EL; and
- In emergencies.

Respirators must be selected from among those approved by the Mine Safety and Health Administration (MSHA) and the National Institute of Occupational Safety and Health (NIOSH) under the provisions of Title 30, CFR Part II. A powered, air purifying respirator, in lieu of any negative-pressure respirator, when the employee chooses it, and when the respirator provides adequate protection must be provided. All protection is to be provided at no cost to the employee.

Employees who use a filter respirator must use a high-efficiency filter and must change filters whenever an increase in breathing resistance occurs. Employees who wear respirators must be allowed to wash their faces and respirator face pieces whenever necessary to prevent skin irritation.

An employee must not be assigned to tasks requiring the use of respirators if a physician determines that the employee is unable to function normally wearing a respirator, or that the safety or health of the employee or other employees will be impaired by the use of a respirator.



The respirator issued to an employee must be tested to ensure that it fits properly and exhibits minimum leakage. Quantitative or qualitative fit tests, whichever are appropriate, must be performed at the time of initial fitting and at least every 6 months for each employee wearing negative-pressure respirators.

# **Personal Protective Equipment and Clothing**

If workers are exposed to asbestos above the TWA and/or EL, or where the possibility of eye irritation exists, appropriate protective equipment shall be provided at no cost to the employee. Management will ensure that this PPE is used at all times of possible exposure. This protective equipment can include:

- Coveralls or similar full-body work clothing;
- Gloves, head covering, and foot covering; and
- Face shields, vented goggles, or other PPE that complies with 29 CFR 1910.133.

Asbestos-contaminated work clothing must be removed in change rooms and placed and stored in closed, labeled containers that prevent distribution of the asbestos into the ambient environment. Protective clothing must be cleaned, laundered, repaired, and replaced to maintain effectiveness.

Clean protective clothing and equipment must be provided at least weekly to each affected employee. Any person who launders or cleans asbestos contaminated clothing or equipment must be informed of the potentially harmful effects of asbestos. In addition, the person doing the cleaning or laundering must be properly instructed on how to effectively prevent the release of airborne fibers in excess of the PEL. Contaminated clothing and equipment taken out of change rooms or the workplace for cleaning, maintenance, or disposal must be transported in sealed impermeable bags, or closed impermeable containers and labeled.

# **Hygiene Facilities and Practices**

Employees who are required to work in regulated areas must be provided with clean change rooms, shower facilities, and lunchrooms. Change rooms must have two separate lockers or storage facilities - one for contaminated clothing, and the other for street clothing. They must be far enough apart to prevent accidental contamination of the employee's street cloths. Employees must shower at the end of the shift and cannot leave the workplace wearing any clothing or equipment worn during the work shift.

Lunchroom facilities must have a positive-pressure filtered air supply and must be readily accessible to employees. Employees cannot enter the lunchroom with protective work clothing or equipment unless surface asbestos fibers have been removed by vacuuming or some other method that removes dust without causing the asbestos to become airborne. Employees must wash their hands prior to eating, drinking, or smoking.



# Housekeeping

All surfaces must be maintained as free as possible of accumulation of waste containing asbestos. The preferred methods of cleanup are wet cleaning and/or vacuuming. Compressed air must never be used to clean surfaces contaminated by asbestos. Equipment used for cleanup must be emptied in a manner that minimizes the reentry of asbestos into the workplace.

All spills and sudden releases of asbestos or ACM must be immediately cleaned up. Sanding asbestos-containing floor is prohibited. Low abrasion pads at speeds lower than 300 rpm and wet methods are authorized for use. If a floor has sufficient finish, brushing or dry buffing is permissible. If workers are required to buff or wax asbestos containing resilient floors, building and facility owners must inform employees doing such housekeeping work of the asbestos. Asbestos waste and asbestos-contaminated clothing consigned for disposal must be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled impermeable containers.

# **Communication of Hazard to Employees**

The communication of asbestos hazards to employees is a vital part of the asbestos protection program. Employees engaged in housekeeping activities in public and commercial buildings with installed ACM may be exposed to asbestos fiber. Building owners are often the only and the best source of information concerning the presence of previously installed asbestos containing building materials. The standard requires building owners and employers of potentially exposed employees to institute the following practices:

- In buildings built before 1980, treat TSI, sprayed-on, and troweled-on surfacing materials as ACM, unless properly analyzed and found not to contain more than 1 percent asbestos.
- Train employees who may come in contact with ACMs to deal with them safely.
- Inform employers of employees performing housekeeping activities of the presence and location of ACMs and presumed ACMs that may have contaminated the area.
- Asphalt and vinyl flooring installed before 1980 also must be treated as asbestos containing.
- Keep records of the presence, location, and quantity of ACMs and PACMs
  present in the building for the duration of ownership and transfer these records
  to a successive owner.

## **Employee information and training**

A documented training program must be established for all employees who are exposed to asbestos concentration at or above the TWA and/or EL. Training must be provided prior to or



at the time of initial assignment and at least yearly thereafter. The training program must include the following:

- Health effects associated with asbestos exposure;
- The relationship between smoking and exposure to asbestos producing cancer;
- Operations that may release asbestos fiber and response to fiber release episodes;
- Engineering controls and work practice associated with the employee's assignment;
- Specific procedures that are implemented to protect employee health;
- The purpose, proper use, and limitation of respirators and protective clothing;
- Purpose and description of the medical surveillance program and housekeeping;
- The contents of the asbestos standard 29 CFR 1910.1001 & appendices;
- Contact numbers and names for further information on asbestos; and
- Posting and labeling requirement for asbestos and related materials.

All training materials must be available to the employees at no cost and upon request, to the Assistant Security for OSHA and the director of NIOSH. A copy of this standard 29 CFR 1910.1001 and its appendices will be readily available without cost to all affected employees. Copies of OSHA standards can be obtained from government agencies or commercial companies.

# **Medical Surveillance**

A medical surveillance program must be made available for all employees who are or will be exposed to airborne asbestos at or above the TWA and/or EL. All medical examinations and procedures must be performed by or under the supervision of a licensed physician. Such exams must occur at a reasonable time and place and shall be provided at no cost to the employee. At a minimum, the medical exams must include: medical and work history; a complete physical examination with emphasis on the respiratory system, cardiovascular system, and digestive tract; a chest X-ray; pulmonary function tests; and respiratory disease standard questionnaire.

There are three types of medical examinations that must be given to exposed employees:

- Pre-placement examination before an employee is assigned to an occupation exposed to airborne concentrations of asbestos above the TWA and/or EL.
- Periodic examination shall be made available annually
- Termination examination given within 30 calendar days before or after termination of employment, to any employee exposed above the TWA and/or EL.

If adequate records exist and show the employee has been examined in accordance with the standard within the past year, no additional medical exam is required. A pre-employment medical examination may not be used unless the employer pays for it.

The examining physician will be provided with a copy of the standard and Appendices D and E; a description of the affected employee s duties as they relate to his or her exposure; the



employee's actual or anticipated exposure level; a description of any personal protective and respiratory equipment used or to be used; and information from previous medical examinations.

Once the physician has completed the exam, the employer must obtain a written signed opinion from the physician. It must contain the results of the medical examination and the physician's opinion as to whether the employee has any detailed medical conditions that would place the employee at an increased risk from exposure to asbestos; and recommended limitations on the employee or upon the use of PPE such as respirators.

The report should also include a statement that the employee has been informed by the physician of the results of the exam and a statement by the physician of the increased risk of lung cancer attributed to the combined effects of smoking and asbestos exposure. The physician is not to reveal, in the written opinion given to Human Resources, specific findings or diagnoses unrelated to occupational exposure to asbestos. A copy of the physician s written opinion must be provided to the affected employee within 30 days of its receipt.

# Recordkeeping

Accurate employee exposure records must be kept for up to a minimum of 30 years. An accurate record for each employee subject to medical surveillance will be maintained. The medical surveillance records must be maintained for the duration of employment plus 30 years in accordance with 29 CFR 1910.20. In addition, the all employee training records for one year beyond the last date of employment by the employee must be maintained. All records must be made available to the OSHA Assistant Secretary, the Director of NIOSH, affected employees, former employees, and designated representatives.

If Neel-Schaffer ceases to do business and there is no successor to receive the records for the prescribed period, the Director of NIOSH must be notified at least 90 days prior to the disposal of records. If handling, using, or processing any products made from or containing asbestos are exempted, accurate records of objective data that exempt these employer s reliance upon the date must be maintained. Building and facility owners also are required to maintain records about the presence, location, and quantity of ACM and PACM in the building and/or facility. These records must be kept for the duration of ownership and must be transferred to the successive owners.

## 4.4.24 Hexavalent Chromium

Neel-Schaffer will provide initial training prior to or at time of initial assignment. Training will be understandable and will ensure each employee can demonstrate knowledge of the health hazards associated with Hexavalent chromium exposure; location, manner of use, and release of chromium in the workplace; engineering controls and work practice controls; purpose, proper selection, fitting, proper use and limitations of respirators and protective clothing; Emergency procedures; measures employees can take to protect themselves from exposure; purpose and description of medical surveillance program; contents of the standard.



A copy will be made readily available without cost to all affected employees. Training will be documented.

Supervisors will ensure their employees are not exposed in excess of the permissible exposure level. This will be done by representing the employee's exposure without regard to the use of respiratory protection.

Supervisors will provide for monitoring or measuring of employee exposure. Periodic monitoring shall be conducted at least every 6 months if initial monitoring shows employee exposure. Air monitoring will be performed at the beginning of each job task. If exposure monitoring results indicate exposure is above the PEL, written notification of the corrective action taken to reduce exposure to or below the PEL will be required.

All regulated areas must be established when an employee's exposure is or expected to be in excess of the PEL. Regulated areas shall be marked with warning signs to alert employees. Access is restricted to "authorized persons".

Engineering and work practice controls should be provided to reduce exposure to the lowest feasible level. If employees can demonstrate that such controls are not feasible, employer shall use engineering/work controls to reduce employee exposure to the lowest levels achievable, and shall supplement them by the use of respiratory protection.

Respirators must be used when engineering controls and work practices cannot reduce employee exposure, during work operations where engineering controls and work practices are not feasible, and emergencies. Respirators shall be provided in accordance with 1910.134.

PPE must be provided when there is a hazard from skin or eye contact. Gloves, aprons, coveralls, goggles, foot covers etc. Contaminated PPE will be removed at the end of the work shift. Employer must clean, launder, repair and replace protective clothing as needed. PPE will be provided at no cost to the employee.

Surfaces shall be maintained as free as practicable of accumulation of chromium. All spills and releases of chromium shall be cleaned promptly. Methods of cleaning include HEPA filtered vacuums, dry or wet sweeping, shoveling or other methods to minimize exposure.

Medical surveillance shall be provided when an employee experiences signs or symptoms of the adverse health effects of Hexavalent Chromium (dermatitis, asthma, bronchitis, etc.). Medical evaluations will be at no cost to employees. Examinations will be performed by or under the supervision of a physician or other licensed health care professional.

Our customer will provide change rooms for decontamination and ensure facilities prevent cross-contamination. Washing facilities shall be readily accessible for removing chromium from the skin. Workers must wash their hands and face or any other potentially exposed skin before eating, drinking or smoking.

Employers are required to maintain and make available an accurate record of all employee exposure monitoring, medical surveillance and training records.



# 4.4.25 Bloodborne Pathogen Exposure Control Plan

Neel-Schaffer has established this exposure control plan to minimize the risk associated with contact to blood or other bodily fluids. All body fluids are considered contagious. The common Neel-Schaffer work-site is a low risk exposure environment. Our first aid trained personnel function in that capacity as an additional duty. Every effort must be made to get an injured employee to a medical facility as soon as possible. Exposure in any environment is a possibility; therefore plans must be made and training conducted for the prevention of an exposure and actions to be taken in the event of an exposure.

Hepatitis B and AIDS are two of the most widely publicized diseases that are caused by bloodborne pathogens. Evidence that these diseases were being transmitted in the workplace prompted OSHA to issue its standard. Bloodborne pathogens are a group of microorganism that are "borne" or carried in human and animal blood. Both HBV and HIV are viruses that thrive (live) in the infected person's blood cells.

In general, there are four primary routes through which an infected person's blood, or certain body fluids, may come in contact with and transmit the virus to the blood of a healthy person:

- 1. Parenteral (needle stick, broken skin such as a rash, etc.)
- 2. Mucous membranes (blood contamination of the eye or mouth)
- 3. Sexual
- 4. Prenatal (from infected mother to a newborn infant)

In the event of an accident or injury involving the release of blood or other bodily fluids, all materials shall be treated as potentially infectious.

# **Reasonably Anticipated Exposure Positions**

There are two groups of employees where it is reasonably anticipated that an exposure to blood or other bodily fluids could occur:

<u>First Line Supervisors</u> – These employees are more likely to be present or arrive at the scene of an accident to render first aid or have an injury report to them.

<u>First Responders</u> – First responders, certified by a qualified person, are likely to be exposed to blood or other bodily fluids through the treatment of injured persons at the job site.

All other exposures would be the result of Good Samaritan aid provided by coworkers.



# **Engineering and Work Practice Controls**

Hand washing facilities shall be immediately available to all employees while on the job site. The facility shall include antiseptic soap and water. All employees removing gloves used while working where there is a potential exposure, shall immediately wash their hands once their gloves are removed. Eye washing stations shall also be available within 5 minutes of each work site.

All equipment which has been in contact with blood or other bodily fluids shall be immediately decontaminated using a solution of one pint bleach per gallon of water; then rinsed thoroughly with plain water. All blood soaked material used while attending to the exposure shall be disposed of in leak proof, sealable bags. Gloves, vinyl aprons, and face shields will be worn by employees performing clean-up operations. All sites will be thoroughly cleaned as soon as practicable.

All persons responding to an injured person where a BBP exposure exists shall wear disposable, single use, examination gloves, protective eye goggles, and an apron if deemed appropriate. All required PPE will be supplied by at no cost to employees.

# **Employee Training**

Training for all supervisors and first aid trained personnel will be conducted in the annual first aid and CPR training courses. All persons employed under Neel-Schaffer will be trained and given an opportunity to view a copy of this plan along with the safety manual at hire. Employees can obtain a copy of this plan at any time. It is posted on our intranet. Training will be provided annually and will include the following:

OSHA requirements under the bloodborne pathogen standard:

- A general explanation of the standard and terminology and symptoms of exposure
- > Modes of transmission of BBP
- > A review of this exposure control plan
- > Methods for recognizing tasks that may involve exposure to BBP
- > Engineering practices and controls to reduce the risk for exposure
- > PPE available at the work site
- > Post exposure evaluation and follow ups
- > Signs and labels that could be used at the work site
- Hepatitis B Vaccination program

Any employee that can reasonably be expected to be in contact with BBP will be offered, at no cost, to have the Hepatitis B vaccine. If the employee chooses not to be vaccinated, they will sign a release as indicated by 1910.1030 Appendix A.



# Reporting and Recordkeeping

All incidents involving contact of an employee's skin or mucous membrane with another's blood must be reported to the supervisor immediately. The supervisor is in turn required to report their incident to Human Resources at Corporate. The Corporate H R Director will maintain accurate records of the exposures for each employee. The employee will immediately be scheduled for an examination by a licensed medical professional at the company's expense.

The exposure report will be kept in the employee's confidential file for a period of the employment plus 30 years. If the company ceases to do business and there is no successor, they will notify the Director three months prior to the disposal of the records.

All training records will be kept for 5 years.



# **SECTION 5**

# JOB-SITE SPECIFIC

# SAFETY GUIDANCE



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# 5. JOB-SITE SPECIFIC SAFETY GUIDANCE

# **5.1 Purpose**

The purpose of this section is to provide guidance for safe operating procedures pertaining to hazards less common to most job sites encountered by Neel-Schaffer. This section supplements Section 4. Some entities of Neel-Schaffer may want to move some of these procedures to Section 4 based on experience and frequency of encountering specific hazards.

# **5.2 Safe Operating Procedures**

# **5.2.1 <u>Crane Operations</u>**

All employees and sub-contractors that perform crane Operations for Neel-Schaffer will comply with the provisions of this program. All operators must meet minimum physical qualifications, pass a written examination, be able to understand load charts, and be able to calculate the weight of loads.

- All manufacturers' recommendations will be adhered to at all times. If the
  manufacturers' recommendations are not available, a qualified engineer shall
  make all operating limits and determinations and such limits will be posted on
  the machine in operation.
- Under no circumstances shall the load being handled exceed any manufacture's or Engineer's recommendations. Ground conditions must be able to support the crane and any other associated equipment in accordance with the manufacturer's guidelines.
- All operating speeds, warning instructions, and load capacities shall be posted
  on all equipment. The operator must be able to read these labels while
  operating the machine.
- Standard hand signals will be used which comply with applicable ANSI standards
- A competent person, the operator, shall inspect all machinery and equipment prior to use to insure it is in safe operating condition. All hazards shall be repaired prior to use.
- Neel-Schaffer will utilize certified third party services to perform all required annual crane inspections. Documentation for all annual inspections will be kept in equipment files located in the main office for owned equipment.



- Whenever internal combustion engine powered equipment exhausts in enclosed spaces, tests shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.
- An accessible fire extinguisher of 5BC rating, or higher, shall be available at all operator stations or cabs of equipment.
- All parts of the crane or load must adhere to minimum distances when operating near electrical lines. For lines up to 50kV, a minimum 10 feet distance is required from the lines. For each 10kV over 50kV, an additional 4 inches must be added.
- No modifications or additions which affect the capacity or safe operation of the equipment shall be made by anyone without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, shall be changed accordingly. In no case shall the original safety factor of the equipment be reduced.
- All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B30.5-1968, Safety Code for Crawler, Locomotive and Truck Cranes. However, the written, dated, and signed inspection reports and records of the monthly inspection of critical items prescribed in section 5-2.1.5 of the ANSI B30.5-1968 standard are not required. Instead, the employer shall prepare a certification record which includes the date the crane items were inspected; the signature of the person who inspected the crane items; and a serial number, or other identifier, for the crane inspected. The most recent certification record shall be maintained on file until a new one is prepared.

# 5.2.2 Aerial Lifts and Work Platforms

The Aerial Lift Training Program is intended for all operators. This program is generic in nature and will be supplemented with manufactures operating and safety handbook. The training program consists of:

- OSHA Standards Overview:
- Understanding of manufacturers requirements and restrictions;
- Satisfactory check out by a qualified person



#### OSHA STANDARDS OVERVIEW

Standards 29 CFR 1910.67 and 1926.453 of the Occupational Safety and Health Administration (OSHA) covers the operation of vehicle-mounted elevating and rotating work platforms and aerial lifts. In summary, these standards spell out specific requirements as to the construction, modification, and safe use of the equipment and training of operators. An overview of the OSHA requirements is noted in the General Safety Rules below. General Safety Rules

- Only authorized, trained employees shall operate an aerial lift.
- Lower basket to grade level to gain access to the platform.
- Aerial lifts operated near energized overhead lines shall be operated so that a minimum clearance of 10ft. (305 cm) is maintained.
- Lift controls shall be tested prior to use to determine that such controls are in safe working condition.
- Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- A full body harness shall be worn and a lanyard attached to the designated anchor point inside the basket when working from an aerial lift (some boom trucks have attachment points on the boom of the lift). (Ref. Fall Protection Policy)
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- Outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.
- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.
- Do not travel with the boom elevated or extended. However, it may be necessary to extend the boom while moving a few feet to position it.
- Aerial lifts may not be "field modified" for uses other than those intended by the manufacturer.
- Do not exceed the machine placard maximum platform load.
- Always look in the direction you are moving the unit, and be aware of all hazards above, below, and around you. Never move the unit without a ground person.
- Do not attach wires or cables to the platform. Many aerial lifts have a place to plug in an electrical cord.
- Other personnel should be restricted from passing or working underneath the raised platform.
- A malfunctioning lift shall be shutdown and removed from service until repaired.
- The vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so.



