

**City of Knoxville**

**Proposal to the  
Environmental Protection Agency**

**for**

**Brownfields Cleanup Grant Funds**

**for the**

**Former McClung Warehouses  
Knoxville, Tennessee**

**December, 2015**

# CITY OF KNOXVILLE

MADELINE ROGERO, MAYOR



**William Lyons**  
Deputy to the Mayor  
Chief Policy Officer

December 16, 2015

Ms. Barbara Alfano  
Region 4 Brownfields Coordinator  
U.S. Environmental Protection Agency  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street  
Atlanta GA 30303-8960

Dear Ms. Alfano:

On behalf of the City of Knoxville, Tennessee, I respectfully submit this application to the Environmental Protection Agency (EPA) for \$150,000 in grant funding to assist in the proposed clean-up of the former McClung Warehouses in the City's Jackson/Depot Redevelopment District. This is one of two Brownfield sites that the City is targeting for cleanup in this funding cycle. The other is the former Sanitary Laundry and Dry Cleaning facility for which we have prepared a separate grant proposal.

Over the past several years, Knoxville has been active in dealing with the issues associated with economic decline in the neighborhoods both north and south of the downtown. The City recently completed environmental assessments, utilizing EPA Brownfields Assessment funding, of multiple properties in both its South Waterfront and Downtown North Redevelopment Areas, and is seeing various redevelopment projects occurring in both sectors. One of the properties recently assessed in Downtown is the former McClung Warehouses property on which Phase I and Phase II Environmental Site Assessments were performed through a Targeted Brownfields Assessment. The property has attracted the attention of a local developer but its current condition presents a significant constraint to its redevelopment. The City acquired the property and intends to perform site clean-up with the aim of making it more appealing to private investors.

The Targeted Brownfields Assessment provided information on environmental conditions on the site and what is required to remediate those conditions. If our application is successful, we will use the grant funds to remove impacted material and replace it with clean backfill. We will also perform other related program development activities including supplemental sampling to increase information available for consideration during site redevelopment, (when considerable excavation or grading activities may be warranted to construct foundations for new structures), and address the findings in order to bring the site to the point of marketability. With a combination of funds from the EPA and the City of Knoxville, we believe we can accomplish that goal.

Sincerely,



William Lyons, Senior Director  
Department of Policy and Communications

Transmittal Letter page 1

## Applicant Information

- a. Applicant Identification: City of Knoxville  
400 Main Street  
Knoxville, Tennessee 37902
- b. DUNS Number: 042453530
- c. Funding Requested: i) Cleanup  
ii) \$150,000  
iii) Hazardous Substances
- d. Location: City of Knoxville, Knox County, Tennessee
- e. Property Information: Former McClung Warehouses Property  
W. Jackson Avenue  
Knoxville, Tennessee 37902
- f. Contacts: i) Project Director:  
Anne Wallace, AICP, Associate ASLA  
Tel: 865-215-2543  
Fax: 865-215-3035  
awallace@cityofknoxville.org  
Room 656 City County Building  
400 Main Street, Knoxville, Tennessee 37902  
  
ii) Chief Executive:  
Mayor Madeline Rogero  
Tel: 865-215-2040  
Fax: 865-215-2085  
mayor@cityofknoxville.org  
400 Main Street, Knoxville, Tennessee 37902
- g. Date Submitted: December 16, 2015
- h. Project Period: Three years (2011 – 2014)
- i. Population: City of Knoxville – 184,281 (2014 est. US Census Bureau)
- j. Other Factors Checklist: Attached

### Appendix 3 Cleanup Other Factors Checklist

Name of Applicant: City of Knoxville

Please identify (with an **X**) which, if any of the below items apply to your community or your project as described in your proposal. To be considered for an Other Factor, you must include the page number where each applicable factor is discussed in your proposal. EPA will verify these disclosures prior to selection and may consider this information during the selection process. If this information is not clearly discussed in your narrative proposal or in any other attachments, it will not be considered during the selection process.

Other Factor	Page #
<i>None of the Other Factors are applicable.</i>	<b>X</b>
Community population is 10,000 or less.	
Applicant is, or will assist, a federally recognized Indian tribe or United States territory.	
Targeted brownfield sites are impacted by mine-scarred land.	
Applicant demonstrates firm leveraging commitments for facilitating brownfield project completion by identifying amounts and contributors of funding in the proposal and have included documentation.	
Recent (2008 or later) significant economic disruption has occurred within community, resulting in a significant percentage loss of community jobs and tax base.	
Applicant is one of the 24 recipients, or a core partner/implementation strategy party, of a “manufacturing community” designation provided by the Economic Development Administration (EDA) under the Investing in Manufacturing Communities Partnership (IMCP). To be considered, <b>applicants must clearly demonstrate in the proposal the nexus between their IMCP designation and the Brownfield activities. Additionally, applicants must attach documentation</b> which demonstrate either designation as one of the 24 recipients, or relevant pages from a recipient’s IMCP proposal which lists/describes the core partners and implementation strategy parties.	
Applicant is a recipient or a core partner of HUD-DOT-EPA Partnership for Sustainable Communities (PSC) grant funding or technical assistance that is directly tied to the proposed Brownfields project, and can demonstrate that funding from a PSC grant/technical assistance has or will benefit the project area. Examples of PSC grant or technical assistance include a HUD Regional Planning or Challenge grant, DOT Transportation Investment Generating Economic Recovery (TIGER), or EPA Smart Growth Implementation or Building Blocks Assistance, etc. To be considered, <b>applicant must attach documentation.</b>	
Applicant is a recipient of an EPA Brownfields Area-Wide Planning grant.	

**City of Knoxville Brownfields Grant Proposal for Cleanup Funds  
Former McClung Warehouses Property  
Narrative Proposal - Ranking Criteria**

**1. Community Need**

**a. Targeted Community and Brownfields (8 Points)**

Targeted Community Description

Within the heart of Appalachia, in the valley between the Cumberland Mountains and the Great Smoky Mountains, lies the City of Knoxville, in the eastern portion of Tennessee. Knoxville's industrial growth in the late 1800's sprang from its railroad connections – it was the region's busiest depot for freight and passenger traffic, and transformed Knoxville from a small river town to one of the Southeast's major wholesaling centers. Dozens of large warehouses were built along Jackson Avenue and other streets adjacent to the railroad tracks in the city's downtown, where small-town merchants from all over east Tennessee would come to purchase goods and supplies to resell at rural general stores. Textile mills, foundries, and manufacturing provided employment to thousands. In the early 1900's the economy was booming, and thriving neighborhoods grew up around the employment center of downtown. But the subsequent decline of the railroads in favor of other forms of shipping led to the collapse of the wholesale trade and distribution market. Knoxville's economy suffered during the Great Depression when construction fell 70%, and unemployment tripled. African Americans were hit hardest, as business owners began hiring whites for jobs traditionally held by black workers. The city's textile industry collapsed in the mid-1950's with the closure of several large textile mills, leaving thousands unemployed. Urban neighborhoods fell into ruin and the downtown area deteriorated. Nearly half of all houses in the city's older neighborhoods were considered substandard and in a critical state of decline. The Jackson Avenue Warehouse District in Knoxville's downtown and where our subject property is located, saw its commercial properties degraded one by one, until all that was left was a street corridor empty of viable businesses and practically deserted.

Demographic Information

Today, downtown Knoxville is seeing a resurgence of prosperity as revitalization is happening in its core. But parts of downtown and some of the surrounding neighborhoods remain disadvantaged. These neighborhoods are predominantly white, the minority population in downtown is less than the national level, although higher in the surrounding neighborhoods, and unemployment rates in Knoxville are reflective of state and national averages (5.3% vs. 5.7% TN; 5.1% U.S. – *Bureau of Labor Statistics, September, 2015*) but incomes are much lower and poverty levels are much higher as indicated in the following comparative data table. We have included statistics for downtown and also for parts of the neighborhoods that are immediately adjacent to downtown to show the disparity between areas that are seeing redevelopment happen, and areas that are still plagued with abandoned and derelict buildings. These statistics were included in a 2014, Urban Land Institute study of Knoxville's redevelopment areas whose source was the American Community Survey (ACS), 2008-2012, five year estimates.

Relevant Demographic Data				
	Downtown	Neighborhood	Tennessee	U.S.
Population	1,796	31,438	6,353,226	309,138,711
Minority	15%	32.9%	21.2%	25.8%
Median Household Income	\$33,899	\$20,644	\$44,140	\$53,046
Individuals Below Poverty Level	31.9%	48.3%	17.3%	14.9%
No high school diploma	9.4%	19%	16.1%	14.3%

Source: 2008-2012 American Community Survey (ACS) 5-year estimates

### Description of Brownfields

Our subject property covers approximately 5 acres of land comprised of nine parcels on Jackson Avenue in downtown Knoxville and is the former location of the five McClung Warehouses which were constructed in 1893 and accommodated various business enterprises for more than 100 years. The site also housed an automobile garage, woodworking shop, a blacksmith shed, and railroad freight shipping and storage. A portion of the site is paved as an asphalt parking lot. A portion is grass covered and unvegetated soil. Rail lines run along the northwest boundary. Surrounding properties included a railroad passenger depot, machine shop, foundry, woolen mill, farm machinery business, fuel station, plus various manufacturing and commercial facilities. Three of the splendid historic McClung warehouse buildings on the Jackson Ave. site were destroyed by a fire in 2007. Another fire in 2014 consumed a fourth. The remaining structure suffered heavy damage and had to be demolished, as its unstable condition presented a safety hazard. All that remains are the concrete foundations and portions of the front shell of the warehouses. The McClung site is highly visible from Interstate 40/75 which runs through the heart of downtown Knoxville, and the once stately historic buildings are now just an ugly eyesore for the 100,000+ vehicles that travel the interstate daily. A Phase I Environmental Site Assessment (ESA) in 2015 identified Recognized Environmental Conditions (RECs) related to previous use as a railroad shop, blacksmith shed, oil and drug warehouses and automobile garage, as well as numerous suspected asbestos-containing materials in the remaining shells of the warehouses. Subsequently, a Phase II ESA performed in 2015 indicated the presence of elevated levels of toxic metals such as arsenic, cobalt, aluminum, iron, manganese, lead, vanadium and thallium in soil samples from the site, that exceed the EPA Regional Screening Levels (RSL) for industrial and residential applications. Also found was a pesticide at a concentration that exceeds the respective EPA RSL, and the chemical benzene at concentrations exceeding the EPA RSL Cancer Target Risk for residential air. Environmental dangers caused by site contaminants and their migration, groundwater impacts, surface runoff, or waste material dumped on sites, adversely impact the health, welfare and environment of people exposed to them through contact with soil, air and water. Our target property poses a health and safety risk, not only because of its condition and potential for site contaminants, but also because it is easily accessible which makes it an attractive nuisance to curious children who have been seen playing in the rubble, and it is attractive for vagrants who may present a safety threat. Forty-four facilities whose past or present operations pose the greatest risk to contributing to contamination at the subject site were identified within the ASTM recommended search distances.

### Cumulative Environmental Issues

The industrial base that developed around the railroad and warehousing operations is largely long gone leaving a legacy of abandoned, derelict and polluted sites in downtown Knoxville. However, some functioning heavy industrial facilities remain including a steel mill that processes scrap metal into steel, an asphalt manufacturing facility, and a chemical processing plant. While these industries offer employment opportunities to area residents, the buildings they occupy are quite old and have been in the community for decades. Until this year Knoxville was designated a non-attainment area for ozone standards predominantly caused by vehicle pollution due to traffic volume on the network of interstates that intersect the region, (but is still non-attainment for particulates). Research by EPA indicates that most of the particulate matter from traffic on interstates is deposited in the first few hundred yards from the highway, and an eight-year study by the University of Southern California found that "Local exposure to traffic on a freeway has adverse effects on children's lung development, which are independent of regional air quality, and which could result in important deficits in attained lung function in later life." Jackson Ave. is within a quarter mile of interstate 40/75 which carries more than 107,000 vehicles per day. During rush hour, that part of the interstate is heavily congested and traffic is often at a crawl contributing to excessive vehicle pollution which is a health threat for the area. Radon is the leading cause of lung cancer among non-

smokers. Radon levels are especially a concern in Knox County where EPA identified it as an area with potentially-elevated radon levels. The risk can be avoided by installing better ventilation but lower income families are less likely to afford the fix. There is a legacy of coal mining and fossil fuel power plants in the counties that surround Knoxville. The Tennessee Valley Authority, Kingston and Bull Run Steam Plants are both located within 40 miles of our target area. In addition, several streams in Knoxville are listed as impaired by the Tennessee Department of Environment and Conservation (TDEC), including Second Creek which runs through the target area. Second Creek is on TDEC's 303d list and is posted for a water contact advisory. Surface runoff from unsecured former industrial properties have contributed to the contamination in Second Creek.

#### **b. Impacts on Targeted Community (5 points)**

Although the City of Knoxville is located in a region of particular scenic beauty, it has poor air quality, limited transportation options, a poverty rate higher than the national average, and serious health concerns including a high obesity rate, and a ranking of #7 in the country on the list of the most challenging places to live with asthma (Asthma and Allergy Foundation of America - 2015 report). The EPA released health risk data on the national-scale air toxics assessment (NATA) in 2009, which scales down to the census tract level. Air toxics are pollutants known or suspected of causing cancer or other serious health problems such as birth defects. The tracts that make up our neighborhood area are shown to have an elevated risk for cancer, neurological risks and respiratory disease. The EPA, Environmental Justice, EJView shows that women of child-bearing age in these same census tracts are at an elevated risk for low birth weight infants (who go on to have a lifetime of increased risk of health problems), and for increased infant mortality. Since our site is adjacent to a low income neighborhood with older houses, there are problems with lead-based paint, leading to an increased risk for neurological damage to resident children. ACS (2008-2012, 5-year estimates), shows that 36.1% of housing in the adjacent neighborhood is more than 65 years old compared to the rest of Tennessee at 6.7% and the national average of 13.7%. Based on a combination of age of housing and data on patients' blood lead levels over the past several years, the Knox County Health Department determined that neighborhoods adjoining our subject site have the highest risk of elevated blood lead levels in Knoxville children – 50% or higher in families in poverty, 60% or higher in families occupying older homes and 80% and higher in minority families.

East Tennessee is located in the heart of Appalachia which has historically experienced a poverty rate higher than the national average and an education level lower than the national average. The demographic table shows our target neighborhood has an income level far below the state and national average, and while poverty and lower education levels do not in themselves cause adverse health conditions, residents have limited access to preventive and pre-natal health care and medical services, in part due to limited transportation options to access these facilities. Jackson Ave. is adjacent to where most of the social service organizations are headquartered and where most of the homeless congregate, which presents a safety concern for them and for others if they shelter in abandoned buildings in the neighborhood. There is far more likelihood of illegal activity, injurious trash and vandalism in these locations.

The property that will be cleaned up under this grant was first developed in 1893 when the first of the McClung Warehouses was constructed. Subsequently, more warehouses occupied the site, as well as railroad-related facilities, blacksmith shed, automobile garage, woodworking shop and various other commercial enterprises. These former uses have left a legacy of metals and potential petroleum contamination, as well as asbestos-containing materials (ACM). The fires that consumed the buildings illustrated the worst-case scenario for vacant and blighted historic buildings. Five historic buildings were lost, at least hundreds of thousands of dollars in damage was caused, and one thriving business owner lost

everything and was displaced. The condition of the property impacts the target community in several ways. It poses a threat to public health and the environment because of the elevated levels of toxic metals, pesticide and benzene in soil and soil gas samples taken from the site, because of the remaining shells of the warehouses that contain asbestos, and because of the safety issues associated with its appeal to homeless people and children. Moreover, it is a large tract of land (approx. 5 acres) in the heart of Knoxville's city center that is a blight in the community that adversely impacts efforts to revitalize the area.

**c. Financial Need (7 points)**

**i. Economic Conditions (3 points)**

Knoxville has invested heavily in community improvement projects and, like most cities of its size, there are multiple public improvement projects occurring at any given time. Just within the Office of Redevelopment, twelve neighborhood improvement projects are ongoing, and for these projects alone, the City has committed approximately \$45 million in funding. While the City recognizes the importance of providing funding for improvement projects, and has done so to the best of its fiscal ability, there is a limit on available funds as regular city services must be maintained despite fiscal constraints. Within the past few years, the Knoxville News Sentinel reports company closures in Knoxville have included ARC Automotive (51 jobs lost), Image Point (270 jobs lost), Brunswick Boats (765 jobs lost), RockTenn (88 jobs lost), PBR Automotive (225 jobs lost), Jewelry TV (150 jobs lost), plus many more smaller company layoffs. In addition, two companies plan to close before the end of this year – Rocore (50 jobs) and Community Health Partners (148 jobs). Not only do these closures reduce tax income for the City, they adversely impact local retailers such as office supply stores, copier services, janitorial services etc. whose goods and services are no longer required at the closed businesses. The City invested more than \$1.4 million to acquire the McClung warehouse properties from a previous owner who had left them vacant and unused for more than 20 years then went bankrupt. The City has also incurred significant costs in responding to two major fires at the properties. As is typical in once-thriving, inner city areas, job losses from the closure of local facilities resulted in less money to spend on home maintenance, resulting in depressed property values and lower property tax revenue for the City. While the economy is improving since the market crash in 2007, lending is still not up to pre-2007 levels which makes private developers cautious to invest. The City of Knoxville cannot afford to cover the complete cost of cleaning up its brownfields sites in order to satisfy developers. However, the City is willing to invest significant funding into brownfields cleanup as a partner in redevelopment, and therefore is looking to the EPA and other resources, including private investors, to partner in this cleanup and redevelopment initiative.

