

BOOK 2

conditions.

Architectural and Historic
Assessment

tennessee valley authority

Muscle Shoals Reservation
adaptive re-use study
Conditions/Market/Planning/Implementation

July 31, 2009
Revised August 25, 2009

LORD • AECK • SARGENT
ARCHITECTURE

Building Assessment Introduction

Methodology

To establish the boundaries for the current study, a list of buildings to be included was provided by TVA. That list and a map showing the buildings are shown on the following pages. All buildings on the list had been previously evaluated in one or more of the previous studies described in book 1. Each building was reviewed by a team of assessors that included an architect, experienced in working with historic structures, and a structural engineer. The architectural assessments occurred during the week of April 19, 2009 and the structural assessments occurred during the week of April 26, 2009. The buildings were surveyed and evaluated to determine their

- Significance - National Register of Historic Places (NRHP) eligibility
- Adaptability - relative suitability for rehabilitation
- Condition

Significance

The current survey relied on the recommendations of the previous studies to establish NRHP eligibility. Each building was reviewed in the field to determine if changes had occurred since the previous survey that would affect the building's NRHP eligibility.

Adaptability

During the survey, the assessment team observed qualities that would affect the future adaptability of a building such as plan configuration, location of load bearing or character-defining walls and structural considerations. Using the potential uses for the Shoals area as identified by the market analysis described in books 1 and 3, each building was evaluated for its ability to be adapted to serve these uses. It should be noted that a determination of potential for adaptability is highly subjective. A building with a rigid floor plan and load bearing interior partition walls may not possess flexibility for a range of uses but may be highly adaptable for uses such as offices that do not require large open spaces. This rating is more of an indicator of flexibility and therefore should not be used as an absolute indicator of viability of successful reuse.

Condition

The survey team assessed all primary exterior and interior architectural and structural features to determine their current physical condition. The condition of the various components was then used to create an overall

Architectural Assessment

The results of the architectural assessment were recorded on a three page form, one form for each building. These forms are included as an appendix to this report. The header of each page documents basic building information including:

- Building Name
- Period of Construction
- NRHP Eligibility
- Building Height
- Building Area
- Current Use
- Potential Use / Adaptability

Codes used to indicate potential uses are as follow:

- CO - Conventional Office** - Office space arranged in traditional configuration.
- CR - Creative** - Film or music production.
- LI - Light Industrial** - Assembly, fabrication, manufacturing, packaging, and repairing or processing materials.
- LO - Loft Of fice/ Studio** - Loft/studio space for artists; creative business; work space.
- RE - Research** - Office or labratory space devoted to research; incubator space.
- ST - Storage** - conditioned or unconditioned space for storage of large or small materials.
- WH - Warehouse** - large open space dedicated to the use, fabrication, or storage of large equipment.

The assessment team also analyzed the structures to determine the overall level of adaptability, based on our experience with this project type. The team considered building condition, the structure's flexibility to accommodate a number of uses, and if the building was designed or modified to fit such a specific purpose that the practicality of adaptability today is diminished. The Adaptability Ratings are defined as follows:

- 1 High Adaptability** - The building, due to it's size and configuration, as well as condition, is well suited to adaptive re-use. The possible uses are listed in the assessment.
- 2 Moderate Adaptability** - The building, due to it's size and configuration, as well as condition, has a moderate degree of flexibility in terms of its potential for adaptive re-use.
- 3 Slight Adaptability** - The building, due to it's size, configuration, and/or equipment, as well as condition, can accomodate several adaptive re-uses after moderate improvements to its current state.
- 4 Limited Adaptability** - The design team has determined that the building needs extensive improvements to the structural system and enclosure, and/or the structure's con figuration prior to adaptive re-use.
- 5 Very Limited Adaptability** - Due to the condition of the building and the limitations of the structure's or equipment, the design team considers the possibility of adaptive re-use very limited.

The design team has assumed that all of the existing structures, especially those constructed in 1918, will require significant waterproofing and envelope improvements prior to re-use, including new roofing, windows, air filtration barriers and insulation.

- Building Diagram showing general footprint of building

The header also indicates an Overall Building Condition rating. This is a numerical rating that is derived as a weighted average of the individual building component ratings described below. The Overall Building Condition Ratings are defined as follows:

- 1 Excellent** – Building is currently in use or in move-in condition with minimal remedial work requirements; excluding use change requirements.
- 2 Good** – Building needs some remedial work, which should not impact current occupancy (if any); excluding use change requirements.
- 3 Fair** – Building needs remedial work for continued use or prior to occupancy for a new use.
- 4 Deteriorated** – Building needs substantial work (50%-75%) prior to any form of occupancy.
- 5 Critical** – Building needs extensive work to the majority (over 75%) of its materials to allow any form of occupancy.

The body of the first page of each assessment form contains a list of the buildings character-defining features. The features have been organized into two columns, exterior and interior. They have been further categorized as Primary and Secondary features. While both primary and secondary features are important to retain, it is anticipated that some modification to secondary features is likely to be required to adapt these structures for most viable uses. That said, any rehabilitation should strive to retain all character-defining features to the greatest extent possible.

The bottom of the first page of each form contains a statement of resource significance. This information correlates with the results of the previous studies.

The second and third pages contain the individual building component descriptions and condition ratings. Most components listed and evaluated are historic. Where non-historic components have been included they are indicated as “non-historic”. The second page is devoted to exterior components and the third page to interior components. At the bottom of each page is a Comments section containing relevant notes. The rating system used for the assessment of components is as follows:

- 1 Excellent** – Visual observation indicates no remedial work required. Estimated less than 10% repair work needed.
- 2 Good** – Visual observation indicates minimal remedial work required. Estimated less than 10% replacement and/or 25% repair work needed.
- 3 Fair** – Visual observation indicates remedial work is required. Estimated up to 25% replacement and/or 50% repair work needed.
- 4 Deteriorated** – Visual observation indicates significant remedial work is required. Estimated up to 50% replacement and/or 75% repair work needed.
- 5 Critical** – Visual observation indicates greater than 50% replacement and/or 75% repair work needed.

Glossary of Words and Abbreviations

ACT - Acoustical Ceiling Tile

CIP - Cast-in-Place concrete

Celerestory - a row of windows in the upper portion of a wall for the purpose of ventilation and light

CMU - Concrete Masonry Unit

HCT - Hollow Clay Tile

Hopper - an operable casement with a sash hinged at the bottom

MSHD - Muscle Shoals Historic District

NFDC - National Fertilizer Development Center

NRHP - National Register of Historic Places

Quoins - masonry used in forming corners and/or framing openings

Buildings Assessed

17a Environmental Research Center
25 Project Operations Office Building
118 Greenhouse

4 Switch House (Substation #1)
16 Power Service Shop No. 2
17b Environmental Research Center
41 Sheetmetal Shop
57 Substation No. 2
68 Substation No. 4 & 5
72a Catalyzer Building No. 4 (attached substation)
81 5A Building
134 Office Service Warehouse

1 Water Plant (3 Buildings – 01a, 01b and 01c)
5 Drum Storage Area Building
6 R/M Lab
15 PDW Receiving Warehouse
21 Old Medical Building (Field Engineering – RBO)
33 Shipping and Receiving Office
34 Instrumentation/Electric Shop
35 Chemical Plant Warehouse
36 Projects Operations Storage Warehouse
42 Pipe Shop
44 Project Operations Bath House
48 Paint Storage Building
53 Tin Shop
69 Catalyzer #1
70 Catalyzer #2
71 Catalyzer #3
72 Catalyzer #4
73 Catalyzer #5
74 Catalyzer #6
79 3A Building
86 2A Shop

1d Water Plant (1 Buildings – 01d)
22 L/N Building
23 L/N Power Service Shop Storage Area
24 L/N Warehouse No. 4
26 Grounds Maintenance Shop
37 Machine Shop
38 Gas and Diesel Repair Shop
39 Engineering Lab
47 Pilot Plant Building
50 Autoclave Building
54 Grinding Building
56 Boiler House

Architectural Building

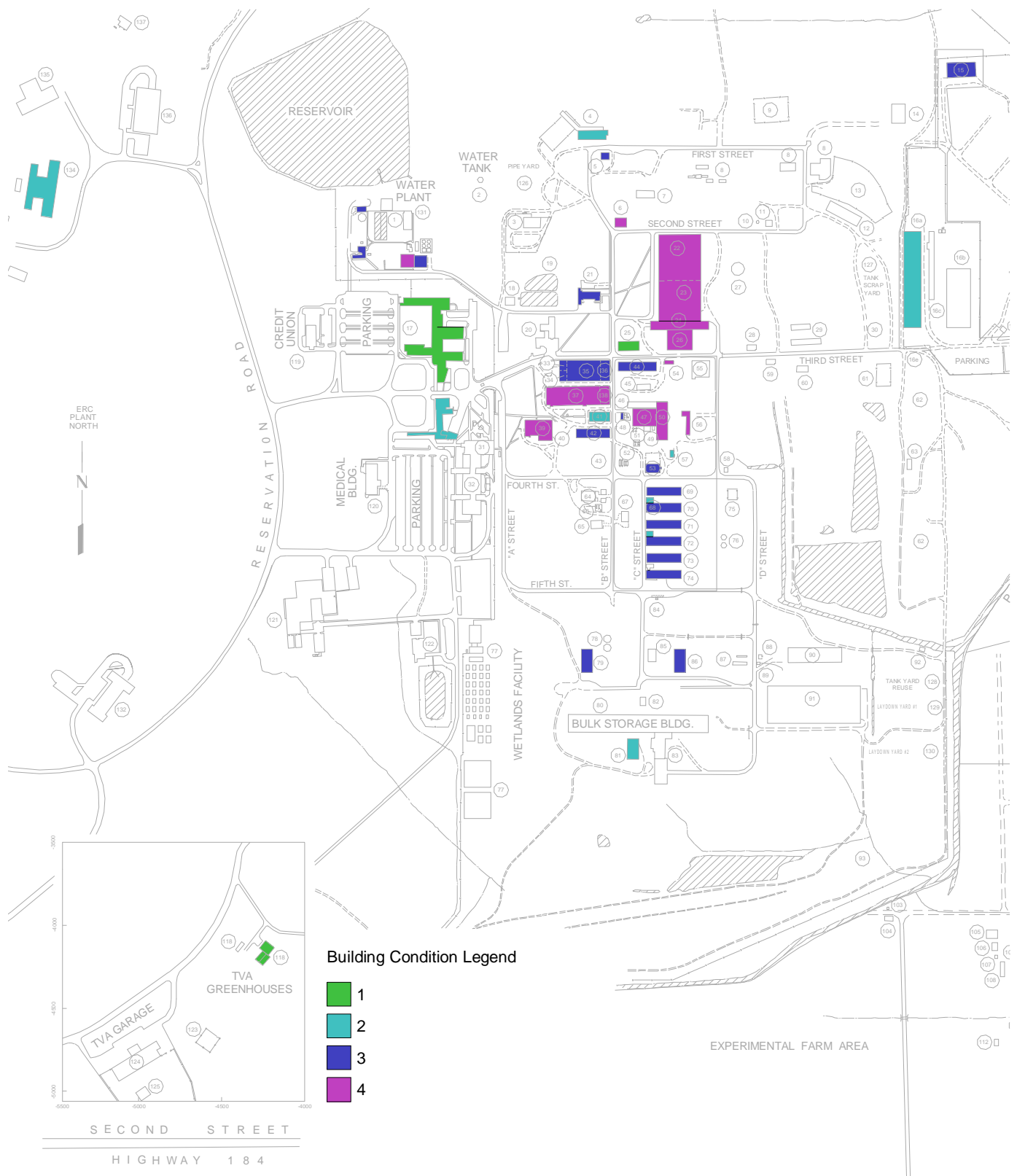
Condition Summary

The following list and map documents the overall building condition rating for each resource included in this study.

**Building numbering and naming system taken from drawing number E231856C-R9, titled "PLANT MAP - BUILDING LOCATION AND IDENTIFICATION AREA OF ENVIRONMENTAL RESPONSIBILITY" dated 6/3/97.*

Architectural Building Condition Ratings

- 1 Excellent - Minimal remedial work
- 2 Good - Some remedial work, no impact to occupancy
- 3 Fair - Remedial work required for continued occupancy
- 4 Deteriorated - Substantial work required
- 5 Critical - Extensive work required



Buildings Assessed

33	Shipping and Receiving Office
34	Instrumentation/Electric Shop
35	Chemical Plant Warehouse
36	Projects Operations Storage Warehouse
1d	Water Plant (1 Buildings – 01d)
15	PDW Receiving Warehouse
16	Power Service Shop No. 2
22	L/N Building
23	L/N Power Service Shop Storage Area
37	Machine Shop
38	Gas and Diesel Repair Shop
39	Engineering Lab
41	Sheetmetal Shop
42	Pipe Shop
79	3A Building
1	Water Plant (3 Buildings – 01a, 01b and 01c)
5	Drum Storage Area Building
6	R/M Lab
17a	Environmental Research Center
25	Project Operations Office Building
24	L/N Warehouse No. 4
26	Grounds Maintenance Shop
44	Project Operations Bath House
47	Pilot Plant Building
69	Catalyzer Building No. 1
71	Catalyzer Building No. 3
72	Catalyzer Building No. 4
73	Catalyzer Building No. 5
74	Catalyzer Building No. 6
81	5A Building
134	Office Service Warehouse
17b	Environmental Research Center
21	Old Medical Building (Field Engineering – RBO)
53	Tin Shop
50	Autoclave Building
54	Grinding Building
70	Catalyzer Building No. 2
86	2A Shop
4	Switch House (Substation # 1)
48	Paint Storage Building
56	Boiler House
57	Substation No. 2
68	Substation No. 4 & 5
72a	Catalyzer Building No. 4 (attached substation)
118	Green House (Includes 7 Buildings)

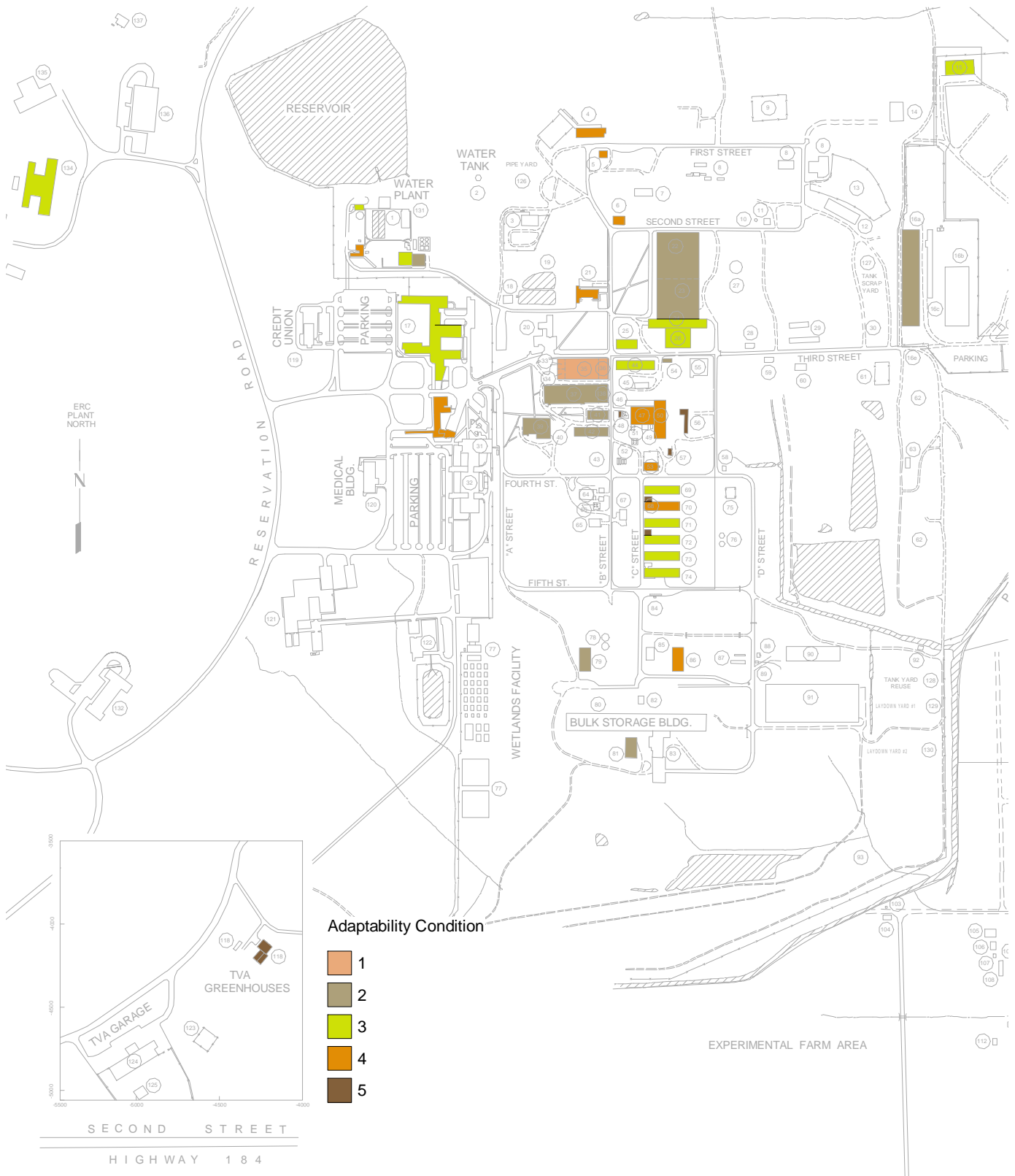
Adaptability Summary

The following list and map documents relative adaptability/flexibility for each resource included in this study.