# 5.2.3 Scaffolding

Neel-Schaffer Employees are not authorized to design, erect, dismantle, move, inspect, or otherwise certify any scaffold systems. All scaffolding that is to be mounted by employees must be approved and certified by a certified company and by competent persons.

- Only qualified persons should design, build, or inspect scaffolds. Each application must be planned to ensure that the scaffolding conforms to all specified assembly requirements.
- All scaffolding will be tagged indicating its inspection and criteria required for employees to man the scaffolding.
- The erection, disassembly, dismantling or changing of scaffolding set up must be done under the direct supervision of a competent person.
- Lean to scaffolds and makeshift platforms are prohibited.
- Only materials currently being used should be stored on scaffolds. Materials are to be placed over cross members at all times. All materials should be removed from the scaffold nightly.
- All scaffolds should be designed to carry four times the maximum intended load. At no time should the scaffold be overloaded. Unstable objects such as barrels, boxes, and loose bricks should not be used to support scaffolds.
- All scaffolds over ten feet high are required to have load footprints and limits that can be obtained from the scaffold manufacturer. All scaffolds must be maintained in safe condition and scaffolds damaged or weakened must be replaced immediately.
- Scaffolds ten feet or more above the ground or lower level must have standard guardrails and toe boards attached.
- Scaffolds should be braced and tied both horizontally and vertically at intervals according to specified regulations.
- Scaffolds with any dimension less than 45 inches should be equipped with outriggers and guarded with standard four feet high railings.
- Mobile scaffolds should be equipped with guardrails, mid rails, toe boards, and outriggers.
- All casters should be locked and guarded with standard railings. Mobile scaffolds should not be used if there is a change in the floor level elevation.
- When erecting and dismantling scaffolds, OSHA's Scaffolding Fall Protection Requirements must be followed.
- Ladders, attached or external, must be used to climb scaffolds anytime the platform is more than two feet in elevation difference from the access point. Employees should never climb a scaffold's cross bracing. Both hands should be free of tools/materials when ascending or descending a scaffold.

The Project Manager will be responsible for implementing the employee training and information program. The format for the program may include classroom instruction, safety tool box meetings, and other forms of group or singular instructions.



Instructions are normally communicated verbally or in writing through the employee's supervisor. The Project Manager is responsible for assuring Supervisors are qualified or competent in the following areas:

- Fall hazards and falling object hazards.
- Electrical hazards (protection from electrical hazards for erecting, maintaining, and dismantling).
- Fall protection and protection systems.
- Proper and safe handling of materials.
- Trained in the maximum intended loads and load-carrying capacities.
- Any other pertinent requirements.
- All employees will be trained in the above mentioned, along with any additional basic or site requirements.
- Supervisors will insure that each employee follows the safety guidelines as set forth in Safe Work Practices.

# **5.2.4 Trenching and Excavation**

This program is developed to set the minimum standards that will be followed by all employees while performing excavation and trenching operations. These procedures and guidelines are designed to provide protection of the employees working around and in excavations. This program requires compliance with OSHA Standards as detailed in 29 CFR 1926.650.

This program applies to all controlled worksites where one of our, or a subcontract employee may be occupationally exposed to excavations and trenches. Compliance is mandatory to ensure employee protection when working in or around excavations. It is the responsibility of each superintendent and supervisor to implement and maintain the procedures and steps set forth in this program. Each employee involved with excavation and trenching work is responsible to comply with all applicable safety procedures and requirements of this program.

#### **Definitions**

BENCHING - A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.

CAVE-IN - The separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by failing or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.



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

DURATION OF EXPOSURE - The longer an excavation is open, the longer the other factors have to work on causing it to collapse.

EXCAVATION - Any man-made cut, trench, or depression in an earth surface, formed by earth removal.

HAZARDOUS ATMOSPHERE - An atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

PROTECTIVE SYSTEM - Are methods of protecting employees from cave-ins, from material that could fall or roll from an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide necessary protection.

SHIELD - A structure that is capable of withstanding the forces imposed on it by a cave-in and thereby protects employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Shields can be manufactured or job-built in accordance with 1926.652(c) (3) or (c) (4). Shields are also referred to as "trench boxes" or "trench shields."

SLOPING - A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences such as soil type, length of exposure, and application of surcharge loads.

SURCHARGE LOADS - Generated by the weight of anything in proximity to the excavation, push starts for a cave-in (anything up top pushing down). Common surcharge loads:

- weight of spoil pile
- weight of nearby buildings, poles, pavement, or other structural objects.
- weight of material and equipment

TRENCH - A narrow excavation below the surface of the ground, less than 15 feet wide, with a depth no greater than the width.

UNDERMINING - Undermining can be caused by such things as leaking, leaching, caving or over-digging. Undermined walls can be very dangerous.

VIBRATION - A force present on construction sites and must be considered. The vibrations caused by backhoes, dump trucks, compactors and traffic on job sites can be substantial.

## **General Requirements**



Before any work is performed and before any employees enter the excavation, a number of items must be checked and insured:

Before any excavation is cut, underground installations must be determined. This can be accomplished by either contacting the local utility companies or the local "one-call' center for the area. All underground utility locations must be documented on the proper forms. All overhead hazards (surface encumbrances) that create a hazard to employees must be removed or supported to eliminate the hazard.

- If the excavation is to be over 20 feet deep, it must be designed by a professional engineer who is registered in the state where work will be performed.
- Adequate protective systems will be utilized to protect employees. This can be accomplished through sloping, shoring, or shielding.
- The worksite must be analyzed in order to design adequate protection systems and prevent cave-ins. There must also be an excavation safety plan developed to protect employees.
- Employees must be supplied with and wear any personal protective equipment deemed necessary to assure their protection.
- All spoil piles will be stored a minimum of two (2) feet from the sides of the excavation. The spoil pile must not block the safe means of egress.
- If a trench or excavation is 4 feet or deeper, stairways, ramps, or ladders will be used as a safe means of access and egress. For trenches, the employee must not have to travel any more than 25 feet of lateral travel to reach the stairway, ramp, or ladder.
- No employee will work in an excavation where water is accumulating unless adequate measures are used to protect the employees.
- A competent person will inspect all excavations and trenches daily, prior to
  employee exposure or entry, and after any rainfall, soil change, or any other
  time needed during the shift. The competent person must take prompt
  measures to eliminate any and all hazards. An excavation inspection checklist
  must be filled out prior to any persons entering the excavation.
- Excavations and trenches 4 feet or deeper that have the potential for toxic substances or hazardous atmospheres will be atmospheric tested at least daily. Documentation of test data will be maintained throughout the course of the project. If the atmosphere is inadequate, protective systems will be utilized.



• If work is in or around traffic, employees must be supplied with and wear orange reflective vests. Signs and barricades must be utilized to ensure the safety of employees, vehicular traffic, and pedestrians.

# **Competent Person Responsibilities**

The OSHA Standards require that the competent person must be capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and have authorization to take prompt corrective measures to eliminate them and, if necessary, to stop the work.

# A competent person is required to:

- Have a complete understanding of the applicable safety standards and any other data provided.
- Identify the proper locations of underground installations or utilities, and ensure that the proper utility companies have been contacted.
- Conduct and document soil classification tests and reclassify soil after any condition changes.
- Determine adequate protective systems (sloping, shoring, or shielding systems) for employee protection.
- Conduct and document all air monitoring for potential hazardous atmospheres.
- Conduct and document daily and periodic inspections of excavations and trenches.
- Approve design of structural ramps, if used.
- Insure employees are protected from falling loads

#### Soil Classification and Identification

The OSHA Standards define soil classifications within the Simplified Soil Classification Systems, which consist of four categories: Stable Rock, Type A, Type B, and Type C. Stability is greatest in Stable Rock and decreases through Type A and B to Type C, which is the least stable. Appendix A of the Standard provides soil mechanics terms and types of field tests used to determine soil classifications.

#### Stable Rock is defined as:

Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

# Type A soil is defined as:

- Cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (TSF) or greater.
- Cemented soils like caliche and hardpan are considered Type A.

## Soil is NOT Type A if:



- It is fissured.
- The soil is subject to vibration from heavy traffic, pile driving or similar effects.
- The soil has been previously disturbed.
- The material is subject to other factors that would require it to be classified as a less stable material.
- The exclusions for Type A most generally eliminate it from most construction situations.

# Type B soil is defined as:

- Cohesive soil with an unconfined compressive strength greater than .5 TSF, but less than 1.5 TSF.
- Granular cohesionless soil including angular gravel, silt, silt loam, and sandy loam
- The soil has been previously disturbed except that soil classified as Type C soil.
- Soil that meets the unconfined compressive strength requirements of Type A soil, but is fissured or subject to vibration.
- Dry rock that is unstable.

# Type C soil is defined as:

- Cohesive soil with an unconfined compressive strength of .5 TSF or less.
- Granular soils including gravel, sand and loamy sand.
- Submerged soil or soil from which water is freely seeping.
- Submerged rock that is not stable.

# **Soil Test & Identification**

The competent person will classify the soil type in accordance with the definitions in Appendix A on the basis of at least one visual and one manual analysis. These tests should be run on freshly excavated samples from the excavation and are designed to determine stability based on a number of criteria: the cohesiveness, the presence of fissures, the presence and amount of water, the unconfined compressive strength, and the duration of exposure, undermining, and the presence of layering, prior excavation and vibration.

The cohesion tests are based on methods to determine the presence of clay. Clay, silt, and sand are size classifications, with clay being the smallest sized particles, silt intermediate and sand the largest. Clay minerals exhibit good cohesion and plasticity (can be molded). Sand exhibits no elasticity and virtually no cohesion unless surface wetting is present. The degree of cohesiveness and plasticity depend on the amounts of all three types and water.



When examining the soil, three questions must be asked: Is the sample granular or cohesive? Fissured or non-fissured? What is the unconfined compressive strength measured in TSF?

# **Methods of testing soils:**

Visual test: If the excavated soil is in clumps, it is cohesive. If it breaks up easily, not staying in clumps, it is granular.

Wet manual test: Wet your fingers and work the soil between them. Clay is a slick paste when wet, meaning it is cohesive. If the clump falls apart in grains, it is granular.

Dry strength test: Try to crumble the sample in your hands with your fingers. If it crumbles into grains, it is granular. Clay will not crumble into grains, only into smaller chunks. Pocket penetrometer test: This instrument is most accurate when soil is nearly saturated. This instrument will give unconfined compressive strength in tons per square foot. The spring-operated device uses a piston that is pushed into a coil up to a calibration groove. An indicator sleeve marks and retains the reading until it is read. The reading is calibrated in tons per square foot (TSF) or kilograms per cubic centimeter.

Thumb penetration test: The competent person attempts to penetrate a fresh sample with thumb pressure. If the sample can be dented, but penetrated only with great effort, it is Type A. If it can be penetrated several inches and molded by light pressure, it is Type C. Type B can be penetrated with effort and molded.

Shear vane: Measures the approximate shear strength of saturated cohesive soils. The blades of the vane are pressed into a flat section of undisturbed soil, and the knob is turned slowly until soil failure. The dial is read directly when using the standard vane. The results will be in tons per square foot or kilograms per cubic centimeter.

The competent person will perform several tests along the depth and length of the excavation to obtain consistent, supporting data. The soil is subject to change several times within the scope of an excavation and the moisture content will vary with weather and job conditions. The competent person must also determine the level of protection based on what conditions exist at the time of the test, and allow for changing conditions.

## **Protective Systems**

Any employee in an excavation must be protected from cave-ins by an adequate protective system except when:

- The excavation is entirely in non-disturbed stable rock.
- The excavation is less than 5' deep and inspection by the competent person reveals no cave-in hazard.

All protective systems must have the ability to resist without failure all loads that are intended or reasonably could be expected to be applied to the protective system.



There are basically three protective system options; sloping according to soil classification, shoring, and shielding.

# **Sloping and Benching**

There are four options for sloping:

- Slope to the angle required by the OSAH Standard for Type C soil, which is the most unstable soil type.
- The table provided in Appendix B of the Standard may be used to determine the maximum allowable angle (after determining the soil type).
- Tabulated data prepared by a registered professional engineer can be utilized.
- A registered professional engineer can design a sloping plan for a specific job.

Sloping and benching systems for excavations five (5) to twenty (20) feet in depth must be constructed under the instruction of a designated competent person. Sloping and benching systems for excavations greater than twenty (20) feet must be designed and stamped by a registered professional engineer. Sloping and benching specifications can be found in Appendix B of the OSHA Standard and also as an attachment to this document.

# **Shoring Systems**

Shoring is another protective system or support system. Shoring utilizes a framework of vertical members (uprights), horizontal members (whales), and cross braces to support the sides of the excavation to prevent a cave-in. Metal hydraulic, mechanical, or timber shoring are common examples. Different examples of shoring are found in the OSHA Standard under these appendices:

**Appendix C** - Timber Shoring for Trenches

**Appendix D** - Aluminum Hydraulic Shoring for Trenches

**Appendix E -** Alternatives to Timber Shoring

# **Shield Systems (Trench Boxes)**

Shielding is the third method of providing a safe workplace. Unlike sloping and shoring, shielding does not prevent a cave-in. Shields are designed to withstand the soil forces caused by a cave-in and protect the employees inside the structure. Most shields consist of two flat, parallel metal walls that are held apart by metal cross braces. Shielding design and construction is not covered in the OSHA Standards. Shields must be certified in design by a registered professional engineer and must have either a registration plate on the shield or registration papers from the manufacturer on file at the jobsite office.

# Any Repairs Or Modifications Must Be Approved By The Manufacturer. Safety Precautions for Shield Systems

Shields must not have any lateral movement when installed.



- Employees will be protected from cave-ins when entering and exiting the shield (examples ladder within the shield or a properly sloped ramp at the end).
- Employees are not allowed in the shield during installation, removal, or during any vertical movement.
- Shields can be 2 ft. above the bottom of an excavation if they are designed to resist loads at the full depth and if there are no indications of caving under or behind the shield.
- The shield must extend at least 18 inches above the point where proper sloping begins (the height of the shield must be greater than the depth of the excavation).
- The open end of the shield must be protected from the exposed excavation wall. The wall must be sloped, shored, or shielded. Engineer designed end plates can be mounted on the ends of the shield to prevent cave-ins.

# **Inspections**

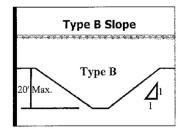
Daily inspection of excavations, the adjacent areas, and protective systems shall be made by the competent person for evidence of a situation that could result in a cave-in, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions.

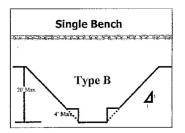
- All inspections shall be conducted by the competent person daily prior to the start of work and as needed throughout the shift.
- Inspections will be made after every rainstorm or any other increasing hazard.
- All inspections will be documented and kept on file in the jobsite safety files
- A copy of the Daily Excavation Checklist is located at the end of this program.

# **Training**

The competent person(s) must be trained in accordance with the OSHA Excavation Standard, and all other programs that may apply (examples Hazard Communication, Confined Space, and Respiratory Protection), and must demonstrate a thorough understanding and knowledge of the programs and the hazards associated. All other employees working in and around the excavation must be trained in the recognition of hazards associated with trenching and excavating.

# **Guide for Protective Systems**





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# **Daily Excavation Inspection Checklist**

Excavation Competent Person:					
Date:	Time:				
Type of Inspection: Daily					
1. Slope Ratio:	<sup>3</sup> / <sub>4</sub> :1	1:1	1 1/2:1		
2. Soil Classified As:	A	В	C		
If not sloped at 1 1/2:1 what soil	analysis was perf	ormed?			
Visual:					
Manual:					
Are trench boxes being used?	Yes No				
2. Is the protection appropriate	e based on the soil	l classificatio	n? Yes No		
2 Everytian Comford/Common	adin on Dun Enters 1				

3. Excavation Surface/Surroundings Pre-Entry Inspection

Inspected	No Entry	OK	Comments
Tension Cracks			
Spoil Pile 2 Feet Away			
Equip/Mat. Close to			
Excavation			
Surface Water			
Seeping Water			
Sources of Vibration			
Ladders Every 25 ft			
Ladders Extend 3 ft Beyond			
Тор			
Ladders Secured			
Run-outs/Escapes Sloped			
Proper Barricades			
Fall/Roll Hazards Supported			
Other Hazards			

(Any "No Entry" inclusions must be repaired and a re-inspection issued prior to entry. Repair comments must be included on re-inspection form)

# 5.2.5 Forklift Safety

This program contains safety requirements relating to maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. Only trained and authorized (certified) operators shall be permitted to operate a powered industrial truck. All personnel shall be trained every three years and training will be conducted by a qualified person.

Training will at a minimum meet OSHA 1910.178 requirements including Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate; Differences between the truck and the automobile; Truck controls and instrumentation: where they are located, what they do, and how they work; Engine or motor operation; Steering and maneuvering; Visibility (including restrictions due to loading); Fork and attachment adaptation, operation, and use limitations;

Vehicle capacity; Vehicle stability; Any vehicle inspection and maintenance that the operator will be required to perform; Refueling and/or charging and recharging of batteries; Operating limitations; Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate; Surface conditions where the vehicle will be operated; Composition of loads to be carried and load stability; Load manipulation, stacking, and unstacking;

Pedestrian traffic in areas where the vehicle will be operated; Narrow aisles and other restricted places where the vehicle will be operated; Hazardous (classified) locations where the vehicle will be operated; Ramps and other sloped surfaces that could affect the vehicle's stability; Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust; Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

Additional training will be required if an employee is observed operating the vehicle in an unsafe manner, involved in an accident, receives an unsafe evaluation, or if truck or workplace conditions warrant new training. Training will include field observations and classroom instruction by a qualified trainer. All employee training will be documented and kept in the employee's file. Upon the completion of the required training, a certification card will be received and should be kept on hand at all times while operating the fork lift for which you were certified. The certification card will include the operator name, training date, evaluation date, and trainer/evaluator name.

Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturer's prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be updated accordingly. If the truck is equipped with front-end attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.

• The user shall see that all nameplates and markings are in place and are maintained in a legible condition.

- Where general lighting is less than 2 lumens per square foot, auxiliary directional lighting shall be provided on the truck.
- The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Wheel stops or other recognized positive protection shall be provided to prevent railroad cars from moving during loading or unloading operations.
- Fork trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
- No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Personnel shall not be allowed to be lifted in any truck unless specifically authorized by the truck manufacturer.
- Do not place arms or legs between the uprights of the mast or outside the running lines of the truck.
- When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.
- A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view or whenever the operator leaves the vehicle and it is not in his view.
- When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
- A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.
- Only approved industrial trucks shall be used in hazardous locations.
- Industrial trucks shall be used on stable grade unless designed for operation off-road.