**ii. Economic Effects of Brownfields (4 points)**

The economic impact of Brownfields on the targeted community is evidenced by the sheer number of Brownfield properties in and around our target area – 80 were identified in a recent inventory in the adjacent Downtown North area - as well as the obvious lack of upkeep to many of the homes in the surrounding neighborhoods. The Jackson Avenue District was heavily populated with industrial and commercial properties. Closure of these productive facilities meant a large decrease in tax revenue, both in property taxes (if the property is abandoned with no evident owner) and sales tax revenue. Very few municipalities can sustain comprehensive services with less income. Adjacent to Jackson Ave., there are several historic neighborhoods where homes have been bought by younger families who are attempting to restore them, but the preponderance of homes around the more industrial parts suffer from a lack of maintenance. The fundamental reason for this is the lower incomes of most of the residents. The Bureau of Labor Statistics shows unemployment rates in Knoxville are reflective of the U.S. average (5.3% vs. 5.1%), but the household income in our target area (from a low of \$7,390 to a high of \$33,899) is substantially less than the U.S. median (\$53,046). The closure of local industries and their relocation to the City's urban



fringes or to neighboring counties has resulted in job losses in the neighborhoods, and created an additional problem related to transportation. Knoxville has limited transportation options, which means that residents of downtown neighborhoods in many cases, must rely on automobiles to get to work, which increases their burden of costs and contributes to air pollution. They face a similar situation for shopping and activities associated with normal daily activity. Often the additional economic burden of transportation costs to reach the employment and commercial centers are more than a household income can tolerate. Additional income and poverty statistics from the ACS, Population and Housing Narrative Profile 2009-2013 indicate that 21% of Knoxville households had an income below \$15,000 per year, and 33% of related children under 18 were below the poverty level, plus 16% of all families and 43% of families with a female householder and no husband present had incomes below the poverty level. As mentioned, our target area is where the homeless congregate and often use abandoned buildings for illegal activities. The Knoxville police are called frequently for assistance for negative activities associated with homeless issues/predators of the homeless population (i.e. drug dealers, etc.) and they have increased patrolling for prostitution stings in the neighborhood, all of which increases policing costs and adversely affects the local economy.

## **2. Project Description and Feasibility of Success**

### **a. Project Description (15 points)**

#### **i. Existing Conditions (5 points)**

The former McClung Warehouses site on Jackson Avenue spans approximately 5 acres of prime property in downtown Knoxville. Two major fires in 2007 and 2014 destroyed four of the historic buildings and severely damaged a fifth which had to be demolished. Portions of the front shells of the buildings are all that remains, along with a paved parking lot. After the 2014 fire, the City applied to the EPA for a Targeted Brownfields Assessment to determine the extent of contamination on the site from past use of the property, and determine the best path towards redevelopment. In 2015, EPA contracted with an environmental consulting firm, to perform Phase I and II ESAs. Contamination identified in the Phase II report includes metals and petroleum in the soil and soil gas, consistent with the former uses of the site. Asbestos-containing materials were observed in the remnants of the warehouses. Since the City of Knoxville acquired the property after the previous owner declared bankruptcy, its reuse has been the subject of much discussion, both in public forums and within the City's Office of Redevelopment. The City directed Knoxville's Community Development Corporation (KCDC) to create a Jackson/Depot Redevelopment & Urban Renewal Plan. On April 3, 2014, the City of Knoxville held a public meeting for all interested parties to participate in a visioning session or charrette process for the West Jackson Avenue Corridor. Approximately 100 members of the community attended the meeting and provided input on how they would like to see the property reused. The City heard recommendations for a variety of uses including residential, retail, commercial and recreational. The City plans to take the ideas put forward during the public hearing, in coordination with recommendations from an Urban Land Institute study of the Jackson Ave. Corridor, and craft an RFP that will encourage private developers to respond to the desires of the community, and in accordance with KCDC's redevelopment plan. The City would like to see the property developed for mixed use as commercial and residential. This is in keeping with the regeneration of other properties in the target area that have undergone redevelopment in recent years.

#### **ii. Proposed Cleanup Plan (10 points)**

The purpose of cleaning up the former McClung Warehouses property is to encourage private investment in a property that is centrally located in Knoxville's downtown. EPA contracted with an environmental consulting firm, to perform Phase I and II ESAs, as well as an Analysis of Brownfields Alternatives (ABCA). The ABCA outlines alternative methods for addressing environmental concerns identified, and breaks the areas of concern into three issues – Surface and Subsurface Soils, Asbestos-containing Materials and,

Vapor Intrusion. For each of these three issues, the ABCA presents two options. Option #1 for each of the issues is No Action but that is not effective in controlling or preventing residents from coming into contact with contamination at the site. If the City of Knoxville is successful in its grant application, it will use the \$150,000 grant funds, along with its \$30,000 match to perform the cleanup methods recommended as Option #2 for each of the three issues. In addition, the City also plans to conduct supplemental assessment activities prior to initiating the cleanup. The Phase II ESA performed by EPA's environmental contractor provided discrete sampling information to generally characterize the site. An environmental consultant for the City has recommended supplemental sampling to increase the level of information available for consideration during site redevelopment, when considerable excavation or grading activities may be warranted to construct foundations for new structures. Prior to initiating grading activities, a passive soil gas survey across the site has been recommended as a general site screening tool. Based on the site's historic uses, its proximity to the railroad, and the City's experience during other local Brownfield redevelopments, efforts to identify potential unknowns before grading begins can reduce risk and tailor site design to address environmental conditions. If the passive soil vapor survey identifies areas with elevated soil vapor readings, samples will be collected in an effort to determine the source of the soil vapors. The City has included limited funding within this application to address additional impacted areas, if identified during the supplemental sampling. For Surface and Subsurface Soils, cleanup will involve localized removal of contaminated materials from some portions of the site. Based on EPA's removal criteria for residential properties, the contaminated soil would be removed and appropriately disposed as Special Waste within a Class I Landfill. The excavated areas would then be backfilled with clean material. For Asbestos-containing Materials, cleanup will involve removal and disposal of these materials by a licensed, qualified asbestos contractor. For Vapor Intrusion, additional vapor intrusion assessment may be warranted based on the passive soil gas survey findings, especially if the end use of the property is residential. This will involve collecting ambient air and soil gas samples. If samples exceed the calculated vapor intrusion screening level for residential air, source soils as determined through additional characterization will be excavated and transported for disposal at approved facilities, and replaced with clean backfill. Soil removed from any parts of the site would be adequately characterized and, based on the findings, handled in accordance with local, state and federal regulations. Prior to any site excavation, there will be a TDEC-approved Soil Management Plan (SMP) for characterization, handling and disposal of excavated materials. The ABCA, included with this grant proposal, discusses anticipated costs for each of the action alternatives.

## **b.Task Descriptions and Budget Table (10 points)**

### Task Descriptions

Community Outreach (\$3,300) - This task includes publicity, meetings, and distribution of information to the public as the project progresses. Public/neighborhood meetings will be held at the start and end of the project. We will produce a quarterly progress update to be included in existing community newsletters throughout the duration of the project. This update will be included in an existing Central Business Improvement District newsletter at no charge to the project. Supplies needed for public meetings might include printed handout materials, etc. (2 mtgs. @ \$150 = \$300) and the contractor would be required to prepare visual presentations of progress reports and attend all meetings to discuss project procedures and answer technical questions (2 staff/2mtgs. report preparation and presentation @ \$1,500/mtg. = \$3,000)

Program Development & Management (\$5,000) - This task includes documenting guiding principles and procedures, establishing priorities for site remedial actions, and EPA-required performance reporting (e.g. quarterly reports, MBE-WBE reports, final closeout report and ACRES database reporting) (\$3,000). Travel

costs in this budget task would be used for attendance at regional Brownfields grantee workshops and the National Brownfields conference (2 staff @ \$1,000/conference = \$2,000)

Additional Assessment (\$20,000) – This task includes a passive soil gas survey across the site, recommended as a general site screening tool before redevelopment grading activities occur (\$14,000), along with supplemental quantitative environmental media sampling to characterize areas that may detect elevated soil gas concentrations (\$6,000).

Remedial Planning & Design (\$30,000) – This task includes the outputs of finalizing the ABCA (\$1,000), coordinating with TDEC on a Brownfields Voluntary Agreement, Soil Management and Health & Safety Plans (\$4,000) and further evaluation of the current, documented site conditions from the Phase II ESA, to determine what materials need to be properly characterized and disposed of (\$10,000). This task also includes design of vapor intrusion system(s) as warranted to address the potential residential use of the site. The design will be based on the Phase II ESA findings, the supplemental sampling results, and the proposed site layout to the extent this information is available at the time of remedial planning (\$15,000).

Cleanup Activities (\$121,700) – This task includes anticipated contractor costs for removal and disposal of contaminated soils and replacement with clean backfill as well as ambient air and soil gas sampling. For preliminary budgeting purposes we assume the following:

- Metals Contamination - soil removal and offsite disposal @ \$60 - \$75 per cubic yard (estimate \$59,000); purchasing and transporting approx. 790 cu. yd. clean backfill @ \$25 per cubic yard (estimate \$20,000)
- Removal of Petroleum Hydrocarbon or Volatile Organic Compound Impacted Soils - soil removal and offsite disposal @ \$60 - \$75 per cubic yard (estimate \$20,000); purchasing and transporting clean backfill @ \$25 per cubic yard (estimate \$5,000)
- Asbestos-Containing Materials - removal and disposal of approx. 3,000 sq. ft. @ \$2.00/sq. ft. (\$6,000)
- Vapor Intrusion - 6 ambient air and 6 soil gas samples - collection and testing (\$5,200); drilling (\$6,500)

#### Budget Table

Budget for former McClung Warehouses Cleanup Project						
Budget Categories	Project Tasks					
	Community Outreach	Program Development & Management	Additional Assessment	Remedial Planning & Design	Cleanup Activities	Total
Personnel						
Travel		\$2,000				\$2,000
Equipment						
Supplies	\$300					\$300
Contractual	\$3,000	\$3,000	\$20,000	\$30,000	\$121,700	\$177,700
Other						
Total Federal Funding		\$5,000	\$15,000	\$20,000	\$110,000	\$150,000
Cost Share	\$3,300		\$5,000	\$10,000	\$11,700	\$30,000
<b>Total Budget</b>	<b>\$3,300</b>	<b>\$5,000</b>	<b>\$20,000</b>	<b>\$30,000</b>	<b>\$121,700</b>	<b>\$180,000</b>

### **c. Ability to Leverage (5 points)**

The Office of Redevelopment oversees projects that contribute to the enhancement of community livability, and has worked diligently to leverage local dollars for a variety of state and federal funding sources as well as private investment. The City was successful in applying for two \$400,000 EPA Brownfields Assessment Grants to assess properties in two of its redevelopment areas. This funding, along with local funds being used for public infrastructure improvements, has led to more than \$200 million in private investment from developers and business owners, and tens of millions of dollars in leveraged funding from federal and state sources. Private sector interest and investment in the downtown area close to Jackson Avenue is strong. Several former underutilized properties have been converted into loft apartments with street level restaurants and specialty shops. The City wants to capitalize on that interest and draw on available funding resources to spur redevelopment in all of its designated redevelopment areas.

Examples of a few recent Office of Redevelopment community improvement projects in downtown that have leveraged public and private funding include:

- North Central Street Transportation Improvement – \$2.5M project utilizing Department of Transportation, Surface Transportation Funds (STP) (80/20 match) – the City has committed \$825,000 for sidewalk repair, landscaping, and street resurfacing; and Knoxville Utilities Board (KUB) will fund \$750,000 for water line replacement; status - ongoing
- Marble Alley Lofts (redevelopment of former surface parking lot in Downtown) - \$21.6M private investment; \$1M for streetscape improvements in local funds; status - ongoing
- Jackson Ave. (3 separate projects) - \$750,000 STP funds; \$5-10M federal bridge funds; \$500,000 local funds – streetscape/roadway/bridge improvements; status - ongoing
- I-275 Business Park Access Improvements - \$5.5M High Priority Project utilizing DOT funding (80/20 match) - TDOT \$4.4M; City \$1.1M. This corridor study was initiated in 2007/2008; all plans, environmental reviews and final designs were completed by 2014; status - in Right of Way acquisition
- Cumberland Ave Corridor - \$17.5M streetscape + \$3.5M for design and right of way – STP funds (80/20 match); KUB will provide \$5M to upgrade gas, water and sewer lines; status - ongoing
- Façade Improvement Program – Eligible property owners in the redevelopment districts can receive up to \$50,000 for façade improvements to their buildings with the property owner providing a 20% match – ongoing (138 buildings since the program began)

### **3. Community Engagement and Partnerships**

#### **a. Plan for Involving Targeted Community and Other Stakeholders; and Communicating Project Progress (5 points)**

The City of Knoxville makes every effort to engage local citizens in plans for projects in their neighborhoods in order to make full use of citizens' ideas and opinions in considering investment of public funds. In the spring of 2014, City officials asked for public input on how to proceed with reshaping our subject site. About 100 people - potential developers, downtown and Old City property owners, residents and advocates - came to the public forum. Even more people mailed in comment cards or shared their ideas over several weeks in an online survey. A large number of the commenters said they wanted mixed-use redevelopment - buildings for residential and commercial retail uses, with parking. (Underground parking was touted; alternatively, an idea of an elevated green space with parking below it was also proposed.) "Connectivity" was a common theme. Many people told City officials that they wanted a greenway and bicycle trail that connected the Old City with World's Fair Park. A path following the railroad was backed by some; others said they were supportive of a trail along Jackson Avenue so long as it avoided the sharp ups and downs of the street viaducts in order to be attractive to walkers and riders. Other ideas ranged from creating a public

event space, to reinforcing and extending the adjacent South Gay Street arts district, to maintaining and capitalizing on the "urban chic" feel of being a former warehouse district with close proximity to railroad tracks. Dozens of other suggestions were proposed and discussed for the tract. Officials emphasized that there was no preconceived starting point or plan for West Jackson Ave., and that public participation is vital in defining how the corridor will be redeveloped. Throughout the recent community wide brownfields assessment project in adjacent Downtown North, the City held quarterly public meetings to inform residents of the project's progress. Meetings were publicized on the City's website and held in a location central to the project area. A quarterly newsletter providing details about the assessment activities was published on the City's website, distributed to local libraries, and sent via email to interested citizens. If the City's grant application for cleanup funding is successful, the City will similarly involve the public, and in particular, the target neighborhood's residents, in the decision-making for the reuse of the site and its appropriate cleanup. Naturally, the area's residents will have concerns related to cleanup activities, particularly as they might affect sensitive populations. The City and its contractor will explain the measures that will be taken to provide health and safety protections to the neighborhood during cleanup and construction activities. If impacted materials or soil vapors are encountered during remedial activities, appropriate monitoring would be performed to document site conditions, and precautions taken to reduce exposure potential.

The policy of the City is to ensure meaningful communication with persons that experience Limited English Proficiency. The primary language in the area is English, and the City has not been requested to communicate in another language. However, should that need arise there are available resources at the University of Tennessee, Knoxville which houses the Center for International Education, and also the Hispanic Chamber of Commerce, located in Knoxville.

#### **b. Partnerships with Government Agencies (5 points)**

Throughout the Brownfields Assessment projects that the City of Knoxville has successfully completed, the Tennessee Department of Environment and Conservation has been a strategic partner in lockstep with the City to aid in determining the extent of contamination of selected properties targeted for assessment. Funding to assess both hazardous and petroleum contamination sites required working closely with several TDEC personnel in the relevant local field offices, as well as the Brownfields Program Manager in TDEC's Nashville headquarters, to make sure that all appropriate guidelines and rules were being followed. TDEC personnel attended public meetings and committee meetings, and were included in all correspondence related to the assessment projects. TDEC has worked with the City in preparing Brownfields Voluntary Agreements for properties identified and targeted for redevelopment. The City will work with TDEC to construct a Brownfields Voluntary Agreement for the McClung Warehouses site.

The Knox Co. Health Dept. is physically located close to the target area and provides health services to neighborhood residents. The Health Dept. hosted several public meetings to engage the community in the redevelopment planning for adjacent Downtown North and will be a public site for project progress bulletins.

#### **c. Partnerships with Community Organizations (5 points)**

While there are several community-based organizations that support the project, there are four that have already played a noteworthy role, and have committed to continuing their active involvement.

Knoxville's Community Development Corporation (KCDC) is the housing and redevelopment agency for the City. For nearly 70 years, KCDC has enhanced the quality of life for the citizens of Knoxville by providing safe, decent and affordable housing, advancing redevelopment initiatives, fostering self-sufficiency, and improving neighborhoods and communities. KCDC administers more than \$6 million annually in

redevelopment and community and neighborhood revitalization, and is responsible for numerous neighborhood improvement projects including developing two new grocery stores, medical office complexes, and more than 100 new housing units. KCDC produced the Jackson/Depot Redevelopment and Urban Renewal Plan to address critical issues affecting the area including: economic development, particularly on older, often vacant, industrial properties; conservation of historic resources, especially historic properties in the downtown neighborhoods; improving multi-modal transportation including sidewalks and bicycle facilities; new land use opportunities on underutilized and vacant properties offering mixed-use development; and enhancement of environmental and recreational systems including the Second Creek greenway that runs through the area. KCDC will continue its role as redevelopment agency to support the implementation of the Jackson/Depot Redevelopment and Urban Renewal Plan.

The Development Corporation of Knox County (TDC) is a non-profit organization committed to fostering the long-term, quality growth of the region's business environment. As the property owner and manager of six business parks located throughout Knox County, TDC is focused on maintaining a sufficient inventory and diversity of properties to meet the needs of new and expanding businesses. In 2004, TDC, on behalf of Knox County, applied for, and received, an EPA Brownfields Assessment grant to assess a 19.4-acre derelict property - the former Brookside Knitting Mill, which had become an attraction for indigent people, and presented a safety hazard in the community. EPA Brownfields funds were used to assess Brookside Mills, local government funds were used to clean up the property, and a Brownfields Voluntary Agreement with TDEC was enacted in 2007. The site was purchased and redeveloped by a local businessman and now houses the corporate offices of Holston Gases. TDC understands the role of Brownfields in industrial and commercial development and actively promotes job creation opportunities for the area and partners with the City and Chamber of Commerce to market properties for development. TDC's Executive Vice President served on the Knoxville South Waterfront and Downtown North Brownfields Committees and helped guide the City in the prioritization of brownfield sites for redevelopment. It is anticipated that he will perform a similar role for the Jackson Avenue cleanup.