**Building numbering and naming system taken from drawing number E231856C-R9, titled "PLANT MAP - BUILDING LOCATION AND IDENTIFICATION AREA OF ENVIRONMENTAL RESPONSIBILITY" dated 6/3/97.*

Adaptability Ratings

1	High Adaptability
2	Moderate Adaptability
3	Slight Adaptability
4	Limited Adaptability
5	Very Limited Adaptability



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	01A - Chemical Feed House		
Period of Construction	1941		
National Register Eligibility	Contributing MSHD, TVA Context		
Building Height	2 story		
Building Footprint	1,967 SF		
Historic Use Current Use	Water Treatment Plant	Water Treatment	
Potential Use Adaptability	CR, CO, LO, RE, ST	3	

**Character Defining Features**

Exterior

Interior

Primary

Building Form & Appearance:
Linear, Rectangular massing with flat roof and deep concrete overhangs; Elements of International Style

Building Structure:
Cast In Place Concrete Columns, Floors & Roof

Building Walls:
Brick Veneer over Glazed CMU

Precast Concrete Detailing at Rear Entry Porch

Windows:
Steel, awning

Window Sills:
Precast concrete

Doors:
Flush Steel, vision panel

Primary

Building Form:
Exposure of Concrete Structure & Glazed CMU

Equipment:
Operating Water Plant Equipment, Piping, Tanks, scales, etc.

**Resource Significance**

Properties associated with the TVA context are recognized as significant under Criteria A for listing on the National Register of Historic Places. Criteria A emphasizes association with events that have made a significant contribution to the broad patterns of our history. TVA is recognized for its pioneering research and developments in the area of fertilizers, which also had significant contribution to war efforts in the form of munitions. The international role that TVA played in the research and development of fertilizers lasted throughout the mid-to-late twentieth century.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	01A - Chemical Feed House	
Period of Construction	1941	
National Register Eligibility	Contributing MSHD, TVA Context	
Building Height	2 story	
Building Footprint	1,967 SF	
Historic Use Current Use	Water Treatment Plant	Water Treatment
Potential Use Adaptability	CR, CO, LO, RE, ST	3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Deck: Concrete, cast	3
Exterior Envelope	Brick veneer with Glazed Clay Tile interior	4
Exterior Doors	Metal, flush, vision panel	2
Windows	Steel, awning, double-hung	2
Lintels	Steel, painted	2
Loading Dock	Concrete: 1/4 centered	1
Porch	Brick/Concrete: Centered over entry	2
Additions		



Comments

Chimney: Exterior End; Brick
 Efflorescence through deck at overhangs
 Serious cracking in masonry; significant repointing required
 Exterior doors not historic

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	01A - Chemical Feed House	
Period of Construction	1941	
National Register Eligibility	Contributing MSHD, TVA Context	
Building Height	2 story	
Building Footprint	1,967 SF	
Historic Use Current Use	Water Treatment Plant	Water Treatment
Potential Use Adaptability	CR, CO, LO, RE, ST	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Walls: Glazed Tile, painted; Ceiling: Concrete, painted; ACT	1
Primary Space	Walls: Glazed Tile, painted; Ceiling: Concrete, painted; ACT	1
Secondary Space	Office: Walls: Glazed Tile, painted; Ceiling: Concrete, painted; ACT	1
Secondary Space	Shop/Loading: Walls: Glazed Tile, painted; Brick, painted; Ceiling: Concrete, painted	2
Secondary Space	Basement: Walls: Concrete, painted	2
Flooring	Concrete, unfinished; VCT	1
Walls	Glazed Tile, painted; Brick, painted	2
Ceiling	Concrete, painted; ACT	1

Comments

Tank containment bulkhead in Loading Dock area.



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

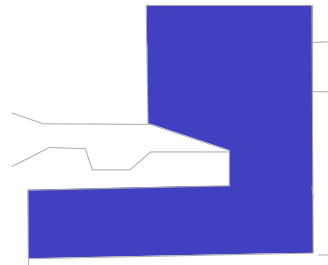
Overall Building Condition

3

Overall Structural Condition

3

Building Name	01B - Filter Building		
Period of Construction	1941-42		
National Register Eligibility	Contributing MSHD, TVA Context		
Building Height	2 story		
Building Footprint	3,721 SF		
Historic Use Current Use	Water Treatment Plant		Water Treatment
Potential Use Adaptability	CO, RE, ST		4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Asymmetrical Rectangular form;
Elements of International Style

Building Materials:
Cast In Place Concrete Structure

Secondary

Building Materials:
Exposed Concrete Structure

Equipment:
Industrial Lighting

**Resource Significance**

Properties associated with the TVA context are recognized as significant under Criteria A for listing on the National Register of Historic Places. Criteria A emphasizes association with events that have made a significant contribution to the broad patterns of our history. TVA is recognized for its pioneering research and developments in the area of fertilizers, which also had significant contribution to war efforts in the form of munitions. The international role that TVA played in the research and development of fertilizers lasted throughout the mid-to-late twentieth century.

TVA Muscle Shoals Feasibility

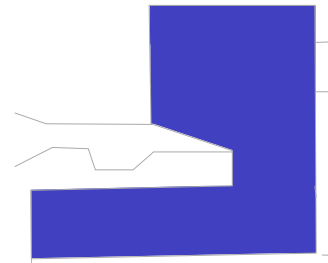
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name 01B - Filter Building
 Period of Construction 1941-42
 National Register Eligibility Contributing MSHD, TVA Context
 Building Height 2 story
 Building Footprint 3,721 SF
 Historic Use | Current Use Water Treatment Plant | Water Treatment
 Potential Use | Adaptability CO, RE, ST | 4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Deck: Concrete, cast; built-up	3
Exterior Envelope	Concrete, cast	2
Exterior Doors	Metal, flush, diamond-shaped vision panel	2
Windows	1st: Steel, awning; 2nd: Steel, fixed	5
Lintels	1st: Concrete; 2nd: Steel	1
Loading Dock	N/A	
Porch	N/A	
Additions	East - Not Attached; Gable; Not Historic	



Comments

Awnings: 1st Floor Over Entry: Concrete, cast, Historic; 2nd Floor: Metal, Not Historic

TVA Muscle Shoals Feasibility

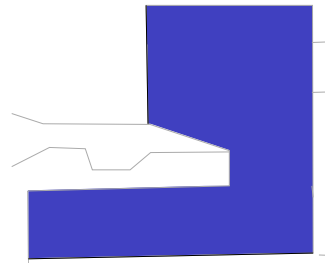
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Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	01B - Filter Building	
Period of Construction	1941-42	
National Register Eligibility	Contributing MSHD, TVA Context	
Building Height	2 story	
Building Footprint	3,721 SF	
Historic Use Current Use	Water Treatment Plant	Water Treatment
Potential Use Adaptability	CO, RE, ST	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	1
Secondary Space	Filled with pipes, running water	2
Secondary Space	Open	1
Secondary Space	Cistern & Electrical: filled with pipes, running water	2
Flooring	Concrete, cast	1
Walls	Brick, painted	1
Ceiling	Concrete, painted	1



Comments

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

4

Overall Structural Condition

4

Building Name	01C - Old Filtration Building		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, TVA Context		
Building Height	2 story		
Building Footprint	6,524 SF		
Historic Use Current Use	Water Treatment Plant	None	
Potential Use Adaptability	CO, RE, ST	3	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Flat roof

Building Materials:
Brick Walls with Concrete Banding, Coping &
Details; Art Deco Stylistic Influence

Window Headers and Sills:
Precast concrete, sills shaped

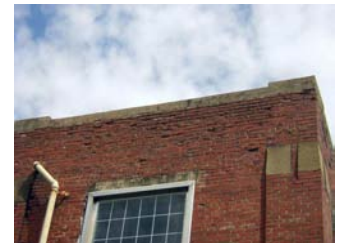
Doors:
Rail and Stile, wood vision panel over 2 vertical
panels

Window:
Steel with Operable Hopper

Secondary

Equipment:
Original Water Plant Equipment, Piping, Tanks,
scales, etc.

Building Materials:
Exposure of Concrete Structure

**Resource Significance**

Properties associated with the TVA context are recognized as significant under Criteria A for listing on the National Register of Historic Places. Criteria A emphasizes association with events that have made a significant contribution to the broad patterns of our history. TVA is recognized for its pioneering research and developments in the area of fertilizers, which also had significant contribution to war efforts in the form of munitions. The international role that TVA played in the research and development of fertilizers lasted throughout the mid-to-late twentieth century.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

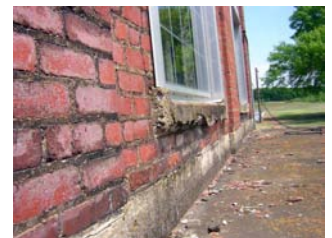
Building Information

Building Name 01C - Old Filtration Building
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, TVA Context
 Building Height 2 story
 Building Footprint 6,524 SF
 Historic Use | Current Use Water Treatment Plant | None
 Potential Use | Adaptability CO, RE, ST | 3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Deck: Concrete, cast in place	4
Exterior Envelope	Brick	4
Exterior Doors	Wood, rail & stile, glazed	4
Windows	Aluminum, fixed	5
Lintels	Concrete	4
Loading Dock	N/A	
Porch	N/A	
Additions	North, historic	4



Comments

Significant structural crack in roof deck
 Significant cracking in masonry bearing wall
 Addition does not appear safe
 Significant exposed rebar and cracking on lintels

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name 01C - Old Filtration Building
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, TVA Context
 Building Height 2 story
 Building Footprint 6,524 SF
 Historic Use | Current Use Water Treatment Plant | None
 Potential Use | Adaptability CO, RE, ST | 3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	3
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete	2
Walls	Wood, bead board	2
Ceiling	Concrete, painted	3



Comments

Significant exposed rebar at edges
 Interior door: Wood, stile & rail, vision panel

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

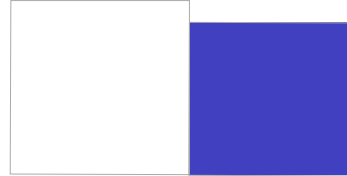
Overall Building Condition

3

Overall Structural Condition

4

Building Name	01D - Reservoir Pumping Station	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, TVA Context	
Building Height	2 story	
Building Footprint	5,342 SF	
Historic Use Current Use	Pumping Station	Pumping Station
Potential Use Adaptability	LI, LO, RE, ST, WH	2

**Character Defining Features**

Exterior

Interior

Primary

Building Materials:
Rectangular massing with flat roof, brick walls with concrete banding, coping & details. Engaged pilasters at corners and between windows. Art Deco stylistic influence.

Windows:
Steel with operable hopper. Large window bays infilling space between pilasters

Doors:
Rail and Stile, wood w/ 9 lights over 2 vertical panels

Secondary

Spatial Form:
Open Floor Plan

Exposure of Steel Structure and Cast Concrete Roof

Equipment
Industrial light fixtures

**Resource Significance**

Properties associated with the TVA context are recognized as significant under Criteria A for listing on the National Register of Historic Places. Criteria A emphasizes association with events that have made a significant contribution to the broad patterns of our history. TVA is recognized for its pioneering research and developments in the area of fertilizers, which also had significant contribution to war efforts in the form of munitions. The international role that TVA played in the research and development of fertilizers lasted throughout the mid-to-late twentieth century.

TVA Muscle Shoals Feasibility

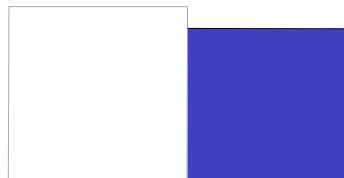
Muscle Shoals, Alabama

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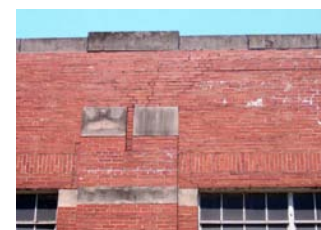
Building Information

Building Name	01D - Reservoir Pumping Station		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, TVA Context		
Building Height	2 story		
Building Footprint	5,342 SF		
Historic Use Current Use	Pumping Station	Pumping Station	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Concrete, panels	2
Exterior Envelope	Brick	3
Exterior Doors	Wood, rail & stile, glazed	3
Windows	Steel, hopper	3
Lintels	Steel, painted	3
Loading Dock	N/A	
Porch	N/A	
Additions	Exterior Tanks	Not assessed



Comments

Significant cracking in masonry
1st floor: cast concrete structure

TVA Muscle Shoals Feasibility

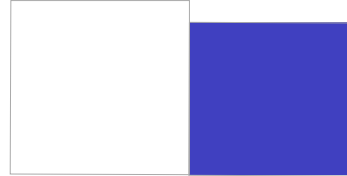
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Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	01D - Reservoir Pumping Station	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, TVA Context	
Building Height	2 story	
Building Footprint	5,342 SF	
Historic Use Current Use	Pumping Station	Pumping Station
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: mechanical equipment	2
Secondary Space	Office: workroom	2
Secondary Space	Office: entry, toilet room	4
Secondary Space	N/A	
Flooring	Concrete	2
Walls	Brick, painted	3
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Mezzanine above corner office area

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

3

Building Name	04 - Electrical Distribution House	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context **	
Building Height	1 story	
Building Footprint	9,894 SF	
Historic Use Current Use	Eleectrical Distribution	Electrical Distribution
Potential Use Adaptability	None	4

Character Defining Features

Exterior

Interior

Primary

Rectangular massing with flat roof

Secondary

Strip of Original Brick exposed on exterior

PrimaryBuilding Materials:
Exposure of Original Brick Walls and Opening Locations

Doors:

Remnants of Wood Stile & Rail Doors, 9 lites over 2 vertical panels with 2 lite transom above

Secondary

Doors:

Steel Fire Doors

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

**Recommended non-contributing due to extensive exterior alterations

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	04 - Electrical Distribution House	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context **	
Building Height	1 story	
Building Footprint	9,894 SF	
Historic Use Current Use	Eleectrical Distribution	Electrical Distribution
Potential Use Adaptability	None	4

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat	2
Exterior Envelope	Brick, refaced	1
Exterior Doors	Metal, flush	3
Windows	Infilled	NA
Lintels	N/A	
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	

Comments

Entire facade covered with new brick
Original window openings infilled with brick or louvres



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	04 - Electrical Distribution House	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context **	
Building Height	1 story	
Building Footprint	9,894 SF	
Historic Use Current Use	Eleectrical Distribution	Electrical Distribution
Potential Use Adaptability	None	4

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: electrical equipment	2
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, painted	2
Walls	Brick, painted	2
Ceiling	Concrete, painted	2

Comments



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	05 - Drum Storage Area Building		
Period of Construction	1918		
National Register Eligibility	MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	2,174 SF		
Historic Use Current Use	Raw Material Sampling	Storage	
Potential Use Adaptability	RE, ST, WH	4	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular massing with single central clerestory and low pitched roof

Building Walls:
Exposed Hollow Clay Tile with Brick Quoins

Windows:
Remnants, Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Portions of Open Central Clerestory, 2 story open

Secondary

Building Materials:
Exposure of Steel Structure & Precast Concrete Tile Roof Panels

Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	05 - Drum Storage Area Building	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	2,174 SF	
Historic Use Current Use	Raw Material Sampling	Storage
Potential Use Adaptability	RE, ST, WH	4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Shed; Deck: Concrete, panels; Clerestory	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	2
Exterior Doors	Wood, plywood over 2x framing	3
Windows	Steel, hopper	4
Lintels	Concrete	3
Loading Dock	N/A	
Porch	Metal: Over entry	NA
Additions	N/A	



Comments

Windows removed at ground level and 1/2 of clerestory

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	05 - Drum Storage Area Building	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	2,174 SF	
Historic Use Current Use	Raw Material Sampling	Storage
Potential Use Adaptability	RE, ST, WH	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Storage; Walls: Hollow Clay Tile	3
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete; Grates, metal	3
Walls	Exposed hollow clay tile	3
Ceiling	Exposed concrete panels	3



Comments

Six storage rooms divided by Hollow Clay Tile partitions

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

4

Overall Structural Condition

4

Building Name	06 - R/M Lab
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	1 story
Building Footprint	3,711 SF
Historic Use Current Use	Wash and Locker House Storage
Potential Use Adaptability	CO, RE, ST 4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Massing with Single, Central and Low Pitched Roof, and Clerestory

Building Walls:
Exposed Hollow Clay Tile with Brick Quoins

Canopy:
Wood Entry Canopy with Brick Supports

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Remnants Rail and Stile, wood

Primary

Plaster Wall Finishes

Shower Room Configuration

Secondary

Building Materials:
Exposure of Wood Structure

Painted Wall Signs

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	06 - R/M Lab		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	3,711 SF		
Historic Use Current Use	Wash and Locker House	Storage	
Potential Use Adaptability	CO, RE, ST	4	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Shed; Deck: Wood; Clerestory	5
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Wood, rail & stile, painted	4
Windows	Steel with operable hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	Wood Entry Canopy	4
Additions	N/A	