#### **Traveling**

Grades shall be ascended or descended slowly. When ascending or descending on grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade. On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.

Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner. The driver is required to slow down for wet and slippery floors. Stunt driving and horseplay shall not be permitted.

Dock board or bridge plates, shall be properly secured before they are driven over. Dock board or bridge plates shall be driven over carefully and slowly and their rated capacity never exceeded. Running over loose objects on any surface shall be avoided.

While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

#### Loading

Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered. Only loads within the rated capacity of the truck shall be handled. The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.

Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.

Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

#### **Truck Operation**

If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided. Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.

No truck shall be operated with a leak in the fuel system until the leak has been repaired. Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

#### **Maintenance of Industrial Trucks**

Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel. Those repairs to the fuel and ignition systems of industrial trucks which involve fire hazards shall be conducted only in locations designated for such repairs.

Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs. All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design. Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter weighting of fork trucks shall not be done unless approved by the truck manufacturer.

Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects, when found, shall be immediately reported and corrected.

When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been identified and eliminated.

Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg. F.) solvents shall not be used. High flash point (at or above 100 deg. F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard shall be consonant with the agent or solvent used.

#### **5.3 Other Hazards**

The hazards listed below are hazards that are unlikely to be encountered by Neel-Schaffer employees but deserve to be mentioned. If, for any reason, one of these hazards is identified by the **Job Hazard Analysis**, the Project Manager/Site Supervisor will notify the Neel-Schaffer Safety Coordinator. The Safety Coordinator, along with *Professional Safety Services*, will provide the appropriate training to deal with the identified hazard. The below list is not all inclusive:

- Confined Space Entry
- Hydrogen Sulfide Exposure
- Abrasive Blasting
- Cadmium Exposure
- Lead Exposure
- Naturally Occurring Radioactive Material Exposure

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### **SECTION 6**

# JOB-SITE (PROJECT)

### SAFETY PLAN

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#### Project (Job-Site) Safety Plan

Project Name:
Project Number:
Location
Location:
Data
Date:

Job Site Supervisor: Notice that this is a guide for a project safety management plan. The safety management plan for a particular project must address the specific activities on that project. You will likely have to delete and add activities from the ones included in this project safety management plan.

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#### Neel-Schaffer - Project (Job-Site) Safety Plan

Project No	
Project Location	

#### **Table of Contents**

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Competent Persons	162
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Implementation Measures	164
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#### 1. Introduction/Purpose:

The purpose of this plan is to provide specific job-site safety guidance when any Neel-Schaffer Office or subsidiary company has job-site safety responsibility. This plan serves as an extension of the Neel-Schaffer Safety Program and as a supporting document to the contractor's safety plan when Neel-Schaffer performs as a sub-contractor. Safety guidelines addressed in this plan also applies to sub-contractors who must develop a supporting plan. Paragraph numbers in parenthesis reference the topic in the Neel-Schaffer Safety Program.

#### 2. Job Hazard Analysis: (4.2)

The initial step to ensure a safe job-site working environment is to conduct a Job Hazard Analysis (JHA). This analysis must be completed for each project focusing on the worker, the tasks to be performed, the tools, and the environment. The purpose of this process is to identify hazards that are or may be associated with each specific job-site/task and to look for methods to eliminate and/or reduce the hazards. Make sure that employees are involved in the JHA process. Once the hazards have been identified, then it is critical that appropriate safe work methods, safety equipment and PPE be identified in a job-site specific safety plan. Measures must be taken to get the tasks to acceptable risk levels so that employees may work safely.

Specific hazards identified for this project are identified below:

#### **Hazard Assessment**

	Hazard	Present Y/N	Hazard Mitigation
1	Noise Hazard (4.4.10)		
2	Working in Traffic (4.4.14)		

3	Falls (4.4.5)	
4	Ladder Use (4.4.6)	
5	Electrical (4.4.8)	
	Licetical (4.4.0)	
6	Slips, Trips, and	
	Falls (2.4)	
7	Brush Cutting (4.4.17)	
	(4.4.17)	
8	Heat Stress (4.4.20)	
9	Water/Boats (4.4.21)	
	(1.7.21)	

10	Personal Protective Equipment (4.4.4)	
11	Hand Hazard	

#### 3. **Competent Persons**:

Competent persons for the following hazards are as indicated. (List identified hazards and competent person for that hazard.)

#### Example:

• Trenching and Excavating: Excavation of soils or gravel on this project should not occur to the extent that would qualify as creating a trench or an excavation. However, should such an instance occur, [NAME] is the competent person for that activity.

#### 4. Project Safety Manager Designation:

Job-Site Safety Manager	Name
Office Phone No	Phone Number
Cell Phone No	Phone Number
Alternate Safety Manager	Name
Office Phone No	Phone Number
Cell Phone No	Phone Number
Neel-Schaffer Safety Coordinator	Roger L. Shields
Office Phone No	601-948-3071
Cell Phone No	601-940-3417
Neel-Schaffer Safety Consultant	David Monistere
(Professional Safety Services)	
Office Phone No	601-919-0810
Cell Phone No	601-946-8137

#### 5. Significant or High-Risk Activities:

#### **Example:**

#### **Hazard Assessment:**

Operating equipment and dump trucks under or near overhead power lines and similar hazards.

• Safety Consideration

Hazard Assessment:	
nazaru Assessment:	
Hazard Assessment:	
Safety Consideration:	
Hazard Mitigation:	
<u>Hazard Assessment</u> :	

Safety Consideration:
Hazard Mitigation:
Hazard Assessment:
Safety Consideration:
Hazard Mitigation:
6. Implementation Measures to Address Hazards:
Methods of addressing the hazards that have been identified, and any hazards that might be subsequently identified will include the following efforts, listed in priority order.
Tillian lander than I amount any land and a configuration of the

- Eliminate the hazard through engineering efforts.
- Minimize the exposure to physical or health hazards by applying administrative controls.
- Train the individuals that might be subject to hazardous exposure to avoid exposure to the hazardous element or to use proper PPE.
- Supply personal protective equipment to personnel that might be subject to an identified hazard that might persist after reasonable engineering and administrative measures have been substantially exhausted. Personnel will be trained in the selection, use and care of the respective articles of PPE.

#### 7. First Aid/CPR: (4.4.2)

Arrangements must be made by the Supervisor prior to the mobilization of each project to provide for prompt medical response and treatment in the event of an emergency. In areas where severe injuries can occur, a 3 to 4 minute response time is required to be met. If this response

cannot be met by medical professionals, a person trained in CPR/First Aid will be available at the jobsite at all times. A posting will be kept at all job sites that indicate emergency numbers to be called in the event of an injury or other incident.

• In the event of a medical emergency, medical assistance/or a medical facility is available within a 3-4 minute timeframe:
➤ Emergency Medical Facility:
Name of Facility:
Phone Number:
Directions:
Strip Map:
Emergency Medical Response:
Name of Company:

T)1	<b>3</b> T	1	
Phone	NII	ımh	or.
1 110110	110	11111 <i>1</i>	u.

- A 3-4 minute response time cannot be met:
  - > CPR/First Aid trained person:

#### 8. Provisions for Safety Meetings: (4.4.1)

The initial job-site safety meeting will cover in detail the results of the Job Hazard Analysis and the approach to deal with each identified hazard. Thereafter, supervisors must hold a 10-minute (minimum) toolbox safety class, as a minimum, every week at the beginning of the shift. All employees are required to attend. Meeting attendance and subject matter will be documented by Neel-Schaffer and provided to the Client as required.

#### 9. **Project Safety Inspections:** (4.3.2)

Inspections will be conducted to identify hazardous conditions and unsafe behaviors. Project Managers/Supervisors will set aside a specific time to complete a weekly jobsite inspection, complete an inspection report, note deficiencies on the report and the corrective action taken. Keep a copy for your file and for review during safety meetings. In addition, safety consultants, insurance company loss control, and others may perform jobsite inspections.

#### 10. Portions of the Plan prepared by subcontractors: (4.1)

Portions of the Plan may be prepared by subcontractors performing that work. However, these portions will be as stringent as the Contractor's overall plan.

#### 11. Compliance by Subcontractors: (4.1)

Neel-Schaffer requires adherence to established safety policies, procedures and performance standards by all persons that are present at the project location whether they be a Company employee, a subcontractor, a supplier or an authorized visitor to the site. Compliance with

Company safety requirements are integrated into the subcontract agreements that pertain to the subject project, and are explicitly and implicitly conveyed to all suppliers and authorized visitors to the site. Unauthorized visitors are strongly discouraged from being present at the site and should be escorted off site until authorization to be present is obtained. Only those persons with a legitimate purpose for being on site should be given authorization.

#### 12. Drug and Alcohol Impairment:

Neel-Schaffer prohibits all company, subcontractor, and supplier personnel from reporting to or being at work with a detectable amount of a controlled substance in their system. Neel-Schaffer further prohibits the possession or distribution of a controlled substance at a worksite under its responsibility by anyone, employee, subcontractor, supplier, or other. If a person, present on the Project is under reasonable suspicion by a supervisor or individual in authority, that person will be transported by a supervisor or Company safety manager to [TESTING FACILITY] for a drug screen and an alcohol breathalyzer test. The person under suspicion shall not return to work at the Project or any other Neel-Schaffer's premises until confirmed negative results for both tests are received. In the event of a positive result, that person is prohibited from returning to the Project and must be dealt with according to that person's company prevailing substance abuse policy. Any such instance will be immediately reported to Neel-Schaffer's Project Manager.

#### 13. Corrective Actions:

Violations of safety policies and procedures are not to be tolerated and require immediate attention and action. In the event of such a violation that is committed by a Company, subcontractor or supplier employee, the Company project supervisor must be notified as to the nature of the violation, persons involved and all other pertinent information. The violation report will be investigated to determine veracity. Persons involved in the investigation are as follows:

- Immediate supervisor of employee
- Company Project Supervisor
- Company Safety Manager

If a violation is verified, appropriate action will be taken with regard to the specific circumstances of the violation. The purpose and scope of the investigation will be documented, as well as the findings and action that was taken. Appropriate action may include but is not necessarily limited to:

- Retraining
- Verbal Warning
- Written Warning
- Permanent removal from the project
- Suspension From Employment
- Termination of Employment

Discipline will be administered after the situation is reviewed by Neel-Schaffer's Safety Committee, unless immediate action is required, in which case, the Human Relations Manager will conduct action according to prevailing policies and regulations.

#### 14. Evacuation procedures:

An evacuation plan, procedures, and escape route assignments must be defined so employees understand who is authorized to order an evacuation, under what conditions an evacuation would be necessary, how to evacuate, and what routes to take. Exit diagrams are typically used to identify the escape routes to be followed by employees from each specific facility location.

identify the escape routes to be followed by employees from each specific facility location.		
Plan specifics:		
Exit diagram if needed: (expand if necessary)		
Zane Giagram it necessary)		

By authorized signature below, Neel-Schaffer, hereinafter referred to as 'the Contractor', hereby certifies that this Project Safety Management Plan (Plan) complies with the Neel-Schaffer Safety Program and meets applicable Federal, State, and local laws, rules, regulations and guidelines governing safety, health and sanitation. All operations and work practices of the Contractor will comply with this Plan. The Contractor requires that all subcontractors, suppliers and Department personnel comply with this Plan.		
(Signature of Contractor's Project Safety Manager or alternate)		
Title		
Date		

# True North Emergency Management

# **Debris Monitor Training**













# Introducing True North

- True North Emergency Management is a wholly owned subsidiary of Neel-Schaffer Engineers and Planners, Inc.
- Offers comprehensive emergency management services including:
  - Preparedness, Response, and Recovery
- Monitored the removal of more than nine million cubic yards of debris from more than
- 40 communities
- Founded in 2000 with headquarters in Fort Worth, Texas





### Overview

Monitoring debris removal operations requires comprehensive observation and documentations by the Monitoring Company of debris removal work performed from the point of debris collection to final disposal. Monitoring debris removal work involves constant observation of crews to ensure that workers are performing eligible work in accordance with FEMA Public Assistance guidelines, and helps to verify compliance with all applicable Federal State, and local regulations.





# **Training Goals**

- •Why the Emphasis on Monitoring?
- •Eligible Debris and Classifications
- •Filling Out the Load Ticket and Tree Tickets
- •Equipment Used in Debris Removal
- Safety and Incident reporting
- Standards & Expectations









# Why the Emphasis on Monitoring?



#### Debris removal costs are high

- Cost for debris removal, processing, and disposal has averaged approximately 26% of all disaster related costs over the past 12 years.

#### Recurring problems as a result of :

- -Incorrect eligibility determinations
- -Lack of knowledge of debris operations
- -Inadequate monitoring

This may result in FEMA, obligating funds, then deobligating large amounts of funding





## **FEMA Involvement**



- Provide oversight of entire debris removal process
- Provide federal funding of eligible debris removal operations
- Debris Specialist' in the field
- · Rules of eligibility
- Event specific guidelines
- Public Assistance
- Individual Assistance

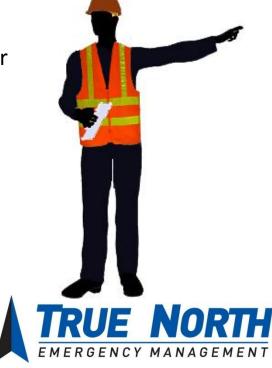




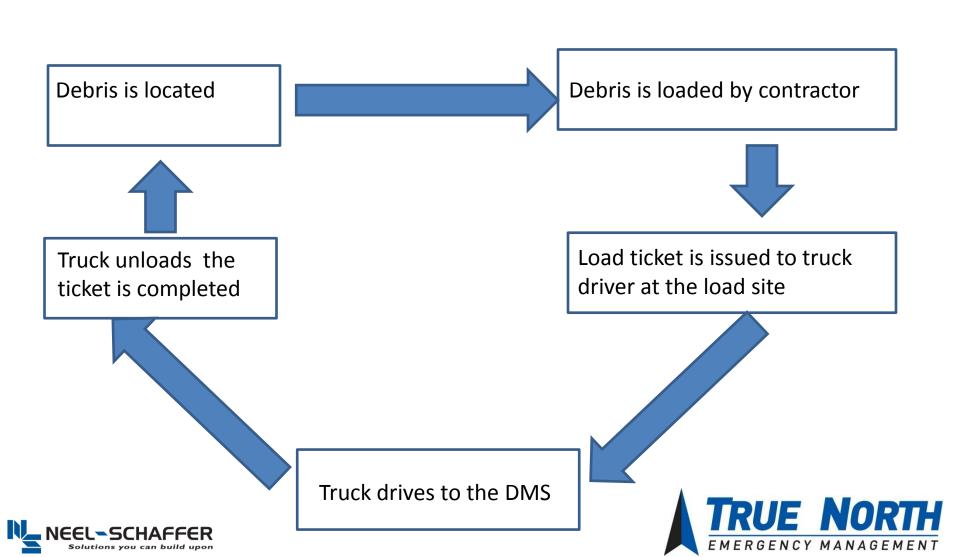
### **Debris Monitor Roles**

- Your job is to observe and document eligible debris removal activities
- At no time should you try to assume a role of authority over the haulers and loaders
- Establish an efficient channel of communication with the crew leader and crew
- If you have to advise them that something is ineligible, be firm but polite when doing so
- If they don't pay attention to you, don't write the load ticket
- A debris ticket is the same as a check you would write from your checking account
- The load ticket you hold is \$\$\$ to the hauler
- Call all your supervisor if a problem exists or persists





### Debris Cycle



### **Debris Collection Process**

- 1. Debris is located in assigned debris zone
- 2. Debris eligibility is determined and hazards located
- 3. Debris is loaded by contractor while monitor observes
- 4. Load is checked by monitor for safety in transport Overhanging debris, and over height loads must be addressed before issuing load ticket
- 5. Load Ticket (top 4 parts) is issued to truck driver GOLD copy retained in field.
- 6. Truck drives to the debris management site (DMS)
- 7. Truck driver gives remaining load tickets to landfill monitor
- 8. Landfill monitor scores load, records, and logs it on the tower log; PINK copy of the load ticket returned to the driver
- 9. Truck unloads, tower monitor verifies empty, and the truck returns to the collection site





### Working with the Debris Haulers

- Each monitor will be assigned to a crew (loading & hauling, tree, white goods, ewaste, etc.)
- Monitors will be responsible for communication with crew leader to establish meeting place.
- Get & Give cell numbers with crew leader
- Monitors must advise their supervisor each night where they will meet the crew the next day
- When working in the field, monitors must maintain a safe observation distance. Park in a safe place, NOT in the Road
- Monitors do not dictate the means or methods of the contractor. Ensuring eligibility and safe loading is your role.
- **REMEMBER** You are working around heavy mechanical equipment. Think safety at all times





# Debris Eligibility

- Must be a direct result of a Presidential declared disaster
- Must occur within the designated disaster area
- •Must be the responsibility of the applicant at the time of the disaster
- Must eliminate an immediate threat to lives, public health, or safety





# Eligible Debris

- Will be located on the rights-of-way.
- Will be storm generated
- Will be free of hazardous materials
- Will be free of household garbage
- Will generally be easy to identify (Some exceptions to this will exist)

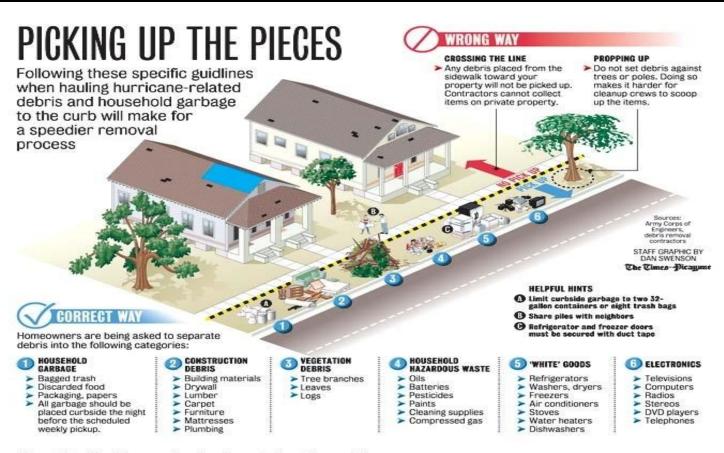








# Debris Curbside Separation



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## **Debris Classifications**

Debris Type	Discription
Vegetative (VEG)	Includes whole trees, tree stumps, tree branches, tree trunks, and other leafy material (LLL)
	Includes, but is not limited to, damaged components of buildings and structures, such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor
Construction and Demolition (C&D)	coverings, pipe, concrete, fully cured asphalt, equipment, furnishings, and fixtures
	Includes hazardous products and materials used and disposed of by residential consumers, such as some paints, stains, varnishes, solvents, pesticides, and other products or materials
Household Hazardous Waste (HHW)	containing volatile chemicals that catch fire, react, or explode under certain circumstances or are corrosive or toxic
Electronic Waste (e-waste)	Includes electronics such as cathode ray tubes (computer monitors and televisions) that contain hazardous materials