East Tennessee Community Design Center (ETCDC) is a non-profit organization that works with community groups to facilitate positive change in economically distressed communities through the pro bono contributions of area architects, landscape architects, planners, and other professionals. This network of community volunteers donates over 2,000 volunteer hours annually which leverage five times their value in improvements and services. ETCDC provides schematic design of structures including land use planning and landscape design, blight removal, and visual enhancement programs. Examples of neighborhood stabilization projects include parks, community centers, housing rehabilitation planning, blighted property identification, making facilities accessible to persons with disabilities, adaptive reuse of historic properties, and facilitation of public and community input visioning to stimulate quality economic and community growth. ETCDC partnered with the City in the creation and implementation of its façade improvement program which provides incentives to business owners to renovate their building facades, and on a study for the adaptive reuse of Oakwood Elementary School which ceased as an educational facility in 1996 and fell into disrepair. ETCDC developed a public involvement process to assist in the study and gather input from the neighborhood regarding the old school's redevelopment. The school has since been redeveloped into an assisted living facility. Currently, ETCDC is partnering with the City and the Broadway Corridor Task Force (Broadway is adjacent to our subject property) to consider ways to improve the corridor for businesses as well as adjacent neighborhoods. The ETCDC hosted a design charrette in the neighborhood in November 2015 to gather input from all interested local businesses, residents and organizations, and will continue to work with the City as it moves forward with cleanup and redevelopment of blighted properties.

St. John's Lutheran Church is a historic Lutheran church located on Broadway. Individuals from the Church's Outreach Team volunteer their time to support several local programs including: Habitat for Humanity – church members provide labor and funding to build a house every other year. Family Promise of Knoxville and Knox Area Rescue Ministries - St. John's sends a team of volunteers to cook and serve meals to the poor and homeless families. The Senior Nutrition "Mobile Meals" Program - St. John's volunteers serve two of the routes within our target neighborhood and also check on the meal recipients, reporting any health or safety concerns to the Knoxville-Knox County Community Action Committee Office on Aging for follow-up. KIDS HOPE USA – trained St. John's volunteers develop mentor relationships with at-risk public school children spending one hour a week with carefully matched students at an elementary school in the target neighborhood. St. John's Lutheran Church provided meeting space at no charge to the City of Knoxville for quarterly public meetings held throughout the duration of the Downtown North Brownfields Assessment and will make its facility similarly available for this project.

#### **4. Project Benefits**

##### **a. Health and/or Welfare and Environmental Benefits (10 points)**

###### **i. Health and/or Welfare Benefits (5 points)**

Pollutants from industrial waste and toxic chemicals are considered harmful to humans who are exposed to them through contact with soil, air and water. Sensitive populations such as children, pregnant women and the elderly are at particular risk as their immune systems may be less resistant. The property that will be cleaned up under this grant was first developed in the late 1800's and housed a variety of commercial operations as well as railroad facilities. The Phase II ESA identified soils contaminated with heavy metals and petroleum products as well as asbestos-containing materials. These contaminants plus evidence of previous use by homeless individuals all combine to present a threat to the health and welfare of the neighborhood. This threat will be eliminated when the property is cleaned up, secured, and redeveloped into an asset for the community. Contaminated soils will be removed and clean fill put in place to prevent people from coming into contact with toxic substances. ACM will be removed which will prevent exposure to contaminated materials. Cleanup of the property will stimulate interest from private developers who have redeveloped several adjacent properties into successful residential and commercial enterprises. The mixed-use vision that the City has for the site will provide residents of adjacent underserved neighborhoods access to employment opportunities resulting in a better standard of living, as well as the ability to walk to employment, dining and shopping to encourage exercise thus leading to a healthier lifestyle.

###### **ii. Environmental Benefits (5 points)**

Soil removal will reduce the potential for surface runoff that likely contains pollutants such as chemicals and oil, to enter storm drains and ultimately end up in rivers and streams which can contaminate drinking water. Waste material dumped on the site breaks down over a period of time and can release chemicals into the soil and the air. Removing waste material from the site will remove this threat from the environment. As stated, site cleanup will lead to redevelopment and most likely offer employment, dining and shopping opportunities for local neighborhood residents. Potentially, this will allow some of these residents to walk to work instead of having to drive, or walk to the retail establishments which in turn, reduces vehicle emissions that contribute to unhealthy air. All of these benefits contribute to a healthier environment.

##### **b. Environmental Benefits from Infrastructure Reuse/Sustainable Reuse (5 points)**

###### **i. Policies, Planning or Other Tools (2 points)**

At the beginning of her administration, Knoxville's Mayor Madeline Rogero outlined four major goals:

♦Strong, safe neighborhoods; ♦Living green and working green; ♦An energized downtown; ♦Job creation and retention. These goals guide the City's budget and operations. Its Energy & Sustainability Initiative has

helped make Knoxville a greener, more sustainable city that promotes sustainability by embedding support for low-impact design and alternative transportation options into how it designs and manages public infrastructure, and integrates sustainability principles into actions like street design, utility infrastructure planning and maintenance. Conserving resources and saving energy makes basic financial sense. The City is implementing sustainable development strategies such as: the Solar America Cities Program; Leadership in Energy and Environmental Design (LEED) certification for the new Downtown Transit Center; energy efficient building practices for low-income housing programs, and more. Downtown has full access to all public utilities and wherever possible, these existing utilities will serve new facilities. As derelict structures are demolished, the practice is to recycle demolition materials whenever possible -- as advocated in City policy, and done on other brownfield demolition sites where useable materials have been recovered rather than transported to a demolition landfill.

ii. Integrating Equitable Development or Livability Principles (3 points)

The City has embraced the six livability principles established by The Partnership for Sustainable Communities and set up specific programs and/or plans to further equitable development. In 2015, City officials hosted representatives from Smart Growth America to introduce concepts related to transit oriented development which promotes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation. This ties into the Jackson/Depot Redevelopment and Urban Renewal Plan and the Urban Land Institute study calling for an integrated mixed-use area with visual, pedestrian, vehicular and land use connections working together. Connecting currently disconnected streets and enabling pedestrian, cycling and public transit options for access to employment, schools, and shopping will decrease vehicular miles traveled, thereby reducing greenhouse gas emissions and benefiting health.

Knoxville's housing programs are targeted at improvement and construction of affordable housing, homebuyer assistance, and repair and rehabilitation to reduce the number of substandard rental and owner-occupied residential properties. The four main components are: Downpayment Assistance Program - through federal grant funds, the City supports new construction and rehabilitation projects for affordable housing; Owner-Occupied Home Rehabilitation - funds are available for owners to rehabilitate substandard residential properties; Rental Rehabilitation Program - provides financial and technical assistance to owners of substandard residential rental property. In return, property owners agree to certain long term rent and occupancy restrictions to keep the housing affordable to lower-income tenants; Blighted Property Redevelopment Program - provides short-term development and construction financing through subsidized loans to redevelop and renovate unoccupied residential dwelling units.

The City's Equal Business Opportunity Program is an outreach program aimed at increasing minority, women and small businesses' participation in the City's procurement process for construction, goods and services. Every effort is made to encourage disadvantaged businesses to provide services on City projects.

Three Rivers Market, Knoxville's Community Food Co-op, is a customer-owned cooperative, and center of sustainable commerce that benefits members and the community by creating and nourishing a healthier environment, healthier people, and a healthier community. It strives to provide the very best local, organic, and healthy food available. The Co-op represents a three-million dollar investment in a former abandoned facility within a mile of our subject site and within walking distance of low income neighborhoods. The City provided gap financing to relocate and expand the business.



### **c. Economic and Community Benefits (long term benefits) (5 points)**

#### **i. Economic or Other Benefits (3 points)**

Economic benefits are already being realized from new retail and commercial establishments that have turned former underutilized properties into successful business ventures and created employment opportunities for local residents. Those benefits will increase considerably when the McClung Warehouses and other brownfield sites are cleaned up and become once again productive properties. One of the obvious benefits is the increased tax base for the City of Knoxville. The vision for the Jackson Avenue district is a mixed-use community including office, commercial, cultural and residential use. A report titled *Reclamation and Economic Regeneration of Brownfields*, compiled by E.P. Systems Group, cites a study of brownfield project economic features which found that cleanup costs averaged only 8% of total project costs, and every \$1 of public sector financing invested leveraged an additional \$2.48 in private dollars. On the Knoxville local level, a former railroad repair facility adjacent to the target area became the home of Sysco Corporation, a 250,000 sq. ft. food distribution facility that employs over 300 people. An article in the Knoxville News Sentinel noted that "Sysco's \$50M capital investment was shown to yield an economic impact in Knoxville of \$91M via the various businesses involved in building the project." The Sysco site is approximately 44 acres. The Development Corporation of Knox County (TDC) estimates the property tax revenue from Sysco at approximately \$15,000 per acre, per year. TDC also estimates that 5-10 new jobs are created per acre of industrial property developed. The estimated 5 acres of the McClung site could yield as many as 50 new opportunities for employment for local citizens. That number may seem insignificant compared to redevelopment of a large site into a major employment center, but to the residents of the poorer neighborhoods in the area, that can represent a big change in the incomes of many families. An increase in employment generates an increase in spending. It means houses will be maintained, which leads to money spent on supplies needed to make the improvements. It means disposable income to spend in retail establishments and restaurants in the neighborhood. It improves the economy, and it leads to neighborhood stability which is desperately needed in our underserved neighborhoods.

#### **ii. Job Creation Potential: Partnerships with Workforce Development Programs (2 points)**

Knoxville-Knox County's Community Action Committee (CAC) provides job training through its Workforce Connections, which is responsible for the development and operation of a variety of programs focused on employment assistance, related training and support. Of note are two programs that focused on environmental training. Eight unemployed workers were trained for 'green' jobs as weatherization auditors to perform energy audits of homes to find and correct deficiencies, e.g. sealing leaks around windows and doors etc. Of the eight that were trained, five found permanent employment and two started their own businesses providing energy audits. The second training of note relates to the environmental cleanup of contaminated sites at the Department of Energy facilities in Oak Ridge, located 20 miles from Knoxville. Through the Workforce Investment Act, Workforce Connections received funding and developed a program to train environmental technicians. The training was conducted by the International Chemical Workers Union and covered hazardous materials handling, Hazardous Waste Operator Training and Emergency Response certification, and Occupational Safety and Health Administration (OSHA) construction certification in asbestos, mold and lead. CAC is located adjacent to our target area and therefore well positioned to provide training to the underserved citizens of the downtown neighborhoods.

### **5. Programmatic Capability and Past Performance**

#### **a. Programmatic Capability (12 points)**

The City of Knoxville's Office of Redevelopment employs a full-time Director of Redevelopment who is assisted by a Deputy Director and project management staff. The Deputy Director is Ms. Anne Wallace who

has managed, and is currently managing, multiple community redevelopment projects. Ms. Wallace oversaw all technical, administrative and financial requirements of two recently-completed \$400,000 Community-wide Brownfields Assessment Projects funded by the EPA - the Knoxville South Waterfront and Downtown North. Ms. Wallace coordinated with the City's Law Department to develop an access agreement for Brownfields property owners, and with the Finance Department to facilitate drawdown of grant funds. She reviewed and approved all EPA-required reporting and all community outreach communications. Ms. Wallace maintained constant contact with the environmental consultant to remain fully engaged in every task associated with the projects. Under her management, both projects were successfully completed, and redevelopment is happening in both project areas – the South Waterfront is undergoing a very large, mixed-use development of the three-mile waterfront with approximately \$185M in private investment, while Downtown North is seeing infill development of specialty retail and commercial businesses in keeping with the character of the neighborhood. Ms. Wallace has been an invited speaker to give presentations on these project successes at several environmental conferences and workshops. She will manage the cleanup of the McClung Warehouses property. The entire Redevelopment Office staff becomes involved in the various projects so that each is familiar with the project goals and milestones. If employee turnover should occur, another staff member will be knowledgeable enough to fill in until a replacement can be found. While Ms. Wallace will manage the project, the design and implementation of the appropriate remediation procedures will be contracted out to a qualified environmental consultant and contractor. The City has a standard procurement process in place through the City's Purchasing Department to hire the best qualified environmental consultant. The procurement includes a Request for Qualifications published in the local newspaper and on the Purchasing Department's website, a thorough panel review of all submitted qualifications packets, candidate firm interviews if appropriate, and subsequent contract negotiations.

**b. Audit Findings (2 points)**

The City of Knoxville has been the recipient of multiple federal and state grants which it has administered successfully. The City's Department of Finance maintains strict adherence to grant compliance procedures so that all appropriate funds were drawn down and there were no adverse audit findings.

**c. Past Performance and Accomplishments (6 points)**

**i. Currently or Has Ever Received an EPA Brownfields Grant (6 points)**

**1. Compliance with Grant Requirements (3 points)**

In 2009, the EPA selected the City of Knoxville for a \$400,000 community-wide hazardous substances and petroleum grant for the South Waterfront Redevelopment Area. The Work Plan consisted of five major tasks which proceeded smoothly and successfully so in 2011, the City was awarded an additional \$400,000 in EPA Assessment funds for a community-wide hazardous substances and petroleum grant in our target area of Downtown North. This Work Plan had four major tasks: (1) Project Management and Reporting; (2) Public Involvement and Engagement; (3) Site Inventory and/or Characterization; and (4) Cleanup Planning and Institutional Controls. EPA decided to tag the Downtown North grant to the South Waterfront grant so both were ongoing at the same time. Both projects were completed within the allotted performance period. All grant compliance activities were completed on time including quarterly reports, MBE-WBE reports, and ACRES online database reporting. All field work was completed, all reports finalized, and all relevant data entered into ACRES prior to the grant closeout deadline of September 30, 2014. All deliverables (Phase I & II Reports, QAPPs, Asbestos/Lead Based Paint Reports) were sent in electronic format to EPA and TDEC. In addition, all deliverables were sent to the EPA Project Manager as hard copies. Approximately \$4,200 of the \$800,000 grant funds were not drawn down.

## 2. Accomplishments (3 points)

South Waterfront Brownfields Assessment – An inventory of potential Brownfield sites was conducted.

Thirty hazardous substance sites and twenty-one eligible petroleum-contaminated sites were considered for evaluation. After careful evaluation of each site's redevelopment potential, twelve were identified as the best candidate sites for redevelopment including six parcels that comprised the former Baptist Hospital campus. After negotiations with the property owners, Phase I ESAs were conducted on the twelve sites and subsequently, seven Phase II ESAs were performed. Of those seven sites, one has become part of a new riverfront road construction, one became an extension of the Cityview Riverwalk whose construction is now complete, two are being marketed for development and the final three are former Baptist hospital parcels. The former hospital is currently undergoing redevelopment into restaurant, retail, office, commercial and residential use with a public plaza – a \$165M private investment. Regal Entertainment has also just announced that it will locate its new corporate headquarters on a portion of the former hospital site. Throughout the duration of the Brownfields Assessment project, the City published a quarterly newsletter updating area residents on all of the redevelopment activities proposed or happening on the South Waterfront.

Downtown North Brownfields Assessment – Prior to receiving the Brownfields Assessment Grant, the City had conducted an inventory of potential Brownfield sites that identified 80 Brownfields properties. Sixteen were considered as having the best redevelopment potential and after property owners were approached for access, seven Phase I and six Phase II ESAs were performed. Of the six sites assessed, one is currently being redeveloped into 100 units of independent living for senior citizens, one has been purchased by a local businessman for future mixed-use development and the remaining four are ready to be marketed for redevelopment. Quarterly update meetings were held in the neighborhood for the Brownfields Project Team and the public. A quarterly newsletter, designed and produced by a local minority business, was distributed to local library locations and via email to interested citizens, as well as being posted on the City's website.

When a property in either South Waterfront or Downtown North was identified for assessment, it was entered into the ACRES database which was updated at project milestones. At the time of grant closeout, all relevant information pertaining to every property assessed was up-to-date. As further work is performed at the assessed properties, the ACRES database will be updated to reflect the progress.

In conclusion -- As this former McClung property and other brownfields properties are returned to productive use in the community, job opportunities will become available, income levels will rise, property values will increase, and the environmental health and dignity of the surrounding neighborhoods will be restored. Redevelopment of Knoxville's downtown has been a big success so far – the community is on board, the developers are on board, and residents are actively involved in the planning of their neighborhoods. This highly visible site is a prime piece of property. It's so sad that fire destroyed such stately historic buildings – now it needs to be cleaned up and take pride of place in the neighborhood again.

# Threshold Criteria

## **Attachment A.**

### **City of Knoxville Brownfields Grant Proposal for Cleanup Funds Former McClung Warehouses Property Threshold Criteria**

#### **1. Applicant Eligibility**

##### **a. Eligible Entity**

The City of Knoxville is eligible as a General Purpose Unit of Local Government.

##### **b. Site Ownership**

The City of Knoxville holds fee simple title and is sole owner of the property identified for purposes of this cleanup proposal as the former McClung Warehouses property. The property is comprised of nine parcels (401, 420, 501, 505, 512, 517, 519, 523 & 525 W. Jackson Avenue). The Deeds are recorded in the Knox County Courthouse, Register of Deeds. Deed # 20091230-0043876 for the parcel at 401 W. Jackson Ave. The remaining parcels were transferred into City ownership on December 2, 2015, Deed # 20151211-0035303. The City of Knoxville will retain sole ownership of this property throughout the performance period of the grant until all grant closeout activities have been completed.

#### **2. Letter from the State or Tribal Environmental Authority**

Please see the attached letter from Ms. Paula Larson with the Tennessee Department of Environment and Conservation (TDEC).

#### **3. Site eligibility and Property Ownership Eligibility**

##### **Site Eligibility**

##### **a. Basic Site Information**

- |                    |  |
|--------------------|--|
| (a) Site Name:     | Former McClung Warehouses Property   |
| (b) Addresses:     | 401, 420, 501, 505, 512, 517, 519, 523, & 525 W. Jackson Avenue, Knoxville, TN 37902 |
| (c) Current Owner: | City of Knoxville, Tennessee (the Applicant)   |
| (d) Acquisition:   | N/A – the Applicant owns the property  |

##### **b. Status and History of Contamination at the Site**

- (a) The site is contaminated predominantly by hazardous substances
- (b) The site accommodated various business enterprises for more than 100 years including five warehouses that stored a variety of goods, an automobile garage, woodworking shop, a blacksmith shed, freight shipping businesses, and railroad freight storage. The site on Jackson Avenue spans approximately 5 acres of prime property in downtown Knoxville. Two major fires in 2007 and 2014 destroyed four of the historic buildings and severely damaged a fifth which had to be demolished. Portions of the front shells of the buildings are all that remains, along with a paved parking lot. The site is currently vacant.
- (c) Environmental concerns include: the presence of elevated levels of toxic metals, chemicals, and asbestos-containing materials (ACM) that exceed EPA Regional Screening Levels for industrial and residential applications, and pose a threat due to potential contact

through soil, air and water. In addition, miscellaneous debris and detritus on site can empty into storm drains through surface runoff.