Comments

Significant damage to clerestory and roof
Several sections of roof deck rotten or missing



TVA Muscle Shoals Feasibility

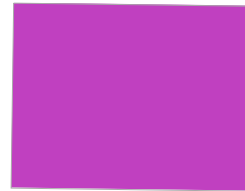
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

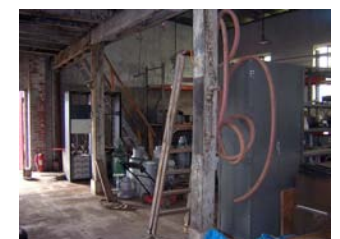
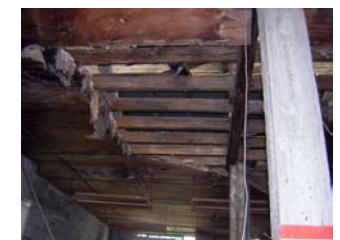
Building Information

Building Name	06 - R/M Lab	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	3,711 SF	
Historic Use Current Use	Wash and Locker House	Storage
Potential Use Adaptability	CO, RE, ST	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	5
Secondary Space	Shower Rooms	5
Secondary Space	Open: Storage	4
Secondary Space	N/A	
Flooring	Concrete	3
Walls	Masonry/Plaster, painted	4
Ceiling	Exposed Wood Framing, painted	4



Comments

Several areas of wood ceiling/deck rotten or missing resulting in significant water damage
Majority of clerestory deck and framing in disrepair

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

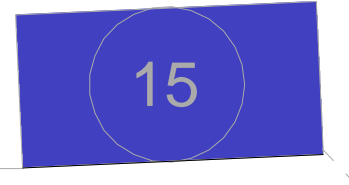
Overall Building Condition

3

Overall Structural Condition

3

Building Name	15 - PDW Receiving Warehouse		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC & Individual Context		
Building Height	1 story		
Building Footprint	15,159 SF		
Historic Use Current Use	Phosphate Development	Storage	
Potential Use Adaptability	LI, RE, ST, WH	3	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Long, Low Rectangular Massing with Flat Roof
and Loading Dock, 2 sides of building

Canopy Roof over Loading Dock, 2 sides of
building with Exposed Steel Structure

Doors:
Custom Wood with Cross-Bracing

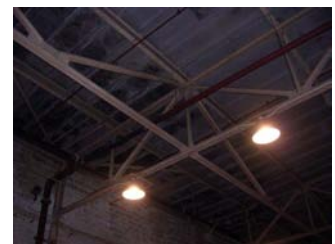
Exposed Painted CMU Exterior Walls and
Coping

Secondary

Spatial Form:
Open Floor Plan

Exposure of Steel Structure and CMU Exterior
Walls

Industrial Light Fixtures

**Resource Significance**

The Phosphate Development Works Warehouse is the only building remaining from the Phosphate Development Complex which produced phosphorus, an essential ingredient to the manufacture of nerve gas for military use. The structure has been recommended eligible for individual listing on the National Register of Historic Places (NHRP) under Criterion A for its association with the historically significant Phosphate Development Complex. The warehouse is within the boundaries of the proposed NRHP Muscle Shoals Historic District and recommended as a contributing property to the historic significance of the district.

TVA Muscle Shoals Feasibility

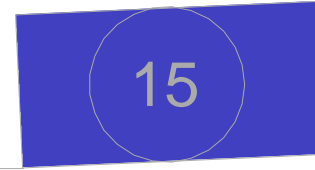
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

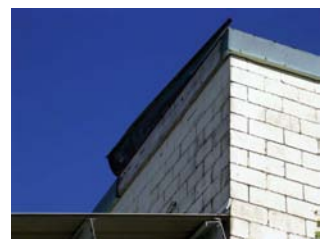
Building Information

Building Name	15 - PDW Receiving Warehouse		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC & Individual Context		
Building Height	1 story		
Building Footprint	15,159 SF		
Historic Use Current Use	Phosphate Development	Storage	
Potential Use Adaptability	LI, RE, ST, WH	3	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Metal	2
Exterior Envelope	CMU, painted	3
Exterior Doors	Wood, custom, painted; Aluminum, glazed, painted	3
Windows	Steel, fixed	3
Lintels	Concrete	2
Loading Dock	Concrete, full	3
Porch	N/A	
Additions	N/A	



Comments

Canopy over loading dock, metal farming and decking
 Significant rust on North loading dock canopy
 Exterior door is custom sliding barn-type door
 Significant rust on large steel buttresses on South side of building
 Heavy vegetation on North and East walls

TVA Muscle Shoals Feasibility

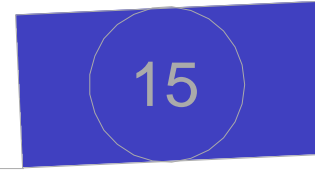
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Muscle Shoals, Alabama

July 31, 2009

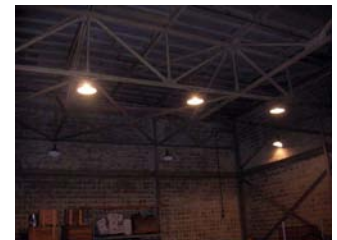
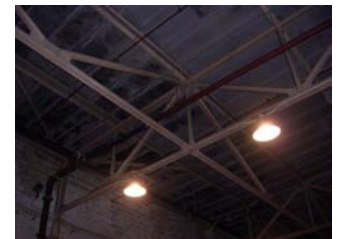
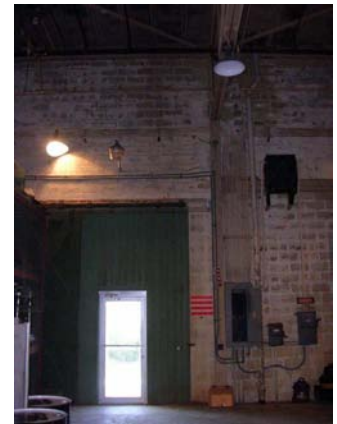
Building Information

Building Name	15 - PDW Receiving Warehouse	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC & Individual Context	
Building Height	1 story	
Building Footprint	15,159 SF	
Historic Use Current Use	Phosphate Development	Storage
Potential Use Adaptability	LI, RE, ST, WH	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Storage	3
Secondary Space	Open: Storage, Office	3
Secondary Space	Office: Walls: Wood Framed	2
Secondary Space	N/A	
Flooring	Concrete	2
Walls	Exposed Painted CMU	2
Ceiling	Exposed Beams; Steel	3



Comments

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

3

Building Name	16 - Power Service Shop No. 2		
Period of Construction	1918		
National Register Eligibility	MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	59,878 SF		
Historic Use Current Use	Liquid Air Building	Storage, Manufacturing and Machine Shop Operations	
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2	

Character Defining Features

Exterior

Interior

Primary

Building Form:
Long, low rectangular massing with low slope roofs and dual clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Clerestory Walls, Grooved Hollow Clay Tile

Stucco Band at the Base of the Building

Windows:
Steel with operable hopper

Doors:
Rail and Stile, metal covered

Primary

Spatial Form:
Open Clerestory, 2 story open

Secondary

Spatial Form: Open Floor Plan between Clerestory and Adjacent Space

Exposure of Hollow Clay Tile with Brick Quoins

Operational and Manufacturing Equipment

Exposure of Steel Structure

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	16 - Power Service Shop No. 2	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	59,878 SF	
Historic Use Current Use	Liquid Air Building	Storage, Manufacturing and Machine Shop Operations
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	3
Exterior Envelope	Hollow Clay Tile; Brick coins at openings/corners	3
Exterior Doors	Aluminum, glazed	2
Windows	All sashes removed	5
Lintels	Steel	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	

Comments

All but a small area of historically stuccoed East cornice has deteriorated to the tile/brick
 All window sashes removed and replaced with translucent panels
 Significant rust and deterioration of protective coating on lintels
 Metal awnings cover building entry
 Three metal overhead doors installed in former window openings



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	16 - Power Service Shop No. 2	
Period of Construction	1918	
National Register Eligibility	MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	59,878 SF	
Historic Use Current Use	Liquid Air Building	Storage, Manufacturing and Machine Shop Operations
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	1
Secondary Space	Office: Walls, wood panel; Ceiling: ACT	1
Secondary Space	Compressor Room: inaccessible	-
Secondary Space	N/A	
Flooring	Concrete	3
Walls	Exposed Hollow Clay Tile	3
Ceiling	Exposed Beams: Steel; Concrete, panels	2

Comments

Heavy wear visible on some areas of concrete floors



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

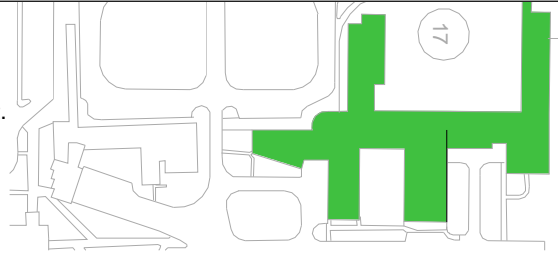
Overall Building Condition

1

Overall Structural Condition

1

Building Name	17A - Environmental Research Center
Period of Construction	1947
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.
Building Height	3 story
Building Footprint	69,137 SF
Historic Use Current Use	Chemical Engineering/Gatehouse Office; Lab
Potential Use Adaptability	CO, RE 3

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Linear, rectangular massing with flat roof, curvilinear at lobby. International Style

Building Materials:
Brick with Expressed Concrete Structure

Concrete Canopy and Eave Extensions

Windows:
Aluminum System - some with pivot operation

Precast concrete window surrounds

Doors:
Aluminum and Glass

Two story glazed curvilinear entrance

Primary

Entry Lobby - Openings between all floors with circular plaster ceiling medallion and steel light fixture

Monumental Stairs - Detailing of railings and materials

Auditorium - Including lobby and first floor control booth

Terrazzo Flooring of Entry, Halls and Stairs

Building Walls:
Glazed CMU

Double Loaded Corridor

Windows:
Aluminum Window Wall System

Doors:
Flush Wood with vision panel and ventilation louver

Lower Level Lobby:
Layout and Art on walls
Signage on balcony edge "1947 Built for the People of the United States 1950"

Secondary

Aluminum Window Wall System:
separating some office spaces

**Resource Significance**

The TVA Environmental Research Building has been recommended eligible for individual listing on the National Register of Historic Places (NRHP) based on its "International" style of architecture, including the distinctive features of curved walls, continuous bands of single-light windows, steel frame construction and flat roofs. The structure housed offices and laboratories that support(ed) TVA's fertilizer research and would be recommended eligible for inclusion on the NRHP under Criterion A for its association with the historically significant National Fertilizer Development Center. The structures are located within the boundaries of the proposed NRHP Muscle Shoals Historic District and recommended as a contributing property to the historic significance of the district.

TVA Muscle Shoals Feasibility

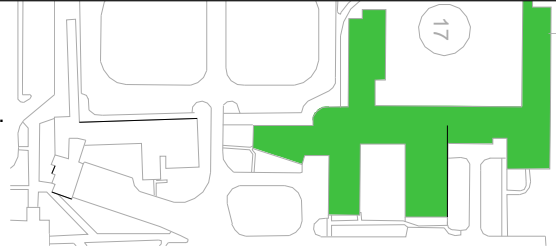
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Muscle Shoals, Alabama

July 31, 2009

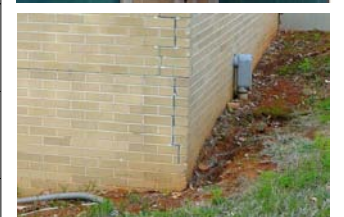
Building Information

Building Name	17A - Environmental Research Center		
Period of Construction	1947		
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.		
Building Height	3 story		
Building Footprint	69,137 SF		
Historic Use Current Use	Chemical Engineering/Gatehouse	Office; Lab	
Potential Use Adaptability	CO, RE	3	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat, Cast Concrete; Deck: Metal	2
Exterior Envelope	Brick	2
Exterior Doors	Storefront; Metal, flush	1
Windows	Aluminum, fixed, awning, hopper; Storefront	1
Lintels	Concrete; Steel	1
Loading Dock	Concrete: Corner Rear	2
Porch	Front: Over Entry, Concrete	1
Additions	N/A	



Comments

Punched-opening windows in North and South facades are operable
 Major cracking in certain areas of brick, likely resulting from settlement and lack of expansion joints
 End walls and building corners represent majority of cracking in brick
 Concrete eaves show signs of cracking at most interior corners
 Fire stair has significant amount of rust and paint peeling
 Moderate water damage to lower window sills on West facade

TVA Muscle Shoals Feasibility

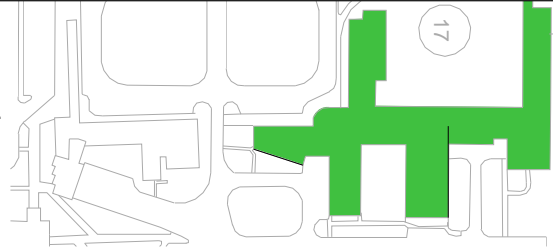
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Muscle Shoals, Alabama

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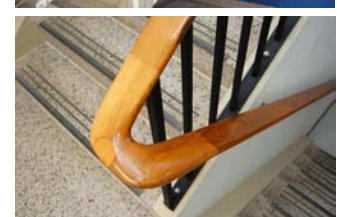
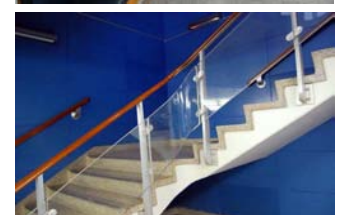
Building Information

Building Name	17A - Environmental Research Center	
Period of Construction	1947	
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.	
Building Height	3 story	
Building Footprint	69,137 SF	
Historic Use Current Use	Chemical Engineering/Gatehouse	Office; Lab
Potential Use Adaptability	CO, RE	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Double-Loaded; Walls: Glazed Tile; Doors: Wood	1
Primary Space	Lobby: Walls: Glazed-Tile Panels; Floor: Terrazzo; Rail: Alum., Wood, Lucite	1
Secondary Space	Office: Walls: Glazed-Tile; Floor: Carpet, VCT; Ceiling: ACT	1
Secondary Space	Laboratory: Walls: Glazed-Tile; Floor: VCT; Ceiling: ACT	1
Secondary Space	Auditorium: Walls: Wood Panel; Floor: Ceramic Tile; Ceiling: Plaster	1
Flooring	Terrazzo; Ceramic Tile; Carpet; VCT	1
Walls	Glazed Tile; Concrete; CMU; Brick	1
Ceiling	ACT; Plaster	2



Comments

Original wood doors and hardware are historic; Wall lighting in auditorium is historic
 Several infill walls appear to be non historic. Toilet rooms have original marble partitions and sills;
 ceramic floor tiles appear to be non historic Stairway handrails feature curved details in both
 wood and aluminum. Office area in Southwest wing of building features sloped ceiling and tilted
 concrete/glass walls

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

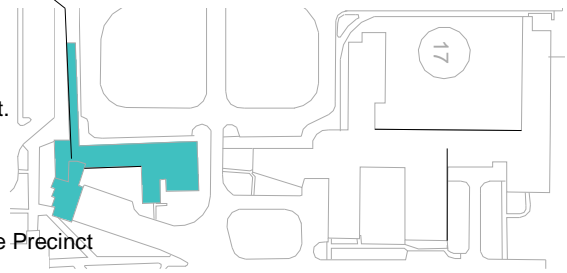
Overall Building Condition

2

Overall Structural Condition

2

Building Name	17B - Environmental Research Center		
Period of Construction	1947		
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.		
Building Height	1 story		
Building Footprint	21,269 SF		
Historic Use Current Use	Chemical Engineering/Gatehouse	Office; Police Precinct	
Potential Use Adaptability	CO, RE	4	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Linear, rectangular massing with flat roof

Building Materials:
Brick with Expressed Concrete Structure

Concrete Canopy and Eave Extensions

Windows:
Aluminum System - some with operation

Precast concrete window surrounds

Doors:
Aluminum and Glass

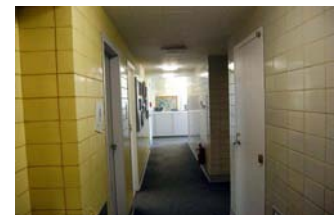
Primary

Building Walls:
Glazed CMU

Double Loaded Corridor and open office space

Windows:
Aluminum Window Wall System

Doors:
Flush Wood with ventilation louver

**Resource Significance**

The TVA Environmental Research Building has been recommended eligible for individual listing on the National Register of Historic Places (NHRP) based on its "International" style of architecture, including the distinctive features of curved walls, continuous bands of single-light windows, steel frame construction and flat roofs. The structures housed offices and laboratories that support(ed) TVA's fertilizer research and would be recommended eligible for inclusion on the NRHP under Criterion A for its association with the historically significant National Fertilizer Development Center. The structures are located within the boundaries of the proposed NRHP Muscle Shoals Historic District and recommended as a contributing property to the historic significance of the district.

