

Remedial Action Plan Summary
for the
Ameren Missouri Columbia FMGP Site

Presented to the City of Columbia, City Council

September 16, 2013

Ameren Missouri Property Location



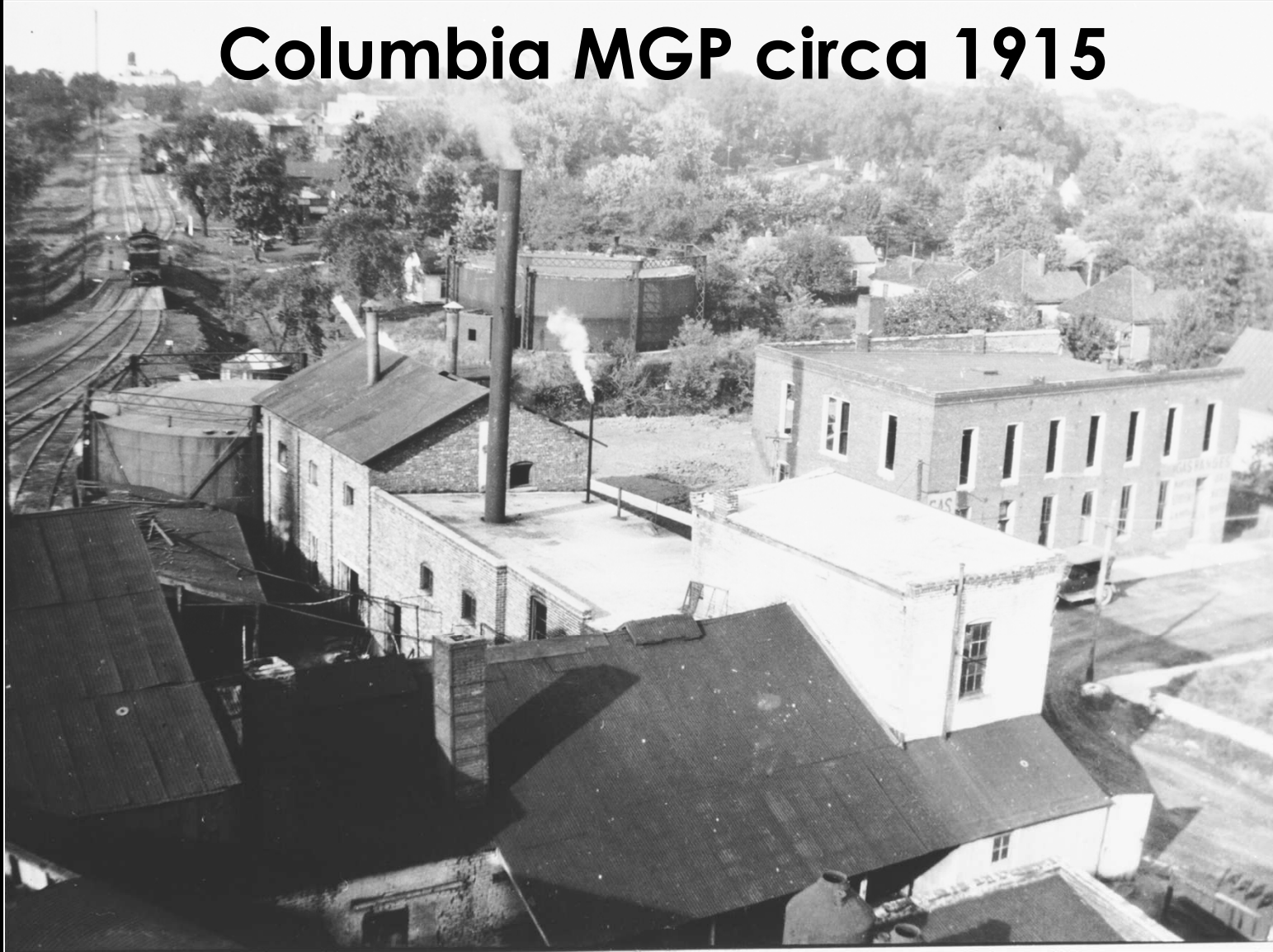
Ameren Missouri Property



Site History

- A manufactured gas plant (MGP) operated west of Orr Street at Ash from 1875 until 1932
- Two gas holders were added east of Orr during plant operations
- The property east of Orr remained with the utility company after closure of the MGP
- An environmental remediation in 1994 included the property west of Orr and the Orr Street R.O.W.