- (d) The McClung site is likely contaminated due to its historical uses. Surface and subsurface sampling indicated elevated levels of heavy metals including arsenic, cobalt, aluminum, iron, manganese, lead, vanadium and thallium, as well as a pesticide and the chemical benzene. Numerous suspected asbestos-containing materials were observed in the remaining shells of the warehouses.

**c. Sites Ineligible for Funding**

- (a) The site is not listed or proposed for listing on the National Priorities List
- (b) The site is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA
- (c) The site is not subject to the jurisdiction, custody, or control of the United States government

**d. Sites Requiring a Property-Specific Determination**

The subject site does not require a property-specific determination

**e. Environmental Assessment Required for Cleanup Proposals**

A Phase II Environmental Site Assessment was conducted on 401 W. Jackson Ave. in March, 2009, where 24 subsurface soil samples were collected and analyzed. A Phase II ESA was conducted on the remaining parcels in 2015 – the Report is dated August 3, 2015 – as part of an EPA grant-funded, Targeted Brownfields Assessment Project. The Phase II ESA was conducted to determine the nature and extent of contamination resulting from past use of the property. The assessments conducted for this Phase II ESA consisted of collecting 16 soil samples, three composites (including one duplicate), seven soil gas (including one split), three groundwater samples (including one duplicate) and 53 suspected ACM samples. The Phase II ESA Reports provides details of the project approach, site characteristics and surrounding area description, sample collection procedures, sample analysis and data validation information, analytical results of individual media sampling, conclusions, and supporting data.

**Property Ownership Eligibility – Hazardous Substance Sites**

**f. CERCLA §107 Liability**

The City of Knoxville is not liable for contamination at the site under CERCLA §107 Liability. The City did not own or operate the facility during its 100-year use as various business enterprises, was not an owner or operator of the facility at the time of disposal of a hazardous substance, or a party that accepted hazardous substances for transport to disposal or treatment facilities at the site. The City Fire Department responded to two significant fires on the property and, during the emergency response, the City took action to remove materials from the site to protect the public from potential harm. Manifests from the disposal company document that materials were disposed of in accordance with local, state and federal regulations. The City of Knoxville meets the liability protection set forth in CERCLA as a bona fide prospective purchaser.

**g. Enforcement or Other Actions**

The former McClung Warehouses site is not subject to any known ongoing or anticipated environmental enforcement or other actions. The City of Knoxville is not aware of any inquiries or orders from federal, state or local government entities regarding responsibility of any party for the contamination or hazardous substances at the site.

**h. Information on Liability and Defenses/Protections**

**i) Information on the Property Acquisition**

1. The City of Knoxville acquired 401 W. Jackson Ave. from Jackson Avenue Parking, LLC through negotiated purchase. The City acquired 420, 501, 505, 512, 517, 519, 523, & 525 W. Jackson Ave. by transfer from Knoxville's Community Development Corporation (KCDC) which had acquired the property on behalf of the City through tax foreclosure.
2. The date of acquisition was: December 23, 2009 – 401 W. Jackson Ave. November 13, 2013 (by KCDC – 501, 505, 512, 517, 519, 523, 525 W. Jackson Ave.), Transferred to City ownership December 2, 2015
3. The City of Knoxville owns the property in fee simple title.
4. The property was acquired from Knoxville's Community Development Corporation which had acquired the property from the Trustee in Bankruptcy on behalf of the City.
5. The City of Knoxville has no familial, contractual, corporate or financial relationships or affiliations with potentially responsible parties. KCDC is the housing and redevelopment agency for the City of Knoxville and transferred the property to the City.

**ii) Timing and/or Contribution Toward Hazardous Substances Disposal**

All disposal of hazardous substances at the site occurred before the City of Knoxville acquired the property. The City of Knoxville did not cause nor contribute to any release of hazardous substances at the site. The City of Knoxville has not, at any time, arranged for the disposal of hazardous substances at the site or transported hazardous substances to the site. The City Fire Department responded to two significant fires on the property and during the emergency response the City took action to remove materials from the site to protect the public from potential harm. Manifests from the disposal company document that materials were disposed of in accordance with local, state and federal regulations.

**iii) Pre-Purchase Inquiry**

1. A Phase I ESA was performed for the City of Knoxville in accordance with ASTM E1527-05 Standard Guide for Environmental Site Assessments: Phase I Environmental Site Assessment Process, for 401 W. Jackson Ave. The Phase I Report is dated February 23, 2009.  
A Phase I ESA was performed for the City of Knoxville, in accordance with ASTM E1527-13, Standard Guide for Environmental Site Assessments: Phase I Environmental Site Assessment Process, for 420, 501, 505, 512, 517, 519, 523, 525 W. Jackson Ave. The Phase I ESA Report is dated August 3, 2015.
2. The Phase I ESA for 401 W. Jackson Ave. was performed by S&ME, Inc. The Environmental Professional responsible for this Phase I ESA was Mr. Nate Peterson. Mr. Peterson meets the educational, training and experience requirements to perform Phase I Environmental Site Assessments.

The Phase I ESA for 420, 501, 505, 512, 517, 519, 523, 525 W. Jackson Ave was performed by Tetra Tech, Inc. The Environmental Professional responsible for this Phase I ESA was Mr. John Snyder, P.G., an Environmental Engineer with Tetra Tech. Mr. Snyder meets the educational, training and experience requirements to perform Phase I Environmental Site Assessments.

3. Both Phase I ESAs were performed less than 180 days prior to the City of Knoxville's respective acquisitions of the properties.

iv) Post-Acquisition Uses

Since the City of Knoxville took ownership of the property, no activity has taken place on the property. However, at the request of the City, EPA Region 4 provided funding and contracted with an environmental consulting firm, to perform a Targeted Brownfield Assessment of the property which included a Phase I & Phase II ESA and an Analysis of Brownfield Cleanup Alternatives for the site. It is the City's understanding from the Phase I and Phase II assessments, that the existing contamination is maintained in the soil and building materials and no current operations are ongoing on the property.

v) Continuing Obligations

1. The City has only just taken sole ownership of the property. After KCDC acquired the property (as the City's redevelopment authority), it was fenced to prevent access by the general public.
2. The City has initiated the process with TDEC to structure a Brownfields Voluntary Agreement (BVA). Typically the BVA lists the conditions under which the site can be developed such that it protects public health and safety, and the environment. The BVA would also require future management and maintenance of any covers, caps and vapor mitigation system (if necessary) for future site development. In addition, the BVA would typically require that any land use restrictions for safe future use of the property will be filed in accordance with state statute. During remedial and construction activities, site access will be restricted to qualified and trained workers.
3. A Soil Management Plan will be submitted for TDEC's approval prior to the commencement of construction activities. The SMP will include, but not be limited to, characterization of any excavated materials, handling procedures to ensure that any offsite disposal of impacted media meets all State and Federal requirements, and if needed, installation of a barrier or engineered cap. A Health and Safety Plan shall also be submitted to TDEC for review and comment.

The City of Knoxville makes the commitment to:

1. Comply with all land-use restrictions and institutional controls;
2. Assist and cooperate with those performing the cleanup and provide access to the property;
3. Comply with all information requests and administrative subpoenas that have or may be issued in connection with the property; and
4. Provide all legally required notices



#### 4. Cleanup Authority and Oversight Structure

- a. The City plans to enter the property into TDEC's Brownfields Program and has initiated that process with TDEC. The City of Knoxville's Brownfields Project Manager will oversee and manage the overall cleanup project, but the cleanup activities involved in removal of hazardous substances and installation of clean fill will be contracted out to a qualified environmental consultant and contractor. The City has a standard procurement process in place through the City's Purchasing Department to hire the best qualified environmental consultant. The procurement includes a Request for Qualifications published in the local newspaper and on the Purchasing Department's website, a thorough panel review of all submitted qualifications packets, candidate firm interviews if appropriate and subsequent contract negotiations.
- b. Access to adjacent properties is not anticipated in order to conduct cleanup activities, however, if it is determined that access is needed for offsite sampling or monitoring, the City will work with adjacent property owners to obtain access to their properties.

#### 5. Statutory Cost Share

- i) The City of Knoxville will commit a 20% cost share match for grant funds awarded. City Council approved a Resolution at its council meeting held on 10/27/15 **authorizing the Mayor to execute any and all documents necessary to apply for and, if awarded, accept a brownfield cleanup grant from the United States Environmental Protection Agency to provide funding in the total amount of (up to) \$200,000 with an additional City match of (up to) \$40,000 to carry out cleanup activities at the former McClung Warehouses property located on W. Jackson Avenue.** The funding source for the City's cost share will be Capital Improvement Funds.
- ii) The City of Knoxville is not requesting a hardship waiver.

#### 6. Community Notification

The City of Knoxville placed a notice on its website, sent a media advisory to all local news stations (television, radio, and print), published in the City's Neighborhood Advisory publication and the Central Business Improvement District newsletter, and sent notice to approximately 150 residents of the area who have given email addresses for updates, to inform the public of its intent to apply to the United States Environmental Protection Agency for a grant to clean up the former McClung Warehouses site located on W. Jackson Avenue. The notice informed the public of the availability of the draft grant application for review, along with a document outlining cleanup alternatives (the ABCA), and invited comments on the documents. A notice also invited the public to a meeting to be held on December 1, 2015 where the project would be discussed, the draft grant application and ABCA would be available for review, and comments from the public were welcome.

- A copy of the draft ABCA is attached to the proposal
- A copy of the public notice(s) is attached to the proposal
- A copy of the public meeting sign-in sheet is attached to the proposal – *Note: representatives from the media did not sign in, however three TV stations covered the meeting – WBIR (NBC), WATE (ABC) and Knoxville's Community Television.*
- A summary of the comments received and corresponding responses is attached to the proposal
- A summary of the public meeting is attached to the proposal (including the Presentation)

# **Attachments:**

- **Letter from the State Environmental Authority**
- **Draft ABCA**
- **Letters of Commitment from Community Organizations (4)**
- **Documentation of Community Notifications (3)**
- **Public Meeting Sign-in sheet**
- **Public Comments & Responses**
- **Summary of Public Meeting (including the meeting Presentation)**



**TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION**  
DIVISION OF REMEDIATION  
WILLIAM R. SNODGRASS TENNESSEE TOWER  
312 ROSA L. PARKS AVENUE, 14<sup>TH</sup> FLOOR  
NASHVILLE, TENNESSEE 37243

December 11, 2015

Anne Wallace  
Deputy Director, Office of Redevelopment  
City of Knoxville  
400 Main Street, Suite 655  
Knoxville, TN 37902

Re: State letter of Acknowledgement  
City of Knoxville, TN for EPA Cleanup Grant for Jackson Avenue (former McClung  
Warehouses) properties

Dear Ms. Wallace,

The Tennessee Department of Environment and Conservation (TDEC) is pleased to acknowledge your efforts to apply for a \$150,000 US EPA Brownfields Cleanup Grant to cleanup several key parcels of land at 401, 420, 501, 505, 512, 517, 519, 523, and 525 West Jackson Avenue (commonly known as the former McClung Warehouses) in Knoxville, TN.

In cooperation with Region 4 EPA, the TDEC brownfields staff will provide technical support for your grant project to help make this project a success.

We greatly appreciate your efforts to address brownfields in Knoxville!

Sincerely,

Paula Larson  
State of Tennessee Brownfields Outreach Coordinator  
Tennessee Department of Environment and Conservation



November 16, 2015

Mr. Bob Rosen  
Brownfields Project Manager  
U. S. Environmental Protection Agency, Region 4  
61 Forsyth Street, SW, 11<sup>th</sup> Floor  
Atlanta, GA 30303-3104

**Subject: Revised Final Analysis of Brownfields Cleanup Alternatives  
McClung Warehouses  
Knoxville, Knox County, Tennessee  
EPA Contract No. EP-S4-14-03  
Technical Direction Document No. TT-06-006**

Dear Mr. Rosen:

The Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is submitting the revised final Analysis of Brownfields Cleanup Alternatives (ABCA) for the McClung Warehouses site located in Knoxville, Knox County, Tennessee. This revised final ABCA was prepared in support of the Phase I and Phase II environmental site assessments (ESAs) conducted as part of a Targeted Brownfields Assessment (TBA) for the site. This ABCA addresses potential climate change conditions and supersedes the revised final ABCA dated September 23, 2015.

#### **SITE BACKGROUND AND INITIAL SITE VISIT**

Businesses that formerly operated at the McClung Warehouses site included an automobile garage, woodworking shop, freight shipping businesses, and railroad freight storage, shipment, and administrative operations. The site includes 10 parcels of land located at 401, 420, 501, 505, 509, 512, 517, 519, 523, and 525 W. Jackson Avenue in Knoxville, Knox County, Tennessee. The site covers between 4 and 5 acres of land in downtown Knoxville. The portion of the site located at 401, 501, 505, 509, 517, 519, 523, and 525 W. Jackson Avenue is bordered to the north-northwest by Norfolk Southern Railroad; to the east by a woodworking shop; to the south by W. Jackson Avenue followed by commercial businesses; and to the west by a mixed-use development. The portion of the site located at 420 and 512 W. Jackson Avenue is bordered to the north by W. Jackson Avenue followed by the portion of the site located at 401, 501, 505, and 509; to the east by a banquet hall; to the south by residential condominiums and a paved parking lot; and to the west by an architectural firm. The portion of the site known as the Option Tract that extends beneath the North Broadway and Oak Avenue overpasses is bordered to the north by Norfolk Southern Railroad and to the south by the Southeastern Glass building with underground parking garage and the Keener Lighting building.

Based on historical documents, the portion of the site located at 401 W. Jackson Avenue was previously occupied by railroad freight sheds and an administrative office building from approximately 1884 to 1997. In 1903, the C.M. McClung and Company operated on this portion of the site, but vacated the property by 1917. A blacksmith shed also operated on this portion of the site for approximately 70 years. Freight businesses, including Universal Southern Carthage Company and Cargo Re Manufactured Products, Inc., also operated on this portion of the site from the 1970s through the 1980s. By 2006, the property was a paved, self-service pay-to-park parking lot. The portion of the site located at 501 and 505 W. Jackson Avenue was previously occupied by drug and oil warehouses from approximately 1884 to 1890. By 1903, this portion of the site was vacant. In 1893, the McClung Warehouses were constructed on the portion of the site located at 505 and 509 W. Jackson Avenue, which sold items such as lanterns,

glassware, clocks, automobiles tires, lawn mowers, and bicycles. By 1917, the McClung Warehouses had expanded to the portion of the site located at 501, 517, and 523 W. Jackson Avenue. By 1950, the portion of the site located at 525 W. Jackson Avenue was occupied by Crane Co. In addition, an automobile garage occupied the portion of the site located at 512 W. Jackson Avenue. By 1973, the 512 W. Jackson Avenue property was a paved, free parking lot. Businesses operated in the McClung Warehouses until 2007 (including a woodworking shop located at 509 W. Jackson Avenue). In 2007, a fire destroyed the warehouses located at 501, 505, and 509 W. Jackson Avenue. In 2014, a second fire destroyed the warehouses located at 517, 519, 523, and 525 W. Jackson Avenue. The portion of the site known as the Option Tract, which extends beneath the North Broadway and Oak Avenue overpasses, appears to have been used as a rear access alleyway for the Keener Lighting and Southern Glass buildings.

According to the City of Knoxville Tax Assessor's Office, the owner of 401 W. Jackson Avenue is listed as the City of Knoxville; the owner of 420, 501, 505, 512, 517, 519, 523, and 525 is listed as Knoxville's Community Development Corporation; and the owner of 509 W. Jackson Avenue is listed as Ernie and Pamela H. Gross. The City of Knoxville would like to develop the property into a mixed-use complex consisting of commercial and residential properties.

In 2015, Tetra Tech, on behalf of the U.S. Environmental Protection Agency (EPA), conducted a TBA at the property, consisting of Phase I and II ESAs. In January 2015, Tetra Tech personnel conducted an initial site visit at the property and identified recognized environmental conditions (RECs), visually inspected the on-site structures for possible asbestos-containing materials (ACMs), and identified other environmental hazards on the property. These activities fulfilled the site visit requirements of a Phase I ESA and provided the basis for a Phase II sampling strategy. For more details, see *Phase I Environmental Site Assessment Report: McClung Warehouses*, prepared for EPA by Tetra Tech in August 2015. The following RECs were identified during the Phase I ESA:

- The portion of the site located at 401 W. Jackson Avenue was used by the railroad from approximately 1884 to 1997. Additionally, a blacksmith shed operated on this portion of the site for approximately 70 years.
- The McClung Warehouses, Crane Co., and oil and drug warehouses operated on the portion of the site located at 401, 501, 505, 509, 517, 519, 523, and 525 W. Jackson Avenue.
- An automobile garage operated on the portion of the site located at 512 W. Jackson Avenue for approximately 19 years.
- Suspected ACM was observed in the remnants of the warehouses at the site.

## PHASE II ACTIVITIES

Based on the results of the initial site visit, EPA concluded that a Phase II ESA was appropriate to assess the RECs identified during the Phase I ESA and to identify the presence and nature of contamination, if any, on the site. During the week of March 23, 2015, Tetra Tech conducted the Phase II ESA which included soil, groundwater, soil gas, and suspected ACM sampling. Tetra Tech collected 18 surface and subsurface soil samples, three composite soil samples (including one duplicate), six soil gas samples (including one split), three groundwater samples (including one duplicate), and 53 suspected ACM samples. The analytical results for these samples are summarized below. (For full details of the sampling event, see *Phase II Environmental Site Assessment Report: McClung Warehouses*, prepared for EPA by Tetra Tech in August 2015.)