TVA Muscle Shoals Feasibility

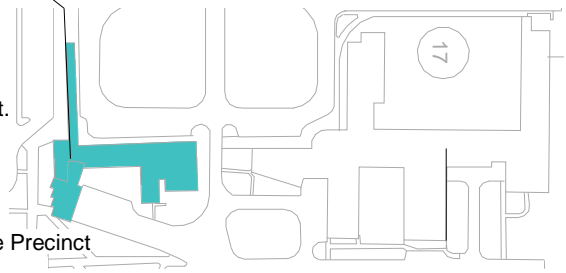
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	17B - Environmental Research Center		
Period of Construction	1947		
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.		
Building Height	1 story		
Building Footprint	21,269 SF		
Historic Use Current Use	Chemical Engineering/Gatehouse	Office; Police Precinct	
Potential Use Adaptability	CO, RE	4	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat, Cast Concrete; Deck: Metal	2
Exterior Envelope	Brick; Steel Frame	2
Exterior Doors	Storefront; Metal, flush; Overhead, Metal	1
Windows	Aluminum,awning; Storefront	1
Lintels	Concrete	1
Loading Dock	N/A	
Porch	Concrete Canopy	3
Additions	N/A	



Comments

Roof drains appear to be internal and tie in to sewer below building; visible in garage area
 Cracking in brick sawtooth walls in police garage area
 Brick infill at Northeast corner not original to building; originally storefront in this area
 Metal coping and flashing are in disrepair at interior corners of building
 Bottom window panes are operable
 Concrete canopy in front of building was originally bus terminal; moderate water damage to concrete

TVA Muscle Shoals Feasibility

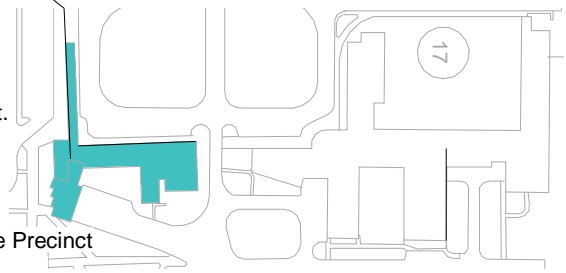
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Muscle Shoals, Alabama

July 31, 2009

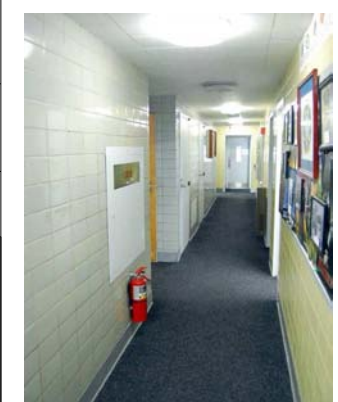
Building Information

Building Name	17B - Environmental Research Center
Period of Construction	1947
National Register Eligibility	Contributing MSHD, TVA & Individual Cont.
Building Height	1 story
Building Footprint	21,269 SF
Historic Use Current Use	Chemical Engineering/Gatehouse Office; Police Precinct
Potential Use Adaptability	CO, RE 4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Double-Loaded	1
Primary Space	Office: Individual Offices, Cubicles	1
Secondary Space	Toilet/Shower Rooms	2
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete; Carpet; VCT	1
Walls	Glazed Tile	1
Ceiling	Corrugated Metal Deck; ACT; Adhered Cork	1



Comments

Roof leaks visible at several areas, likely caused by clogged roof drains internal to building
 Police/Staff offices located off main double-loaded corridor
 All original interior walls made of glazed tile in various colors
 Locker/Toilet Rooms feature original marble toilet partitions and window sills
 Several interior doors appear to be original, most office doors appear to be non-historic

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

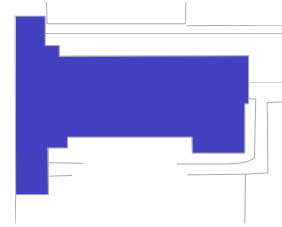
Overall Building Condition

3

Overall Structural Condition

3

Building Name	21 - Old Medical Building		
Period of Construction	1943		
National Register Eligibility	MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	7,561 SF		
Historic Use Current Use	Medical Building		Vacant
Potential Use Adaptability	CO, RE, ST		4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Linear, low rectangular massing with flat roof

Building Walls:
CMU with pronounced horizontal joints

Windows:
Wood, double hung, 1 over 1 lights

Wood Transom Windows at Sunroom

Primary

Building Walls:
Glazed CMU

Double Loaded Corridor

Doors:
Flush Wood with vision panel and ventilation louver

Wood Trim at doors and windows

Secondary

Cabinetry and shelving

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

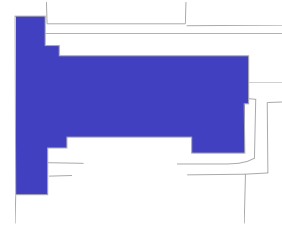
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	21 - Old Medical Building		
Period of Construction	1943		
National Register Eligibility	MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	7,561 SF		
Historic Use Current Use	Medical Building	Vacant	
Potential Use Adaptability	CO, RE, ST	4	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Concrete, cast	3
Exterior Envelope	CMU / stucco (painted) / lap siding	3
Exterior Doors	Metal, flush, vision panel	2
Windows	Wood, double-hung; Aluminum, storm	2
Lintels	N/A	
Loading Dock	N/A	
Porch	Front: 1-bay centered; Side: 1-bay recessed	3
Additions	West: L-Type; Shed	3

Comments

Garage addition is CMU with asphalt shingle roof and metal overhead door
Cracking in some areas of CMU



TVA Muscle Shoals Feasibility

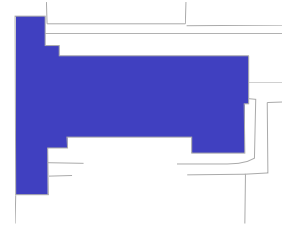
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	21 - Old Medical Building		
Period of Construction	1943		
National Register Eligibility	MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	7,561 SF		
Historic Use Current Use	Medical Building	Vacant	
Potential Use Adaptability	CO, RE, ST	4	



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Double-Loaded	2
Primary Space	Office	2
Secondary Space		
Secondary Space		
Secondary Space		
Flooring	Concrete	4
Walls	Glazed CMU	2
Ceiling	Fiberboard; ACT	4
Doors	Flush wood	2

Comments



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

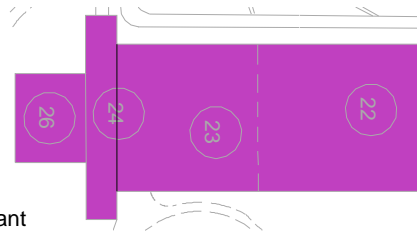
Overall Building Condition

4

Overall Structural Condition

4

Building Name	22/23 - L&N Building
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	1-1/2 story
Building Footprint	131,749 SF
Historic Use Current Use	Cyanamide Oven Bldg. Storage; Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH 2

**Character Defining Features****Exterior****Primary**

Building Form:
Two Story Rectangular Massing with Low Slope
Roofs and Dual Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Exposed Steel Structure

Windows:
Remnants of Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Secondary

Exterior Industrial Piping, Ductwork and
Supports

Interior**Primary**

Spatial Form:
Open Plan, 2 story open to dual clerestory

Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

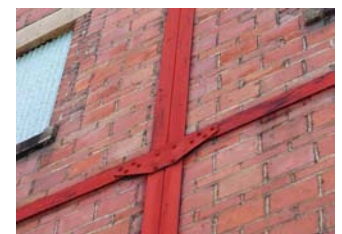
Exposure of Steel Structure & Precast Concrete
Tile Panels

Exposure of Hollow Clay Tile with Brick Quoins

Equipment:
Exposed Industrial Ductwork

Exposed Concrete and Brick Floor

Sliding Stile and Rail Wood Doors with Glazing
and Cross-Bracing

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

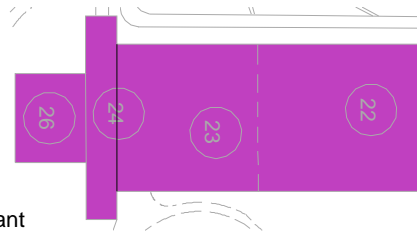
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	22/23 - L&N Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	131,749 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Storage; Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Shed; Deck: Concrete, panels; Clerestory	4
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Wood, cast straps, painted,	3
Windows	Steel with Operable Hopper - no longer extant	5
Lintels	Concrete	3
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Hairline cracks throughout concrete lintels
 All original doors and windows have been removed and boarded up
 Significant rust on exposed steel frame
 Significant cracking in some areas of Hollow Clay Tile infill

TVA Muscle Shoals Feasibility

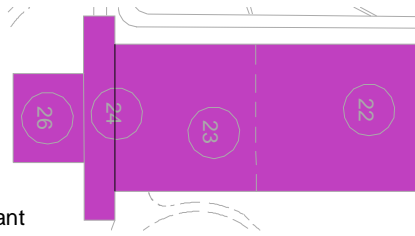
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	22/23 - L&N Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	131,749 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Storage; Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	3
Secondary Space	Office: Wood studs, Cement Fiber panels	4
Secondary Space	Toilet Room: Cement Fiber panels	3
Secondary Space	Office: CMU, Steel	3
Flooring	Concrete; Brick	3
Walls	Exposed Hollow Clay Tile	3
Ceiling	Exposed Beams: Steel; Concrete, panels	4
Doors	Sliding Wood Stile and Rail	3



Comments

Concrete panels falling from ceiling
 Extension rust/corrosion in some areas of steel frame
 Brick paving in certain areas
 Sliding wood doors and pulley system between main warehouse buildings/spaces.
 Lower level inaccessible due to environmental hazards

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

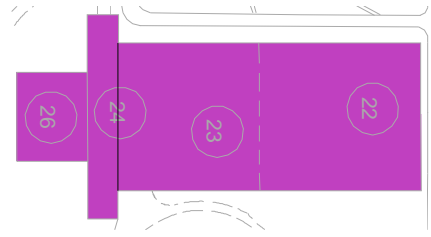
Overall Building Condition

4

Overall Structural Condition

4

Building Name 24 - L/N Warehouse No. 4
Period of Construction 1918
National Register Eligibility Contributing MSHD, NFDC Context
Building Height 1 story
Building Footprint 18,439 SF
Historic Use | Current Use Cyanamide Oven Bldg. | Vacant
Potential Use | Adaptability CR, LI, LO, RE, ST, WH | 3

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular massing with low slope roof and clerestory

Exterior walls:
Corrugated metal, painted

Steel clerestory windows with operable hopper

Large corrugated metal doors

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposed corrugated metal walls

Exposed hollow clay tile walls where common with adjacent building

Central brick demising wall

Brick floor

Overhead crane

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

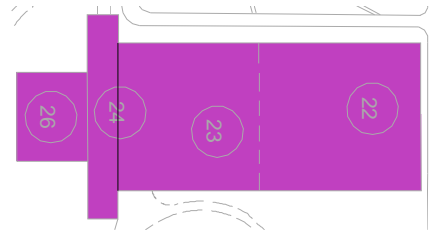
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	24 - L/N Warehouse No. 4	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,439 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Metal	5
Exterior Envelope	Corrugated Metal Siding; Hollow Clay Tile (Adjacent))	3
Exterior Doors	Corrugated Metal	3
Windows	Steel clerestory windows no longer exist	5
Lintels	N/A	
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	

Comments

No surviving windows; openings covered with corrugated plastic panels.
 Louvres at East end of building.
 Evidence of rust on exposed steel structure.



TVA Muscle Shoals Feasibility

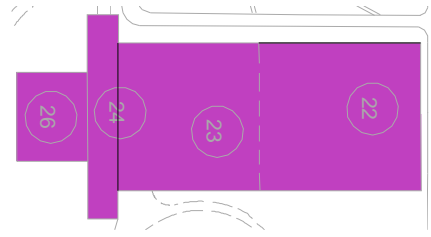
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Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	24 - L/N Warehouse No. 4	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,439 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open, low brick wall divides space	3
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete; Brick	2
Walls	Exposed corrugated metal at ends and exposed hollow clay tile where abutting adjacent buildings	3
Ceiling	Exposed Beams: Steel; Concrete, panels	3



Comments

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

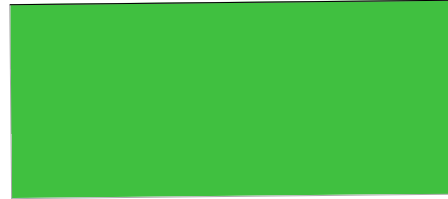
Overall Building Condition

1

Overall Structural Condition

2

Building Name	25 - Warehouse Z		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	7,029 SF		
Historic Use Current Use	Wash / Locker House Z		Office
Potential Use Adaptability	CO		3

**Character Defining Features**

Exterior

Interior

Primary

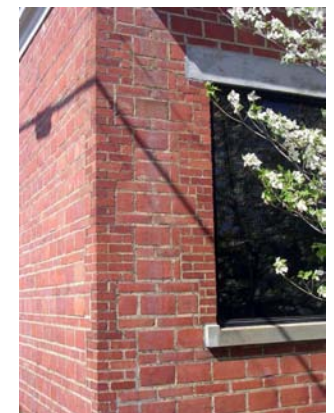
Building Walls:
Hollow Clay Tile with Brick Quoins

Window Headers and Sills:
Precast concrete, sills shaped

Building Form:
Pattern of Openings for Windows and Doors

Pedestrian Entry Door Canopies with
Corbelled Brick Supports

Interior alterations obscure all historic features

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

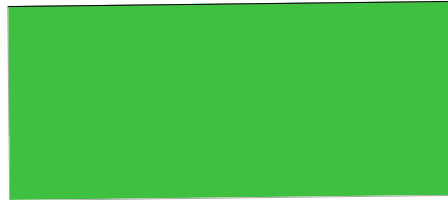
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name 25 - Warehouse Z
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 7,029 SF
 Historic Use | Current Use Wash / Locker House Z | Office
 Potential Use | Adaptability CO | 3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Wood	1
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	2
Exterior Doors	Aluminum glass storefront system, non-historic	1
Windows	Aluminum, fixed, non-historic	1
Lintels	Concrete	1
Loading Dock	N/A	
Porch	Wood: Over entry	2
Additions	N/A	



Comments

Wood eaves with metal drip edge observed at roof
 Continuous concrete curb/foundation visible around perimeter of building
 Windows and doors replaced during recent renovation of building
 Wood-framed awnings over entry doors appear to be historic

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name 25 - Warehouse Z
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 7,029 SF
 Historic Use | Current Use Wash / Locker House Z | Office
 Potential Use | Adaptability CO | 3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Double-Loaded	1
Primary Space	Office	1
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Carpet	1
Walls	Gyp. Board on Studs	
Ceiling	ACT	1



Comments

Interior recently renovated for office use, no historic features remain visible

Building Information

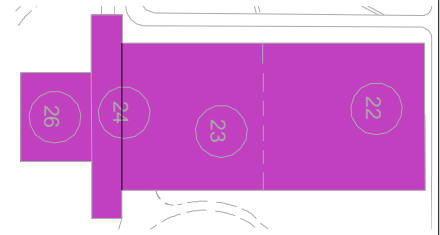
Overall Building Condition

4

Overall Structural Condition

4

Building Name 26 - Grounds Maintenance Shop
Period of Construction 1918
National Register Eligibility Contributing MSHD, NFDC Context
Building Height 1 story
Building Footprint 18,623 SF
Historic Use | Current Use Cyanamide Oven Bldg. | Vacant
Potential Use | Adaptability CR, LI, LO, RE, ST, WH | 3

**Character Defining Features****Exterior****Interior****Primary**

Building Form:
Two Story Rectangular Mass with Low Slope
Roofs and Triple Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Windows:
Steel with operable hopper in Clerestory

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Custom Wood with Cross-Bracing, Unique Steel
Hardware and Concrete Lintels

Cornerstone stating March 13, 1918

Primary

Spatial Form:
Open Plan, 2 story open to triple clerestory

Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

Exposure of Steel Structure & Precast Concrete
Tile Roof Panels

Exposure of Hollow Clay Tile Exterior Walls

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

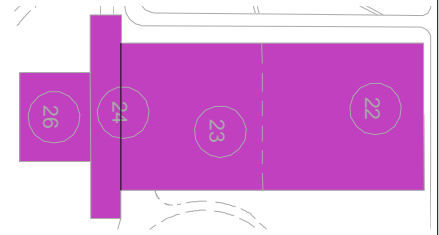
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	26 - Grounds Maintenance Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,623 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Entry: Wood, cast straps	3
Windows	Steel, fixed with hopper	5
Lintels	Concrete	3
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Window sashes only at lower level; most sashes and panes intact at Clerestory
 Wall ties located at South facade
 Steel structure exposed at exterior

TVA Muscle Shoals Feasibility

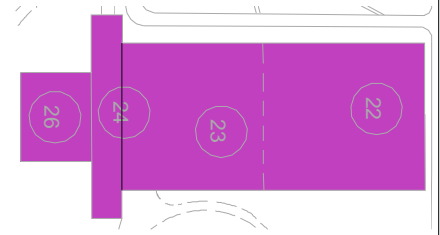
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

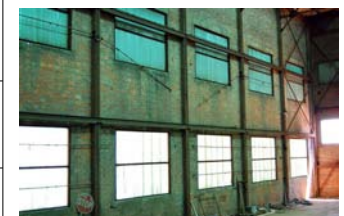
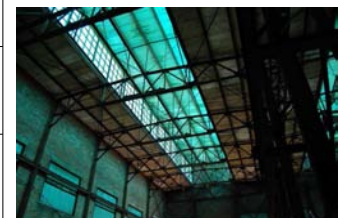
Building Information

Building Name	26 - Grounds Maintenance Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,623 SF	
Historic Use Current Use	Cyanamide Oven Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	3
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete	4
Walls	Exposed Hollow Clay Tile	3
Ceiling	Exposed Beams: Steel; Concrete, panels	3



Comments

Interior space inaccessible due to environmental hazards
Severe cracking in areas of concrete floor

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

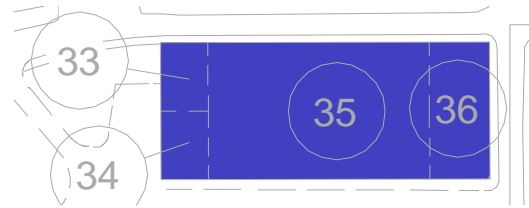
Overall Building Condition

3

Overall Structural Condition

3

Building Name	35 - Chemical Plant Warehouse		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	37,849 SF		
Historic Use Current Use	Store House	Storage	
Potential Use Adaptability	LI, LO, RE, ST, WH	1	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Pitched roof and Central Box Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Building Walls:
Exposed Steel Structure

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Rail and Stile, wood

Pedestrian Entry Door Canopies with Corbelled Brick Supports

Steel and Precast Concrete Tile Panel Roof

Canopies Extending Length of Building, 2 sides

Loading Dock - Extending Length of Building, 1 side

Primary

Spatial Form:
Central Box Clerestory Open to 2nd Floor

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure & Precast Concrete Tile Panels

Exposure of Hollow Clay Tile with Brick Quoins

Individual elevators serving sections of building.

