



## THE CITY OF KEY WEST

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**TO:** Jim Scholl, City Manager

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**CC:** Shawn Smith, City Attorney  
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**DATE:** August 9, 2016

**SUBJECT:** City Acquisition of Key West Diesel Plant Property Buildings  
Structural/Environmental Condition Assessment and Repairs Estimate

As requested, the Engineering Services Department has reviewed information provided by KEYS Energy Services (KEYS) dated October 15, 2015, regarding possible City of Key West (City) acquisition of a portion (the Site) of the Key West Diesel Plant (the Property). The Site consists of three buildings identified as 100 Angela Street, 709 Fort Street and 101 Geraldine Street and the Fort Street Extension right-of-way (ROW). AMEC Foster Wheeler, Inc (AMEC) was tasked performing a Structural Condition Assessment, summarize existing environmental conditions, and estimating costs for building demolition and rehabilitation "white box". AMEC subconsulted Atlantic Engineering Services (AES) to report the Structural Condition Assessment and AMEC estimated building demolition and rehabilitation cost. The environmental summary was based on previous assessments and associated reports as provided by KEYS. A summary of AMEC/AES findings/recommendations and a building address map are presented below:

### Environmental Consideration Summary

Based on the historical use of the buildings, such as housing generators used for electrical power generation, the presence of impacted soil at the Site, the presence of asbestos containing materials, and lead based paint in building components, and the proximity of the Site to the electrical Keys Substation the following recommendations are provided to minimize potential human exposures:

- The future development and use of the Site should be limited to commercial structures and/or commercial purposes unless engineering controls are incorporated into the site development plan for residential uses.
- Reasonable security measures including installation of a temporary fence should be considered for the Site in order to restrict site access and limit potential exposure to the documented petroleum hydrocarbon impacted soil and asbestos containing material present in the onsite buildings.

- Limited soil assessment had been conducted in the past beneath the sub slabs of the three onsite buildings. Therefore, if planned renovations and/or demolition of the buildings will disturb the soil, additional soil assessment may be required to further define the extent of potential soil impacts. In addition, a soil and groundwater management plan would need to be developed for the Site. The management plan will ensure proposed soil disturbance activities are performed in accordance with existing land use controls and that residual groundwater impact at the Site is not disturbed by site development activities. Any potential soil impact encountered beneath the buildings could be addressed through source removals during scheduled construction activities to minimize cost.
- Additional testing of the water contained in concrete-lined pits surrounding former generators at the Site may be required (due to age of the original test results) in order to properly dispose of the water once a site development plan has been finalized.
- Asbestos containing materials identified in the three buildings should be removed or properly addressed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.
- Lead abatement of identified lead based paint materials in building components should be performed by certified lead abatement contractors prior to renovation activities. If only demolition activities will be performed, a lead abatement inspector may be required to oversee the demolition activities.

#### Architectural/Engineering Structural Condition Assessment

- AMEC subconsultant AES performed a structural assessment of the three buildings on June 21 through June 23, 2016 and AMEC referenced this AES report for estimating building demolition and rehabilitation cost.
- The buildings at 101 Geraldine and 709 Fort Street condition have missing roof and interior wall sections. Masonry wall systems are fissured with both exterior and interior walls missing bricks and exterior windows missing portions of lintels and sills. The AES report recommends immediately repairing or shoring missing interior wall sections containing loose and falling bricks and immediately replacing missing roof sections as remainder of roof system would receive considerable damage or entire loss due to a wind event.
- Due to the unsafe/unstable roof and deteriorated wall and steel framing conditions, along with the opportunity to re-establish the Fort Street Extension right of way (ROW), Staff recommends demolition of 101 Geraldine and 709 Fort Street. Future use of the ROW may include an access to the Truman Waterfront Park and/or development of the abutting vacant land.
- 100 Angela was reported by AES to be in “good condition” with relatively new roofing/rafter system and masonry wall repairs. AES recommends coating steel framing corrosion, replacing concrete flooring, and repointing masonry.

Architectural/Engineering Structural Estimates

In addition to AES performing a Structural Condition Assessment, AMEC estimated demolition and building rehabilitation “white box” cost. AMEC’s cost estimate also attached for reference. The below matrix provides a summary of estimated cost scenarios.

**Scenario 1. 100 Angela - White Box, 709 Fort Street - Demolish, 101 Geraldine - Demolish:**

<u>Address</u>	<u>SF</u>	<u>Demolition</u>	<u>Environmental</u>	<u>White Box</u>
100 Angela	3,600		\$ 36,980	\$ 500,120
709 Fort Street	3,850	\$ 142,962	\$ 39,548	
101 Geraldine	5,850	<u>\$ 217,227</u>	<u>\$ 60,092</u>	_____
Totals		\$ 360,189	\$ 136,620	\$ 500,120
<b>Grand Total *</b>				<b>\$ 996,929</b>

**Scenario 2. 100 Angela - Demolish, 709 Fort Street – Demolish, 101 Geraldine - Demolish:**

<u>Address</u>	<u>SF</u>	<u>Demolition</u>	<u>Environmental</u>
100 Angela	3,600	\$ 133,200	\$ 36,980
709 Fort Street	3,850	\$ 142,962	\$ 39,548
101 Geraldine	5,850	<u>\$ 217,189</u>	<u>\$ 60,092</u>
Totals		\$ 493,351	\$ 136,620
<b>Grand Total *</b>			<b>\$ 629,971</b>

**Assumptions \* in preparing cost estimates are:**

1. Estimates include Design, Contractor General Conditions/Profit and Contingency
2. Demolition includes only roof and wall systems down to the top of Finish Floor Elevation
3. Diesel Engines would be removed and recycled at no additional cost
4. HARC approval will be required
5. Compliance with FDEP issued Site Rehabilitation Order with Conditions (SRCO-C)

6. Funding the removal of 101 Geraldine foundation within the Fort Street ROW in a separate Fort Street extension to Angela Street project
7. Estimates do not include an additional environmental site assessment and subsurface hydrocarbon impacted soil/rock material disposal cost. AMEC estimated an additional site assessment at an additional \$ 50,000 and disposal of a 2' thickness over the entire site at an additional \$ 372,400 for a total additional cost of \$ 422,400.