- All surface soil samples contained one or more Target Analyte List (TAL) metals, such as arsenic, cobalt, manganese, and thallium at levels that exceed EPA Regional Screening Levels (RSLs) for residential or industrial soil.
- All subsurface soil samples contained one or more TAL metals, such as arsenic, cobalt, manganese, and thallium at levels that exceed EPA RSLs for residential or industrial soil.
- No volatile organic compounds (VOCs) or semivolatile organic compounds (SVOCs) were detected in the surface and subsurface soil samples above EPA RSLs for residential or industrial soils.
- Three composite surface soil samples collected from the Option Tract contained metals, such as arsenic, cobalt, lead, manganese, and thallium at levels that exceed EPA RSLs for residential or industrial soil.
- Two soil gas samples contained benzene at concentrations that exceeded the calculated vapor intrusion screening level (VISL) for carcinogenic residential soil gas screening levels.
- Groundwater samples contained metals, but none of the concentrations exceeded EPA Maximum Contaminant Levels (MCLs).
- Six suspected ACM samples contained asbestos at greater than 1 percent.

## CLEANUP ALTERNATIVES

This section presents recommendations for addressing environmental concerns identified at the site.

### SURFACE AND SUBSURFACE SOIL AT THE SITE

**Option 1:** No Action is a zero cost option; however, it is not effective in controlling or preventing residents from coming into contact with contamination at the site.

**Option 2:** Surface and subsurface soil contained TAL metals such as arsenic, cobalt, lead, manganese, and thallium were detected in surface and subsurface soil at concentrations above their respective EPA RSLs for residential or industrial soil. However, these concentrations detected in the surface and subsurface soils are below their respective EPA Removal Management Levels (RMLs) for residential and industrial soils, except for two samples MC-SB05-09, collected at 9 feet below land surface (bls) at 501 W. Jackson Avenue, and MC-COM-01-DUP collected at 4 inches bls in the unpaved area of the Option Tract behind the warehouses at 501, 505, and 509 W. Jackson Avenue. Arsenic was detected at 150 mg/kg in subsurface soil sample MC-SB05-09, which is above the EPA RML of 67 mg/kg for residential soil. Lead was detected at 420 mg/kg in surface soil sample MC-COM-01-DUP, which is above the EPA RML of 400 mg/kg for residential soil. RMLs are used to help identify areas, contaminants, and conditions where a removal action may be appropriate. Sites where contaminant concentrations fall below RMLs, are not necessarily “clean.” In some cases, further action or study may be warranted. Also, sites with contaminant concentrations above the RMLs may not necessarily warrant a removal action; factors including location and depths of construction, the use of site-specific exposure scenarios or other program considerations may need to be evaluated.

As a result, a limited, localized soil removal is recommended in the areas of soil samples MC-COM-01-DUP and MC-SB05-09. Based on EPA's removal criteria for residential properties, the top 2 feet of contaminated soil are removed, because depths greater than 2 feet are not likely to be encountered by the residents. A localized removal would be minimal costs of about \$9,800 to \$16,200 for the areas that exceed their residential RMLs. The City of Knoxville plans to redevelop the site as a mixed use complex with residential and commercial properties.

Covering the excavated areas with clean backfill 2 feet thick would require approximately 790 cubic yards of clean backfill. Clean backfill ranges in price from \$17 to \$26 per cubic yard, delivered. Purchasing and transporting 790 cubic yards of clean backfill would cost an estimated \$13,500 to \$20,600.

The cost of the soil excavation does not include the removal of the concrete foundations or building remnants at 501 (area not immediately surrounding sample MC-SB05-09), 505, 509, 517, 519, 523, and 525 W. Jackson Avenue.

## **ASBESTOS-CONTAINING MATERIALS**

**Option 1:** No Action is a zero cost option; however, it is not a viable option because the remnants of the building are in disrepair and the buildings have been partially demolished. Therefore, the asbestos identified in the buildings needs to be removed.

**Option 2:** The black wall adhesive and roof flashing identified as ACM are non-friable and; therefore, is not regulated asbestos-containing material (RACM) provided it is not subjected to grinding, cutting, sanding, or abrading. These homogenous areas may be disposed of along with the demolition debris as long as they remain in good condition. However, doing so can greatly increase disposal costs. Often, the most economical means of addressing waste classified as non-friable RACM is to remove and dispose of it separately, prior to demolition, thus preventing all demolition debris from being contaminated. Non-RACM removal and disposal should only be undertaken by a contractor familiar with state and federal asbestos regulations. Because the removal is not an abatement, no special permitting is required for removal and disposal. Removal and disposal of RACM typically costs around \$1.50 to \$2.00 per square foot, translating to about \$4,500 to \$6,000 to dispose of the RACM identified on site. As previously mentioned, the cost of the asbestos removal does not include the removal of the concrete foundations or building remnants at 501 (area not immediately surrounding sample MC-SB05-09), 505, 509, 517, 519, 523, and 525 W. Jackson Avenue.

## **VAPOR INTRUSION**

**Option 1:** No Action is a zero cost option; however, it is not effective in controlling or preventing residents from exposure to contamination at the site.

**Option 2:** Soil gas samples MC-SG-01 (401 W. Jackson Avenue) and MC-SG-04 (519 W. Jackson Avenue) contained elevated levels of benzene at concentrations that exceeded the cancer calculated vapor intrusion screening level for residential air of 12 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Benzene was detected in sample MC-SG-01 at  $18 \mu\text{g}/\text{m}^3$  and in sample MC-SG-04 at  $30 \mu\text{g}/\text{m}^3$ . If residential structures are planned for the properties located at 401 and 519 W. Jackson Avenue, additional vapor intrusion assessment may be warranted.

The property located at 401 W. Jackson Avenue is currently an asphalt-covered parking lot. If future use is going to stay the same as its current use, Tetra Tech recommends collecting four ambient air samples, one at each corner, to assess the conditions of the ambient air in the area of 401 W. Jackson Avenue. Based on TestAmerica invoices for air samples, four ambient air samples will cost approximately \$1,228, translating to about \$2,000 for a senior scientist to conduct air sampling during an 8-hour work day. If the paved parking lot is removed, Tetra Tech recommends collecting four ambient and four soil gas samples after the pavement has been removed. Based on TestAmerica invoices for air and soil gas samples, four ambient air and four soil gas samples will cost approximately \$2,500, translating to about \$3,200 for a senior scientist to conduct air and soil gas sampling during an 8-hour work day. Driller costs are estimated to be approximately \$3,600. If the results of the air and soil gas samples still exceed the cancer calculated vapor intrusion screening level for residential air, then soil excavation may need to be conducted. Soil excavation, transportation and disposal, and replacement with clean backfill for the property located at 401 W. Jackson Avenue is estimated to cost between \$30 and \$47 per cubic yard.

The property located at 519 W. Jackson Avenue is currently occupied with the remnants of a partially demolished warehouse. After the concrete foundation has been removed, Tetra Tech recommends collecting two ambient air and two soil gas samples, co-located on the north and south side of the property, to assess the conditions of the ambient air and soil gas in the area of 519 W. Jackson Avenue. Based on TestAmerica invoices for air samples, four samples will cost approximately \$1,228, translating to about \$2,000 for a senior scientist to conduct air sampling during an 8-hour work day. Driller costs are estimated to be approximately \$2,900. If the results of the air and soil gas samples still exceed the cancer calculated vapor intrusion screening level for residential air, then soil excavation may need to be conducted. Soil excavation, transportation and disposal, and replacement with clean backfill for the property located at 519 W. Jackson Avenue is estimated to cost between \$30 and \$47 per cubic yard.

## POTENTIAL CLIMATE CHANGE CONDITIONS

In light of reasonably foreseeable changing climate conditions, including rising sea levels, increased frequency and intensity of flooding, and extreme weather events, an evaluation of the remedial alternatives discussed above was conducted for the Site. Sources of information used to conduct this evaluation include:

- Scenarios for Climate Assessment and Adaptation, which was accessed on-line at: <http://scenarios.globalchange.gov/content/scenarios>
- Climate Explorer, which was accessed on-line at: [http://toolkit.climate.gov/climate-explorer/?tp=g\\_a&center=-9355279.1,4519567.9&zoom=4&p=L&layers=aag:1](http://toolkit.climate.gov/climate-explorer/?tp=g_a&center=-9355279.1,4519567.9&zoom=4&p=L&layers=aag:1)

Site is located in Knoxville, Tennessee, a highly urbanized area in eastern Tennessee. Therefore, rising sea levels along the coastal areas of the southeastern United States and salt water intrusion are not expected to adversely impact the remedial alternatives discussed in the sections above. Also, the Site is located outside the 100-year floodplain of the Tennessee River. Other factors associated with climate change, including increases and decreases in temperature, potential for wildfires, and extreme weather events like hurricanes, also are not expected to adversely impact the recommended remedial alternatives.

In addition, changes in ground thaw and freeze cycles and depths to groundwater in the surficial aquifer, could potentially impact soil vapor concentrations. Benzene, detected less than three times higher than the calculated vapor intrusion screening level (VISL) for residential air for carcinogenic constituents, was the only VOC detected in soil gas samples above a calculated VISL. Based on the timeframe of past facility operations, it is likely that natural attenuation is occurring at the Site. Therefore, it is anticipated



Mr. B. Rosen  
November 16, 2015

that the remedial alternative recommended above to address vapor intrusion will be a conservative approach that is protective of human health based on the planned future redevelopment of the Site.

## CONCLUSION

Prior to redevelopment activities, the contaminated soil identified in the Phase II ESA report should be removed and disposed of at an approved waste disposal facility. A qualified asbestos abatement company should also be retained to appropriately address the asbestos issues. Based on the Phase II ESA, the remedial alternatives presented, and climate change scenarios evaluated, Tetra Tech does not anticipate the need to modify the proposed cleanup alternatives to address changing climate conditions.

Disclaimer: This ABCA has been prepared in accordance with EPA and TDEC standards. The cleanup alternatives are based on our understanding of existing site conditions at the time field sampling was conducted. While every effort has been made to adequately characterize site conditions, the full extent of contamination may prove to be greater or less than what is represented herein. As a result, the actual cost of implementing cleanup options may vary. Cleanup costs are based on anticipated future use of the property; however, specific details on future use were not available at the completion of this ABCA.

If you have any questions regarding this ABCA, please call me at (678) 775-3115.

Sincerely,



Satara Thomas  
Tetra Tech START IV Project Manager



Andrew F. Johnson  
Tetra Tech START IV Program Manager

**Enclosure 1:**

**Table 1: Costs and Assumptions Associated with Cleanup Alternatives**

**TABLE 1**  
**COSTS AND ASSUMPTIONS ASSOCIATED WITH CLEANUP ALTERNATIVES**

Remedial Alternative	Cost (USD)	Assumptions
<b>Metals Contamination</b>		
Option 1 – No Action	\$0	No Action is a zero cost option; however, it is not effective in controlling or preventing residents from coming into contact with contamination at the site.
Option 2 – Limited, Localized Soil Removal and Off-site Disposal of Contaminated Soil	\$9,800 to \$16,200	<p>Costs are based on the limited, localized soil removal at depths of 2 feet bls in the areas of soil samples MC-COM-01-DUP and MC-SB05-09 which exceed EPA RMLs for lead and arsenic. Costs are estimated to be \$12.30 per cubic yard to \$20.50 per cubic yard. Cost inputs were generated from experience on a similar site, RSMeans Cost Data, and quotes from local landfills.</p> <p>Covering the excavated areas with clean backfill 2 feet thick would require approximately 790 cubic yards of clean backfill. Clean backfill ranges in price from \$17 to \$26 per cubic yard, delivered. Purchasing and transporting 790 cubic yards of clean backfill would cost an estimated \$13,500 to \$20,600.</p> <p>The cost of the soil excavation does not include the removal of the concrete foundations at 501 (area not immediately surrounding sample MC-SB05-09), 505, 509, 517, 519, 523, and 525 W. Jackson Avenue.</p>
<b>Asbestos-Containing Materials</b>		
Option 1 – No Action	\$0	No Action is a zero cost option; however, it is not a viable option because the remnants of the buildings are in disrepair have been partially demolished. Therefore, the asbestos identified in the buildings need to be removed.
Option 2 – Removal and Disposal	\$4,500 to \$6,000	Costs are based on typical \$1.50 to \$2.00 per square foot removal and disposal costs, applied to an estimated 3,000 square feet of RACM.
<b>Vapor Intrusion</b>		
Option 1 – No Action	\$0	No Action is a zero cost option; however, it is not effective in controlling or preventing residents from exposure to contamination at the site.
Option 2 – Additional Sampling at 401 W. Jackson Avenue	\$2,000 to 3,200	Four ambient air samples will cost approximately \$1,228, translating to about \$2,000 for a senior scientist to conduct air sampling during an 8-hour work day. To collect four ambient air and four soil gas samples after the pavement is removed will cost approximately \$2,500, translating to about \$3,200 for a senior scientist to conduct air and soil gas sampling during an 8-hour work day. Driller costs are estimated to be

**TABLE 1**  
**COSTS AND ASSUMPTIONS ASSOCIATED WITH CLEANUP ALTERNATIVES**

Remedial Alternative	Cost (USD)	Assumptions
		approximately \$3,600.  Soil excavation, transportation and disposal, and replacement with clean backfill for the property located at 401 W. Jackson Avenue is estimated to cost between \$30 and \$47 per cubic yard.
Option 2 – Additional Sampling at 519 W. Jackson Avenue	\$2,000	Four ambient air samples will cost approximately \$1,228, translating to about \$2,000 for a senior scientist to conduct air sampling during an 8-hour work day. Driller costs are estimated to be approximately \$2,900.  Soil excavation, transportation and disposal, and replacement with clean backfill for the property located at 519 W. Jackson Avenue is estimated to cost between \$30 and \$47 per cubic yard.

Notes:

bls      Below land surface  
RACM    Regulated Asbestos-Containing Material  
RML      Removal Management Level  
RSM      Robert Snow Means  
USD      United States dollar



Arthur W. Cate Jr., Executive Director/CEO

901 Broadway, N.E. • Knoxville, TN 37917-6699  
865.403.1100 • Fax 865.403.1117  
800.848.0298 (Tennessee Relay Center)  
[www.kcdc.org](http://www.kcdc.org)

November 20, 2015

Ms. Barbara Alfano  
Region 4 Brownfields Coordinator  
U.S. Environmental Protection Agency  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960

Dear Ms. Alfano,

Knoxville's Community Development Corporation (KCDC) is the housing and redevelopment agency for Knoxville and Knox County. Since 1936, KCDC has been dedicated to improving the quality of life for the citizens of Knoxville by creating opportunities for better housing, jobs, and community revitalization.

On behalf of the City of Knoxville, KCDC has accomplished several redevelopment projects and numerous neighborhood improvement projects in downtown Knoxville over the past decade. To date, KCDC has developed over twenty-one redevelopment and urban renewal plans and also executed sixteen Tax Increment Financing (TIF) notes for the rehabilitation of several downtown buildings. KCDC has also successfully completed a \$40 million HOPE VI Project which was a federally funded program through the Department of Housing and Urban Development.

In 2002, KCDC developed a redevelopment and urban renewal plan for the Jackson Avenue/Depot Redevelopment District to help the area achieve its full potential as a unique historic district. Additionally, in 2007, working with the Metropolitan Planning Commission, KCDC developed the Downtown North I-275 Corridor Redevelopment and Urban Renewal Plan which created a vision to turn this old industrial area into a thriving business district that provides economic opportunities and neighborhood stability. The City of Knoxville has implemented several revitalization projects stemming from the plans, and both Jackson Avenue and Downtown North have begun to benefit from these improvements.

KCDC understands the need to perform environmental cleanup on both the Former McClung Warehouses on Jackson Avenue and the Former Sanitary Laundry in Downtown North so that these properties can be readied for redevelopment. Our agency supports the City in this effort, and we will continue to work closely with the City as this project moves forward.

We are excited about the opportunity to redevelop this area and committed to conducting environmental cleanup to ensure that residents and visitors to these neighborhoods will enjoy living, working and relaxing in a safe and healthy environment.

Sincerely,

Art Cate  
Executive Director/CEO

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KNOXVILLE'S COMMUNITY DEVELOPMENT CORPORATION

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December 1, 2015

Ms. Barbara Alfano  
Region 4 Brownfields Coordinator  
U.S. Environmental Protection Agency  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960

Dear Ms. Alfano:

The Development Corporation of Knox County (TDC) has been pleased to have worked closely with the City of Knoxville for many years to promote economic development. TDC, the City's Industrial Development Board, the Knoxville Chamber, and the City of Knoxville were all involved in working together to redevelop a former brownfield site in the Downtown North Area which resulted in the location of a major food distribution facility which initiated revitalization of the area. Additionally, TDC has been closely involved in Brownfields Assessment projects within the Downtown North Area. In 2004, TDC was the managing agency for an EPA Brownfields Assessment grant awarded to Knox County, Tennessee. This grant helped to facilitate the transformation of a once abandoned industrial site into the headquarters operation of one of the nation's largest independent suppliers of industrial, medical, propane, and beverage gases.

Through visioning and planning over the past several years, the City of Knoxville has demonstrated its commitment to revitalizing the core of the City and areas north of its downtown. Our organization has played, and will continue to play, an active role in this effort. TDC supports the business environment in the area to encourage the creation of jobs, and we see the City's intention to perform environmental cleanup, as a much needed step towards creating a healthy economy in this area.

TDC fully supports the City in its effort to secure EPA Brownfields funding to perform cleanup grants for both the former McClung Warehouses site in Downtown and the former Sanitary Laundry building in the Downtown North area. TDC will continue to work with the City towards the success of this community development project and the anticipated economic benefit it will bring to the area's residents, as well as to the entire region.

Sincerely,

Todd A. Napier  
President & CEO





EAST TENNESSEE  
**COMMUNITY**  
DESIGN CENTER  
*Envision. Inspire. Improve.*

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Past President

November 13, 2015

Ms. Barbara Alfano

Region 4 Brownfields Coordinator

U.S. Environmental Protection Agency

Sam Nunn Atlanta Federal Center

61 Forsyth Street

Atlanta GA 30303-8960

Dear Ms. Alfano:

Directors:

Barbara Apking

Mark Brodd

Gayle Bustin

Ryan Chinn

Hollie Cook

Diane Davidson

Randy Fields

Richard A. Foster, AIA,

LEED AP

Julie Graham

Nathan Honeycutt, AIA, PMI

Daryl Johnson, AIA

Sharon Johnson

Garry Menendez, ASLA

Clayton Pangle, II

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Bruce McCarty, FAIA\*

Douglas H. McCarty, AIA

John A. Walker, Jr. Esq.