Columbia MGP circa 1915



Environmental & Health Concerns

- Some compounds in gas plant tars, coke and ash have health effects ranging from minor to more serious
- Possible routes of exposure include skin contact and inhaling or ingesting the substances
- The residues are present underground at the Site in the former gas storage tank and in surrounding soils to a depth of approximately 15 feet

Ameren Missouri Site Remediation

- In accordance with the Missouri DNR Risk-Based Corrective Action Process
- Provides acceptable levels of protection to human health, public welfare, and the environment
- The process includes a Site Investigation to identify impacts, a Risk Assessment to evaluate potential exposure to site contaminants, and a Risk Management Plan to address how impacts will be managed

Ameren Site Remediation Plan

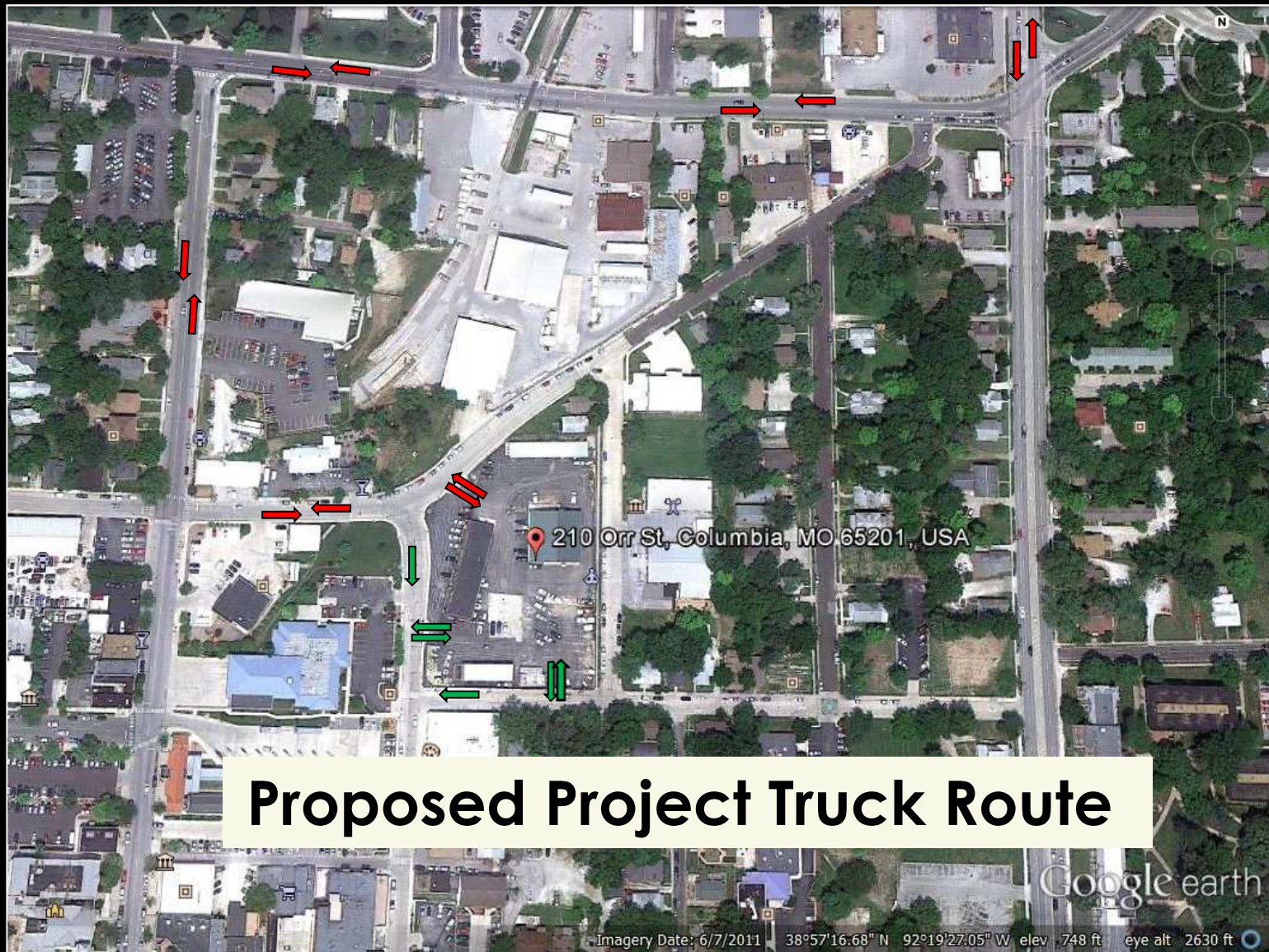
- Soil will be removed using standard excavation techniques
- Excavated materials will be removed from the site in covered haul trucks
- Removed materials will be transported to permitted landfill facilities for disposal
- Analysis of remaining soil will be used to verify that the remaining soil meets the soil remediation objectives