## **Debris Classifications**

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## **Debris Classifications**

Debris Type	Discription
Putrescent Debris	Includes debris that will decompose or rot, such as animal carcasses
Infectious Waste	Waste capable of causing infection in humans including contaminated animal waste, human blood and blood products, medical waste, pathological waste, and discarded sharps
Chemical, Biological, Radiological, and Nuclear (CBRN)- Contaminated Debris	Includes debris contaminated by CBRN sources





# Ineligible Debris

- Debris NOT storm generated
- Household garbage
- Not on the ROW
- Call Field Supervisor with questions







### What is the ROW?

**RIGHTS-OF-WAY**- the privilege of someone to pass over land belonging to someone else

- 8 10 Ft. from the road
- Common Rights-of-Way markers or indicators include:
  - Sidewalks
  - o Power Poles
  - Water or Gas Meters
  - o Fences
- Contact supervisor for ROW questions







## **ROW Hazards**









**Power Lines** 

**Fire Hydrant** 

**Gas Meters** 

**Water Meter** 





### Filling Out the Load Ticket

#### The Load Ticket is the Most Important Part of Your Job

- The load ticket you issue is the document by which Government funds are disbursed
- Every load ticket field must be completed
- Use a ballpoint pen for all load tickets, press hard there are multiple copies
- Load ticket accuracy and neatness is of the utmost importance
- Sloppy or incomplete load tickets will weigh heavily on job retention
- Every load ticket must be checked out and accounted for daily
- Missing load tickets will not be tolerated
- · Load ticket sign out logs will be maintained by supervisors

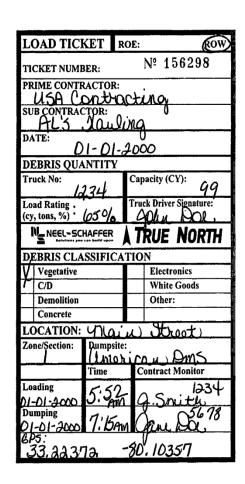
**NEAT, ACCURATE, COMPLETE** 







### Debris Load Ticket



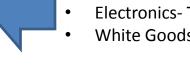


#### 1. Placard provides (Who)

- **Contractor Name**
- Truck number
- Capacity

#### 2. Debris Classification (What)

- Vegetative- "3-L's"
- C/D Construction & Demolition
- Concrete
- **Electronics-TV**
- White Goods- Appliances





Sample Placard



#### 3. Location (When & Where)

- Street picked up, next cross street, or address
- **Dumpsite**
- Date & Time
- Sign
- GPS (00.00000 00.00000)





## **GPS**

Record GPS reading on the bottom of the load ticket make sure the position format is set to hddd.ddddd Example:

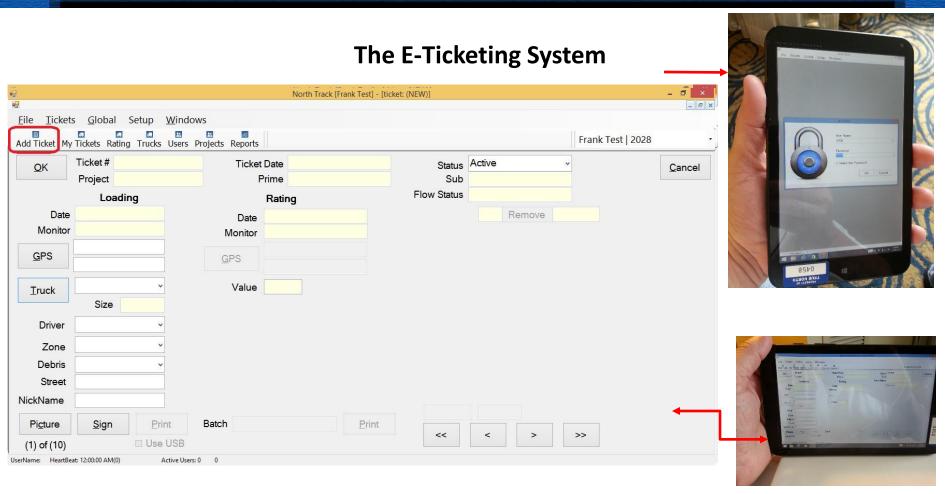
N 30.12345 W 080.12345







## Filling Out the Load E-Ticket







### Equipment Used in Debris Removal

Front End Loader



**Bobcat** 



Tandem Self Loader



Tilt Bed Truck







#### Tree Removal

Only trees on Public Property or within the ROW with 50% or more of the "crown" broken out or has a split trunk or broken branches that expose the heartwood; shall be removed by cutting the trees at ground level. "Crown" includes all green branches and the tip. To be considered a pay item the tree must be 6" or larger in diameter measured 4.5 feet above the ground, under 6" is considered debris. The exact location of the tree must be documented on a Tree Ticket. A photo of the tree before it is cut, and a photo after it is cut, GPS reading in decimal degrees N00.00000 W000.00000, street name and address if available.



This tree DOES NOT need to be removed; it only needs the broken, hazardous limbs removed.



In public use areas, this tree MUST be removed; the branches have broken beyond the branch protection zone and into the heartwood. This tree is not structurally sound.



If more than 50% of the tree crowns destroyed or will be removed when all hazardous limbs are removed, then the tree should be removed.





- •It has more than 50 percent of the crown damaged or destroyed;
- It has a split trunk or broken branches that expose the heartwood;
- It has fallen or been uprooted within a public-use area; and/or
- It is leaning at an angle greater than 30 degrees.





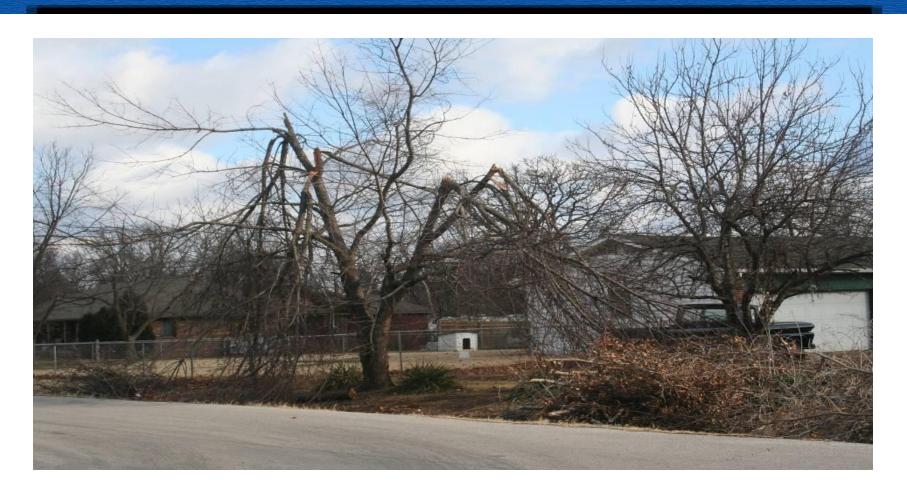
# **Damaged Trees**







# **Damaged Trees**







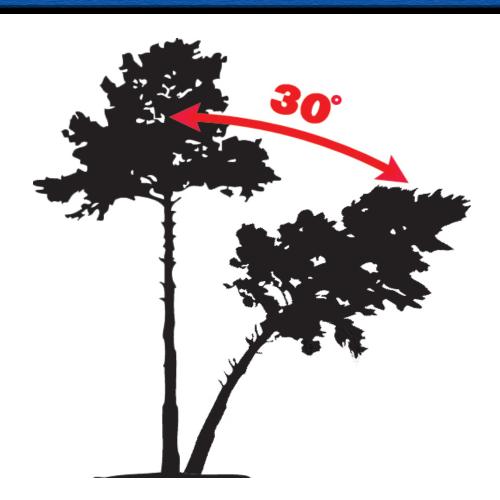
## **Leaning Trees**

Leaning trees on Public Property or ROW are eligible to be removed if they are 6" or larger in diameter measured 4.5 feet above the ground and have a 30% or greater lean. Leaning trees on private property which are 6" or larger in diameter measured 4.5 feet above the ground and have a 30% or greater lean toward the road or maintained property to threaten the roadway or will fall across a fence line shall be removed by cutting the tree at the edge of the right-ofway. Leaning tree removal will be documented the same as damaged trees.





# **Leaning Trees**







# Dangerous Hanging Limbs

Dangerous hanging limbs on Public Property or ROW two inches or greater in diameter are also eligible. The exact location of the tree must be documented on a Tree Ticket. A photo of the limb before it is cut, and a photo after it is cut, GPS reading in decimal degrees N 00.00000 W 000.00000), street and address if available.





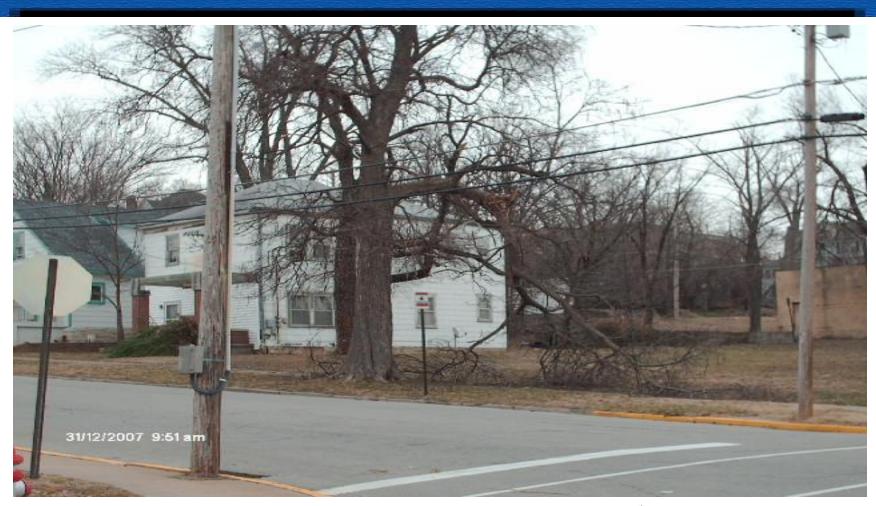
# Hanging Limb







# Hanging Limbs







## Limb/Tree/Stump Ticket Removal

	TRUE NO	FFER	ARDOUS L	IMB & TRE	E REMO	1	.ot Number	<b>№</b> 165922
	Client	GA CC					Date	01-02-2014
	Monitor Name					Cont	actor	USA
Em	ployee Number	1234				Tr	uck#	1318
	ZONE	2						
#	GPS NORTH	GPS WEST	HANGER	REMOVAL	STUMP	SIZE	ADDR	ESS
1	33.21863	-80.10230					215	main Street
2	33.16251	-80.13625		~		12"	216	oak Street
3	32.16121	-80.12156			V	24"	116	Pine Street
4								,
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## **GPS**

Record GPS reading on the the tree ticket make sure the format is N 00.00000 W 000.00000







# Photo Example

	NEEL-SCH.	AFFER HA	ZARDOUS L	SD# 617			Lot Number Nº 168648	ı
	Monitor Name						Date \$ 3 14 tractor DRC	
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# Photo Example

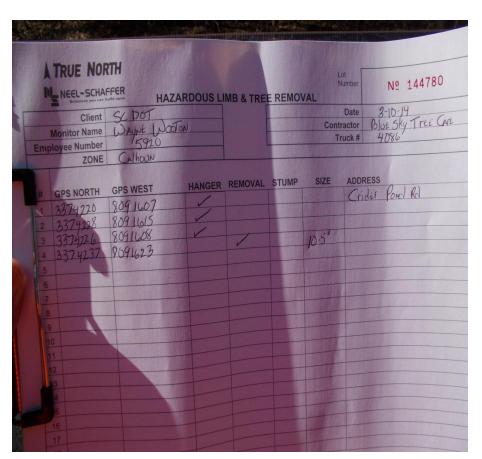
NEL-SCHAFFER	HAZARDOUS	50# 617			Lot Number Nº 168648
Client So	DOT,		See 1		Date 5/3/14 tractor DRC
Employee Number	Seem Women				tractor DRC
	schusten			1	ruck# \0588
# GPS NORTH GPS W	EST HANGER	REMOVAL	STUMP	SIZE	ADDRESS
33.21371 30.68 33.21238 20.67	1709				5-12-654
-0.1125B PO.01	10)				11
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# Photo Example









## Stumps

- Must meet general FEMA debris eligibility criteria
- Root ball must be 50% exposed and be an immediate threat to health and safety, & come from Public Property or the public right-of-way maintained by the applicant.
- Stumps from private property are considered as debris only and are converted into cubic yards by using the conversion chart supplied by FEMA.





# Stump Conversion

#### Stump Conversion Table — Diameter to Volume Capacity

The quantification of the cubic yards of debris for each size of stump in the following table was derived from FEMA field studies conducted throughout the State of Florida during the debris removal operations following Hurricane Charley, Frances, Ivan and Jeanne. The following formula is used to derive cubic yards:

[(Stump Diameter<sup>2</sup> x 0.7854) x Stump Length] + [(Root Ball Diameter<sup>2</sup> x 0.7854) x Root Ball Height] 46656

0.7854 is one-fourth Pi and is a constant.
46656 is used to convert inches to Cubic Yards and is a constant.

The formula used to calculate the cubic yardage used the following factors, based on findings in the field:

- Stump diameter measured two feet up from the ground
- Stump diameter to root ball diameter ratio of 1:3.6

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	0.3	19	2.6	32		45	14.5	58	24.1	71	36.1
7	0.4	20	2.9	33	7.3	46	15.2	59	24.9	72	37.2
8	0.5	21	3.2	34	8.3	47	15.8	60	25.8	73	38.2
9	0.6	22	3.5	35	8.8	48	16.5	61	26.7	74	39.2
10	0.7	23	3.8	36	9.3	49	17.2	62	27.6	75	40.3
11	0.9	24	4.1	37	9.8	50	17.9	63	28.4	76	41.4
12	1	25	4.5	38	10.3	51	18.6	64	29.4	77	42.5
13	1.2	26	4.8	39	10.9	52	19.4	65	30.3	78	43.6
14	1.4	27	5.2	40	11.5	53	20.1	66	31.2	79	44.7
15	1.6	28	5.6	41	12	54	20.9	67	32.2	80	45.9
16	1.8	29	6	42	12.6	55	21.7	68	33.1	81	47
17	2.1	30	6.5	43	13.3	56	22.5	69	34.1	82	48.2
18	2.3	31	6.9	44	13.9	57	23.3	70	35.1	83	49.4

To convert volume from cubic feet to cubic yards, multiply cubic feet by 0.03704.







7.05.0011 2-20-10 TM



### **Tower Monitor**

- •The efficiency and effectiveness of any Debris Removal Operation is only as good as the operation and management of the disposal sites. Simple fact one can load only so much debris at curbside without a place to dispose of the material. A safe and smooth running disposal operation greatly enhances the entire debris removal, reduction, and disposal process.
- •Often permanent disposal sites are not available at the onset of a Debris Removal Operation. This necessitates using Temporary Debris Storage and Reduction Sites (TDSRS). In many cases these TDSRS are used to collect debris, in some cases sort debris, and often reduce the volume of debris by recycling, grinding, chipping, or incineration. Ultimately the material must be moved to the "final resting place."
- •Many important actions generally occur at the disposal site. These actions include "Calling the Load", ensuring only debris eligible for disposal at the site is accepted, monitoring reduction operations, inspecting loads for hazardous material, and monitoring the safe operation of the site.
- •Disposal sites are locations of concentrated equipment traffic, often encumbered by smoke, dust and mud. Challenges to the safe operation of the sites demand the Monitors constant attention. See the discussion of Disposal Site Safety that follows.





## **Estimating Cubic Yard Loads**

- •Ensure that the number and capacity (size) of the truck, which is written on the Load Ticket, is the same as what is marked on the side of the truck.
- Make sure the truck is loaded with disaster debris.
- •All estimated loads must be viewed from a tower or other suitable and safe facility.
- •Ensure the truck is empty when it leaves the disposal site.
- Trucks without tailgates CANNOT be considered full.
- •If the truck is half full, in the debris quantity section of the load ticket note that the load is 50 percent full (see the diagram on the following page for percentage example of loaded trucks).
- •If the truck is one quarter full, the load is 25 percent full.
- •If the truck is three quarter full, the load is 75 percent full.





# Calling the Load

"Calling the Load" requires the Monitor to:

- •Estimate the volume of material in the dump body or hauling container by estimating the percent of full volume or the number of cubic yards of material the load is "short" of being full.
- •The disposal site Monitor calculates the volume hauled by taking the Maximum Load Capacity (which is on the placard on the truck and also on the load ticket, which should match) times the estimated percentage that he has already assigned, which will equal the total Cubic Yards on truck.
- •Classify the type of debris delivered to the disposal site: Is the debris only vegetative debris, or only construction and demolition debris (C&D)? Is it mixed with both types? Mixed vegetative debris and C&D debris must be disposed of in the C&D disposal site.
- •Inspect the loaded debris for possible contamination by household hazardous waste, household garbage, hazardous waste, oil drums, propane containers, etc. When these types of materials are discovered follow mission-established procedures or contact the Supervisor for instructions before allowing the driver to dump the load.

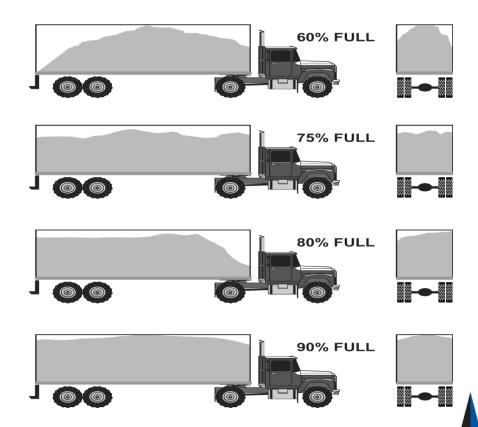
TRUE NORTH

•If a truck driver shows up with a load and does not have a load ticket, call your Supervisor for guidance.



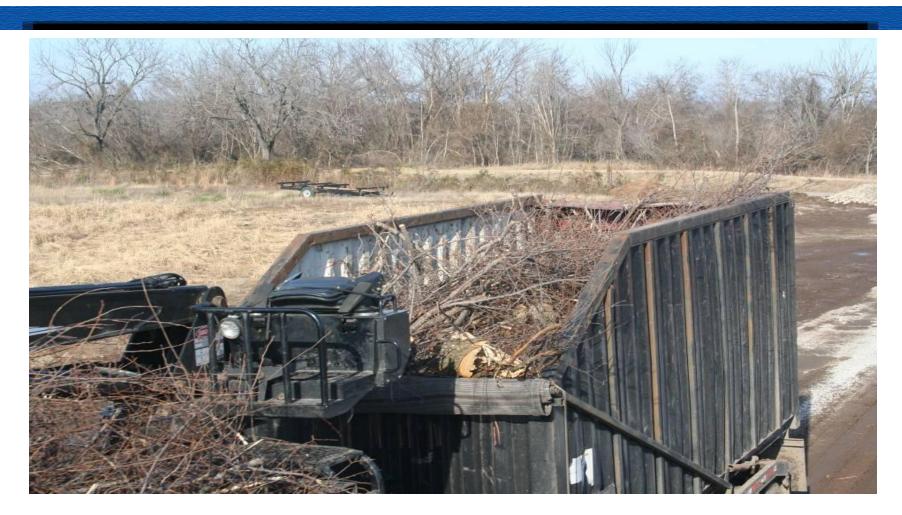
# Calling the Load

•Calling the load is like calling balls and strikes in a baseball game. If the job is done correctly not everyone will be happy. The best way to minimize complaints is to call each load consistently and in a manner fair to the client and to the contractor.