Wayne Blasius

Executive Director

The East Tennessee Community Design Center (ETCDC) is a 501(c)(3) non-profit organization that provides planning and design services to community development groups, through the volunteer time of local professional architects, planners, landscape architects, interior designers and others in the design community. We have been providing these services for the past 45 years to facilitate community development projects in the inner city of Knoxville and the surrounding rural communities. During any given year, we average 20-50 projects and more than one thousand volunteer hours. The ETCDC is always alert for ways to work with other respected agencies and organizations in neighborhood improvement projects that create community pride, and raise property values. By partnering with other agencies, the ETCDC has helped to create new methods for providing inner-city housing, and reducing the level of blighted property. In some instances the ETCDC has assisted governments and municipalities with design and planning services. Those services, even though provided at the request of a governmental agency, are provided as a method of protecting the public domain.

The East Jackson Avenue Streetscapes plan had its beginnings when The City of Knoxville contracted with the East Tennessee Community Design Center to conduct a series of charrettes to determine common community desires in the Historic Old City. As a result of this work, a contract was awarded to develop construction plans for the portion of E. Jackson Avenue from the eastern most ramp on E. Jackson Street to Patton Street. These plans detail the complete streetscape including street lighting and sidewalk replacement. In Downtown North, ETCDC is partnering with the City of Knoxville's Community Development Department and the Broadway Corridor Task Force to develop a Broadway Corridor Enhancement Plan to consider ways to improve the corridor for businesses as well as adjacent neighborhoods. We recently held a Design Charrette to gather input from all interested local businesses, residents and organizations in the neighborhood.

ETCDC supports the City's efforts to redevelop these important historic parts of the Knoxville community. We believe that cleaning up former industrial and commercial properties will encourage new ownership and stimulate growth, and we will continue to provide our services where appropriate, to promote sustainable community development in the Jackson Avenue and Downtown North Redevelopment Areas.

Sincerely,

Wayne Blasius  
Executive Director

\*In Memoriam







## ST. JOHN'S LUTHERAN CHURCH

**Stephen Misenheimer**  
Senior Pastor

**Amy C. Figg**  
Pastor of Faith Formation and  
Leadership Development

**John Tirro**  
Pastor of Campus Ministry

**Chris Clay**  
Ministry Coordinator

**Deborah Dunne-Sousa**  
Minister of Music

**Krista Lee**  
Christian Education Director

**Isaac Taylor**  
Youth Ministry

**Toni Denton**  
Senior Administrative Assistant

**Thea Peterson**  
Kids Hope USA Director

**Mary Elizabeth Peterson**

**Lisa Minton**  
Nursery Assistants

**Lisa Foxwell**  
**Darrell Murrell**  
**Stephen Douglas**  
Custodian

**544 N. Broadway**  
**Knoxville, TN 37917**

**865-523-3330**  
Phone

**865-524-7895**  
fax

**www.sjlcknox.org**  
**info@sjlcknox.org**

December 1, 2015

Ms. Barbara Alfano  
Region 4 Brownfields Coordinator  
U.S. Environmental Protection Agency  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960

Dear Ms. Alfano,

St. John's Lutheran Church is a historic Lutheran church located on North Broadway in Knoxville, Tennessee; the congregation originally formed in 1888. The church building was completed and dedicated in 1913 in the Gothic Revival style. We are an inclusive, welcoming community of faith seeking through fellowship and evangelism to create Christ connections with our neighborhood, the city of Knoxville, and the world with a mission to "go and make disciples."

To accomplish this mission, individuals from the Church's Outreach Team volunteer their time to support several local programs including: Habitat for Humanity – church members provide labor and funding to build a house every other year. Family Promise of Knoxville - St. John's sends a team of volunteers to cook and serve meals to homeless families. Knox Area Rescue Ministries - St. John's sends a team of volunteers to cook and serve lunch to the poor and homeless. The Senior Nutrition "Mobile Meals" Program - St. John's volunteers serve two of the routes within our target neighborhood and also check on the meal recipients, reporting any health or safety concerns to the Knoxville-Knox County Community Action Committee Office on Aging for follow-up. KIDS HOPE USA – trained volunteers develop mentor relationships with at-risk public school children spending one hour a week with carefully matched students at Christenberry Elementary School in the target neighborhood.

St. John's Lutheran Church also provided meeting space at no charge to the City of Knoxville for quarterly public meetings held throughout the duration of the Downtown North Brownfields Assessment Grant from EPA and will make its facility similarly available throughout the cleanup projects.

St. John's Lutheran Church understands the need to perform environmental cleanup on both the Former McClung Warehouses on Jackson Avenue and the Former Sanitary Laundry in Downtown North so that these properties can be redeveloped into an assets instead of blighting elements of our community. Our Church supports the City in this effort.

Sincerely,

Reverend J. Stephen Misenheimer  
Senior Pastor





Nov. 23, 2015

Contact: Eric Vreeland  
865.215.3480 Office  
865.258.3431 Cell

### **MEDIA ADVISORY**

**What:** Public meeting to review the City's brownfield cleanup grant applications to the Environmental Protection Agency for properties on Jackson Avenue and Broadway

**When:** 5:30 p.m. Tuesday, Dec. 1, 2015

**Where:** All Occasion Catering, 922 N. Central St.

**Who:** Representatives from the City of Knoxville Office of Redevelopment and consultants from S&ME will host a public meeting to discuss Environmental Protection Agency brownfield cleanup grant applications for City-owned properties.

Specifically, the applications seek brownfield cleanup grants of up to \$200,000 for:

- The former McClung Warehouses and associated properties on West Jackson Avenue between Gay Street and Broadway; and
- The Former Sanitary Laundry Property at 625 N. Broadway.

The presentations will include a brief overview of the properties, the environmental issues associated with each property, the plan for cleanup activities and the grant application.

Anyone needing a disability accommodation to attend the meeting should contact the City's ADA Coordinator, Stephanie Cook, by Nov. 25 at [scook@knoxvilletn.gov](mailto:scook@knoxvilletn.gov) or 865-215-2034.

For an English interpreter, contact Joshalyn Hundley, Title VI Coordinator, at 865-215-3867 or at [jhundley@knoxvilletn.gov](mailto:jhundley@knoxvilletn.gov).

###

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[City of Knoxville](#) » [Government](#) » [City Departments & Offices](#) » [Redevelopment](#) » **EPA Cleanup Grant Applications**

## **EPA Cleanup Grant Applications**

## **Redevelopment Director**

Dawn Michelle Foster  
[dmfoster@knoxvilletn.gov](mailto:dmfoster@knoxvilletn.gov)  
(865) 215-2607

400 Main St.,  
Room 655  
Knoxville, TN  
37902



There will be a public meeting held Dec. 1 at 5:30 p.m to review the City's brownfield cleanup grant applications to the Environmental Protection Agency for properties on Jackson Avenue and Broadway.

The meeting will be held at All Occasion Catering, 922 N. Central St.

Representatives from the City of Knoxville Office of Redevelopment and consultants from S&ME will host a public meeting to discuss Environmental Protection Agency brownfield cleanup grant applications for City-owned properties.

**Specifically, the applications seek brownfield cleanup grants of up to \$200,000 for:**

- The former McClung Warehouses and associated properties on West Jackson Avenue between Gay Street and Broadway; and
- The Former Sanitary Laundry Property at 625 N. Broadway.

## **PUBLIC MEETING DECEMBER 1:**

[Presentation from Public Meeting \[PDF\]](#)

## **BROWNFIELD CLEANUP GRANT APPLICATIONS:**

**Former Sanitary Laundry  
at 625 N. Broadway**  
[Draft Application \[PDF\]](#)  
[Analysis of Brownfield  
Cleanup Alternatives  
\[PDF\]](#)

**Former McClung  
Warehouses at W. Jackson  
Ave.**  
[Draft Application \[PDF\]](#)

The presentations will include a brief overview of the properties, the environmental issues associated with each property, the plan for cleanup activities and the grant application.

**Comments or questions can be sent to Anne Wallace at [awallace@knoxvilletn.gov](mailto:awallace@knoxvilletn.gov) until Dec. 11.**

[Analysis of Brownfield Cleanup Alternatives \[PDF\]](#)

*These documents will also be available for review by the general public at the Reference Desk of the Lawson McGhee Library (the downtown branch) until December 11.*

#### News

December 04,  
2015  
[Anticipate Temporary Road Closures for 3 Christmas Parades](#)

#### Events

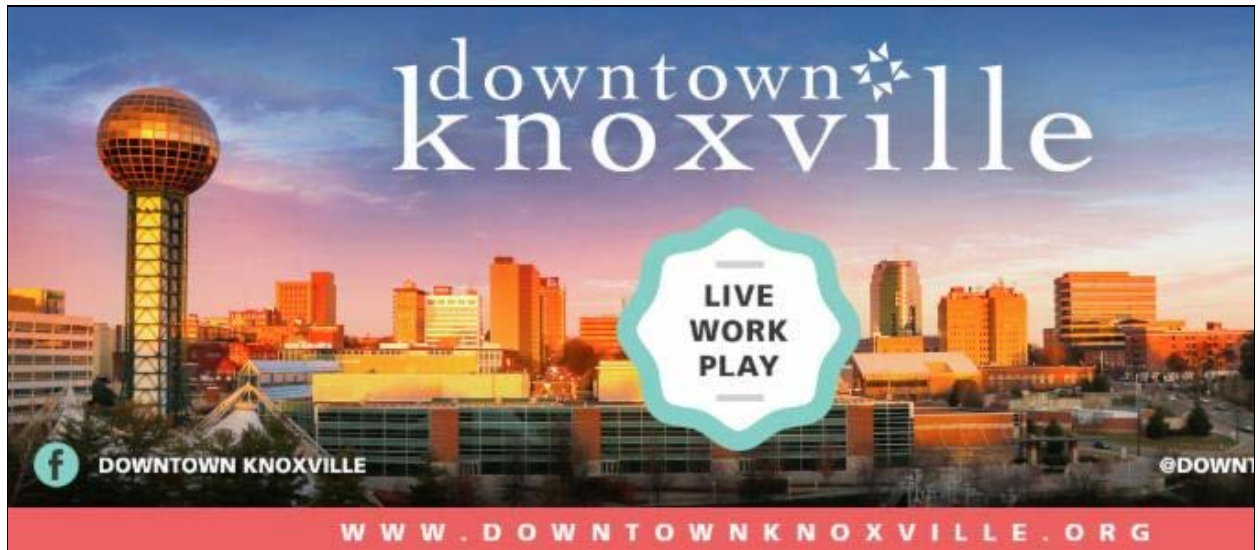
December 06,  
2015  
[Caring Santa for Special Needs Children](#)

#### City Services

**3-1-1**  
Dial for City Services

#### Contact

© City of Knoxville  
400 Main Street  
Knoxville, TN 37902  
[View Map / Site Map](#)



Christmas in the City is here with dozens of events to bring holiday cheer! Here are some of the holiday events happening in Downtown Knoxville. Visit the [City of Knoxville Special Events](#) site for details on these and other events happening around the city.

Celebration of Lights  
**Friday, November 27, 6pm to 9pm**

### Sign Up to Receive

Downtown Knoxville News

Interested in receiving a copy of the Downtown Knoxville newsletter? It's easy! Join our list and we'll keep you posted on events and news about downtown.

### Upcoming CBID Meetings

Meetings are held at the CBID offices, 17 Market Square, unless otherwise noted.

Please visit the [Upcoming Meetings](#) page on the CBID website for updates.

Residential Meeting

Dec 7, 2015 - 5:45pm

Topic: Community Building

December Board Meeting

Dec 14, 2015 - 11:30am

Enjoy live music, carolers, train rides, pictures with Santa, face painting, and marshmallow roasting, along with the lighting of the new 42' tree in Krutch Park Ext.

The lighting of the tree ceremony begins at 6pm.

[WDVX Holiday Ho-Ho-Hoedown](#) will be on the Bill Lyons Pavilion in Market Square from 6:30pm to 9pm. Market Street will have local businesses with crafts for children, stop by Home Depot's Little Elves Workshop, make a card to send to our soldiers with American Red Cross 'Cards for Heroes,' and check out the miniature train set!

Holidays on Ice  
November 27 through January 18

Enjoy the outdoor ice skating rink in Market Square. Extended to mid-January, this year skate under Christmas lights and stars. The rink will be closed on Christmas Day and during inclement weather. Admission includes entry fee, skate rental, and unlimited time on the ice! [Click here](#) for details on dates, times, and ticket information.

Window Wonderland  
November 27 through December 17

Take a downtown tour to see holiday windows with festive displays coinciding with the Christmas in the City theme of 'How the Grinch Stole Knoxville' or other creative décor. [Download a Map](#) of participating merchants and restaurants.

Christmas Parade  
Friday, December 4, 7pm

A Christmas Parade AND 1st Friday. Bands, dancers, lighted floats, characters and Santa Claus parade down Gay Street from Church Ave to Jackson Ave bringing fun holiday spirit to all!

Tour de Lights  
Friday, December 18  
Departs from Market Square at 7pm

Fun, free bike parade through Downtown Knoxville, 4th & Gill, and Old North Knoxville. Decorate your bike with lights, garland, and decorations. Costumes are also encouraged. The route is 5 miles long and takes less than an hour. Free bike safety checks and

January Board Meeting  
Jan 25, 2016 - 5:30pm

**For details  
on more events...**

To see more events in the downtown area, visit the [Events Calendar](#) of Visit Knoxville.



Wander through a magical forest of more than 350 designer items, including beautifully decorated trees, holiday accessories, fireplace mantels, door designs, table centerpieces and "Adopt-a-Trees" decorated by local school children. All priced to sell.

November 25 through 29 at the Knoxville Convention Center.

Visit the [Fantasy of Trees](#) website for details on times, tickets, volunteers, sponsors, and entertainment.





judging for the decorating contests begin at 6pm. [Click here](#) for more information.

New Years on the Square

**Thursday, December 31**

Bring in 2016 with your friends and family on Market Square. Music on the Square begins at 11pm with a big screen showing events from 2015. Countdown begins at 11:59pm with ball drop and fireworks at midnight. Holidays on Ice skating rink will be open from 1pm until midnight.



### Market Square Holiday Market

The peak growing season may be over, but many root crops, hearty greens, hydroponic vegetables/herbs, meat, honey, eggs, dairy and more can still be found from 12pm to 3pm by the stage on Market Square. From 12pm to 6pm, craft and artisan food vendors will be set up along Market St and Union Ave.

Saturday, December 5

Saturday, December 12

Saturday, December 19

noon to 6pm

[marketsquarefarmersmarket.org](http://marketsquarefarmersmarket.org)

**Christmas Lantern  
Express**  
Nov 27 through Dec  
22

Christmas Trains are especially magical! This trip, on an historic steam engine train, begins in Downtown Knoxville. Enjoy hot



**Thursday, November 26**

Bring the family and join the fun before you sit down to your turkey dinner and give thanks for your blessings. 5K Race and One Mile Kids Run.

Visit the [Knoxville Track Club](#) website for details on registration, volunteers, and team competition.



Share your gently-worn, clean coats, jackets, sweaters, gloves, hats, and even blankets, so others can be more comfortable this winter. Drop them off at [Mast General Store](#) before November 30th. Donations will go to Knoxville Area Rescue Mission.



The Holiday Canstruction sculptures, made out of full cans of food, are on display through December 3 at the Knoxville Convention Center. At the end of the exhibit, all food goes to Second Harvest Food Bank.

People's Choice Award [online voting](#) continues through Monday, Nov 30 at 5pm.

**First Presbyterian Church**  
**Open House**  
Friday, December 4

chocolate, Christmas decor, and a visit from a special guest as you go along the Tennessee River.

Gather round to hear local celebrity readers presenting "A Christmas Lantern." Feel free to wear your Christmas PJ's and settle in for the 90-minute trip along the Tennessee River.

For details, tickets, and complete schedule, visit [Three Rivers Rambler](#).

### **Are You a Downtown Resident? Residential Meeting Monday, December 7, 5:45pm**

The next downtown residential meeting will be held Monday, December 7 at the Knoxville Chamber offices, 17 Market Square. The topic will be Community Building and the importance of a strong downtown community.

Join us at 5:45 for a social time, including light hors d'oeuvres and an opportunity to meet your fellow downtown residents.

The meeting will start promptly at 6:15 with a panel discussion including:

- how the newly created RiverHill Gateway Neighborhood Association was formed
- how the established 100 Block of Gay Street Association stays active
- David Massey with the City of Knoxville's Office of Neighborhoods will discuss how other communities and HOAs have pulled together to build a stronger community.

The meeting will be over promptly by 7:00pm. For more information, please contact Michele Hummel, [mhummel@downtownknoxville.org](mailto:mhummel@downtownknoxville.org).

Here's a list of a few events at the Tennessee Theatre over the next few weeks.

Keyboards at Christmas  
Sunday, November 29, 6:30pm



First Presbyterian Church, 620 State Street, would like to share a glimpse of what's going on with the church construction.

Join them for an open house on Friday, December 4, between 5:30pm and 9:30pm. Drop by before or after the Christmas Parade for tours, cider and sweets, and an opportunity to shop at the Mission Market.

For construction updates, visit the church [website](#).



### **Ice Bears Home Schedule**

There are several opportunities to catch a home game over the next few weeks.

Fri, Nov 27 - RiverKings at 7:35

Thurs, Dec 3 - Peoria at 7:05

Sat, Dec 5 - Hunstville at 7:35

Fri, Dec 18 - Hunstville at 7:35

Sat, Dec 19 - Fayetteville at 7:35

Tues, Dec 29 - Macon at 7:05

Fri, Jan 1 - RiverKings at 7:35

Tickets and complete season schedule are available at [knoxvilleicebears.com](http://knoxvilleicebears.com).

Enjoy music on the mighty Wurlitzer organ and five Steinway Grand pianos. Nine accomplished musicians will present music for the whole family. This event is a benefit for "Mission of Hope".

It's a Wonderful Life

Sunday, December 13, 1pm and 5pm

A free screening of the classic holiday film "It's a Wonderful Life" presented by Home Federal Bank.

Broadway at the Tennessee Theatre

The Sound of Music

December 15 through December 20

A brand new production of "The Sound of Music," directed by three-time Tony Award® winner Jack O'Brien. This lavish new production launched at the Ahmanson Theatre in Los Angeles and will arrive in Knoxville mid-December. Tickets are available.