Sliding Steel Industrial Doors

Steel Storage Shelving / Bins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

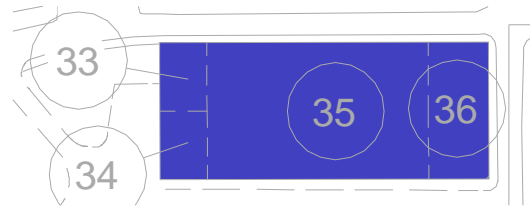
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	35 - Chemical Plant Warehouse	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	37,849 SF	
Historic Use Current Use	Store House	Storage
Potential Use Adaptability	LI, LO, RE, ST, WH	1



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Concrete, panel; Firewalls: Brick	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Sliding: Wood; Overhead: Metal; Wood: Flush with lite; Stile and Rail: Wood; Doors: Wood	3
Windows	Steel, operable with hopper	3
Lintels	Concrete	2
Loading Dock	Concrete: full	4
Porch	Steel and Concrete Panel Roof: Over Loading Dock	2
Additions	N/A	



Comments

CMU infill at several dock openings on North facade
 Loading Dock on North side of building has been removed
 New metal overhead doors have been recently installed in several dock openings
 West facade shows signs of cracking/bulging; tie plates installed in areas of end walls
 Storm windows applied to exterior of original steel windows on West side of building

TVA Muscle Shoals Feasibility

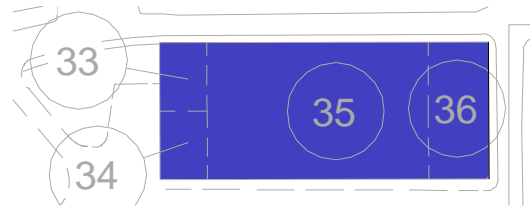
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	35 - Chemical Plant Warehouse	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	37,849 SF	
Historic Use Current Use	Store House	Storage
Potential Use Adaptability	LI, LO, RE, ST, WH	1



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	1st: Open	2
Secondary Space	1st: Office	2
Secondary Space	2nd: Storage	2
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Hollow Clay Tile and Brick	3
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Office area off entry doors is wood framed with original bead board
Masonry elevator shaft centrally located
Original copper-wrapped interior sliding doors with pulley system; still operable
Interior of East wall shows severe cracking/bulging; ties in several areas of end walls.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

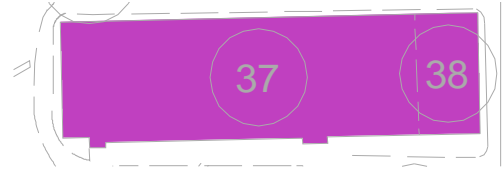
Overall Building Condition

4

Overall Structural Condition

3

Building Name	37-Machine Shop		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1-1/2 story		
Building Footprint	42,554 SF		
Historic Use Current Use	Machine Shop	Shop	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	

**Character Defining Features****Exterior****Primary**

Building Form:
Rectangular massing with low slope roofs and dual clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Secondary

Doors:
Custom Wood Doors with Strap Hardware

Interior**Primary**

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

Sliding Steel Fire Doors

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

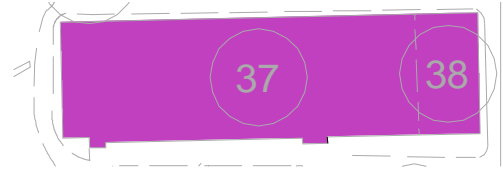
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

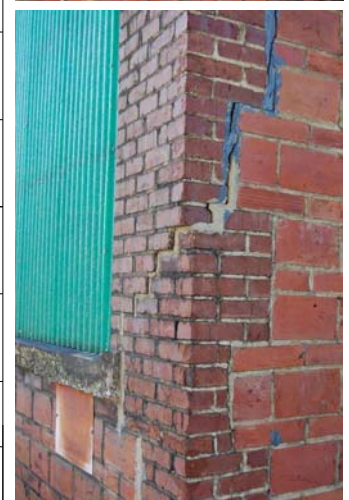
Building Information

Building Name	37-Machine Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	42,554 SF	
Historic Use Current Use	Machine Shop	Shop
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Shed; Deck: Concrete, panels; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	4
Exterior Doors	Entry: Wood, cast straps; Overhead: Metal	2
Windows	Steel, hopper	3
Lintels	Concrete	4
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Significant cracking in masonry at West facade
 Several original openings infilled with hollow clay tile and CMU
 Erosion of hollow clay tile in areas on East facade
 Significant cracking and exposed rebar at concrete sills
 Wood doors on East facade have old cast straps, but don't appear to be original to building
 New metal overhead doors on East facade at Gas/Diesel Repair Shop

TVA Muscle Shoals Feasibility

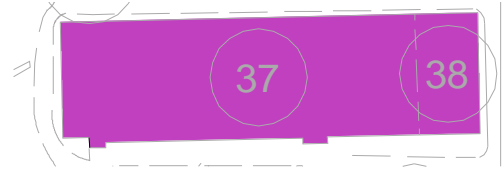
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	37-Machine Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	42,554 SF	
Historic Use Current Use	Machine Shop	Shop
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Shop equipment	2
Secondary Space	Gas/Diesel Repair Shop	3
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete	2
Walls	Hollow Clay Tile, painted	2
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Interior wall between Machine Shop and Gas/Diesel Repair Shop: Clay Tile with original copper-clad sliding door and pulley system
Areas of walls and floors in Gas/Diesel Repair Shop covered in soot

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

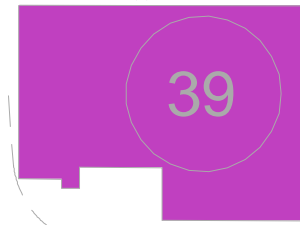
Overall Building Condition

4

Overall Structural Condition

3

Building Name	39 - Engineering Lab		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	18,007 SF		
Historic Use Current Use	Iron and Brass Foundry	Vacant	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	

**Character Defining Features****Exterior****Primary**

Building Form:
Rectangular Form with Low Slope Roofs and Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Secondary

Building Form:
Additions

Interior**Primary**

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

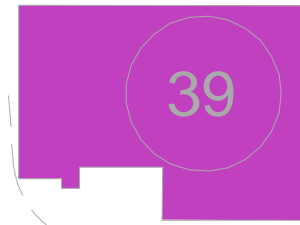
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	39 - Engineering Lab	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,007 SF	
Historic Use Current Use	Iron and Brass Foundry	Vacant
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Concrete, panels	4
Exterior Envelope	Hollow Clay Tile, painted; Brick quoins at openings/corners;	3
Exterior Doors	Metal or Wood, Flush; Overhead: Metal	3
Windows	All sashes removed	5
Lintels	Concrete, painted	2
Loading Dock	N/A	
Porch	N/A	
Additions	North: Shed, hollow clay tile; South: Shed, hollow clay tile, Metal Siding	4

Comments

One addition on North side constructed of hollow clay tile and glass block
 Three additions on South side constructed of metal siding/framing
 All windows removed from original building, now covered with translucent panels
 Entire exterior painted, including hollow clay tile/brick, lintels, and sills
 Large portion of additions on South side in disrepair, both framing and skin
 Substation located on South side of building



TVA Muscle Shoals Feasibility

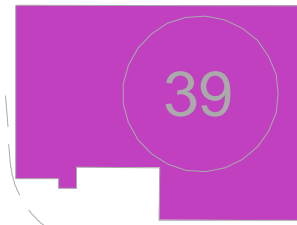
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	39 - Engineering Lab	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	18,007 SF	
Historic Use Current Use	Iron and Brass Foundry	Vacant
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	4
Secondary Space	Open: Trailer storage	4
Secondary Space	N/A	3
Secondary Space	N/A	
Flooring	Concrete, unfinished	3
Walls	Hollow Clay Tile, painted	3
Ceiling	Exposed Beams: Steel; Concrete, panels	4



Comments

Severe water damage to majority of concrete ceiling panels; metal deck used for repair in areas
 Interior wall of hollow clay tile dividing building into two areas
 Entire interior painted, including steel structure, concrete ceiling panels, and hollow clay tile
 Concrete floor has trench drains in several areas
 Steel showing signs of rust from extensive water intrusion
 Large wood doors and original steel windows in hollow clay tile wall between spaces intact

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

3

Building Name	41 - Sheet Metal Shop
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	1 story
Building Footprint	6,622 SF
Historic Use Current Use	Wood Working Shop Shop
Potential Use Adaptability	CR, LI, LO, RE, ST, WH 2

**Character Defining Features****Exterior****Interior****Primary**

Building Form:
Rectangular Form with Low Slope Roofs and Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form: Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

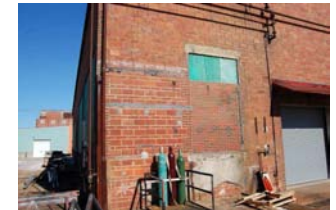
Building Information

Building Name 41 - Sheet Metal Shop
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 6,622 SF
 Historic Use | Current Use Wood Working Shop | Shop
 Potential Use | Adaptability CR, LI, LO, RE, ST, WH | 2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Concrete, panels	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Overhead: Metal	1
Windows	Steel, with operable hopper, painted	2
Lintels	Concrete	3
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Brick recently replaced at large door opening header on North side
 Severe cracking at brick quoins around openings; major brick replacement at West Facade
 Severe spalling and exposed rebar at concrete window sills
 North facade of building has severe cracking and bulging

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	41 - Sheet Metal Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	6,622 SF	
Historic Use Current Use	Wood Working Shop	Shop
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Shop Equipment	2
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	3
Walls	N/A	
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Water infiltration around some roof openings and flashing
 Entire interior painted, included steel framing, steel windows, and HCT walls
 Small equipment mezzanine with stair in corner of space

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	42 - Pipe Shop		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	10,933 SF		
Historic Use Current Use	Blacksmith Shop	Shop	
Potential Use Adaptability	LI, RE, ST, WH	2	

42

Character Defining Features

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roofs and Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

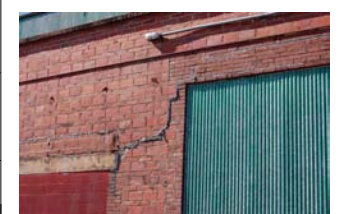
Building Information

Building Name 42 - Pipe Shop
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 10,933 SF
 Historic Use | Current Use Blacksmith Shop | Shop
 Potential Use | Adaptability LI, RE, ST, WH | 2

42

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Concrete, panels	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	4
Exterior Doors	Wood, cast straps, painted; Overhead: Metal	2
Windows	Steel, with operable hopper, painted	2
Lintels	N/A	
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

CMU infill at large openings on all four sides
 Major cracking in Hollow Clay Tile at East wall; Wall ties visible at East and West walls
 Severe settlement/cracking in foundation on all sides
 Spalling and exposed rebar observed at window/opening sills; sealant bad at sills

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	42 - Pipe Shop		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	10,933 SF		
Historic Use Current Use	Blacksmith Shop	Shop	
Potential Use Adaptability	LI, RE, ST, WH	2	

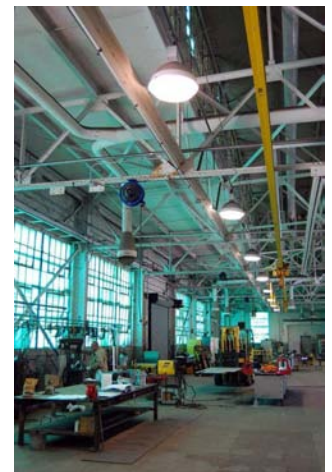
42

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Shop Equipment	2
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	3
Walls	Hollow Clay Tile	3
Ceiling	Exposed Beams: Steel; Concrete, panels	2

Comments

Concrete floors show signs of wear from shop equipment
Entire interior painted, including steel frame and steel windows



Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	44 - Project Operations Bath House
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	1 story
Building Footprint	12,370 SF
Historic Use Current Use	Wash/Locker House 3 Storage; Locker Room; Vacant
Potential Use Adaptability	CO, ST 3

44

Character Defining Features

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Sloped Pitched Roof

Building Walls:
Hollow Clay Tile with Brick Quoins

Pedestrian Entry Door Canopies with Corbelled
Brick Supports

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete sills, shaped

Doors: Rail and Stile, wood

Secondary

Spatial Form:
Open Floor Plan

Exposure of Wood Structure

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	44 - Project Operations Bath House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	12,370 SF	
Historic Use Current Use	Wash/Locker House 3	Storage; Locker Room; Vacant
Potential Use Adaptability	CO, ST	3

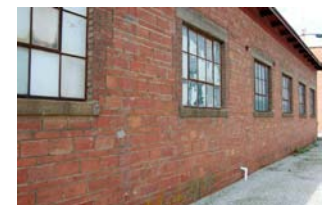
44

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Wood	5
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Metal, flush	1
Windows	Steel, with operable hopper	4
Lintels	Concrete	2
Loading Dock	N/A	
Porch	Wood framed canopy over entry with brick supports	5
Additions	N/A	

Comments

Wood fascia peeling and rotten in certain areas
 Significant cracking in concrete foundation around building perimeter
 Steel windows showing rust on exterior
 Lintels show signs of spalling and pocking



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	44 - Project Operations Bath House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	12,370 SF	
Historic Use Current Use	Wash/Locker House 3	Storage; Locker Room; Vacant
Potential Use Adaptability	CO, ST	3

44

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	3
Secondary Space	Locker Rooms	4
Secondary Space	Storage	4
Secondary Space	N/A	
Flooring	Concrete; VCT	2
Walls	Wood Stud	2
Ceiling	Exposed Beams:Wood; ACT	3



Comments

Major roof leak in Locker Room has resulted in standing water for large portion of floor
East end of building not accessible due to environmental hazard

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

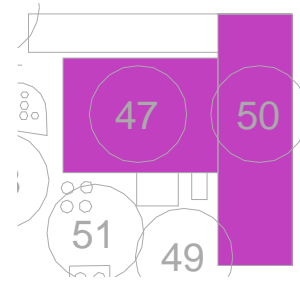
Overall Building Condition

4

Overall Structural Condition

3

Building Name	47 - Pilot Plant Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	14,895 SF	
Historic Use Current Use	Filter and Caustic Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roof and Multiple Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins (Paint coating not historic)

Exposed Steel Structure

Windows:
Remnants of Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Space with Multiple Clerestory

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space

Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

Equipment and Steel Platforms to Access Multiple Equipment Levels

Steel Fire Doors

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

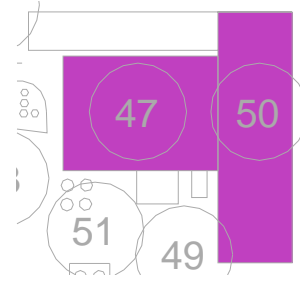
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	47 - Pilot Plant Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	14,895 SF	
Historic Use Current Use	Filter and Caustic Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Concrete, panels	3
Exterior Envelope	Hollow Clay Tile, painted; Brick quoins at openings/corners	3
Exterior Doors	Corrugated Metal, Steel frame	3
Windows	All sashes removed	5
Lintels	Concrete, painted	3
Loading Dock	N/A	
Porch	N/A	
Additions	North: Shed; South: Precast Tees	2