# Calling the load















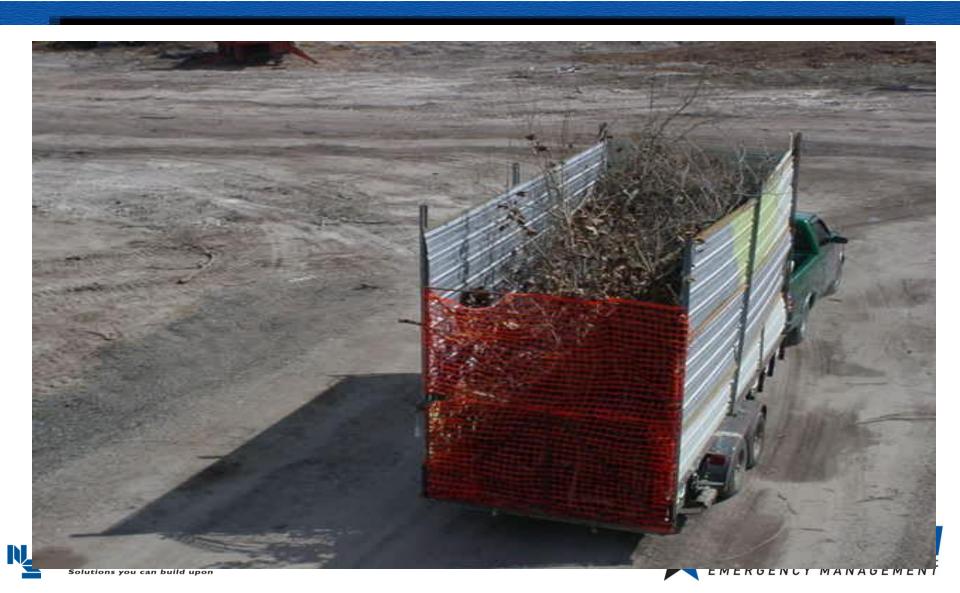












# Leaving site with debris







# Loads Hauled by Weight

- When debris is hauled by weight the process for grading the load is different.
- During the certification process each truck or trailer shall be weighed at a certified scale to determine the tare weight.
- If landfill scales are being used, the trucks are typically weight going in and leaving the landfill.
- Once the truck is weighted in at the scale the monitor will receive a copy of the weight ticket they will use the information on the weight ticket to complete the haul ticket.





## **Debris Reduction**

- Chipping/Grinding
   Typically Tub Grinders
   (Approximately 75% reduction)
- Burning
   Air curtain pit incineration
   Open burning
   (Approximately 95% reduction)





# Tub Grinder







# Air Curtain Incinerator & Open Burning









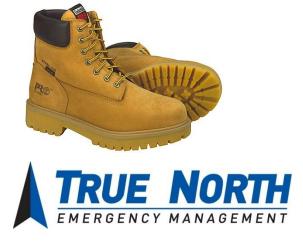
# Safety

- Monitors will wear issued safety gear at all times when in the field including hard hat and vest.
- Monitors will wear steel toe boots.
- Monitors will not flag traffic.
- Keep a safe distance from equipment at all times.
- If contractor is operating in an unsafe manner, inform your supervisor immediately.
- Do not tailgate trucks between worksites.
- No working after dark or before daylight...
- Keep onlookers and children away from worksite.

#### **SAFETY! SAFETY! SAFETY!**









# **Dress Code**

#### **Acceptable Attire**

- Jeans
- Shirt with sleeves
- Steel Toed Boots
- Hardhat
- Safety Vest

#### **Unacceptable Attire**

- Shorts
- Tank Tops
- Sneakers or Sandals
- Shirts with sayings or logos







# Standards & Expectations

- First and foremost A good attitude. We are acting as an extension of the local government. Behave accordingly!
- Be Professional at all times.
- Complete your daily reports every day and turn them in to your supervisor.
- Think Safety! Hard hat, Vest, etc...
- Be neat & well groomed.
- Accurate and proficient load ticket writing. Complete and Neat!
- Contact your supervisor if questions arise. This work is too important to play a guessing game.
- Be honest and accurate with your time.
- Do not be tempted by bribes, offers, or promises. These are taxpayer (you and me) dollars we are safe guarding.

  People go to prison for federal fraud, which is accepting bribes and offers.







# Terms Used

- Removal
- Trim (not prune)
- Hazards & Threats
- Flush Cut
- Leaner's & Hangers
- Trunk Inclusion
- Stump Cavity
- Backfill
- G.P.S.
- Eligible
- Ineligible
- Hazardous Material
- Rights-of-Way (ROW)
- ROW Markers

- Bucket Truck
- Self Loader
- Loading crew
- Chain Saw Pole Saw
- Flagger
- Contractor / Sub-Contractor
- FEMA
- Validation Pre & Post
- Load tickets
- Towers
- DMS Debris Management Sites
- Reduction Methods
- Oil Dry/Cat Litter
- Pre-Load / Partial Pre-Load





# DO's

- Be on time for morning briefing
- Be polite and respectful to everyone
- Write neat & accurate load tickets
- Maintain all safety and eligibility standards
- Bring your lunch breaks may be few
- Notify your supervisor if a restroom break is needed
- Smile and be helpful if approached by a resident, a contractor, local, state, or FEMA officials.
- Remember you may be approached by someone who lost a loved one and/or everything; show compassion.
- Be professional remember you are representing the client (local government) and as their representative,
   courteous and professional behavior is expected at all times.
- Remember all injuries and incidents are to be reported immediately to your supervisor.

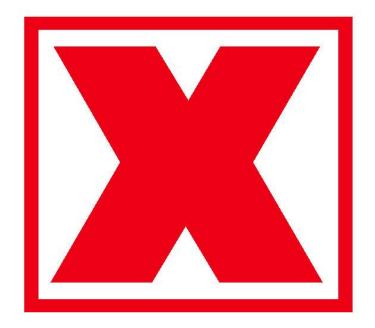






# Don'ts

- Don't be late or call in.
- Don't forget to wear your PPE.
- Don't ride with or allow the contractor to ride with you.
- Don't eat with or socialize with the contractor or crew.
- Don't flag traffic or use your vehicle as a lane blocker.
- Don't leave the debris contractor unattended.
- Don't leave the work site without notifying your supervisor.
- Don't issue more than one load ticket per loaded unit.
- Don't forget to be professional and courteous!
- Don't forget to report injuries and incidents to your supervisor immediately.







# Daily Report

Daily M	onito	or Repo	ort					Date	1-1-20
Project	_	SC.D	οT		Zone	5		Day	Monday
Name		John	Dos	2	Phone #	123-456	-7891	EMP#	1234
Supervisor		Mike	Jone	s	Phone #	234-567	-8912	_	
Driver	5	5ne	Doe		Phone #	345-678	-91Z	3 Truck #	10081
	Any		nt breakdo f YES, how		Yes No	~			
Wer	e then	e any visito	ors to work	site?	Yes V No				
			If YES,	who?	Rex	Doc (F	EMA.	)	
	Were 1	there any	incidents to						
	If	YES, who	did you con	tact?					
	Any in	formation	for super	isor?	FEMA	watch	ed 1	oad 1	na
					oper		-		,
Ticket#		Truck #		Tim	-	Location/Str			
18.53			180		:30				Street
18534			180		:30		Road		
18 53		100			2:00	HWY			
18536		106	Steer		0 to 5:00 6:30	MAIN		ree i	
10336	م د	100	101	+-	φ.50	MAI	·	vee.	
	_					-			
	- 1								
	_								
	_			-		-			
	-			-		-			
		-				1			
-	erviso	art Time r Review or Notes	7:00		End Time	7:00		Total	12
-	,								



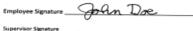


# Time Sheet

Weekly Time Sheet SCDOT - Week Ending: 5/11/2014

Name John Doc Emp# 1234 Phone 123-456-7891

	Site	Desc.	Code	Start	End	Hours		Site List	
3400	Calhoun	Row	510	7:00	7:00	12	Berkele		
\$ g							Calhour		
Monday 5/5/2014							Clarend	on	
- 15							Colleto	n	
	-	Supervis	or Approval		Hours	12	Dorche	ster	
2.00							Hampto	on .	
Tuesday 5/6/2014			_				Lexingt		
ž ž			+				Orangeburg		
		Superior	or Approval				I——		
25000		Jupervis	or Approval	-	Hours		I——		
4			_				I——	Description List	
Wednesday 5/7/2014			_				ROW	ROW & DMS	
3 5			+				Trees	Tree Work	
		Supervis	or Approval		Hours		Stump	Stump Removal	
1,182		1			Hours		I⊢—		
2 3			1				I <del></del>		
Thursday 5/8/2014							l⊢—		
25		Supervis	or Approval		Hours				
								Job Codes	
5/9/2014							439	Field Ops Manager	
102/6 19/201							440	Field Supervisor	
							450	Debris/Tower Monitor	
10000		Supervis	or Approval		Hours		500	Admin Assistant	
							503	Data Entry Clerk	
102 day			-				510	Callection Monitor	
Saturday 5/10/2014			+				II——		
		Supervis	or Approval				II—		
17 Table	-	Supervis	or Approval		Hours		II—		
_ 3			1				II		
S/11/2014							II—		
3 3									
		Supervis	or Approval		Hours				
			20.010	т.	otal Hours				
					ar Hours				
				-					
				Overtin	ne Hours		ı		







# Media/Communication Policy

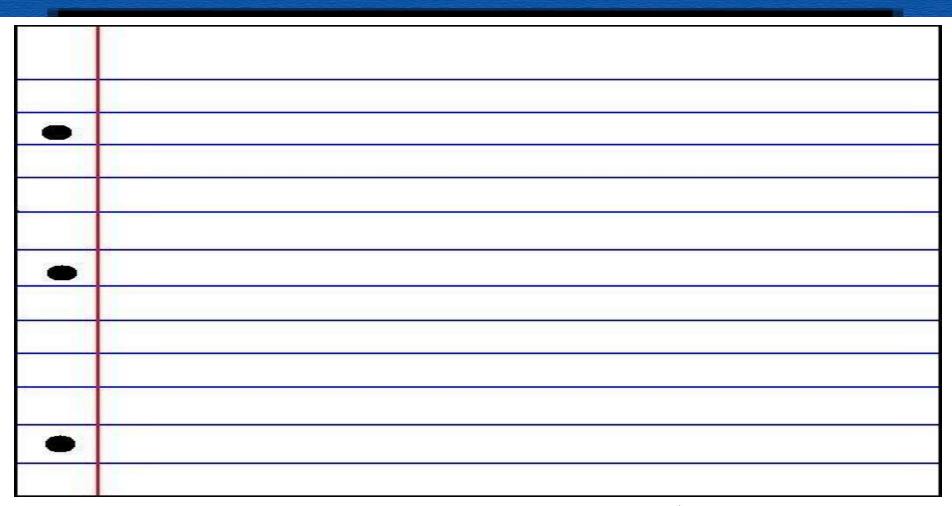
- If you are approached by **the media**, you are to respectfully offer **NO COMMENT** to the reporter. Be polite and refer them to your supervisor for information. Do not give out anyone's cell number.
- If you are approached by a **FEMA** person in the field, make sure they display **FEMA** identification. Be polite and answer their questions. If you are uncertain of an answer, tell them "I don't know," don't guess, don't lie, notify your supervisor that FEMA is on site.
- The same policy applies for anyone asking questions about completion dates etc...be polite & professional and refer them to the office.







# Notes







#### ATTACHMENT C

#### PROPOSER'S QUALIFICATIONS STATEMENT FORM

The undersigned guarantees the truth and accuracy of all statements and the answers contained herein.

Turra Nicotta	1.	Please describe your company in detail.
		gency Management provides all hazards mitigation, preparedness, response, and recovery services to e services include comprehensive planning, training, exercise development, debris monitoring, damage
		FEMA Public Assistance grant program consulting. Our top priorities include serving our clients with
		comprehensive solutions to their Emergency Management needs.
	2.	The address of the principal place of business is: 2501 Avenue J
		Suite 120
		Arlington, Texas 76006
	3.	Company telephone number, fax number and e-mail addresses: Office: 817.870.2422 Fax: 817.870.2489
		Email: derrick.tucker@neel-schaffer.com Cell: 601.506.3298
	***************************************	Email: nelson.lucius@neel-schaffer.com Cell: 817.201.1912
	4.	Number of employees:
	The	employment of True North varies depending on the magnitude of disaster
	respo	onse in progress and often includes several hundred employees.
	5.	Number of employees or subcontractors to be assigned to this project (per event) and what is capacity?
		team will commit the necessary personnel to successfully complete the project to the satisfaction of pically hire and train monitors locally to support the local community. We have hired
hundreds	of mor	nitors to provide debris management and monitoring following past disasters. We have more than
50 persor	<u>nel ex</u>	perienced in debris management, supervision, data and training of monitors.
	6.	Company Identification numbers for the Internal Revenue Service:
		27-3353823
	7.	Provide Occupational License Number (and County), if applicable, and expiration date:  To be provided upon selection.

8. How many years has your organization been in business? Does your organization have a specialty?  Neel-Schaffer Engineers and Planners, Inc. has been providing professional services since 1983. Dur services include emergency management, debris monitoring, engineering and related services. Dur wholly owned subsidiary company, True North Emergency Management, was formed in 2010 of focus specifically on emergency management with a specialty in debris monitoring and related financial recovery from FEMA, FHWA, FDEM, etc.  9. What is the last project of this nature or magnitude that you have completed? Please provide project description, reference and cost of work completed. The most current project experience of similar nature to your model event was Hurricane Sandy debris monitoring services for Ocean County, New Jersey. We monitored over 1.2 million CY of debris. The tota monitoring cost was \$4.1 Million. Reference information is provided in Section 5 of this proposal.  10. Have you ever failed to complete any work awarded to you? If so, where and why? No.  11. Give names, addresses and telephone numbers of three individuals, corporations, agencies, or institutions for which you have previously performed work, List of ALL disaster response contracts performed in the last 5 years, including customer name, total contract amount and yards removed. Use a separate tab if necessary.  11. See references provided in Section 2, Debris Management Experience matrix.  Address  Telephone No.  11.2. Name  Address  Telephone No.  11.3. Name  Address		
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Telephone No	1.	agencies, or institutions for which you have previously performed work. List of ALL disaster response contracts performed in the last 5 years, including customer name,
Telephone No:  11.2. Name  Address  Telephone No.  11.3. Name		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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Telephone No.  11.3. Name		11.2.
11.3. Name		Address
Name		Telephone No.
Address		
		Address

12. List the following information concerning all contracts in progress as of the date of submission of this bid. (In event of co-venture, list the information for all co-ventures.)

Name of Project	Owner	Value	Contracted Completion Date	%of Completion to Date
Debris Monitoring	Texas Department of Transportation	\$500,000.00	Anticipated 10/31/2015	95%

(Continue list on insert sheet, if necessary)

13.	Has the Proposer or Representative inspected the proposed project site and does
	the Bidder have a complete plan for performance of disaster response services?
Yes,	we have visited sites and have developed a plan for disaster debris monitoring services

for the City of Key Wes	/vest	/ vve	ey	Ke	OΤ	1	ľ	ار	٠,	пe	u	ЮГ	Ţ
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14. Provide list of subcontractor(s), the work to be performed and also a list of major materials suppliers for this Project?

Sub-Contractor Name	Address	Work to be Performed
N/A		
	and the contraction of the contract of the con	

(Continue list on insert sheet, 1f necessary)

The foregoing list of subcontractor(s) may not be amended after award of the contract without the prior written approval of the City Manager.

15. What equipment do you own that is available for the work?

#### PROVIDE LIST IN ATTACHMENT

16. What equipment will you purchase for the proposed work?

(Continue list on insert sheet, if necessary)

If the size of the project is beyond the equipment we have on hand, we will purchase additional equipment as needed to supply monitors with adequate reserve backup equipment. We review the equipment on hand prior to hurricane season to ensure adequate supplies of routine monitoring and safety equipment.

18. What equipment will you rent for the proposed work? (Continue list on insert sheet, if necessary)

True North normally purchases all equipment, but under some circumstances we may elect

to rent certain equipment such as computers, boats or cars.

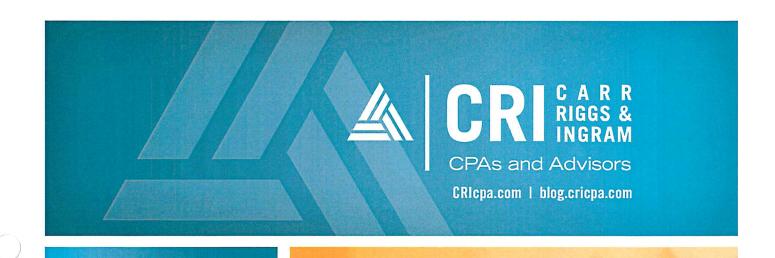
19. State the names of the proposed project team and include resumes, and give details of his or her qualifications and experience in managing similar work.