Moscow's Ballet Great Russian Nutcracker

Wednesday, December 23, 3pm and 7pm

Feel the spirit of Christmas with the whole family this holiday! Marvel at the astonishing 40 world-class dancers, watch the kids giggle at the playful puppets, and delight at the splendor of the enchanting Snow Forest.

For a complete schedule of events, times, and tickets, visit the [Tennessee Theatre](#) website.

A few special holiday events at the Bijou Theatre include:



Knoxville Symphony Orchestra  
presents Classical Christmas  
Sunday, November 29, 2:30pm

This festive Chamber concert includes holiday highlights such as Mozart's arrangement of Sleigh Ride, Greensleeves, It Came Upon a Midnight Clear, and many recognizable carols. The concert features the Chamber Orchestra and Knoxville Chamber Chorale, conducted by KSO Resident conductor James Fellenbaum.

Knoxville Gay Men's Chorus presents Christmas Comes Anew  
Saturday, December 12, 8pm and Sunday, December 13, 2pm



Saturday December 12  
Worlds Fair Park

The Jingle Bell Run is a fun and festive way to kick off the holidays. Wear a holiday-themed costume, tie jingle bells to your shoelaces. Raise funds to help find a cure for arthritis.

Visit the [website](#) for details on sponsorships, donations, volunteers, and registration.



A Visit with Santa  
Sunday, December 13

Santa will be at [Mast General Store](#) on Sunday, December 13 from 1pm to 5pm.

Bring your camera. All photos are free.

## Reporting Crime

In order for downtown to be a safe place for us all to work, live, and play, it's important to report any illegal activity, crime, or aggressive panhandling. Please call 911 in an emergency or call the KPD



The Knoxville Gay Men's Chorus has planned a music fest featuring both traditional carols and secular holidays themes. The 50 member chorus will be under the direction of the new artistic director, Dr. Alan Stevens. The concert will be a celebration of warmth and winter and light-hearted numbers to warm the hearts and spirit of the audience.

Find a complete schedule of all events, and information on times and tickets, by visiting the [Bijou Theatre](#) website.

### Public Meeting

**Tuesday, December 1, 5:30pm**

**All Occasions Catering, 922 N. Central St**

Representatives from the City of Knoxville Office of Redevelopment and consultants from S&ME will host a public meeting to discuss Environmental Protection Agency brownfield cleanup grant applications for city-owned properties.

Specifically the applications seek brownfield cleanup grants of up to \$200,000 for:

- the former McClung Warehouses and associated properties on W. Jackson Ave between Gay Street and Broadway; and
- the former Sanitary Laundry property at 625 N. Broadway

Presentations will include a brief overview of the properties, the environmental issues associated with each, the plan for cleanup activities, and the grant application.

### Downtown Knoxville CBID

The core mission of the Central Business Improvement District is to enhance downtown's existing assets and bring more people to Downtown Knoxville to live, work, and play.



CBID relies upon the energies and vision of community volunteers to develop and execute its plans and programs. An active board of directors and standing committees focus on five areas: development, marketing, recruitment and retention of business, residential, and quality of life.

If you're interested in getting involved, please contact us at [info@downtownknoxville.org](mailto:info@downtownknoxville.org).

non-emergency number at 865.215.4010.

And remember...  
**FREE PARKING**

You can park FREE on weekends and FREE when you enter after 6pm every night in over 5,500 spaces in the following municipal garages and lots:



Locust Street Garage  
Market Square Garage  
State Street Garage  
Promenade Garage  
Walnut Street Garage  
Dwight Kessel Garage  
Jackson Ave Surface Lot - corner of Gay & Jackson  
Viaduct Surface Lot - under the interstate off E. Jackson

So come visit!

### Get CONNECTED!

Click the icons to follow  
Downtown Knoxville on social media!

Contact Us

(865) 246-2654

[info@downtownknoxville.org](mailto:info@downtownknoxville.org)



# EPA CLEANUP GRANTS

## PUBLIC MEETING

December 1, 2015

### CITY OF KNOXVILLE

NAME & ADDRESS	NAME & ADDRESS OF AREA BUSINESS YOU ARE ASSOCIATED WITH (IF APPLICABLE)	DAYTIME PHONE NUMBER	E-MAIL ADDRESS
Justin Fisher	TDEC	865-594-5466	Justin.Fisher@tn.gov
Paula Larson	TDEC	615-532-0926	PAULA.LARSON@TN.GOV
Sharon McKee	S&ME	865-330-9319	smckee@smeinc.com
Mike Stomen	S&ME	865-970-0003	mstomen@smeinc.com
Mike Steely	Knox Focus	865-599-5206	steelym@knoxfocus.com
ART CATE	KCDC	<del>865</del> 403-1116	
George Wallace	City Council	414-7102	gwallace@cbur.com
Rick Emmett	WLC	715-3837	RickEmmett@tn.gov
Rick Bruce	S&ME, INC.	865-970-0003	rbruce@smeinc.com
Anne Wallace	City of Knoxville	865-215-2644	awallace@knoxville.tn.gov
DAWN MICHELLE FOSTER	City of Knoxville	865-215-2607	DAWFOSTER@KNOXVILLE.TN.GOV
Miles (staff)	All Occasions Catering	865-521-1300	

PLEASE PRINT



CITY OF KNOXVILLE

EPA CLEANUP GRANTS  
PUBLIC MEETING

December 1, 2015

NAME & ADDRESS	NAME & ADDRESS OF AREA BUSINESS YOU ARE ASSOCIATED WITH (IF APPLICABLE)	DAYTIME PHONE NUMBER	E-MAIL ADDRESS
<del>Frederick Samuel</del>	<del>Crown</del>		
Regis Ann Borsaw	Vested CO	865-696-8482	regisb9@cs.com
Terence Davis	Mid/Mod Collective 1621 N. Central	865-607-0210 also -	tdavis@QE2LLC.com (Quantum Environmental)
JIM HAGEMAN	COR 400 MAIN STREET	865-215-2037	JHAGEMAN@KNOXVILLETN.GOV

PLEASE PRINT

## City of Knoxville – Brownfields Cleanup Proposal - Public Comments

### Questions/Comments/Answers

Q. Who will do the cleanup?

A. The City will be responsible for the cleanup as the grantee. The City will hire experienced contractors to perform the cleanup work and will coordinate presenting information to the public about the cleanup progress through meetings and notifications.

Q. What is the timeline for the (McClung) project?

A. The City will submit the grant applications to meet the December 18 deadline. We anticipate award announcements in the spring – probably April/May, and the performance period to complete the project will be 3 years. If the cleanup is completed and the project is closed out with EPA prior to the 3-year period, the City will be able to market and sell the property at that time.

Q. How will the City prevent re-contamination on the (McClung) site? *Note – there will be a roadway construction project happening at the same time and the question relates to the heavy equipment being used for that project*

A. Heavy equipment (for the roadway project) will access via a paved parking lot and an alleyway at the rear of the McClung site so it will not be on the portion of the site that will be cleaned up.

Q. Is the parking area on Jackson Avenue available to the public during the project? *Note – the parking lot is used when accessing a banquet hall and other establishments across the street from the project site.*

A. Approximately half of the current parking spaces (100) will still be available during the project.

## **City of Knoxville**

### **Cleanup Grant Applications – former Sanitary Laundry Facility and former McClung Warehouses**

#### Summary of the Public Meeting held on December 1, 2015

The public meeting was held at a downtown location central to the redevelopment areas in which the two subject properties are located.

The attendees represented both the public and private sectors including local public officials, businesses, local residents and the media.

Attendees were given a presentation on the City's intent to submit grant applications to the EPA for the two subject properties. It included an overview of the City's vision for its redevelopment areas, planning studies that have been done for those areas, ongoing development activities, and proposed development activities. The presentation also provided an overview of the EPA's Brownfields Grant Program. In addition, the presentation explained the assessments that were performed on the two properties targeted for cleanup, and the potential contaminants associated with the properties, as well as the proposed cleanup methods outlined in the ABCAs.

Drafts of the two cleanup proposals and the corresponding ABCAs, as well as copies of the Phase I and Phase II Environmental Site Assessments for each of the subject properties were available for the attendees to review. Some of the attendees remained after the presentation to discuss the projects. Several questions were asked and answered during the meeting.

Included is a copy of the presentation that was given at the meeting.



# EPA CLEANUP GRANT APPLICATIONS

***December 1, 2015***

*Anne Wallace, Deputy Director, Office of Redevelopment*

*Sharon McKee, S&ME Inc.*

*Rick Bruce, S&ME, Inc.*



# Knoxville's Strategy

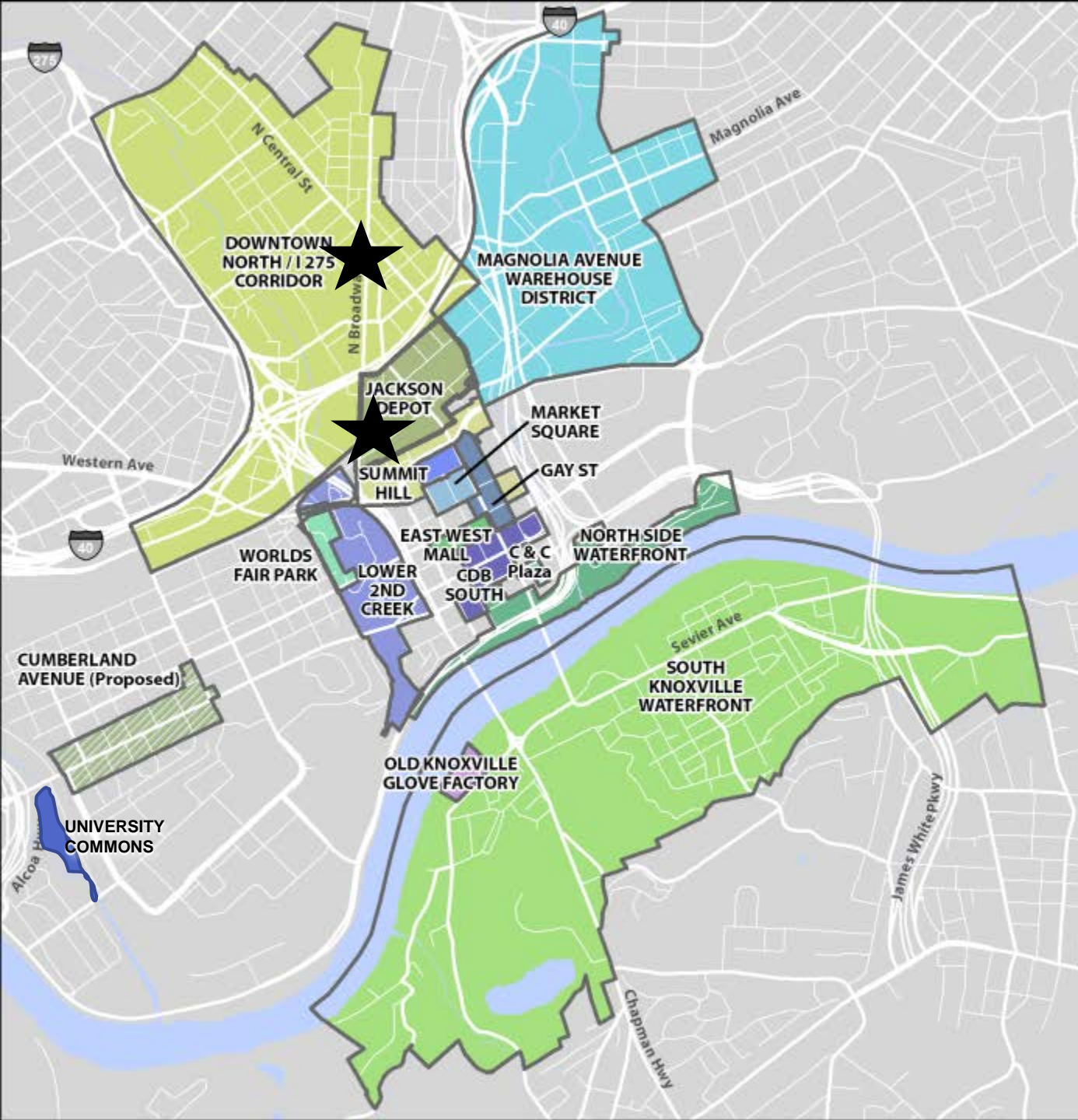
## ► Vision for Brownfield Redevelopment:

Appropriate redevelopment to bring vitality and livability back to those parts of the community that have seen economic decline – and create safe, secure, healthy neighborhoods where mixed-use development thrives





# Core Redevelopment Areas



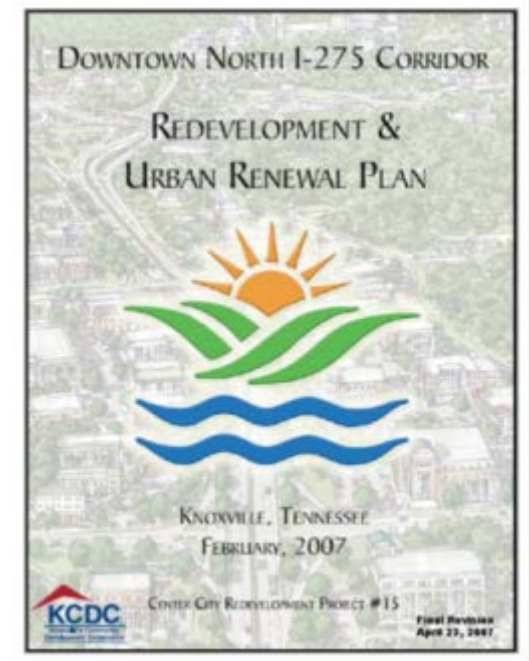
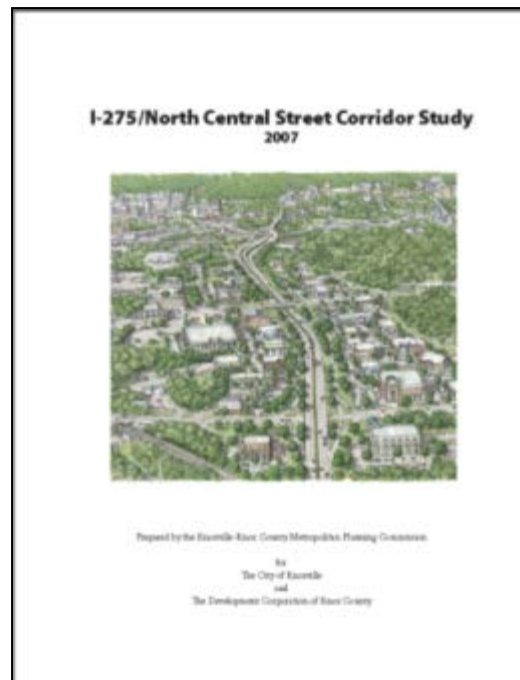
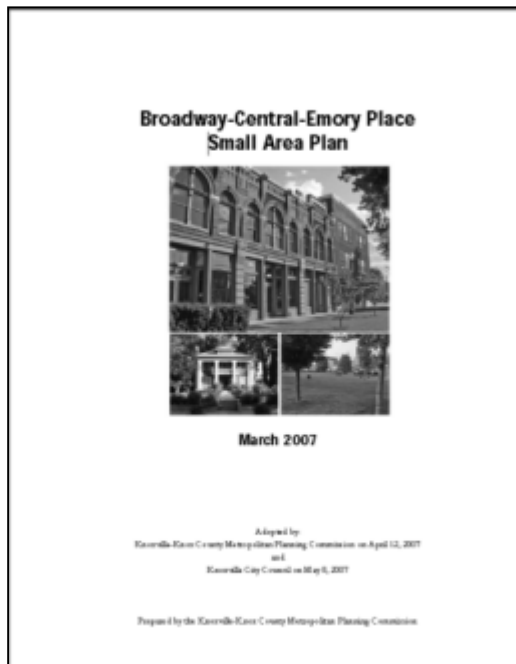
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# Downtown North – Context

- ▶ 2007 Planning Process
- ▶ Adoption of the Redevelopment and Urban Renewal Plan
- ▶ Focus on vacant and blighted properties



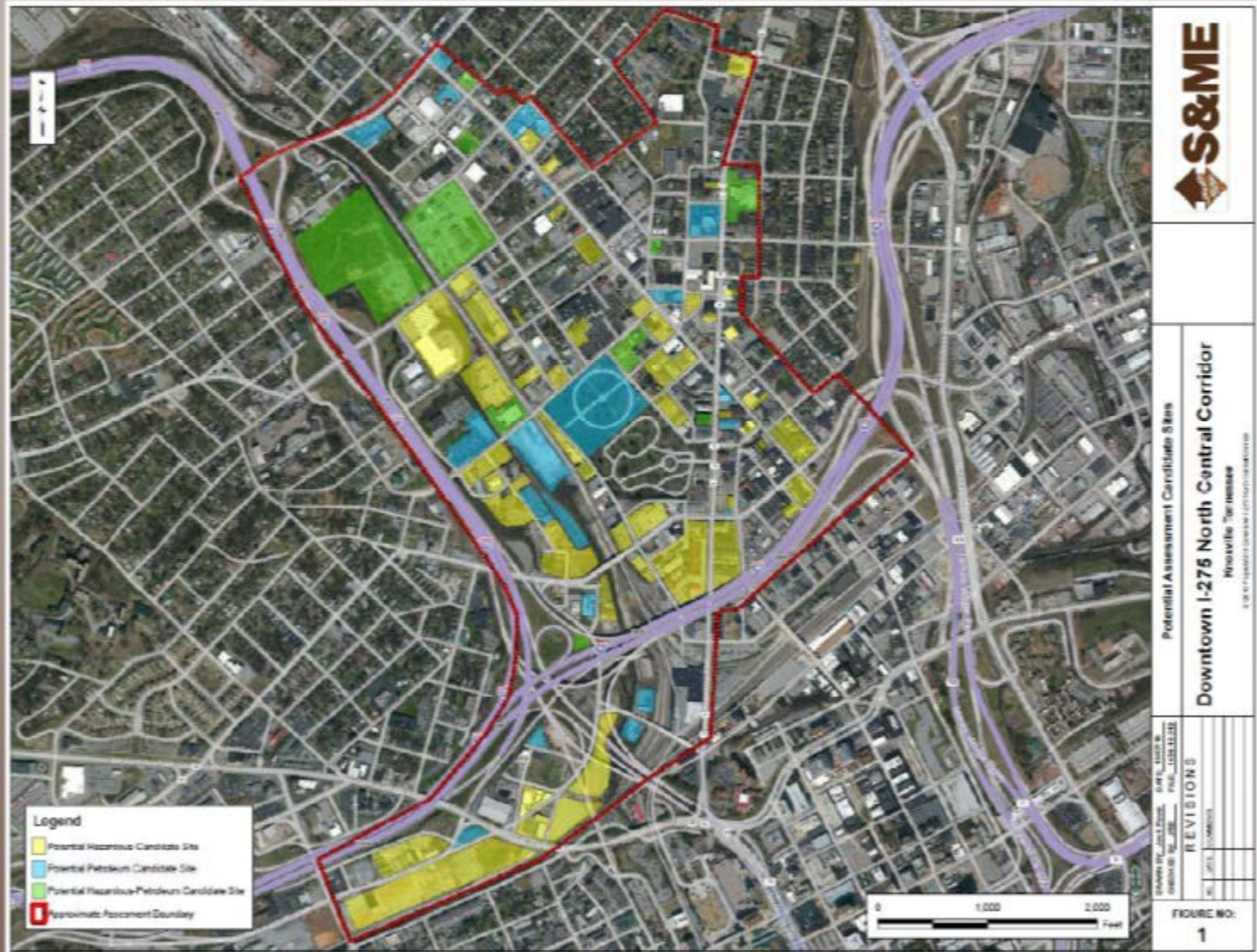
# Downtown North – Grant Information

- ▶ 2010 Application for petroleum and hazardous assessments
- ▶ 2011 Awarded \$400,000 for both types of assessments
- ▶ Community outreach – Newsletter, media releases & coordination with property owners
- ▶ Utilized existing area inventory to identify sites
- ▶ Selected 7 sites for Phase I ESA
- ▶ Performed 6 Phase II Assessments