Comments

All original steel windows have been removed
 Concrete window sills vary in condition from good to poor
 Numerous structural ties at exterior corners of West facade; seperation evident in these areas
 Brick infill at large area on South facade

TVA Muscle Shoals Feasibility

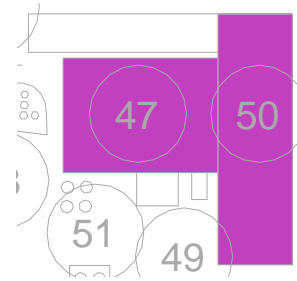
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	47 - Pilot Plant Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	14,895 SF	
Historic Use Current Use	Filter and Caustic Bldg.	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Manufacturing Equipment	4
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	4
Walls	N/A	
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Large Pilot Plant equipment occupying majority of floor space
 Majority of concrete floor shows severe deterioration
 Floor has many trenches/grates running length of building
 Steel stairs and mezzanines provide access to upper levels of process equipment
 Water piping is damaged and water is flooding portions of this building and addition

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

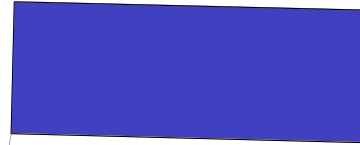
Overall Building Condition

3

Overall Structural Condition

3

Building Name	48 - Paint Storage Building		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	606 SF		
Historic Use Current Use	Acetylene Generator House	Vacant	
Potential Use Adaptability	CO, ST	5	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Shed Roof

Building Walls:
Brick (Paint coating not historic)

Roofing:
Steel Roof Structure with Precast Concrete Tile Panel Deck;
Large Sheet Metal Ventilators on Roof

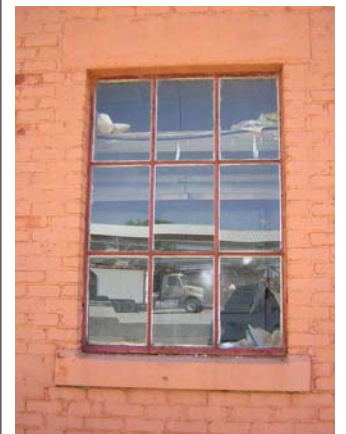
Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Secondary

Spatial Form:
Divided Floor Plan
Exposure of Brick Walls

Ceiling:
Exposure of Steel Roof Structure with Precast Concrete Tile Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

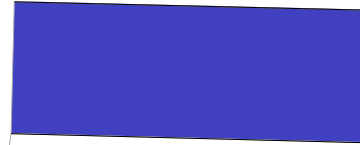
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Muscle Shoals, Alabama

July 31, 2009

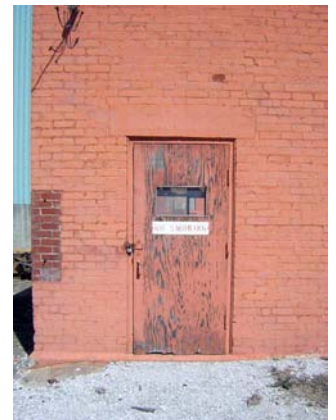
Building Information

Building Name 48 - Paint Storage Building
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 606 SF
 Historic Use | Current Use Acetylene Generator House | Vacant
 Potential Use | Adaptability CO, ST | 5



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed; Deck: Concrete tile panels	3
Exterior Envelope	Brick, painted	2
Exterior Doors	Wood, flush	5
Windows	Steel, fixed	3
Lintels	Concrete, painted	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Five exhaust vents visible on roof
 Exterior walls are load-bearing masonry
 Cracking and spalling visible at corners of window sills
 Exterior reflecting pool behind building in poor condition

TVA Muscle Shoals Feasibility

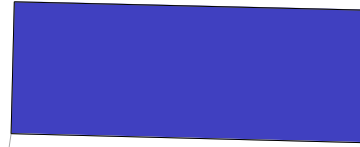
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	48 - Paint Storage Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	606 SF	
Historic Use Current Use	Acetylene Generator House	Vacant
Potential Use Adaptability	CO, ST	5



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Paint Storage	4
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, painted	4
Walls	Hollow Clay Tile, painted	3
Ceiling	Concrete tiles, painted	3



Comments

Interior of window sills severely deteriorated
Interior divided in several smaller storage areas

TVA Muscle Shoals Feasibility

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Muscle Shoals, Alabama

July 31, 2009

Building Information

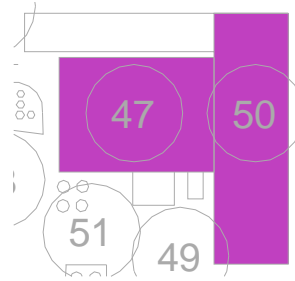
Overall Building Condition

4

Overall Structural Condition

3

Building Name 50 - Autoclave Building
Period of Construction 1918
National Register Eligibility Contributing MSHD, NFDC Context
Building Height 4 - story
Building Footprint 15,693 SF
Historic Use | Current Use Autoclave Building | Vacant
Potential Use | Adaptability CR, LI, LO, RE, ST, WH | 4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Tall Rectangular Form with Low Slope Roofs
and Multiple Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins

Exposed Steel Structure

Brick detailing at pipe penetration

Exhaust Chimney

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Rail and Stile, wood

Primary

Spatial Form:
Open Space and Clerestory at Upper Floor

Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

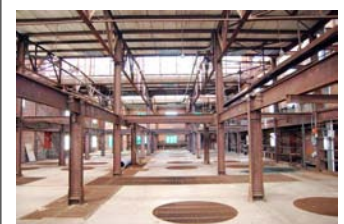
Exposure of Steel Structure

Exposure of Hollow Clay Tile with Brick Quoins

Open Atrium at Access End of Floor Plan

Circular Openings Between Floors

Equipment:
Wood Storage Units

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

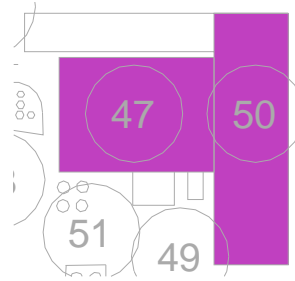
Muscle Shoals, Alabama

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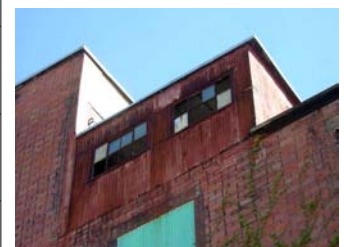
Building Information

Building Name	50 - Autoclave Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	4 - story	
Building Footprint	15,693 SF	
Historic Use Current Use	Autoclave Building	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Concrete Tile, panels	2
Exterior Envelope	Hollow Clay Tile, painted; Brick quoins at openings/corners	3
Exterior Doors	Wood, flush	5
Windows	All sashes at walls removed, celerestory are extant	4
Lintels	Concrete, painted	3
Loading Dock	N/A	
Porch	Metal: Over entry	4
Additions	East: Shed (located on top of 3rd story)	4



Comments

Corrugated metal addition on roof of 3rd story has visible rust and deterioration
 Areas of catwalk and fire escape on East side of building deteriorated or missing
 Steel frame exposed on exterior of building on East and West facades
 Corners of building show signs of cracking and separation in hollow clay tile/brick quoins

TVA Muscle Shoals Feasibility

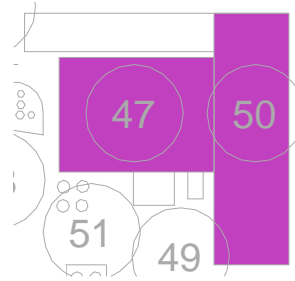
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Muscle Shoals, Alabama

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Building Information

Building Name	50 - Autoclave Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	4 - story	
Building Footprint	15,693 SF	
Historic Use Current Use	Autoclave Building	Vacant
Potential Use Adaptability	CR, LI, LO, RE, ST, WH	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	1st: Open (with steel supports)	4
Secondary Space	2nd: Open (with risers in floor)	4
Secondary Space	3rd: Open (with grates in floor)	4
Secondary Space	N/A	
Flooring	Concrete; Metal Grates	4
Walls	Exposed Hollow Clay Tile	3
Ceiling	Exposed Beams: Steel; Concrete, panels	3



Comments

1st floor has abundance of steel framing making only a small portion of the floor area accessible
 2nd floor has raised concrete platforms framed with steel, making majority of floor space unusable
 3rd floor slab is a series of concrete panels and intermittent steel grates, both square and circular
 Steel windows at clerestory still intact; almost all other windows in building have been removed
 Structural steel framing shows signs of rust; stairs between floors show signs of rust and deterioration
 Large area of 2nd floor contains wood-framed wire enclosures

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

4

Building Name	53 - Tin Shop		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	4,718 SF		
Historic Use Current Use	Washe/Locker House 4	Vacant	
Potential Use Adaptability	LO, ST	4	

53

Character Defining Features

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roof and
Continuous Clerestory

Building Walls:
Hollow Clay Tile w/ Brick Quoins

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Rail and Stile, wood

Secondary

Addition #1:
Hollow Clay Tile w/ Brick Quoins

Primary

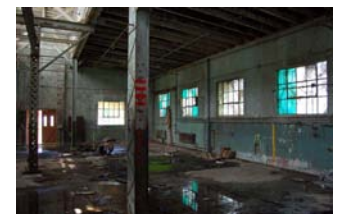
Spatial Form:
Open Central Clerestory

Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

Exposure of Wood and Steel Structure

Steel Structure from Manufacturing Operations

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	53 - Tin Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	4,718 SF	
Historic Use Current Use	Washe/Locker House 4	Vacant
Potential Use Adaptability	LO, ST	4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed Roof to Gable Clerestory; Deck: Composition roofing; Fascia: wood	4
Exterior Envelope	Hollow Clay Tile, painted; Brick quoins at openings/corners, painted; Clerestory: wood lap-siding	3
Exterior Doors	Wood, v-boards, vision panel, painted,	4
Windows	Steel, fixed with hopper, painted	3
Lintels	Steel, painted	2
Loading Dock	N/A	
Porch	Rear: 1-bay centered, Gable: metal	3
Additions	West: Extension of original building construction; East: Shed and Gable: metal	3



Comments

Four separate additions on East side of building, various materials including hollow clay tile, metal siding, steel windows matching original, and wood doors
 Lap-siding at Clerestory in disrepair
 Wood fascia and rafters exposed along building perimeter
 Original awnings over windows on West facade
 Exterior wall consists of two layers of hollow clay tile

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	53 - Tin Shop	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	4,718 SF	
Historic Use Current Use	Washe/Locker House 4	Vacant
Potential Use Adaptability	LO, ST	4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	4
Secondary Space	Open	2
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	3
Walls	Hollow Clay Tile, painted	3
Ceiling	Exposed Framing: Wood/Steel, painted; Exposed Framing: Metal deck	4

Comments

Concrete floor in main interior space in poor condition
 Wood decking missing or rotten in several areas, recently repaired in other areas
 Wood joists rotten in several areas
 Original wood doors between original building and main addition
 Standing water covering 30% of floor in original building



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

4

Overall Structural Condition

3

Building Name	54 - Grinding Building
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	3 story
Building Footprint	1,228 SF
Historic Use Current Use	L&N Hydrating Building Vacant
Potential Use Adaptability	LI, RE, ST, WH 2

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Massing with Low Slope Roofs and
Central Clerestory; Smokestack / Silo

Building Walls:
Hollow Clay Tile with Brick Quoins

Exposed Steel Structure at Window Headers

Windows:
Steel with operable hopper (Extant in Clerestory)

Window Sills:
Precast concrete sills, shaped

Primary

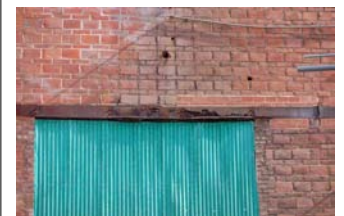
Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

Exposure of Hollow Clay Tile with Brick
Quoins

Ceiling:
Exposure of Steel Structure & Precast
Concrete Tile Roof Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	54 - Grinding Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	3 story	
Building Footprint	1,228 SF	
Historic Use Current Use	L&N Hydrating Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Concrete, panels	2
Exterior Envelope	Acid Plant: Hollow Clay Tile; Brick quoins at openings/corners; Silo: Concrete/Corrugated Metal	4
Exterior Doors	Entry: Wood, flush; Overhead: Metal	4
Windows	Steel, with operable hopper	5
Lintels	Steel	4
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Several large areas of HCT/brick missing or damaged on North and South facades
 Shaft on North side of Silo skinned with corrugated metal panels
 All lower windows have been removed; clerestory windows intact
 Silo shows signs of cracking on East side; cracking and staining in several areas of Silo building
 Doors on South and West side of building appear to be non-historic
 Steel frame exposed on exterior of structure; rust and deterioration visible at exterior

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	54 - Grinding Building	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	3 story	
Building Footprint	1,228 SF	
Historic Use Current Use	L&N Hydrating Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Plant Equipment	4
Secondary Space	Office: Metal Wall Panels	3
Secondary Space	Silo: Concrete	3
Secondary Space	N/A	
Flooring	Concrete, unfinished	5
Walls	Metal Stud with Metal Panels	4
Ceiling	Exposed Beams: Steel; Concrete, panels	



Comments

Interior walls and frame at Plant Building are peeling; extensive rust damage to steel frame
 Concrete cracking in several areas of Silo building
 Concrete floor in Plant Building deteriorated and riddled with holes; metal grates in areas
 Steel mezzanine and catwalks extend high into the space

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

4

Overall Structural Condition

4

Building Name	56 - Boiler House
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	3 story
Building Footprint	4,305 SF
Historic Use Current Use	Boiler House and Stack Vacant
Potential Use Adaptability	LI, RE, ST, WH 5

Character Defining Features

Exterior

Interior

Primary

Building Form:
Vertical Rectangular forms with Low Slope Roofs,
Large Brick Chimney; Brick Cooling Tower

Building Walls:
Hollow Clay Tile with Brick Quoins
Expressed Concrete Structure at Base & Exposed
Steel Structure
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Piping, equipment and steel supporting structure

Secondary

Spatial Form:
Exposure of Hollow Clay Tile with Brick
Quoins

**Exposure of Steel Structure
Equipment**

Ceiling:
Exposure of Precast Concrete Tile Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	56 - Boiler House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	3 story	
Building Footprint	4,305 SF	
Historic Use Current Use	Boiler House and Stack	Vacant
Potential Use Adaptability	LI, RE, ST, WH	5

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Concrete, panels	unknown
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Overhead: Metal; Entry: Metal, flush	1
Windows	Steel, with operable hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	Metal: Over entry	3
Additions	South: Shed; West	4

Comments

Chimney/Stack made of brick; several areas of disrepair including compression bands
 Drainage problems at East end of low shed roof
 Cracking at top corners of building
 Concrete lintels show some signs of deterioration
 Several single metal doors around perimeter of building heavily rusted



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	56 - Boiler House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	3 story	
Building Footprint	4,305 SF	
Historic Use Current Use	Boiler House and Stack	Vacant
Potential Use Adaptability	LI, RE, ST, WH	5

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	unknown
Primary Space	Open: Boiler Equipment	5
Secondary Space	Office	5
Secondary Space	Toilet Room	5
Secondary Space	Basement: Not Accessible	unknown
Flooring	Not Assessed	unknown
Walls	CMU	unknown
Ceiling	Exposed Beams: Steel; Concrete, panels	5

Comments

Primary space filled with Boiler Equipment and catwalks
 Mezzanines and catwalks inaccessible due to severe rust
 Majority of building inaccessible due to environmental hazard



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

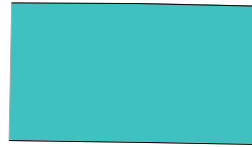
Overall Building Condition

2

Overall Structural Condition

3

Building Name	57 - Substation No. 2		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	996 SF		
Historic Use Current Use	Electrical Distribution House	Electrical Substation	
Potential Use Adaptability	CO, ST	5	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Sloped Shed Roof

Building Walls:
Hollow Clay Tile with Brick Quoins

Roof Structure:
Steel Beams with Precast Concrete Tile Panels

Windows :
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Secondary

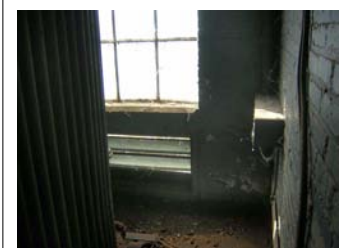
Windows:
Louver Ventilation Openings Below Windows

Doors:
Steel Fire Door & Open Mesh Doors

Secondary

Buildings Walls:
Exposure of Hollow Clay Tile with Brick Quoins

Ceiling:
Exposure of Precast Concrete Tile Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

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Muscle Shoals, Alabama

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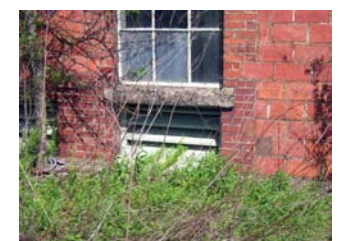
Building Information

Building Name 57 - Substation No. 2
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 996 SF
 Historic Use | Current Use Electrical Distribution House | Electrical Substation
 Potential Use | Adaptability CO, ST | 5



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed; Deck: Concrete, panels	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Entry: Steel mesh	4
Windows	Steel, fixed with hopper	2
Lintels	Concrete	2
Loading Dock	N/A	
Porch	Metal: Over entry	2
Additions	N/A	