	(Continue list on insert sheet, if necessary)
	All details and resumes are provided in Section 3.
20.	State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business and the address of the place of business. (If a corporation, state the name of the president and secretary. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.)  True North Emergency Management, LLC.
	K. Nelson Lucius, PE - Manager W. Clark Robinson - Secretary
20.1	The correct name of the Proposer is: True North Emergency Management, LLC
	nsurance
20.2.	The business is a (Sole Proprietorship) (Partnership) (Corporation).  Corporation
20.3	The names of the corporate officers, or partners, or individuals doing business under a trade name, are as follows:
SIGNA	Derrick Tucker, PE / Sr. Project Manage  ATURE PRINT NAME/ TITLE  TY OF TARRANT )  SS.
The fo	regoing instrument was acknowledged before me this 28 day of August
2015.	bywho is personally known to me or who has
produc	ed as identification and who did/did not take an Oath.
	RY SEAL)  TRACY ENLOW Notary Public, State of Texas  August , 2015.  (Signature of person taking acknowledgment)
No.	My Commission Expires February 02, 2019

# True North Emergency Management, LLC

**FINANCIAL STATEMENTS** 

December 31, 2014 and 2013



# True North Emergency Management, LLC Table of Contents December 31, 2014 and 2013

REPORT Independent Auditors' Report	1 - 2
AUDITED FINANCIAL STATEMENTS Balance Sheets	4
Statements of Operations and Member's Equity	5
Statements of Cash Flows	6
Notes to Financial Statements	7 - 12



Carr, Riggs & Ingram, LLC 282 Commerce Park Drive Ridgeland, MS 39157

Mailing Address: P.O. Box 2418 Ridgeland, MS 39158-2418

(601) 853-7050 (601) 853-9331 (fax) www.cricpa.com

#### INDEPENDENT AUDITORS' REPORT

To the Board of Directors
True North Emergency Management, LLC
Jackson, Mississippi

We have audited the financial statements of True North Emergency Management, LLC, which comprise the balance sheets as of December 31, 2014 and 2013, and the related statements of operations and member's equity, and cash flows for the years then ended, and the related notes to the financial statements.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### **Auditor's Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

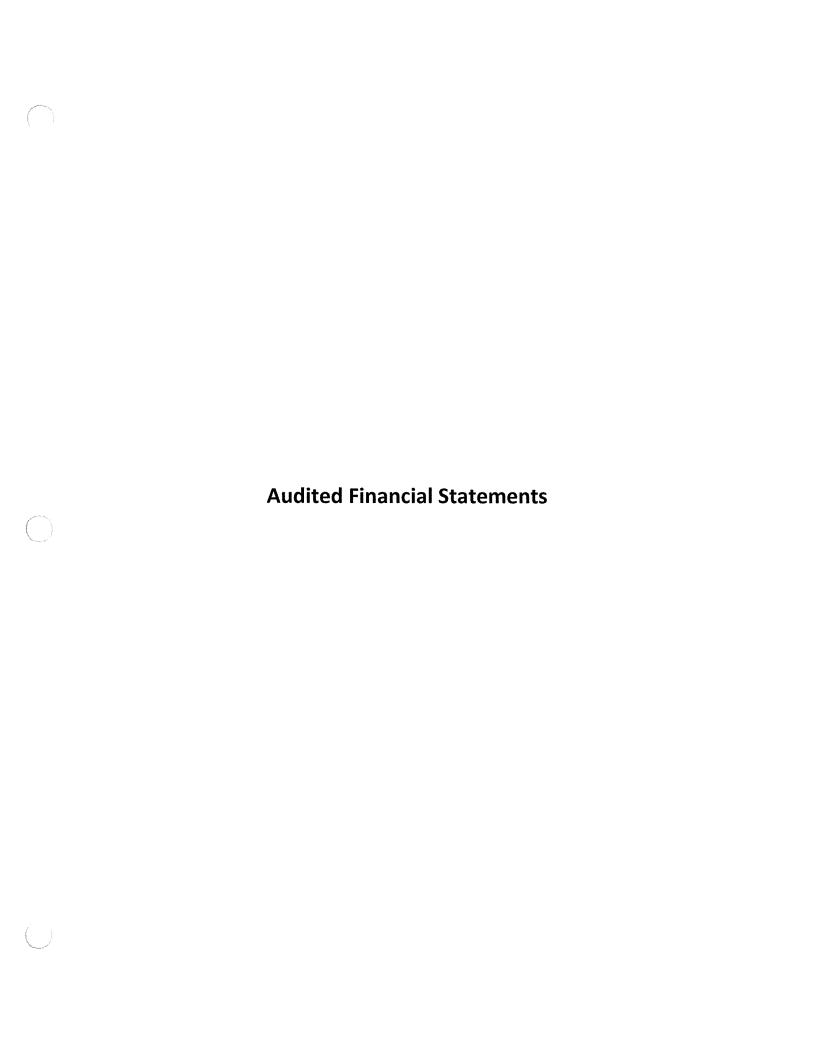
We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of True North Management, LLC as of December 31, 2014 and 2013, and the results of its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Can Rigge & Ingram, L.L.C.

CARR RIGGS & INGRAM, LLC Ridgeland, Mississippi April 30, 2015



December 31,	2014	2013
Assets		
Current assets		
Fees receivable	\$ 3,207,706	\$ 2,783,507
Unbilled work-in-progress	16,751	155,651
Accounts receivable - employees	21	_
Prepaid expenses	9,584	9,290
Refundable income taxes	-	415,050
Total current assets	3,234,062	3,363,498
Property and equipment		
Office equipment	4,378	4,378
Transportation equipment	11,449	-
Machinery and equipment	21,434	21,434
	37,261	25,812
Less accumulated depreciation	(20,153)	(9,972)
Total property and equipment	17,108	15,840
Other assets		
Deposits	2,500	4,500
Due from related parties	675,421	760,371
Total other assets	677,921	764,871
Total assets	\$ 3,929,091	\$ 4,144,209

## True North Emergency Management, LLC Balance Sheets

December 31,	2014	2013
Liabilities and Member's Equity		
Current liabilities		
Cash drawn in excess of deposits	\$ 18,143	\$ 12,158
Notes payable	-	1,306,919
Accounts payable	2,435,930	2,040,665
Employees payable	-	4,698
Accrued expenses	83,422	30,984
Income tax payable	281,116	-
Deferred income taxes	997,003	979,139
Total current liabilities	3,815,614	4,374,563
Deferred income taxes	3,468	5,908
		V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2
Member's equity (deficit)	110,009	(236,262)

Total liabilities and member's equity	\$ 3,929,091	\$ 4,144,209

# True North Emergency Management, LLC Statements of Operations and Member's Equity

Years ended December 31,	2014	2013
Gross fees	\$ 9,527,984	\$ 4,252,845
Deductions from gross fees		
Consultants	41,346	8,949
Other direct costs	466,125	284,798
Travel and subsistence	284,679	309,688
Total deductions	792,150	603,435
Net fees	8,735,834	3,649,410
Direct labor	4,460,014	2,107,626
Gross profit	4,275,820	1,541,784
Overhead expenses		
Indirect salaries	913,869	737,629
Depreciation	10,181	8,124
Other overhead	2,708,959	1,441,197
Total overhead expenses	3,633,009	2,186,950
Income (loss) before provision for income tax (benefit)	642,811	(645,166)
Provision for income tax (benefit)	296,540	(226,638)
Net income (loss)	346,271	(418,528)
Member's equity (defecit), beginning of year	(236,262)	182,266
Member's equity (deficit), end of year	\$ 110,009	\$ (236,262)

### True North Emergency Management, LLC Statements of Cash Flows

Years ended December 31,		2014		2013
Cash flows from operating activities	_		_	( )
Net income (loss)	\$	346,271	\$	(418,528)
Adjustments to reconcile net income (loss) to net				
cash provided (used) by operating activities:				
Depreciation expense		10,181		8,124
Deferred income taxes		15,424		188,412
(Increase) decrease in:				
Fees receivables, net		(424,199)		(452,343)
Employees receivable		(21)		-
Unbilled work-in-progress, net		138,900		(135,875)
Prepaid expenses		(294)		(6,508)
Refundable income taxes		415,050		(415,050)
Deposits		2,000		_
Increase (decrease) in:		-		
Cash drawn in excess of deposits		5,985		(240,125)
Accounts payable		395,265		1,145,715
Employees payable		(4,698)		(3,872)
Acrrued expenses		52,438		(160,743)
Income tax payable		281,116		_
Net cash provided (used) by operating activities		1,233,418		(490,793)
Cash flows from investing activities				
Purchase of property and equipment		(11,449)		(12,465)
Nick and the Country of the Country		(44 440)		(42.465)
Net cash used by investing activities		(11,449)		(12,465)
Cash flows from investing activities				
Net change in notes payable		(1,306,919)		497,760
Net change in affiliaties receivable		84,950		5,498
receilinge in armitudes receivable		04,550		3,430
Net cash provided (used) by financing activitives		(1,221,969)		503,258
Net increase (decrease) in cash		-		-
Cash - beginning of year		-		
Cash and afores			۲.	
Cash - end of year	\$	-	\$	
Cash paid during the year for interest	\$	21,630	\$	QE //10
Cash paid during the year for interest	Ą	21,030	Ş	85,418

#### **NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

#### **Business Activities**

True North Emergency Management, LLC (the Company) was established in 2010. The Company provides emergency response services in the United States.

The Company is a wholly owned subsidiary of Neel-Schaffer, Engineers and Planners, Inc.

#### **Revenue and Cost Recognition**

The Company recognizes revenues from professional services as performed. Revenues are determined from time records and hourly rates. Services performed but not yet billed are recorded as unbilled work-in-progress at net realizable amounts and recorded in revenues.

#### **Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### Receivables

The Company reports receivables at gross amounts less an estimate made for doubtful receivables. Management determines the allowance for doubtful accounts by identifying delinquent accounts and by using historical experience applied to an aging of accounts, which includes regularly evaluating individual receivables and considering a customer's financial condition, credit history and current economic conditions. Receivables, excluding retainage, are considered delinquent after 120 days.

The Company extends credit to its customers in the normal course of business and does not require collateral on its outstanding receivables.

#### **Property and Equipment**

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is provided utilizing the double declining balance method over the estimated useful lives of the assets. Expenditures for major renewals and betterments which significantly extend the useful lives of existing property are capitalized and depreciated. Upon retirement or disposition of property and equipment, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized in income.

#### NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Long-lived assets

Long-lived assets held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In the event that facts and circumstances indicate that the cost of any long-lived assets may be impaired, an evaluation of recoverability would be performed.

#### **Income Taxes**

The Company and its sister corporations file tax returns as part of the consolidated Federal tax return of its parent company, Neel Schaffer, Engineers and Planners, LLC and individually in various states. The Company pays to or receives from the parent company amounts equivalent to Federal income tax charges or credits based on separate company taxable income or loss using statutory rates.

Deferred income taxes are provided in accordance with the *Income Taxes* Topic of the Codification to recognize differences in timing of reporting income and expenses for financial statement and for tax purposes. These differences are attributable to deductible timing differences due to income being recognized on the cash basis method for tax reporting purposes and carryforwards of other tax attributes.

The Company's provision for income taxes differs from applying the U.S. statutory income tax rate to income before income taxes. The primary differences result from providing for state income taxes, from deducting certain expenses for financial statement purposes but not for Federal income tax purposes, and from the use of tax credits to offset income taxes.

#### **Uncertain Tax Positions**

FASB Codification Topic Accounting for Uncertain Tax Positions prescribes the recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interest and penalties are accrued on unrecognized tax benefits. At December 31, 2014 and 2013, the Company had no unrecognized tax benefits.

The Company's Federal and state income tax returns for the tax year 2011 and beyond remain subject to examination by the Internal Revenue Service and applicable state taxing authorities.

#### **NOTE 2: FEES RECEIVABLE**

Fees receivable consisted of the following:

December 31,		2014		2013
Fees receivable Less: Allowance for bad debts	\$	3,577,706 (370,000)	\$	3,153,507 (370,000)
Less. 7 mowanie for bad debes	<u> </u>	3,207,706	ς .	2,783,507

#### **NOTE 3: UNBILLED WORK-IN-PROGRESS**

Unbilled work-in-progress consisted of the following:

December 31,	2014	2013
Unbilled work-in-progress	\$ 30,751	\$ 169,651
Less: reserve for non-billable work-in-progress	(14,000)	(14,000)
	\$ 16,751	\$ 155,651

#### **NOTE 4: NOTES PAYABLE**

As of December 31, 2013, the Company had a note payable, bearing interest at 4.00%, secured by fees receivable. The note matured in July 2014. The principal balance was \$1,306,919 at December 31, 2013.

#### **NOTE 5: PROVISION FOR INCOME TAXES**

Provision for income tax benefit for the years ended December 31, 2014 and 2013, consisted of the following:

Years ended December 31,		2014		2013
Income (loca) before provision for income toy (benefit)	ć	C42 011	۲	(645.166)
Income (loss) before provision for income tax (benefit)	<u> </u>	642,811	\$	(645,166)
Current income taxes (NOL benefit consumed by consolidated entity) Increase in deferred income taxes	\$	281,116 15,424	\$	(415,050) 188,412
Provision for income tax (benefit)	\$	296,540	\$	(226,638)

#### **NOTE 6: DEFERRED INCOME TAXES**

Deferred income items at December 31, 2014 and 2013 consisted of:

December 31,	2014	2013
Current:		
Deferred income from conversion of accrual		
basis to cash basis	\$ 2,672,929	\$ 2,829,207
Charitable contributions carryfoward	-	(1,000)
Long-term:		
Depreciation difference - timing	9,429	15,840
	·	
	\$ 2,682,358	\$ 2,844,047

#### **NOTE 6: DEFERRED INCOME TAXES (Continued)**

December 31,				2014		
		Assets		Liabilities		Total
Current						
Federal	\$	-	\$	(863,357)	\$	(863,357)
State		-		(133,646)		(133,646)
		-		(997,003)		(997,003)
Long-term						
Federal		-		(397)		(397)
State				(3,071)		(3,071)
		-		(3,468)		(3,468)
T. 1.1.6	_		_	(4 000 174)	_	(4 000 474)
Total deferred taxes	\$	-	\$	(1,000,4/1)	\$	(1,000,471)
Current						
Federal	\$	240	4	(005 003)	۲.	(004 663)
	Ş	340	\$	(905,003)	Þ	(904,663)
State		50		(74,526)		(74,476)
		390		(979,529)		(979,139)
Long-term						
Federal		=		(5,116)		(5,116)
State		_		(792)		(792)
		-		(5,908)		(5,908)
			, i.			
Total deferred taxes	\$	390	\$	(985,437)	\$	(985,047)

#### **NOTE 7: RELATED PARTY TRANSACTIONS**

Neel-Schaffer, Inc., Maptech, Inc., Soiltech, Inc., Engineers Constructors, Inc. and True North Emergency Management, LLC are all wholly owned subsidiaries of Neel Schaffer, Engineers and Planners, LLC. These related corporations provide various surveying, geotechnical and engineering services to each other. Although there were no transactions between the entities other than those listed below, the stockholders of the Company are in a position to influence financial results of the Company for the benefit of the Company or the other entities under their control. In addition to these entities, the stockholders of the Company own interests in other entities with which the Company did not transact business during the years ended December 31, 2014 and 2013.

During the years ended December 31, 2014 and 2013, the Company transacted with the other entities owned by the Company's stockholders. A summary of these transactions is listed below:

December 31,	2014	2013
Due from Neel Schaffer, Engineers and Planners, Inc.	\$ 284,126	\$ 284,126
Due from Neel-Schaffer, Inc.	\$ 391,295	\$ 476,245
Balances receivable from related parties included in accounts receivable.	\$ 453,070	\$ 75,264
Balances payable to related parties included in accounts payable.	\$ 2,409,709	\$ 2,032,371

#### **NOTE 8: RETIREMENT PLAN**

The Company has a Profit Sharing 401(k) plan for qualifying employees with a matching contribution to the plan equal to 50% of the individual elective deferral not to exceed a match of elective deferrals in excess of 6% of compensation. Total matching contributions to the plan for the years ended December 31, 2014 and 2013 were \$17,636 and \$7,588, respectively and are included in other overhead.

#### **NOTE 9: MANAGEMENT REVIEW**

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through April 30, 2015, the date the financial statements were available to be issued.



ltem	Location				
	Ocean Springs, MS	Mobile Response Unit, Lake City, FL	Houston, TX	Mobile,	Total
E-Ticket Unit	120	4	20	AL 54	Total 198
Camera	50	4	20	54	
Computer Monitor	40	1		2	50
	77.00	1			43
Desktop Computer External Hard Drive	25				25
ACT COMPANY OF THE PARTY OF THE	4	2.000			4
Five Part Load Ticket	500	2,000		50	2,550
Personal Flotation Device	35	12			35
Folding Chair	47 13	13 12			60
Folding Table (6') Full Safety Suit		12			25
Generator	37 4	4			37
GPS		4			8
	50	155			205
Hard Hat	200	102			302
Impact Printer (E-Ticket)	5	3		2	10
Laminator Trailer Englaced (6' V 10')	1	4			1
Trailer - Enclosed (6' X 10')	1	1	-		2
Trailer - Travel (26')	1				1
Truck & SUV	2				2
Uninterruptible Power Supply	15				15
VHF Radio	3	2			3
WiFi Router	10	2			12
Safety Jacket	5				5
Safety Vest	150	47		5	202
Memory Card	75		10		75
Mobile Thermal Printer (E-Ticket)	5	2	10	23	40
Scanner	3	1		2	6
Server	2				2
Name Badge Printer	10	1			1
Network Switch	10				10
Laser Printer	5	1			6
Laptop	5	2		2	9
Measuring Tape (100')	25	1			26
Measuring Tape (50')		2			2
Measuring Tape (25')		1			1
8' Step Ladder		1			1
12' Folding Ladder		1			1
Box Fans	3	3			6
Office Chairs	10	3			13
Wilson Cell Signal Booster		1			1
Bushnell Binoculars		1			1
Android Tablet	50	1			51
Iziggi HD Camera		1			2
AT&T 3G Microcell		1			1
Epson Projector		1			1
Handheld GPS		1			1
Yeti 45 Ice Chest	1.655	1			1
Tree Tickets Paper	1,000	500			1,500
Truck Cert Forms	1,000	100			1,100
Pelican Cases	20	2			22
Marking Paint (White)	250	72			322
Marking Paint (Orange)	500	228			728
Extension Cords		2			0
Multi Plug Power Strips	25	2			27

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NECL-SCHAFFER

Lot Number

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### TRUCK CERTIFICATION FORM

	General Inf	ormation		
Applicant:		Monitor:		
Contractor:		Date:		
Measurement Location:		County:		
Declaration Number:		·		
	Truck Info	rmation		
Make	Year	Color	License	
Truck Measurements				
Performed By:		Date:		
Volume Calculated By:		Date:		
Both Checked by:		Date:		
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Address:				
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	Owner Info	rmation		
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### Truck Certification -Worksheet

Truck #	Project	License	Plate
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Signature	_	Signature	
Date		Date	
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### Truck Certification -Rendering & Measurement

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### DMS INFORMATION SHEET

Geodetic Coordinates (GPS) Site Use / Purpose Debris Types Owner State / County Town Nearest Intersection Permit on File Governing Agency (s) Point of Contact, Title & Phone Permit Holder Additional Permitted Start Date / End Date Debris Monitoring Company Photo Taken by / Date Debris Removal Contractor Final Disposal Site  DMS Photo	
Owner State / County Town Nearest Intersection Permit on File Governing Agency (s) Point of Contact, Title & Phone Permit Holder Additional Permitted Start Date / End Date Debris Monitoring Company Photo Taken by / Date Debris Removal Contractor Final Disposal Site	
State / County Town  Nearest Intersection  Permit on File  Governing Agency (s)  Point of Contact, Title & Phone  Permit Holder  Additional Permitted  Start Date / End Date  Debris Monitoring Company  Photo Taken by / Date  Debris Removal Contractor  Final Disposal Site	
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### **Incident Report**

Project	Date o	f Incident	Time
Name		EMP#	Phone #
Location			
Incident Type	Utilities Personal Property	Employee Accident	Other
Home Owner			Phone #
Truck Driver Subcontractor	-	Truck #	Phone #
Subcontractor		Prime	Phone #
	Did you contact your supervisor?		What time?
	Who did you contact?		
Was	the Prime Contractor contacted?		What time?
	Who did you contact?		
	Any utility services contacted?		What time?
	If YES who?		
	Bottom section	n for supervisor use only	
F	Responding Supervisor		Time
	Date of Resolution		
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Date	Project		Supervisor		
	Name	Monitor	Tower	Manager	Other
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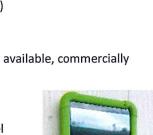


### **North Track Data Management System**

### **Electronic Ticketing System - Overview**

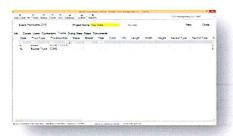
### North Track Features:

- Meets the Corps of Engineers (USACE) debris specifications
- ADMS Specification Based Design
- Secure:
  - o 3DES Encryption
  - o Username/Password protected
- Sync Mode for Off-line use:
  - Regardless of cellular network availability, North Track maintains complete functionality
- Geospatial Data:
  - o per ticket haul/tree work/marine (multiple GPS points)
  - Digital Photos with text/data/GPS point (when required)
- Cloud Based Data:
  - North Track offers a user name/password protected web-based accessible system.
  - Easily accessed by all authorized parties (Client, Contractors, Consultants, FEMA, etc.)
  - o Client dictates authorizations
- Scalable:
  - In addition to our 100+ inventoried Hand Held Units (HHU's), our system uses readily available, commercially sourced hardware and can be scaled to handle any size event.
- Redundant Backup Servers
- \* Real Time/Near-Real Time Reporting
  - North Track Windows proprietary system allows reports to be exported into MS Excel
  - Reporting is authorized based and is available to all required parties
  - o Customizable reporting available
- Payment Monitoring and Reconciliation
  - True North can monitor the entire invoicing process from hauling contractors
  - North Track allows for reconciling contractors data for accurate invoicing
  - Ensures complete data sets for reimbursement
- Truck Certification
- Unlimited Zones/Areas
- Unlimited and Customizable Debris Types
- Right-of-Way (ROW) Collection
- Tree Work (Leaner/Hanger/Stump)
- Private Property Debris Removal (PPDR)
- Demolitions
- markHaul Out/Disposal
- Monitor Management
- Complete QA/QC of all data with internal reports



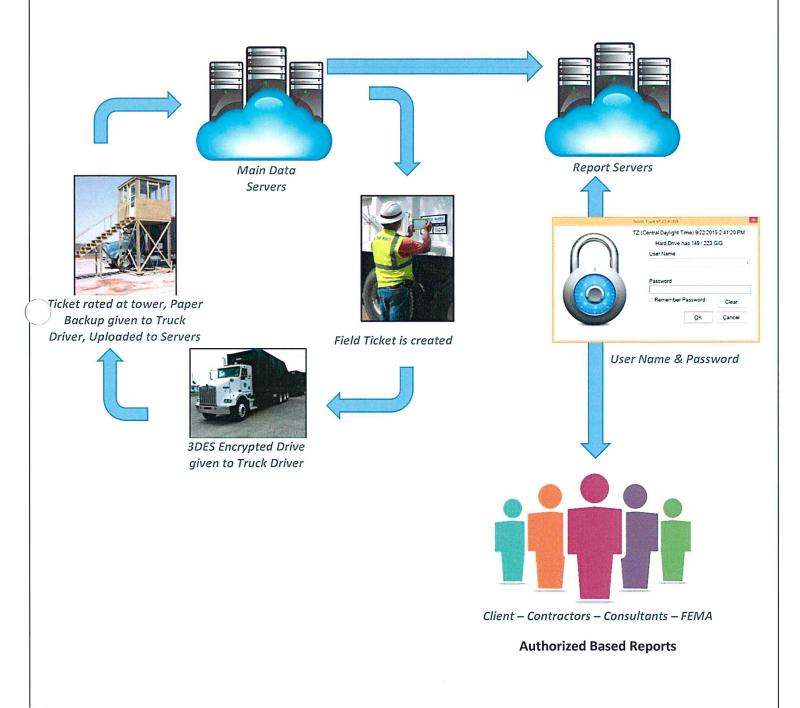


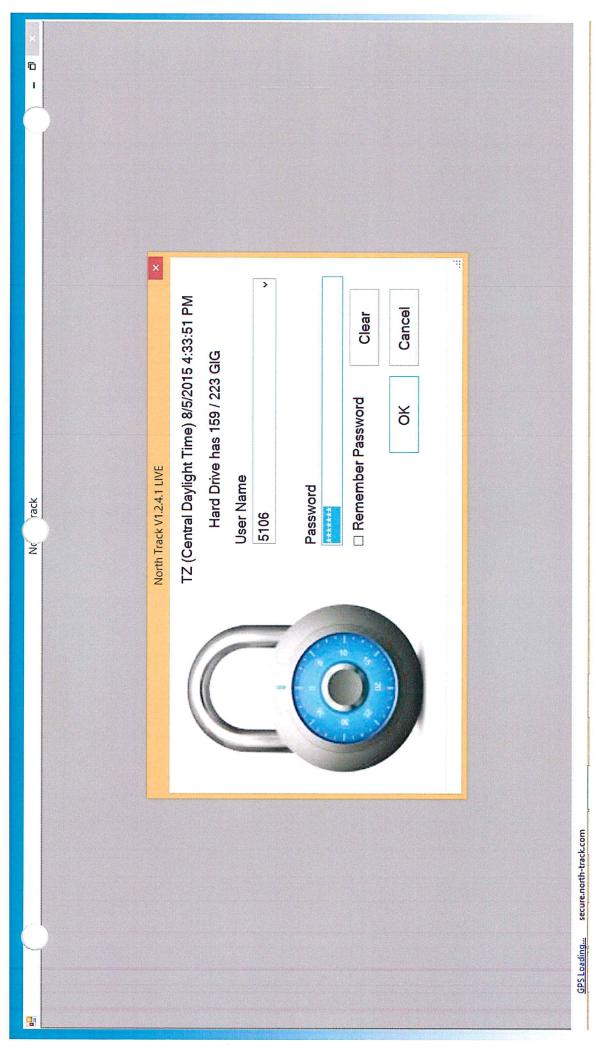






### **Network Architecture - Overview**





## Login Screen:

- North Track has a secure login screen.
- Each user has a unique username and password to ensure a secure system.





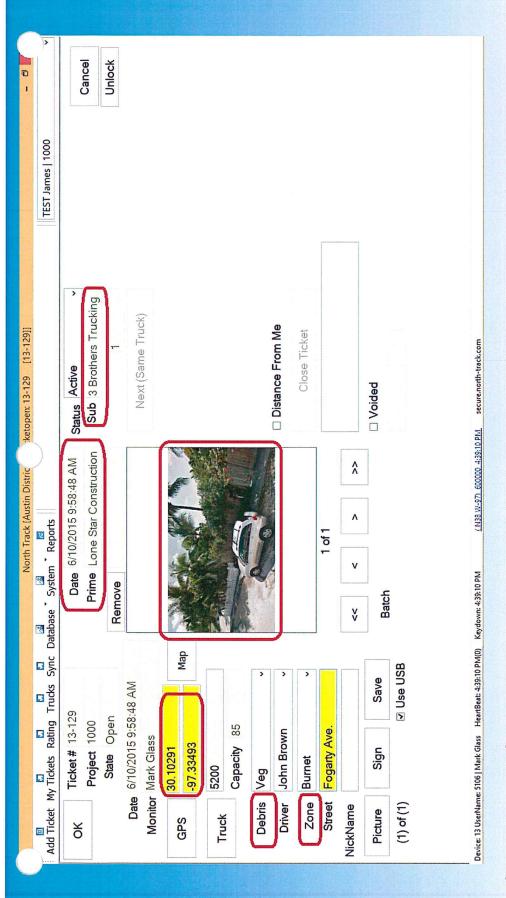
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# Project Setup Screen:

- Each project is customized to meet the project and client needs.
- Unlimited zones, contractors, debris types, and truck certifications.





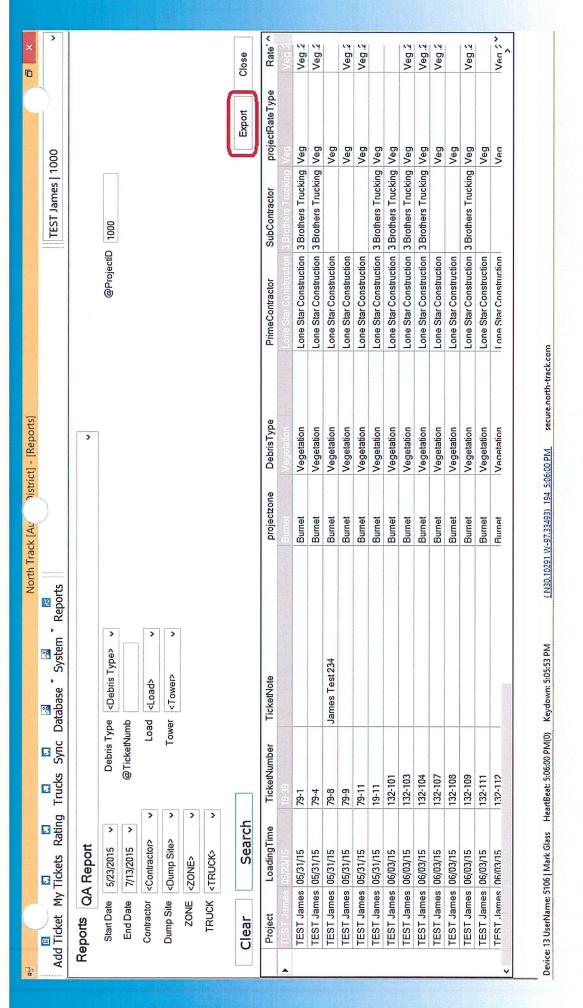


# **Electronic Ticket:**

- Each ticket captures critical project information.
- Address/Location, GPS point, debris type, zone, prime and sub-contractor.
- Geotagged photos (when applicable).
- Flexible debris categories: Vegetative, C&D, Hazardous Limbs, Tree Removal, Marine, Sand, Seaweed, and more.







## Report Screen:

- Flexible reporting allows filtering by date range, zone, truck, debris type, and more.
- Standard Reporting.
- Customizable reporting to meet project and client needs.







# **Exporting Data and Reports:**

- All data and customizable reports can be exported into Microsoft Excel.
- Photos hyperlinked to applicable data.





### ATTACHMENT H

### **PUBLIC ENTITY CRIMES CERTIFICATION**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

7	This sworn statement is submitted to the City of Key West, Florida, by	
	Derrick Tucker, PE - Senior Project Manager	
	(Print individual's name and title)	
	for: _True North Emergency Management, LLC	
	2501 Avenue J, Suite 120, Arlington, TX 76006	
	(print name of entity submitting sworn statement)	
	Whose business address is: 27-3353823	
	And (if applicable) its Federal Employer Identification Number (FEIN) is	
	(If the entity has no FEIN, include the Social Security	
	Number of the individual signing this sworn statement	)

- 2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any Proposal or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
- 3. I understand that "conviction" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 4. I understand that an "affiliate" as defined in Paragraph 287.133(1) (a), Florida Statutes, means:
  - A predecessor or successor of a person convicted of a public entity crime: or
  - 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment of income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

- I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which Proposals or applies to Proposal on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
- 6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement (indicate which statement applies).

X Neither the entity submitting this sworn statement, or any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before an Administrative Law Judge of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Administrative Law Judge determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH ONE (1) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(SIGNATURE)

September 15, 2015

(DATE)

STATE OF Texas

COUNTY OF Tarrant

### PERSONALLY APPEARED BEFORE ME, the undersigned authority

Derrick Tucker, PE	who, after first being sworn by me,
	(name of individual) affixed his/her signature in the space
provided above on this _	15 day of September, 2015.
4	
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MOTARY DURANTE	

Tracy Enlow Printed Name TRACY ENLOW
Notary Public, State of Texas
My Commission Expires
February 02, 2019

My commission expires: February 2, 2019

### ATTACHMENT I

### ANTI-KICKBACK AFFIDAVIT

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SS:

COUNTY OF MONROE

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the City of Key West, Florida, by <u>Derrick Tucker</u>, PE - Senior Project Manager

(Print individual's name and title)

True North Emergency Management, LLC (Print name of entity submitting sworn statement)

Whose business address is: 2501 Avenue J, Suite 120, Arlington, TX 76006

And (if applicable) its Federal Employer Identification Number (FEIN) is: 27-3353823

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):

I, the undersigned, being hereby duly sworn, depose and say that no sum has been paid and no sum will be paid to any employee or elected official of the City of Key West as a commission, kickback, reward or gift, directly or indirectly, by me or any member of my company, or by any officer or agent of the corporation.

RA:

Derrick Tucker, PE

TITLE: Senior Project Manager

Sworn and prescribed before me this 15 day of September, 2015.

NOTARY PUBLIC, State of Florida Texas My commission expires: February 2, 2019

### ATTACHMENT J

### **CONFLICT OF INTEREST STATEMENT**

Proposer must disclose the name of any person that is an employee of the City and also an officer, director, employee or agent of the Proposer, or a relative of an officer, director, employee or agent of the Proposer. Further, each Proposer must disclose the name of any City employee that owns, directly or indirectly, an interest of one percent (1%) or more in the Proposer's company, its affiliates, or parent or subsidiary organizations.

N/A

Persons Name

Describe the Persons Possible Conflict of Interest

### ATTACHMENT K

### LOCAL VENDOR CERTIFICATION PURSUANT TO CKW ORDINANCE 09-22 SECTION 2-798

The undersigned, as a duly authorized representative of the vendor listed herein, certifies to the best of his/her knowledge and belief, that the vendor meets the definition of a "Local Business." For purposes of this section, "local business" shall mean a business which:

- Principle address as registered with the FL Department of State located within 30 miles of the boundaries of the city, listed with the chief licensing official as having a Business tax receipt with its principle address within 30 miles of the boundaries of the city for at least one year immediately prior to the issuance of the solicitation.
- Maintains a workforce of at least 50 percent of its employees from the city or within 30 miles of its boundaries.
- c. Having paid all current license taxes and any other fees due the city at least 24 hours prior to the publication of the call for bids or request for proposals.
  - Not a local vendor pursuant to Ordinance 09-22 Section 2-798
  - Qualifies as a local vendor pursuant to Ordinance 09-22 Section 2-798

If you qualify, please complete the following in support of the self-certification & submit copies of your County and City business licenses. Failure to provide the information requested will result in denial of certification as a local business.

Business Name : True North Emergency Managemen	nt, LLC Phone: — ——————
Current Local Address: N/A P.O Box numbers may not be used to esta	ablish status)
Length of time at this address — — — —	
Signature of Authorized Representative	September 15, 2015 Date
STATE OF Texas	
COUNTY OF Tarrant	
The foregoing instrument was acknowledged befor 2015	e me this15day of _September
By Derrick Tucker, PE (Name of officer or agent, title of officer or agent acknowledged)	of True North Emergency Management, LLC Name of corporation
Or has produced(Type of identific	as identification
TRACY ENLOW Notary Public, State of Texas My Commission Expires February 02, 2019	Signature of Westary Tracy Enlow
Return Completed form with supporting documents to: City of Key West Purchasing	Print, Type or Stamp Name of Notary
	Title or Rank

### ATTACHMENT L

### ACKNOWLEDGEMENT OF CONFORMANCE WITH O.S.H.A. STANDARDS

TO: CITY OF KEY WEST

Proposer's Name: True North Emergency Management, LLC, hereby acknowledge	
and agree that they have the sole responsibility for compliance with all requirements of the	
Federal Occupational Safety and Health Act of 1970, and all State and Local Safety and	
Health regulations, and agree to indemnify and hold harmless the CITY, its officers, agents,	
employees, and consultants against any and all legal liability or loss the CITY, its officers,	
Agents, employees, and consultants may incur due to failure to comply with such act.	
True North Emergency Management, LLC PROPOSERS NAME  By: June North Emergency Management, LLC PROPOSERS NAME  Derrick Tucker,  Title : Senior Project Manager	PE

September 28, 2015

DATE

### ATTACHMENT N

### MINIMUM REQUIREMENTS FOR EVIDENCE OF INSURABILITY

To the fullest extent permitted by law, the CONTRACTOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees \*(herein called the "indemnitees") from liabilities, damages, losses and costs, including but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR, its Subcontractors or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONTRACTOR's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR under Workers' Compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONTRACTOR or of any third party to whom CONTRACTOR may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR:	True North Emergency Management, LLC	SEAL:
	2501 Avenue J, Suite 120, Arlington, TX 76006	
	Address Jewel Tuch	
	Signature	
	Derrick Tucker, PE	
	Print Name	
	Senior Project Manager	
	Title	
DATE:	September 15, 2015	



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 8/28/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PROI								CONTA NAME:	ст Вetty Рі	ckett				
	Arthur J. Gallagher Risk Management Services, Inc.					Inc.	PHONE (A/C, No, Ext): 601-956-5810 FAX (A/C, No): 601-957-7098						57-7098	
	P.O. Drawer 16447 Jackson MS 39236-6447						E-MAIL ADDRESS: betty-pickett@ajg.com							
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1	DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  Project: City of Key West													
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Wai Mar	Waiver of Subrogation applies to certificate holder, as respects Workers Compensation policy as per attached form WC000313. USL&H and Maritime forms if applicable apply as per the attached forms WC000106 and WC000201B.													
Poli	cy ir	ncludes Blank	et 6	60 Day Notice	of Ca	ancel	lation per attached form							
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CE	RTIF	ICATE HOLD	ER					CAN	CELLATION	10 Day Not	ice for Non-Pa	yment		
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### WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 00 03 13 (00)-01

POLICY NUMBER: (PJUB-3E45895-6-15)

### WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

**SCHEDULE** 

**DESIGNATED PERSON:** 

### **DESIGNATED ORGANIZATION:**

ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.

**DATE OF ISSUE: 04-17-15** 

ST ASSIGN:



### WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 00 01 06 ( A) - 001

POLICY NUMBER: (PJUB-3E45895-6-15)

### LONGSHORE AND HARBOR WORKERS' COMPENSATION ACT COVERAGE ENDORSEMENT

This endorsement applies only to work subject to the Longshore and Harbor Workers' Compensation Act in a state shown in the Schedule. The policy applies to that work as though that state were listed in Item 3.A. of the Information Page. General Section C. Workers' Compensation Law is replaced by the following:

### C. Workers' Compensation Law

Workers' Compensation Law means the workers or workmen's compensation law and occupational disease law of each state or territory named in item 3.A. of the Information Page and the Longshore and Harbor Workers' Compensation Act (33 USC Sections 901-950). It includes any amendments to those laws that are in effect during the policy period. It does not include any other federal workers or workmen's compensation law, other federal occupational disease law or the provisions of any law that provide nonoccupational disability benefits.

Part Two (Employers Liability Insurance), C. Exclusions., exclusion 8, does not apply to work subject to the Longshore and Harbor Workers' Compensation Act.

This endorsement does not apply to work subject to the Defense Base Act, the Outer Continental Shelf Lands Act, or the Nonappropriated Fund Instrumentalities Act.

The rates for classifications with code numbers not followed by the letter "F" are rates for work not ordinarily subject to the Longshore and Harbor Workers' Compensation Act. If this policy covers work under such classifications, and if the work is subject to the Longshore and Harbor Workers' Compensation Act, those non-F classification rates will be increased by the longshore and Harbor Workers' Compensation Act Coverage Percentage shown in the Schedule.