Ameren Site Remediation Plan

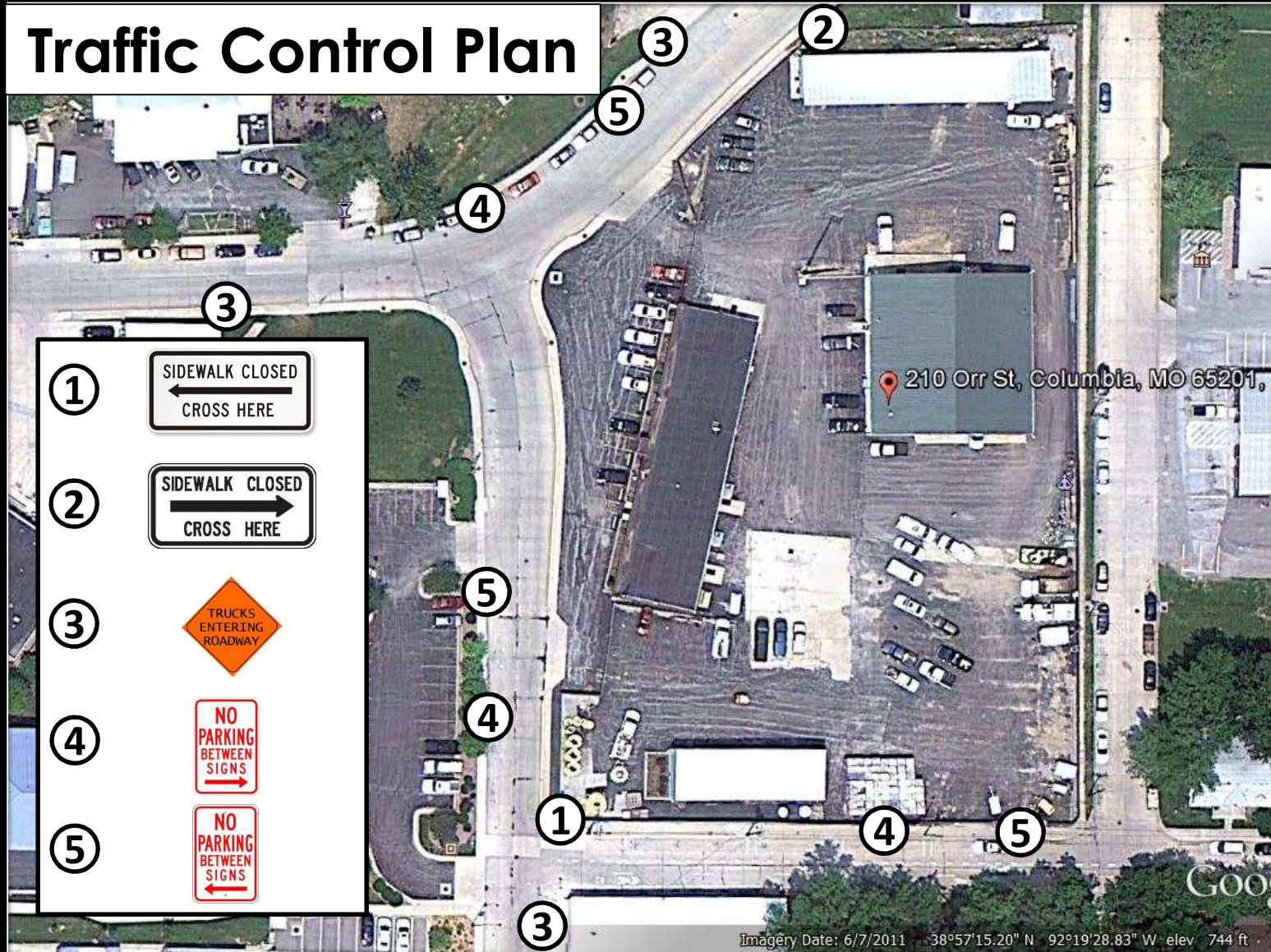
- Limited excavations will be completed “open air”
- Soil removal will mainly be completed beneath a temporary structure to control site contaminant emissions
- Excavation shoring will be used near the Orr Street R.O.W. to protect Orr Street
- Soil impacts around and beneath subsurface utilities will be addressed.