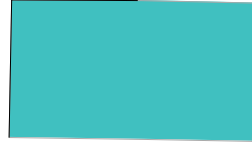


Comments

Two exhaust vents on roof
 Louvres below windows at transformer room
 Awning exists only at secondary entry (transformer location)
 Exhaust fan over secondary entry appears to be not historic

Building Information

Building Name 57 - Substation No. 2
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 996 SF
 Historic Use | Current Use Electrical Distribution House | Electrical Substation
 Potential Use | Adaptability CO, ST | 5



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Electrical Panels	1
Secondary Space	Open: Electrical Panels	1
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	1
Walls	Hollow Clay Tile and Brick, painted	1
Ceiling	Concrete, panels	1



Comments

Entire interior of building is painted; paint peeling in some areas
 Interior fire door scrapes concrete floor

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

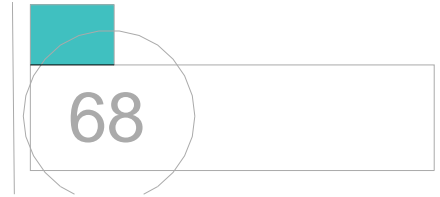
Overall Building Condition

2

Overall Structural Condition

4

Building Name	68 - Substation #4		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	1,352 SF		
Historic Use Current Use	Electrical Distribution	Power Substation	
Potential Use Adaptability	ST	5	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Shed Roof

Building Walls:
Hollow Clay Tile with Brick Quoins

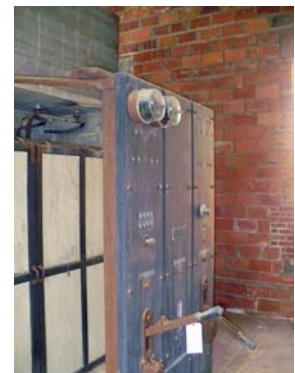
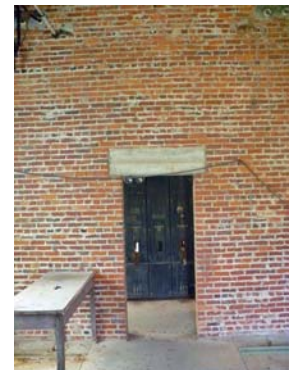
Roof Structure:
Steel beams with precast concrete panels

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary & Secondary

Exposure of Hollow Clay Tile with Brick Quoins
Exposure of Precast Concrete Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

Building Information

Building Name	68 - Substation #4		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	1,352 SF		
Historic Use Current Use	Electrical Distribution	Power Substation	
Potential Use Adaptability	ST	5	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed; Concrete panels on steel frame	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	2
Exterior Doors	Wood, plywood over 2x framing	3
Windows	Steel, operable with hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

80% of window panes replaced with translucent fiberglass
 Misc. steel conduit/raceways connected to Buildings 69 & 70
 Roof has single large ventilation chimney

Building Information

Building Name	68 - Substation #4	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	1,352 SF	
Historic Use Current Use	Electrical Distribution	Power Substation
Potential Use Adaptability	ST	5



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: electrical equipment	2
Secondary Space	Open: electrical equipment	2
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Brick	2
Ceiling	Concrete, panels	2



Comments

Primary space has floor mounted electrical transformers and equipment
 Secondary space has switchgear plus transformers in cast in place concrete housings
 Original tin-covered door in brick wall between interior spaces



Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	69 - Catalyzer Building #1		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1-1/2 story		
Building Footprint	10,827 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, LO, RE, ST, WH	3	

**Character Defining Features****Exterior****Interior****Primary**

Building Form:
Rectangular Form with Low Slope Roofs and Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

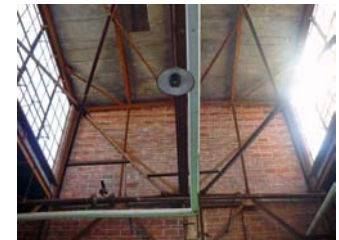
Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent Space;
Exposure of Steel Structure & Concrete Tile Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

Equipment:
Operating & Manufacturing Equipment

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name 69 - Catalyzer Building #1
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1-1/2 story
 Building Footprint 10,827 SF
 Historic Use | Current Use Catalyzer Building | Vacant
 Potential Use | Adaptability LI, LO, RE, ST, WH | 3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Metal or Wood, Flush	3
Windows	Steel, with operable hopper	3
Lintels	Concrete	3
Loading Dock	None	
Porch	None	
Additions	None	



Comments

Ventilation/mechanical equipment added on shed roof
 95% of windows covered by translucent fiberglass
 Cracking in hollow clay tile at all exterior corners
 New metal awnings over entry doors

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	69 - Catalyzer Building #1	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	10,827 SF	
Historic Use Current Use	Catalyzer Building	Vacant
Potential Use Adaptability	LI, LO, RE, ST, WH	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Double-Loaded	2
Primary Space	Open: mechanical equipment	3
Secondary Space	Open: mezzanine/loft on side	2
Secondary Space	Office/Laboratory - walls: wood frame	3
Secondary Space	Open	2
Flooring	Concrete, unfinished / vinyl composition tile	2
Walls	Hollow Clay Tile, painted	2
Ceiling	Concrete, painted; acoustical ceiling tile	2



Comments

Surfaces in primary interior space corroded due to chemical exposure
Office / Lab spaces in poor condition - ACT failing due to water infiltration
Original doors remain in entry room(s)

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

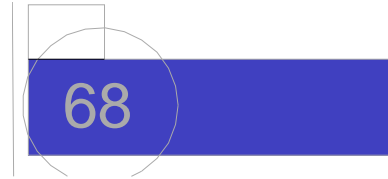
Overall Building Condition

3

Overall Structural Condition

4

Building Name	70 - Catalyzer Building #2
Period of Construction	1918
National Register Eligibility	Contributing MSHD, NFDC Context
Building Height	1-1/2 story
Building Footprint	11,546 SF
Historic Use Current Use	Catalyzer Building Vacant
Potential Use Adaptability	LI, RE, ST, WH 4

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roofs and Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

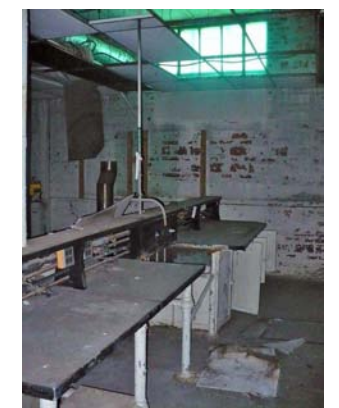
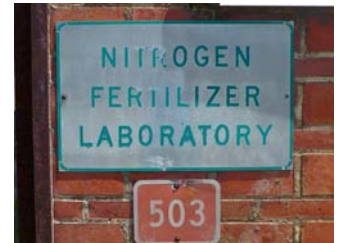
Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent Space;
Exposure of Steel Structure & Concrete Tile Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	70 - Catalyzer Building #2	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	11,546 SF	
Historic Use Current Use	Catalyzer Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	4

68

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Wood, flush	3
Windows	Steel, with operable hopper	2
Lintels	Concrete	2
Loading Dock	N/A	
Porch	Wood: Over side entry, not historic	5
Additions	Rear 1/3 of building demolished	5

Comments

Rear 1/3 of building demolished - slab remains
 100% of windows covered by translucent fiberglass
 Cracking in hollow clay tile at all exterior corners
 New metal awnings over entry doors
 Ventilation/mechanical equipment added on shed roof



TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	70 - Catalyzer Building #2	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	11,546 SF	
Historic Use Current Use	Catalyzer Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	4

68

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Wood framed	2
Primary Space	Entry Rooms	2
Secondary Space	Open: shop space	2
Secondary Space	Office/Laboratory - walls: wood frame	3
Secondary Space	N/A	
Flooring	Concrete, unfinished / vinyl composition tile	2
Walls	Hollow Clay Tile, painted	3
Ceiling	Concrete, painted; acoustical ceiling tile	3



Comments

Office and Labs in poor condition - ACT failing due to water infiltration

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	71 - Catalyzer Building #3		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1-1/2 story		
Building Footprint	11,103 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roofs and
Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent
Space;
Exposure of Steel Structure & Concrete Tile
Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name 71 - Catalyzer Building #3
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1-1/2 story
 Building Footprint 11,103 SF
 Historic Use | Current Use Catalyzer Building | Vacant
 Potential Use | Adaptability LI, RE, ST, WH | 3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Entry: Wood,vertical panel	2
Windows	Steel, fixed with hopper	2
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

80% of windows covered by translucent fiberglass
 Cracking in hollow clay tile at all exterior corners
 Rear windows replaced with double-hung aluminum units

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	71 - Catalyzer Building #3		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1-1/2 story		
Building Footprint	11,103 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: Shop Equipment	2
Secondary Space	Open: shop space	2
Secondary Space	Vault	2
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Hollow Clay Tile, painted	3
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Secondary (entry) space contains an approx. 15'x20' solid concrete vault
Interior walls and trusses painted

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

4

Building Name	72 - Catalyzer Building #4		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1-1/2 story		
Building Footprint	11,099 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	

Character Defining Features

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Sloped Roofs and Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent Space;
Exposure of Steel Structure & Concrete Tile and Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

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July 31, 2009

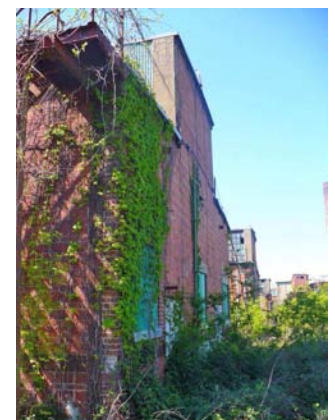
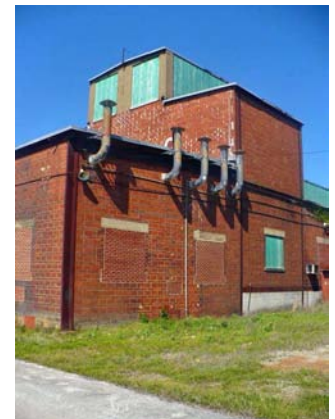
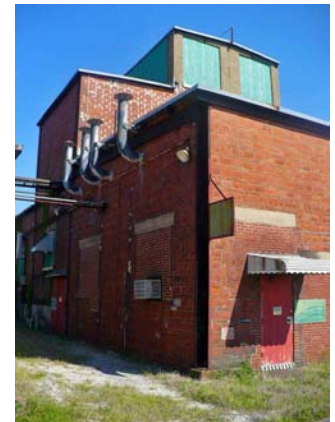
Building Information

Building Name 72 - Catalyzer Building #4
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1-1/2 story
 Building Footprint 11,099 SF
 Historic Use | Current Use Catalyzer Building | Vacant
 Potential Use | Adaptability LI, RE, ST, WH | 3

Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Metal or Wood, Flush	3
Windows	Steel, operable with hopper	2
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	

Comments



TVA Muscle Shoals Feasibility

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Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	72 - Catalyzer Building #4	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	11,099 SF	
Historic Use Current Use	Catalyzer Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	3

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Wood framed	2
Primary Space	Open: Laboratory Equipment	3
Secondary Space	Offices and laboratories	3
Secondary Space	Open	3
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Wood Stud	3
Ceiling	Exposed Beams: Steel; Concrete, ACT	2

Comments



TVA Muscle Shoals Feasibility

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Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

4

Building Name	72a - Substation		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	1,446 SF		
Historic Use Current Use	Electrical Distribution	Power Substation	
Potential Use Adaptability	ST	5	

Character Defining Features

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Shed Roof

Building Walls:
Hollow Clay Tile with Brick Quoins

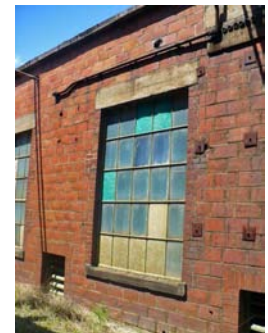
Roof Structure:
Steel beams with precast concrete panels

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary & Secondary

Exposure of Hollow Clay Tile with Brick Quoins
Exposure of Precast Concrete Panels

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

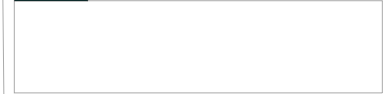
Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name 72a - Substation
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1 story
 Building Footprint 1,446 SF
 Historic Use | Current Use Electrical Distribution | Power Substation
 Potential Use | Adaptability ST | 5



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Shed; Concrete panels on steel frame	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	2
Exterior Doors	Wood, plywood over 2x framing	3
Windows	Steel, operable with hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

50% of window panes replaced with translucent fibergalss
 Misc. steel conduit/raceways connected to Buildings 71 & 72
 Roof has single large ventilation chimney

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	72a - Substation	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1 story	
Building Footprint	1,446 SF	
Historic Use Current Use	Electrical Distribution	Power Substation
Potential Use Adaptability	ST	5

Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open: electrical equipment	2
Secondary Space	Open: electrical equipment	2
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Hollow Clay Tile and Brick	2
Ceiling	Concrete, panels	2

Comments

Primary space has floor mounted electrical transformers and equipment
 Secondary space has switchgear plus transformers in CIP concrete housings
 Original metal-covered door in brick wall between interior spaces



Building Information

Overall Building Condition

3

Overall Structural Condition

4

Building Name	73 - Catalyzer Building #5		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	11,165 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roofs and
Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

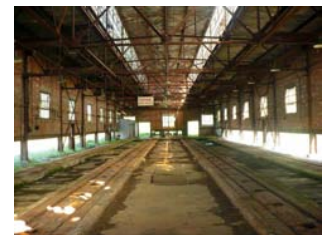
Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent
Space;
Exposure of Steel Structure & Concrete Tile
Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

Floor:
Exposure of floor track

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	73 - Catalyzer Building #5		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	11,165 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck:Concrete, panel; Clerestory	3
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners; Louvres: Wood, below sill beam	3
Exterior Doors	Entry: Wood,vertical panel	5
Windows	Steel, operable with hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Wood louvres below sill beam - only four or five remain around entire perimeter
 Visible rust on steel window frames
 Serious cracking and displacement at upper East facade
 Metal frame openings at West facade appear to be added - no brick quoining adjacent to openings

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

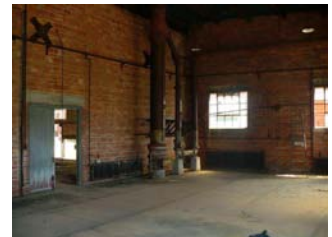
Building Information

Building Name	73 - Catalyzer Building #5		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	1 story		
Building Footprint	11,165 SF		
Historic Use Current Use	Catalyzer Building	Vacant	
Potential Use Adaptability	LI, RE, ST, WH	3	



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Entry Room	2
Secondary Space	Catalyzer Room	3
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished with brick features	1
Walls	Hollow Clay Tile	2
Ceiling	Exposed Beams: Steel; Concrete, panels	2



Comments

Flues and concrete pad raised about 7" above slab in Catalyzer Room
Building still retains much of its interior historic fabric

TVA Muscle Shoals Feasibility

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Muscle Shoals, Alabama

July 31, 2009

Building Information

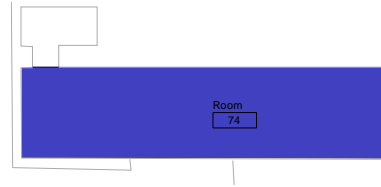
Overall Building Condition

3

Overall Structural Condition

3

Building Name 74 - Catalyzer Building #6
Period of Construction 1918
National Register Eligibility Contributing MSHD, NFDC Context
Building Height 1-1/2 story
Building Footprint 10,999 SF
Historic Use | Current Use Catalyzer Building | Vacant
Potential Use | Adaptability LI, RE, ST, WH | 3

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Low Slope Roofs and
Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins;
Expression of Continuous Building Ventilation;
Exposed Steel Structure;
Brick detailing at pipe penetration

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Secondary

Spatial Form:
Open Floor Plan at Clerestory and Adjacent
Space;
Exposure of Steel Structure & Concrete Tile
Roof Panels;
Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

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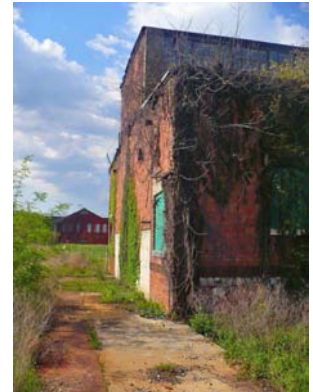
Building Information

Building Name 74 - Catalyzer Building #6
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 1-1/2 story
 Building Footprint 10,999 SF
 Historic Use | Current Use Catalyzer Building | Vacant
 Potential Use | Adaptability LI, RE, ST, WH | 3



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Concrete, panel; Clerestory	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Metal or Wood, Flush	3
Windows	Aluminum, fixed; non-historic steel windows at clerestory	4
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

All original ground-level openings infilled with brick, new fixed aluminum windows added
 New metal awnings over entry doors
 Cracking in hollow clay tile at all exterior corners
 40% of clerestory windows covered by translucent fiberglass panels
 Some CMU infill at exterior walls and doors