### **SCHEDULE**

State	Longshore and Harbor Workers' Compensation Act Coverage Percentage
AL	112.0
AR	66.0
CO	44.0
ст	25.0
FL	121.0
GA	47.0
IA	102.0
KY	35.0
LA	112.0
МО	45.0

PAGE 1 OF MORE



### WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY ENDORSEMENT WC 00 02 01 ( B) - 001

POLICY NUMBER: (PJUB-3E45895-6-15)

### MARITIME COVERAGE ENDORSEMENT

This endorsement changes how insurance provided by Part Two (Employers Liability Insurance) applies to bodily injury to a master or member of the crew of any vessel.

### A. How This Insurance Applies is replaced by the following:

### A. How This Insurance Applies

This insurance applies to bodily injury by accident or bodily injury by disease. Bodily injury includes resulting death.

- 1. The bodily injury must arise out of and in the course of the injured employee's employment by you.
- 2. The employment must be necessary or incidental to work described in Item 1 of the Schedule of the Maritime Coverage Endorsement.
- 3. The bodily injury must occur in the territorial limits of, or in the operation of a vessel sailing directly between the ports of, the continental United States of America, Alaska, Hawaii or Canada.
- 4. Bodily injury by accident must occur during the policy period.
- 5. Bodily injury by disease must be caused or aggravated by the conditions of your employment. The employee's last day of last exposure to the conditions causing or aggravating such bodily injury by disease must occur during the policy period.
- If you are sued, the original suit and any related legal actions for damages for bodily injury by accident or by disease must be brought in the United States of America, its territories or possessions, or Canada.
- C. Exclusions is changed by removing exclusion 10 and by adding exclusions 13 and 14.

This insurance does not cover:

- 13. Bodily injury covered by a Protection and Indemnity Policy or similar policy issued to you or for your benefit. This exclusion applies even if the other policy does not apply because of another insurance clause, deductible or limitation of liability clause, or any similar clause.
- 14. Your duty or obligation to provide transportation, wages, maintenance, and cure. This exclusion does not apply if a premium entry is shown in Item 2 of the Schedule, except that punitive damages related to your duty or obligation to provide transportation, wages, maintenance, and cure under any applicable maritime law are excluded even if a premium is paid for transportation, wages, maintenance, and cure coverage.
- D. We Will Defend is changed by adding the following statement:

We will treat a suit or other action in rem against a vessel owned or chartered by you as a suit against you.

### G. Limits of Liability

Our liability to pay for damages is limited. Our limits of liability are shown in the Schedule. They apply as explained below.

Bodily Injury by Accident. The limit shown for "bodily injury by accident—each accident" is the most we
will pay for all damages covered by this insurance because of bodily injury to one or more employees in
any one accident.

A disease is not bodily injury by accident unless it results directly from bodily injury by accident.





### **WORKERS COMPENSATION** AND **EMPLOYERS LIABILITY POLICY** ENDORSEMENT WC 00 02 01 (B) - 001

POLICY NUMBER: (PJUB-3E45895-6-15)

Item 3.A. of the Information Page. Bodily injury by disease will be deemed to occur in the state of vessel's home port.	of the
	n 3.A. of the Information Page. Bodily injury by disease will be deemed to occur in the state of sel's home port.

Bodily injury by disease does not include disease that results directly from a bodily injury by accident.

	<ol><li>We will not pay any claim insurance.</li></ol>	s for damages after v	ve have paid the appli	cable limit of our liabilit	y under this
		Sch	edule		
1.	Description of work: PROFESSIONAL ENGINEERI	NG AND RELATED S	ERVICES	er en	
2.	Transportation, Wages, Mainte	enance, and Cure Pre	mium \$ \$INCLUDED		
	Exclusion: This insurance do transportation, wages, mainter for transportation, wages, main	nance, and cure unde	r any applicable marit		
3.	Limits of Liability			·	
	Bodily Injury by Accident	\$ 1,000,000	each accident		
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	nis endorsement changes the polated.	icy to which it is attac	hed and is effective o	n the date issued unless	s otherwise
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Ins	surance Company	Counte	ersigned by		
	ATE OF ISSUE: 04-17-15	ST ASSIGN: ion insurance, Inc. All Right	s Reserved.	F	Page 2 of 2



### WORKERS COMPENSATION AND EMPLOYERS LIABILITY POLICY

ENDORSEMENT WC 99 06 11 (00) - 001

POLICY NUMBER: (PJUB-3E45895-6-15)

### NOTICE OF CANCELLATION

Except for non-payment of premium by you, we agree that no cancellation or limitation of this policy shall be effective until written notice in accordance with item 2 of the Schedule has been mailed to you. Mailing notice to you at the mailing address shown in item 1 of the Schedule shall be sufficient to prove notice.

### **SCHEDULE**

### 1. NAME

ANY PERSON OR ORGANIZATION TO WHOM YOU HAVE AGREED IN A WRITTEN CONTRACT THAT NOTICE OF CANCELLATION OR MATERIAL LIMITATION OF THIS POLICY WILL BE GIVEN, BUT ONLY IF:

1. YOU SEND US A WRITTEN REQUEST TO PROVIDE SUCH NOTICE, INCLUDING THE NAME AND ADDRESS OF SUCH PERSON OR ORGANIZATION, AFTER THE FIRST NAMED INSURED RECEIVES NOTICE FROM US OF THE CANCELLATION OR MATERIAL LIMITATION OF THIS POLICY; AND 2. WE RECEIVE SUCH WRITTEN REQUEST AT LEAST 14 DAYS BEFORE THE BEGINNING OF THE APPLICABLE NUMBER OF DAYS SHOWN IN THIS ENDORSEMENT

ADDRESS THE ADDRESS FOR THAT PERSON OR ORGANIZATION INCLUDED IN SUCH WRITTEN REQUEST FROM YOU TO US.

2. NUMBER OF DAYS WRITTEN NOTICE: 60

DATE OF ISSUE: 04-17-15 ST ASSIGN:



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 8/27/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to

	the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).									
PRODUC			(-,	-	CONTA	CT Andrea	Jenkins			
The N	owell Agency, Inc.				NAME: PHONE	, Ext); (601)	939-7700	FAX (A/C, No): (	601)9	39-8800
	atherine Dr.				E-MAIL	e.andrea.	jenkins@	nowellagency.com		
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THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.										
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CERTI	FICATE HOLDER				CANO	ELLATION				
	City of Key West 3126 Flagler Ave				THE	EXPIRATION	I DATE THE	ESCRIBED POLICIES BE CA EREOF, NOTICE WILL B EY PROVISIONS.		
Key West, FL 33040					ALITHORIZED REPRESENTATIVE					

Katley Banaca Dayl

Kathy Taylor/MLT

## State of Florida Department of State

I certify from the records of this office that TRUE NORTH EMERGENCY MANAGEMENT, LLC is a limited liability company organized under the laws of Texas, authorized to transact business in the State of Florida, qualified on October 4, 2010.

The document number of this limited liability company is M1000004356.

I further certify that said limited liability company has paid all fees due this office through December 31, 2011, that its most recent annual report was filed on February 14, 2011, and its status is active.

I further certify that said limited liability company has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of Florida, at Tallahassee, the Capital, this the Sixteenth day of February, 2011

Secretary of State



Authentication ID: 100194146881-021611-M10000004356

To authenticate this certificate, visit the following site, enter this ID, and then follow the instructions displayed.

https://efile.sunbiz.org/certauthver.html

### AGREEMENT TO PROVIDE DEBRIS REMOVAL MONITORING AND EMERGENCY MANAGEMENT CONSULTING FOR THE CITY OF KEY WEST

This Agreement is made as of the	day of	, 2014, by and between the City
of Key West, Florida (hereinafter ref	ferred to as the	Owner), and True North Emergency
Management, LLC, (hereinafter refer	red to as the Mo	onitor). In consideration of the mutual
covenants and promises contained he	erein, the Owner	and the Monitor agree as follows:

### **ARTICLE 1 - SERVICES**

Monitor's responsibility under this Agreement is to provide emergency management and monitoring services, as described in the Scope of Services of the True North proposal to the City of Key West dated September 29, 2015 and attached hereto as Exhibit "A." Services shall also be in accordance with the City of Garland RFP dated July 12, 2015 and attached hereto as Exhibit "B." Monitor will provide data and access to information to allow the Owner to closely oversee performance under this agreement. This is a non-exclusive agreement. No amount of work is guaranteed under this agreement. The Request for Proposals issued by the Owner and the Proposal submitted by the Provider to provide services, are incorporated by reference as part of this agreement.

As requested by the Owner, additional services may include emergency management preparation/planning services and disaster response services such as damage assessments and assistance with reimbursement/financial recovery. Task orders for additional emergency management services, such as emergency management planning must be approved by the Owner prior to performing services. Prior to beginning development or updating of a planning document (such as a DMP, COOP or CEMP), Provider will deliver to Owner a specific scope, cost and schedule for the services.

### **ARTICLE 2 – PAYMENT**

Monitor Fee Schedule is included in the proposal attached as Exhibit "A." Monitor acknowledges that the Owner will apply for financial assistance from the Federal Emergency Management Agency (FEMA), Federal Highway Administration (FHWA), and/or the state emergency management agency. Therefore, Monitor represents that it will perform all Services hereunder in a manner, time and place so as to assist with such reimbursement to the Owner. Monitor shall submit monthly statements for services rendered. Monitor's statements shall be due and payable within 30 calendar days.

The term of this agreement is five years, extendable by mutual agreement of the parties.

### ARTICLE 4 – LIABILITY INSURANCE

The Monitor agrees to and shall procure and maintain during the duration of this Agreement, Monitor's general public liability and property damage insurance, including auto liability and employer's liability coverage, insuring Monitor from all claims from personal injury, including death, and claims for destruction or damage to property arising out of or in connection with any operations under this Agreement, whether such operations are by the Monitor or subcontractor to the Monitor, and said insurance shall name, waive and hold harmless the Owner.

### ARTICLE 5 – INSURANCE LIMITS OF LIABILITY

Insurance shall be written with limits of liability of not less that the following:

- 1. \$1,000,000 primary limit, for all damages arising out of bodily injury, including death, with umbrella coverage of \$2,000,000.
- 2. \$1,000,000 primary limit for all property damage, with umbrella coverage of \$2,000.000.

### ARTICLE 6 – WORKERS' COMPENSATION INSURANCE

Monitor shall provide and maintain Workers Compensation Insurance at its expense during the term of this Agreement, in accordance with state workers compensation laws.

### ARTICLE 7 - ERRORS AND OMISSIONS

Monitor shall provide and maintain an errors and omissions policy sufficient to cover the scope of this project. Monitor agrees to provide, if requested, a declaration sheet showing the effective dates and coverage for this policy.

### ARTICLE 8 -PERFORMANCE SCHEDULES

Monitor shall provide progress reports to the Owner on a weekly basis or more frequently as requested by the Owner. Such reports shall contain, at a minimum, total cubic yards collected, daily totals, and description of the geographical areas being addressed by the Contractor.

### **ARTICLE 9 – TERMINATION**

The Owner may terminate this Agreement upon written notice to the Monitor. The Monitor may terminate this Agreement upon thirty (30) days written notice to the Owner. During such termination period, the Monitor shall continue to diligently perform all of its duties hereunder. After a receipt of a termination notice and except as otherwise directed by the Owner, the Monitor shall: stop work on the date and to the extent specified; terminate and settle all orders and subcontracts relating to the performance of the terminated work; transfer all work in process,

completed work, and other materials related to the terminated work as directed by the Owner; and continue and complete all parts of that work that have not been terminated.

### ARTICLE 10 -PERSONNEL

The Monitor represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Agreement. All of the services required herein under shall be performed by the Monitor or under its supervision and all personnel engaged in performing the services shall be fully qualified and, if required, authorized or permitted under state and local law to perform such services.

### ARTICLE 11 -SUBCONTRACTING

Monitor shall be responsible for the compliance of all subcontracting parties with the terms of this Agreement and with any applicable local, state or federal laws or regulations. Monitor shall be solely responsible for timely paying its subcontractors.

### ARTICLE 12 – LOCAL PREFERENCE

Monitor will make every effort to utilize local employees, subcontractors, equipment rental, supplies and other locally available resources.

### **ARTICLE 13 - CREDIT**

Monitor shall not pledge the Owner's credit or make the Owner a guarantor of payment or surety for any contract, debt, obligation, judgment, lien, or any form of indebtedness. Monitor further represents and warrants that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Agreement.

### **ARTICLE 14 - PERFORMANCE**

Monitor shall perform its obligations hereunder in compliance with all applicable local, state and federal laws and regulations.

### ARTICLE 15 -FEDERAL AND STATE TAX

The Monitor shall pay all local, state, and federal taxes which may become due based upon its performance of this Agreement. The Monitor shall be responsible for payment of its own and its share of its employee FICA and Social Security benefits with respect to this Agreement.

### ARTICLE 16 – RISK ALLOCATION

The Owner recognizes that Monitor's fee includes allowance for funding a variety of risks which affect the Monitor by virtue of his agreeing to perform services on the Owner's behalf. One of these risks stems from the Monitor's potential for human error. In order for the Owner to obtain the benefits of a fee which includes a lesser allowance for risk funding, the Owner agrees to limit the

Monitor's liability to the Owner and all contractors arising from the Monitor's professional acts, errors or omissions, such that the total aggregate liability of the Monitor to all those named shall not exceed \$50,000 or the Monitor's total fee for services rendered on this project, whichever is greater.

### **ARTICLE 17 - REMEDIES**

No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or at equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

### ARTICLE 18 - CONFLICT OF INTEREST

The Monitor represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance or services required hereunder.

### **ARTICLE 19 – ACCESS AND AUDITS**

The Monitor shall maintain adequate records to justify all hours incurred and charged in performing the services for at least five (5) years after completion of the Agreement.

### **ARTICLE 20 - NONDISCRIMINATION**

The Monitor warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, physical handicap, sex, age or national origin.

### ARTICLE 21-ENTIRETY OF CONTRACTUAL AGREEMENT

The Owner and the Monitor agree that this Agreement including its amendments sets forth the entire agreement between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Agreement may be added to, deleted, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto.

### **ARTICLE 22 – AUTHORITY TO PRACTICE**

The Monitor herby represents and warrants that it has and will continue to maintain all licenses and approvals required for conducting its businesses, and that it will at all times conduct its business activities in a reputable manner. Proof of such licenses and approvals shall be submitted to the Owner upon request.

### ARTICLE 23 -SEVERABILITY

If any term or provision of this Agreement, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Agreement shall be deemed valid and enforceable as permitted by law.

### **ARTICLE 24 – MODIFICATON OF WORK**

The Owner reserves the right to make changes in the services, including alterations, reductions therein or additions thereto. Upon receipt by the Monitor, of the Owner notification of a contemplated change, the Monitor shall: (1) if requested by Owner, provide an estimate for the increase or decrease in cost due to the contemplated change; (2) notify the Owner of any estimated change in the completion date; and (3) advise the Owner in writing if the contemplated change shall affect the Monitor's ability to meet the completion dates or schedules of this Agreement.

### ARTICLE 25 – SUCCESSORS AND ASSIGNS

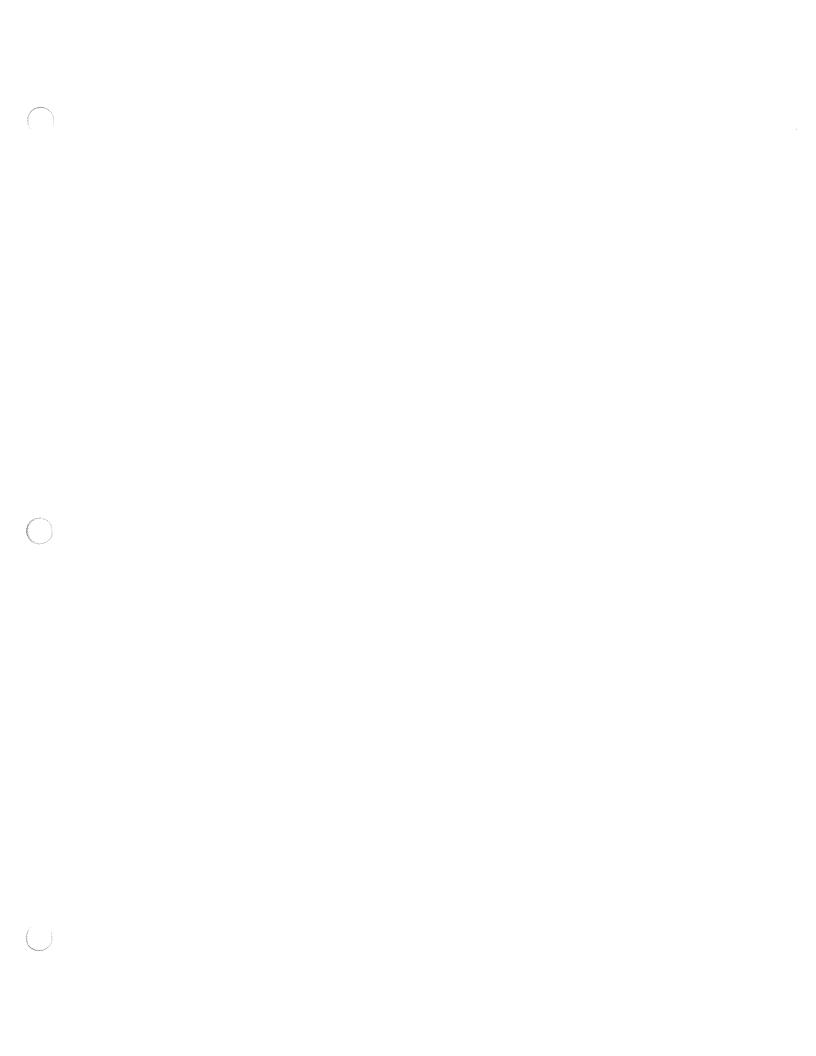
This Agreement is binding upon and will inure to the benefit of Owner and Monitor and their respective successors and assigns. The rights and obligations under this agreement may only be transferred by; 1) transfer to a wholly owned subsidiary of Monitor's parent company, 2) as a result of a merger or acquisition by another company, or 3) by mutual agreement of the parties.

### ARTICLE 26 – LAWS AND REGULATIONS

This Agreement shall be interpreted under the laws of the State of Texas, with exclusive venue for any matter arising from this Agreement. All applicable federal and state laws, municipal ordinances, and the rules and regulations of all authorized entities having jurisdiction over any part of this project shall apply to the Agreement throughout, and they will be deemed to have been included in the Agreement as though herein written.

In Witness Whereof, the parties have made and executed this Agreement on behalf of the parties on the day and year above written.

Monitor:	Owner:
True North Emergency Management, LLC	City of Key West, Florida
By:	By:
Printed Name:	Printed Name:



### ATTACHMENT Q

### **CONE OF SILENCE**

STATE OF FLORIDA

SS:

### **COUNTY OF MONROE**

I the undersigned hereby duly sworn, depose and say that all owners(s), partners, officers, directors, employees and agents representing the firm of <a href="True North Emergency Management">True North Emergency Management</a>, LLC have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of silence.

BY:

Derrick Tucker, PE - Senior Project Manager

Sword and prescribed before me this 15 day of September 2015

NOTARY PUBLIC, State of Florida Texas

My commission expires; February 2, 2019

TRACY ENLOW

Notary Public, State of Texas

My Commission Expires

February 02, 2019