# Downtown North – Potential Sites



# Downtown North – Selected Sites

- ▶ **Sanitary Laundry** – a 0.7-acre site formerly housing a laundry and dry cleaning facility.
- ▶ **Lindsay Texaco** – a 0.25-acre site formerly housing a gasoline retail outlet
- ▶ **Southern Linen** – a 1.2-acre site that was formerly residential, office, and possibly dry cleaning. Currently used to store salvage building materials.
- ▶ **Auto Sales and Service** – a 0.48-acre site whose former use was residential, retail, and automobile sales and repair service. Previously used to store salvage building materials.
- ▶ **Historic Knoxville High School** – a 1.9- acre site that was formerly residential, a high school, and education offices.
- ▶ **Knox Tenn Rental, Central St.** – a 0.4- acre site of which a portion of the property was formerly residential, the rest was a fueling operation for more than 50 years.
- ▶ **Knox Tenn Rental, Irwin St.** – a 0.5-acre site formerly housing an equipment rental facility that included equipment washing and storage.
- ▶ **Knox Tenn Rental, Bernard Ave.** – a 0.5- acre site that was formerly residential, then used as a construction-related equipment storage and maintenance facility for the past 40 years.



# Jackson Avenue – Context

- ▶ Former McClung Warehouses site – approximately 5 acres
- ▶ City purchased property in November of 2013 (2 major fires)
- ▶ 2014 ULI Recommendation:
  - ▶ Consider a master-developer approach to ensure successful and contextual redevelopment
- ▶ COK Initial Responses:
  - ▶ Top priority
  - ▶ Begin process to select master developer
  - ▶ Challenge of developing 1 parcel or several – master developer may be able to allow both
- ▶ Update:
  - ▶ EPA Targeted Brownfield Assessment
  - ▶ Broadway Viaduct Replacement



# Broadway Viaduct – Replacement



## **Project Contact**

Andrea R. Hall, P.E.  
Transportation Manager 2  
p. 865-594-2496  
[andrea.hall@tn.gov](mailto:andrea.hall@tn.gov)

- ▶ TDOT Project – current status
  - ▶ Appraisal and acquisition
  - ▶ Coordination with railroad
  - ▶ Move-prior utility work
- ▶ Earliest Letting - May 2016
- ▶ Bridge will be closed during construction (approx. 2-3 years)
- ▶ Some lane closures and intersection closures may be necessary at times
- ▶ Demo first, utilities, then rebuilding
- ▶ COK plans to address environmental issues at Jackson Ave during Viaduct replacement

# Next Steps for Knoxville

- ▶ Targeted Brownfield Cleanup Sites
  - ▶ Former Sanitary Laundry
  - ▶ Former McClung Warehouses/Jackson Ave
- ▶ Productive reuse of key sites
  - ▶ Market studies
  - ▶ Request for proposals
  - ▶ Work with Master Developers
- ▶ Continue investment from a strong city core outward





# EPA Brownfields Grant Program

- ▶ **What is a Brownfield?**
- ▶ **EPA Definition** – real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutants, or contaminant.
- ▶ **500,000** – sites nationwide. Cleaning up and reinvesting in these properties increases local tax bases, facilitates job growth, utilizes existing infrastructure, takes development pressures off of undeveloped, open land, and protects the environment.



# EPA Brownfields Grant Program

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- ▶ **Competitive** – EPA anticipates awarding 60 cleanup grants nationwide
- ▶ **Up to \$200,000 per site** – City has to match at 20% (up to \$40,000)
- ▶ **Who is eligible?** – municipalities, tribes, non-profits. Private individuals are not eligible
- ▶ **Before you can apply** – Phase I & II ESAs, ABCA
- ▶ **Factors for Consideration** – environmental, economic, community vision, partnerships

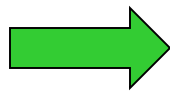


# EPA Brownfields Grant Program

- ▶ **Benefits** – mitigate potential health risks, revitalize brownfields properties, restore economic vitality



**BEFORE**



**AFTER**

# Sanitary Laundry Site – 625 North Broadway

- ▶ Property Details
  - ▶ Approximately 0.3 acres
  - ▶ 15,000 square foot building
  - ▶ Currently vacant





# Sanitary Laundry Site – 625 North Broadway

- ▶ Former Dry Cleaner
  - ▶ Operated from 1926 until 1993
  - ▶ Dry cleaning solvent tank
  - ▶ Two gasoline tanks
- ▶ Current Status
  - ▶ Two gas tanks removed in 1993
  - ▶ Solvent tank emptied and filled with concrete in 1994
  - ▶ Lead based paint and asbestos in the building



# Sanitary Laundry Site – 625 North Broadway

- ▶ Soil, Groundwater, Soil Gas and Ambient Air Sampled



Soil Vapor



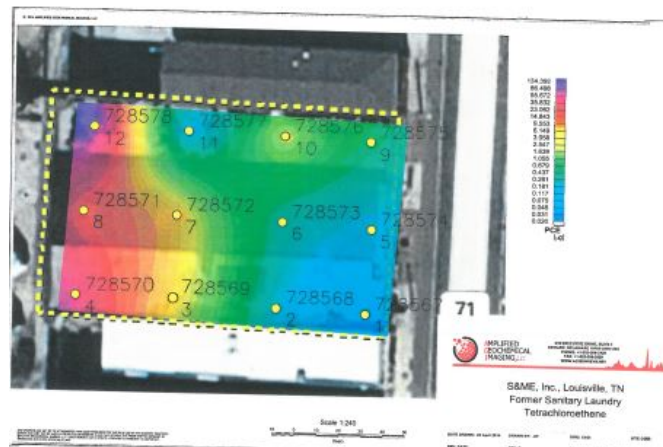
Ambient Air



Soil Samples



Sub-slab Gas



Example of Findings

# Sanitary Laundry Site – 625 North Broadway

- ▶ Assessment Findings
  - ▶ Drums of dry cleaning fluids removed in 1999
  - ▶ Dry cleaning compounds and solvents detected
  - ▶ City and TDEC have negotiated a Brownfield Agreement





# Sanitary Laundry Site – 625 North Broadway

- ▶ Analysis of Brownfield Cleanup Alternatives
  - ▶ Removal and disposal of containers
  - ▶ Lead-based paint and asbestos removal





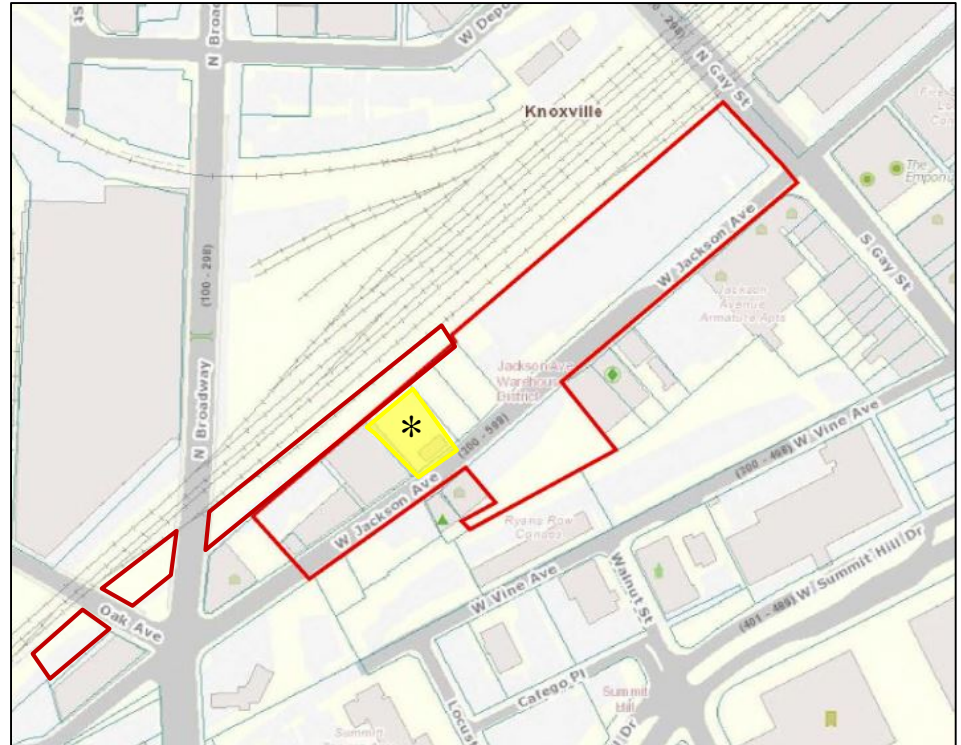
# Sanitary Laundry Site – 625 North Broadway

- ▶ Analysis of Brownfield Cleanup Alternatives
  - ▶ Soil Vapor Mitigation System



# McClung Warehouse Sites – Jackson Avenue

- ▶ Property Details
  - ▶ 8 parcels, approximately 5 acres
  - ▶ Variety of former businesses
    - ▶ Automobile garage
    - ▶ Woodworking shop
    - ▶ Freight shipping
    - ▶ Freight storage
  - ▶ Currently vacant



\* Property not owned by the City of Knoxville

# McClung Warehouse Sites – Jackson Avenue

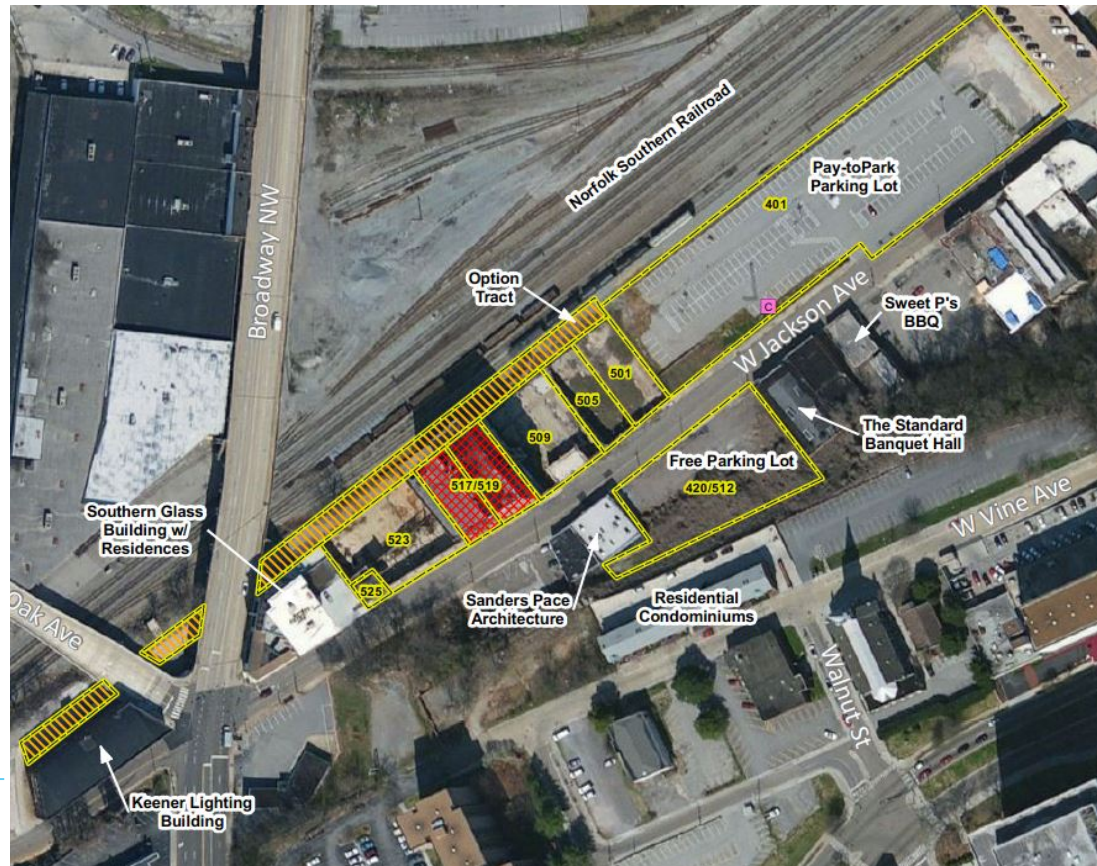
- ▶ Proposed mixed-use complex
- ▶ Possible commercial and residential use





# McClung Warehouse Sites – Jackson Avenue

- ▶ Tetra Tech performed Targeted Brownfield Assessment
- ▶ Phase I and Phase II ESA
- ▶ Sampled soil, groundwater, soil gas and suspect asbestos containing material



# McClung Warehouse Sites – Jackson Avenue

## ▶ Assessment Findings

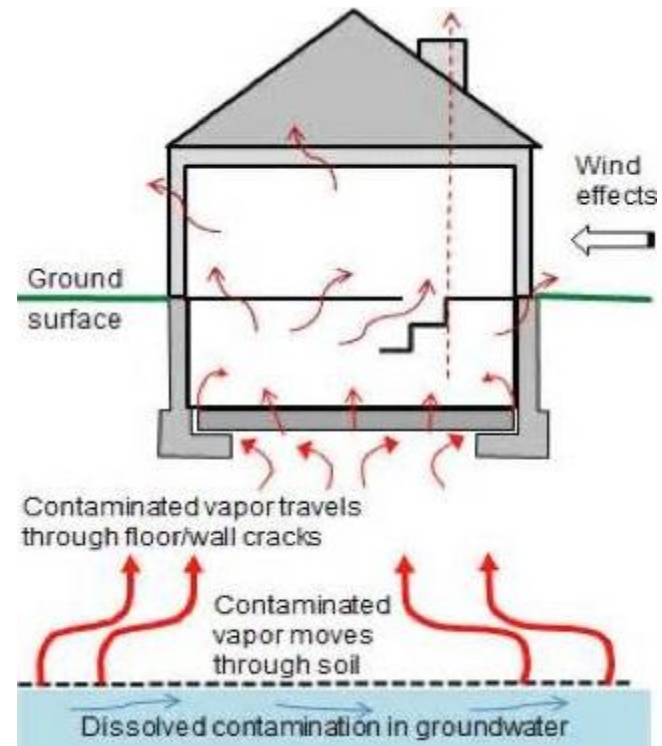
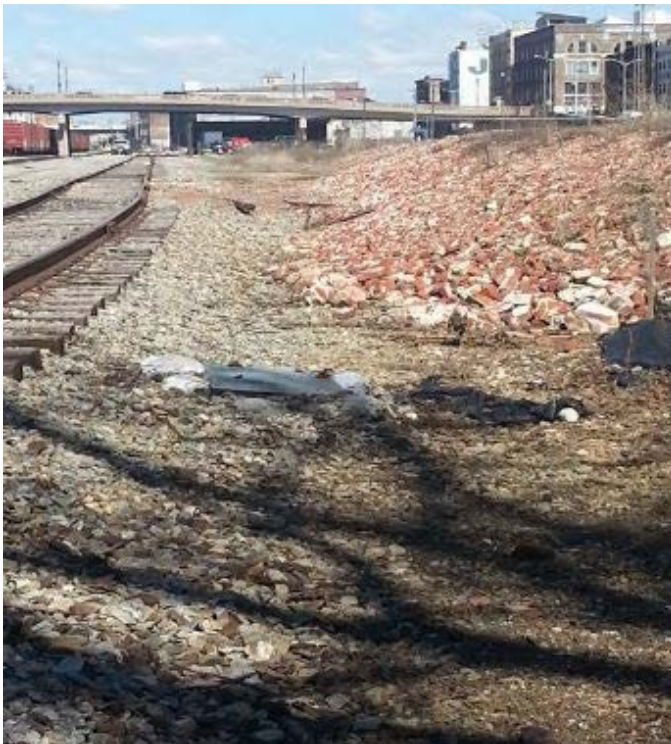
- ▶ Metals detected above EPA screening levels (Arsenic, lead, cobalt, manganese and thallium)
- ▶ Asbestos Containing Material (ACM)
- ▶ Benzene in soil gas exceeds residential screening levels





# McClung Warehouse Sites – Jackson Avenue

- ▶ Analysis of Brownfield Cleanup Alternatives
  - ▶ Asbestos removal
  - ▶ Remove soils with elevated metals and replace with clean fill
  - ▶ If residential use is proposed, address potential vapor intrusion



# Questions & Comments

For more information please visit our website:

[www.knoxvilletn.gov/cleanupgrants](http://www.knoxvilletn.gov/cleanupgrants)

Send comments to Anne Wallace at [awallace@knoxvilletn.gov](mailto:awallace@knoxvilletn.gov)

Comments will be received until C.O.B. December 11th