Site Controls for the Remedial Action

- Vehicles and equipment will be kept on clean surfaces or decontaminated prior to exiting work zones
- Odors and dust will be monitored and controlled by covers or applied products
- Storm water will be controlled according to the project SWPPP
- An approved Traffic Control Plan will be implemented for vehicle and pedestrian safety



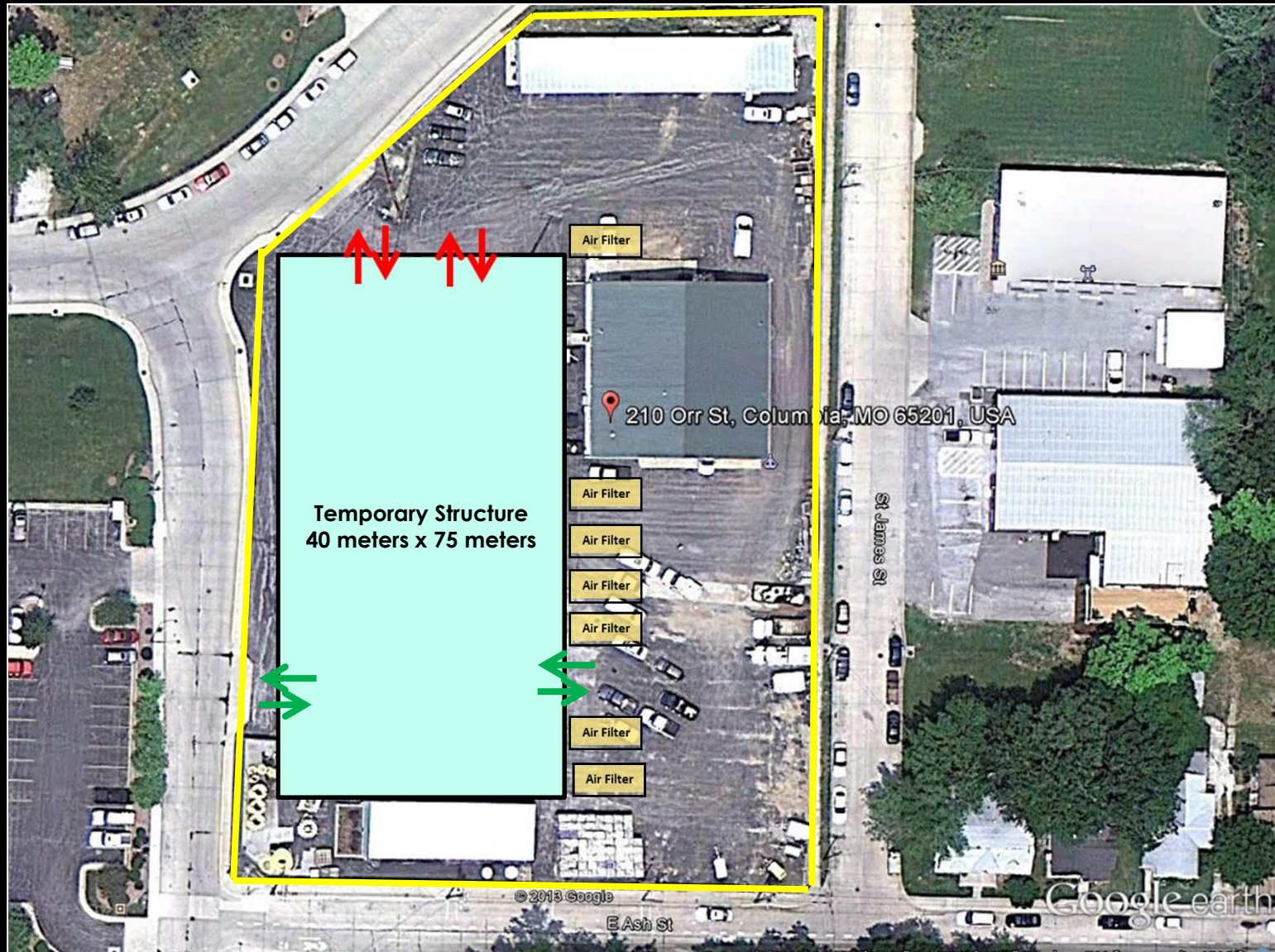
Traffic Control Plan



Temporary Structure

- The majority of the excavation will be completed within a temporary structure
- The work area will accommodate a 40 x 75 meter structure (132 feet x 247 feet)
- Carbon filters will ventilate the structure while maintaining a slight vacuum on the structure
- Overhead doors will be installed for truck and equipment access





Air Monitoring Plan

- Two types of air quality monitoring will be conducted during the remedial action
- Real-time monitoring is conducted at the site fence line hourly during the work day when site work is occurring;
- Time-integrated sampling conducted at fixed perimeter stations using EPA methods

Community Information Plan

- Ameren uses an established program during MGP site remedial actions to communicate with local government and the nearby community
- The program includes information releases to local news media
- Ameren distributes a project Fact Sheet
- Ameren conducts an Open House at the site generally prior to the start of the work