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	74 - Catalyzer Building #6	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	1-1/2 story	
Building Footprint	10,999 SF	
Historic Use Current Use	Catalyzer Building	Vacant
Potential Use Adaptability	LI, RE, ST, WH	3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	Wood framed	3
Primary Space	Office: Individual Offices	3
Secondary Space	Open	3
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete, unfinished / VCT	2
Walls	Wood Stud	3
Ceiling	Exposed Beams: Steel; Concrete, ACT	2



Comments

Primary space built out as office: wood frame walls with paneling, VCT floors and ACT ceilings
 Secondary space open and unfinished: concrete floor, steel trusses with concrete panel roof

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	79 - 3A Nitrate House		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	9,397 SF		
Historic Use Current Use	Ammonium Nitrate Storage	Storage	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Moderate Sloped Gable
Roof and Interrupted Clerestory

Building Walls:
Hollow Clay Tile with Brick Quoins; Expressed
Concrete Mezzanine Structure

Roofing:
Corrugated Metal

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Rail and Stile

Primary

Spatial Form:
Open Central Clerestory, 2 story open

Spatial Form:
Mezzanines at sides of 2 story clerestory

Mezzanine Visibility:
to and from 2 story open clerestory

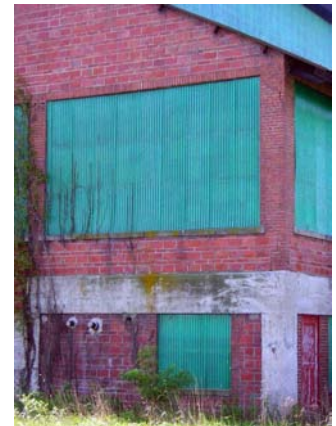
Secondary

Spatial Form:
Open Floor Plan between Clerestory and
Adjacent Space

Exposure of Steel and Concrete Structure

Exposure of Hollow Clay Tile with Brick Quoins

Equipment - Fume Hoods on Mezzanine

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name 79 - 3A Nitrate House
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 2 story
 Building Footprint 9,397 SF
 Historic Use | Current Use Ammonium Nitrate Storage | Storage
 Potential Use | Adaptability LI, LO, RE, ST, WH | 2



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Clerestory Gable	4
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Entry: Wood, rail & stile, painted	4
Windows	Steel wither operable hopper	3
Lintels	Concrete	2
Loading Dock	N/A	
Porch	N/A	
Additions	N/A	



Comments

Cracking, bulge, and separation at building corners
 Concrete mezzanine structure expressed on building exterior

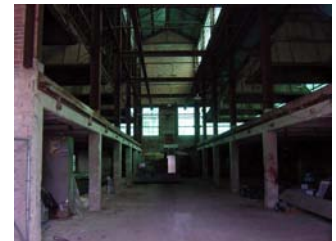
Building Information

Building Name	79 - 3A Nitrate House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	9,397 SF	
Historic Use Current Use	Ammonium Nitrate Storage	Storage
Potential Use Adaptability	LI, LO, RE, ST, WH	2



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open; Mezzanine level	3
Secondary Space	N/A	
Secondary Space	N/A	
Secondary Space	N/A	
Flooring	Concrete; Brick at Entry	3
Walls	Hollow Clay Tile and Brick	3
Ceiling	Corrugated Metal Panels	3



Comments

Concrete mezzanine has large hoods/equipment

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

3

Building Name	81 - 5A Nitrate House		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	8,594 SF		
Historic Use Current Use	Ammonium Nitrate Storage	Rented - Storage, Manufacturing and Machine Shop Operations	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Moderate Sloped Gable Roof and Interrupted Clerestory

Building Walls:
Hollow Clay Tile w/ Brick Quoins;
Expressed Concrete Mezzanine Structure

Roofing:
Corrugated Metal

Windows:
Steel with operable hopper

Window Headers and Sills:
Precast concrete, sills shaped

Doors:
Rail and Stile, metal covered

Primary

Spatial Form:
Open Central Clerestory, 2 story open Mezzanines at sides of 2 story clerestory

Mezzanine Visibility:
to and from 2 story open clerestory

Secondary

Spatial Form:
Open Floor Plan between Clerestory and Adjacent Space;
Exposure of Steel and Concrete Structure;
Exposure of Hollow Clay Tile with Brick Quoins

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

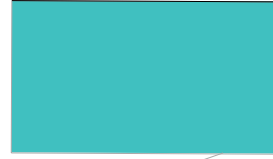
Muscle Shoals, Alabama

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July 31, 2009

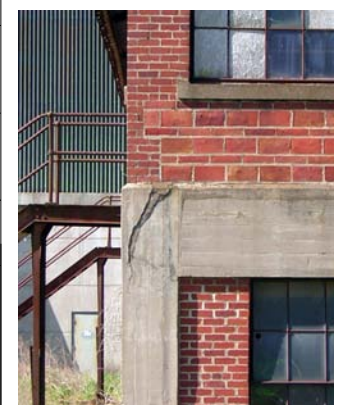
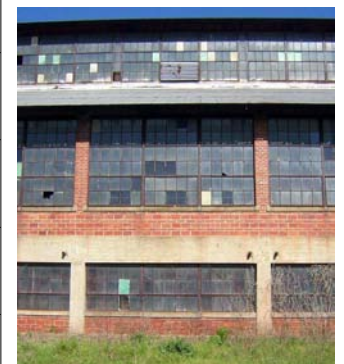
Building Information

Building Name	81 - 5A Nitrate House		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	8,594 SF		
Historic Use Current Use	Ammonium Nitrate Storage	Rented - Storage, Manufacturing and Machine Shop Operations	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Metal	2
Exterior Envelope	Hollow Clay Tile; Brick quoins at openings/corners	3
Exterior Doors	Wood, rail & stile; metal wrapped	5
Windows	Steel with operable hopper	3
Lintels	1st: Concrete; 2nd: Brick, soldier course	1
Loading Dock	North: 1 bay centered	2
Porch	N/A	
Additions	North: Shed, attached to Bulk Storage Bldg	2



Comments

Clerestory consists of steel windows with brick at corners only
Concrete mezzanine structure projects onto exterior on East, West, and South facades
Historic metal clad sliding door at Loading Dock

TVA Muscle Shoals Feasibility

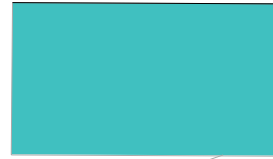
Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	81 - 5A Nitrate House		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	8,594 SF		
Historic Use Current Use	Ammonium Nitrate Storage	Rented - Storage, Manufacturing and Machine Shop Operations	
Potential Use Adaptability	LI, LO, RE, ST, WH	2	



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	1
Secondary Space	Mezzanine/Loft at each side	1
Secondary Space	Office: N/A; Walls: Hollow Clay Tile	2
Secondary Space	N/A	
Flooring	Concrete, unfinished	2
Walls	Hollow Clay Tile	2
Ceiling	Exposed Beams: Steel; Corrugated Metal	2



Comments

Center bay is open from ground level to Clerestory
 Mezzanine on each side consists of exposed concrete structural floor and beams
 Most windows at Clerestory intact and in good condition
 Concrete structure exposed at ground level, steel structure exposed above

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

3

Overall Structural Condition

3

Building Name	86 - 2A Nitrate House		
Period of Construction	1918		
National Register Eligibility	Contributing MSHD, NFDC Context		
Building Height	2 story		
Building Footprint	9,711 SF		
Historic Use Current Use	Ammonium Nitrate Storage	Vacant	
Potential Use Adaptability	LI, LO, RE, ST, WH	4	

**Character Defining Features****Exterior****Interior****Primary**

Building Form :
Rectangular Form with Moderate Sloped Gable
Roof, Clerestory Removed

Building Walls:
Hollow Clay Tile with Brick Quoins (Paint coating
not historic);
Expressed Concrete Mezzanine Structure (Paint
coating not historic)

Roofing :
Corrugated Metal

Window Openings:
Translucent panels not historic

Window Headers and Sills:
Precast concrete, sills shaped (Paint coating not
historic)

Doors:
Rail and Stile, metal covered

Primary

Spatial Form:
Mezzanines at 3 sides of main space

Secondary

Spatial Form:
Open Floor Plan between Mezzanine and Main
Floor

Exposure of Steel and Concrete Structure

Exposure of Hollow Clay Tile with Brick Quoins

Chemical Containment pools formed into main
level concrete floor

**Resource Significance**

The National Fertilizer Development Center (formerly known as Nitrate Plant No. 2) has been recommended eligible to the National Register of Historic Places as a contributing resource in the Muscle Shoals Historic District. The property retains architectural integrity and is historically significant for its' role as a research facility during the World War I and World War II periods and thereafter. The period of significance dates between 1916 and 1970.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	86 - 2A Nitrate House	
Period of Construction	1918	
National Register Eligibility	Contributing MSHD, NFDC Context	
Building Height	2 story	
Building Footprint	9,711 SF	
Historic Use Current Use	Ammonium Nitrate Storage	Vacant
Potential Use Adaptability	LI, LO, RE, ST, WH	4



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Metal	3
Exterior Envelope	Hollow Clay Tile, painted; Brick quoins at openings/corners; Concrete	3
Exterior Doors	Entry: Metal, flush	2
Windows	All sashes removed	5
Lintels	Concrete, painted	2
Loading Dock	N/A	
Porch	Front: Full, Shed, Corrugated Metal	4
Additions	South: Shed (porch)	4



Comments

Clerestory shown on original drawings doesn't exist; appears to have been removed
 Window openings at 1st floor on South facade have brick infill
 Concrete frame exposed at building exterior
 Porch addition made of steel frame and CMU knee wall
 Door openings at 2nd floor have louvre infill

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name 86 - 2A Nitrate House
 Period of Construction 1918
 National Register Eligibility Contributing MSHD, NFDC Context
 Building Height 2 story
 Building Footprint 9,711 SF
 Historic Use | Current Use Ammonium Nitrate Storage | Vacant
 Potential Use | Adaptability LI, LO, RE, ST, WH | 4



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Open	3
Secondary Space	Office	3
Secondary Space	Mezzanine	3
Secondary Space	N/A	
Flooring	Concrete; Brick; Tile at Mezzanine	2
Walls	Hollow Clay Tile; Plywood	3
Ceiling	Exposed Beams: Steel; Corrugated Metal	3



Comments

Concrete floor at 1st level has separations at each bay
 Plywood on walls at office area; appears to be not historic
 Tile on concrete mezzanine level is buckled

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

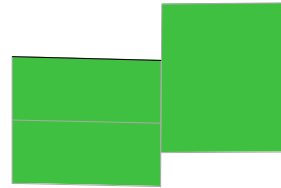
Overall Building Condition

1

Overall Structural Condition

3

Building Name	118 - Greenhouse Complex		
Period of Construction	c.1950		
National Register Eligibility	Contributing MSHD, NFDC & Individual Context		
Building Height	1 story		
Building Footprint	7,917 SF		
Historic Use Current Use	Greenhouse Complex	Produce Farm; Greenhouse	
Potential Use Adaptability	Greenhouse; CO, RE	5	

**Character Defining Features**

Exterior

Interior

Primary

Building Form:
Rectangular Form with Flat Roof and Moderate
Slope Gable Roof at Greenhouses

Building Walls:
Glazed CMU Walls
Metal and Glass Greenhouse
Wood and Glass (Greenhouse)

Windows:
Steel, awning

Doors:
Rail and Stile, 2 panel, metal (where remaining)
Rail and Stile, 9 light over 2 panel, wood (where
remaining)

Primary

Building Walls:
Glazed CMU Walls

Open Greenhouse Spaces

**Resource Significance**

The TVA Greenhouse Research Complex has been recommended eligible for individual listing on the National Register of Historic Places (NHRP) under Criterion A for its association with the historically significant National Fertilizer Development Center. The greenhouse complex is located within the boundaries of the proposed NRHP Muscle Shoals Historic District and recommended as a contributing property to the historic significance of the district.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

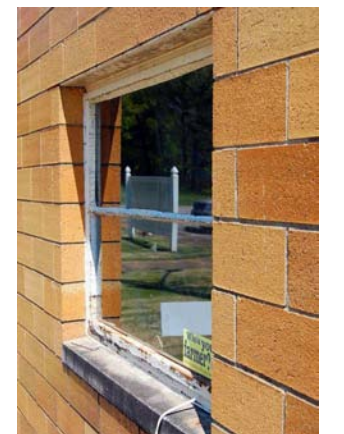
Building Information

Building Name	118 - Greenhouse Complex	
Period of Construction	c.1950	
National Register Eligibility	Contributing MSHD, NFDC & Individual Context	
Building Height	1 story	
Building Footprint	7,917 SF	
Historic Use Current Use	Greenhouse Complex	Produce Farm; Greenhouse
Potential Use Adaptability	Greenhouse; CO, RE	5



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Flat; Deck: Metal	2
Exterior Envelope	Glazed Tile; Greenhouse: Steel/Glass	1
Exterior Doors	Entry: Metal, flush; Overhead: Metal	3
Windows	Steel, awning	1
Lintels	Steel	1
Loading Dock	N/A	
Porch	Rear: 1-bay centered; Shed; Deck: Corrugated Plastic	2
Additions	East: Glazed Tile; Porch	1



Comments

Original metal fascia/flashing intact; small areas of rust visible
 Porch addition is made of steel frame and bar joists with corrugated plastic panels; paint peeling
 Window frames rusted through paint; still operable and in very good condition
 L-shaped awning over front entry has significant amount of rust
 Greenhouses are in very good condition; all original doors and windows still operable; currently in use

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name	118 - Greenhouse Complex	
Period of Construction	c.1950	
National Register Eligibility	Contributing MSHD, NFDC & Individual Context	
Building Height	1 story	
Building Footprint	7,917 SF	
Historic Use Current Use	Greenhouse Complex	Produce Farm; Greenhouse
Potential Use Adaptability	Greenhouse; CO, RE	5



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Market	1
Secondary Space	Storage	1
Secondary Space	Office	1
Secondary Space	N/A	
Flooring	Concrete	1
Walls	Glazed Tile	1
Ceiling	Corrugated Metal Deck	1



Comments

Water damage visible in small area of exposed Metal Deck
Doors, windows, and portions of interior appear to be original paint color

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Overall Building Condition

2

Overall Structural Condition

3

Building Name	134 - Office Service Warehouse		
Period of Construction			
National Register Eligibility	Contributing MSHD, TVA Context**		
Building Height	1 story		
Building Footprint	41,896 SF		
Historic Use Current Use	Maintenance Support Facility	Office; Storage; Maintenance Shop	
Potential Use Adaptability	CO, ST	3	

**Character Defining Features**

Exterior

Interior

**Resource Significance**

Properties associated with the TVA context are recognized as significant under Criteria A for listing on the National Register of Historic Places. Criteria A emphasizes association with events that have made a significant contribution to the broad patterns of our history. TVA is recognized for its pioneering research and developments in the area of fertilizers, which also had significant contribution to war efforts in the form of munitions. The international role that TVA played in the research and development of fertilizers lasted throughout the mid-to-late twentieth century.

** Recommended non-contributing due to extensive alterations.

TVA Muscle Shoals Feasibility

Muscle Shoals, Alabama

Lord, Aeck & Sargent Architecture

July 31, 2009

Building Information

Building Name	134 - Office Service Warehouse		
Period of Construction			
National Register Eligibility	Contributing MSHD, TVA Context**		
Building Height	1 story		
Building Footprint	41,896 SF		
Historic Use Current Use	Maintenance Support Facility	Office; Storage; Maintenance Shop	
Potential Use Adaptability	CO, ST	3	



Exterior Materials and Conditions

Building Component	Building Material	Condition
Roofing Decking	Gable; Deck: Wood, Comp. Shingle	2
Exterior Envelope	Wood Stud, Lap Siding; CMU (addition)	2
Exterior Doors	Entry: Wood, flush	2
Windows	Wood, double-hung	2
Lintels	Wood	2
Loading Dock	N/A	
Porch	Front: 1-bay centered; Shed: Metal	2
Additions	North: CMU	2



Comments

Large metal vents on roof at 30' intervals
 Lap Siding is oriented horizontally except at gables where it is oriented vertically
 Wood eaves and trim have peeling paint and signs of deterioration
 Roof shingles need to be repaired/replaced in several areas

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009

Building Information

Building Name 134 - Office Service Warehouse
 Period of Construction
 National Register Eligibility Contributing MSHD, TVA Context**
 Building Height 1 story
 Building Footprint 41,896 SF
 Historic Use | Current Use Maintenance Support Facility | Office; Storage; Maintenance Shop
 Potential Use | Adaptability CO, ST | 3



Interior Materials and Conditions

Building Component	Building Material	Condition
Corridors	N/A	
Primary Space	Office	1
Secondary Space	Open: Storage	2
Secondary Space	Shop	2
Secondary Space	N/A	
Flooring	Concrete; Carpet	2
Walls	Wood Stud	2
Ceiling	Exposed Beams; ACT	2



Comments

Office area has drywall partitions, carpet, and ACT
 Storage/Shop area has plywood partitions, concrete floors, and ceiling open to framing

TVA Muscle Shoals Feasibility

Lord, Aeck & Sargent Architecture

Muscle Shoals, Alabama

July 31, 2009