



US Army Corps of Engineers

Demolition Completion Report Areas 1395 and 1495 Remedial Systems

Fort Drum Installation Restoration Program Fort Drum, New York

September 2015

Contract No.: W912DR-12-D-0007
Delivery Order No.: 0003

Prepared For:

**U.S. ARMY CORPS OF ENGINEERS BALTIMORE
DISTRICT**

10 South Howard Street
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Prepared By:

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A handwritten signature in blue ink, appearing to read "AV", is positioned above a horizontal line.

Andy Vitolins, PG
JV Project Manager

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Areas 1395 and 1495 Remedial
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Acronyms and Abbreviations

ACM	Asbestos-Containing Materials
AS	Air Sparging
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
BV	Bioventing
CY	Cubic Yard
DANC	Development Authority of the North Country
DMP	Data Management Plan
DPW	Directorate of Public Works
HASP	Health and Safety Plan
IRP	Installation Restoration Program
MNA	Monitored Natural Attenuation
NYSDEC	New York State Department of Environmental Conservation
PWS	Performance Work Statement
QAPP	Quality Assurance Project Plan
SOP	Standard Operating Procedures
SVE	Soil Vapor Extraction
USACE	United States Army Corps of Engineers
UST	Underground Storage Tank



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1. Introduction

The PIKA - MP Joint Venture (JV), LLC¹ (hereinafter referred to as the JV) has prepared this Demolition Completion Report to document the activities and procedures used to perform the decommissioning and demolition of the former remedial treatment buildings at Areas 1395 and 1495. This work was conducted in support of the Installation Restoration Program (IRP) at Fort Drum, New York in accordance with approved *Demolition Work Plan – Buildings 1395 & 1495 Site* (Work Plan; PIKA-MP JV, 2015). This work is funded under the United States (US) Army Corps of Engineers (USACE) Baltimore District Multiple Award Environmental Services (MAES) contract, Award No. W912DR-12-D-0007, Delivery Order 0003.

1.1 Background

The 1395 and 1495 sites are located in the former Gasoline Alley area in the southwest corner of Fort Drum (Figure 1). This area is approximately 2 miles long, consisting of two parallel one-way streets, Oneida Avenue and Ontario Avenue (currently under construction to create a single two-way street). Since at least the 1940s fuel dispensing areas were located in or near the median that separated these roads, where kerosene, gasoline, diesel fuel, and jet propulsion (JP)-4 fuel were stored and dispensed from underground storage tanks (USTs) along the north side of Oneida Avenue. Gasoline and diesel fuel were released to the subsurface from two 25,000 gallon USTs formerly located at each site, resulting in dissolved phase contamination in the underlying aquifer (primarily benzene, toluene, ethylbenzene, and xylenes [BTEX]). Previous remedial efforts included bioventing/soil vapor extraction (BV/SVE), air sparging (AS), an in-situ bioremediation pilot study utilizing ozone-enhanced air sparging, nutrient application, and monitored natural attenuation (MNA). Following the documentation of decreasing or stable contaminant concentration trends, plume stability, sustainable biodegradation, and no risk to ecological or human receptors (Plexus, 2013a and 3013b), the NYSDEC approved the Army's recommendation for no further monitoring and site close-out.

¹ The PIKA-MP LLC Joint Venture is comprised of PIKA International, Inc. and its mentor ARCADIS, Inc.



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2. Remedial System Demolition

2.1 Initial Site Conditions

Each site had one remediation system structure. Each structure was approximately 350 square feet and 15 feet tall, and was comprised of an equipment bay housing system equipment and associated piping and a small control room containing control and circuit breaker panels. Each structure stood on a reinforced concrete slab of approximately 575 square feet and 12 to 16 inches thick.

2.2 Pre-Demolition Activities

A hazardous materials survey was conducted in February 2015. As presented in the Work Plan, no asbestos containing materials (ACM) were identified during the survey. Dig Permits were obtained from the Fort Drum Directorate of Public Works (DPW) for each Area. Normal utility clearance activities, consisting of reviewing available installation-supplied utility maps, contacting Dig Safely New York, and ground penetrating radar survey were also conducted prior to initiating the work.

2.3 Building Demolition and Waste Management

Building demolition activities were conducted by JV employees utilizing rental equipment. Project mobilization and a site safety kickoff meeting were conducted on 22 June 2015. Prior to starting demolition activities, a safe work area was established by designating the work zone, demarcating utilities and monitoring wells, and establishing erosion control measures. Once the safe work area was established, the demolition crew conducted a survey for wildlife or endangered species (per Fort Drum requirements) and general site hazards. Universal wastes were also identified and inventoried during the survey. After viewing both areas, no birds, bats, nests or other wildlife were found that would be in danger or harmed during the demolition of buildings. During the inspection, one panel box in Building 1395 was found to still be powered. Upon the discovery, the JV personnel coordinated with Fort Drum for the safe deactivation and disconnection of the utility line from the utility pole.

After completion of the survey, fiberglass insulation was manually removed from each building to limit nuisance dust/particulates during demolition implementation. Universal wastes were then removed and staged in Building 1599 for subsequent disposal by Fort Drum. The universal waste includes light bulbs, lubricating oils drained from



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remediation equipment, and fire extinguishers. A total of 14 five gallon buckets of universal wastes were collected.

Building demolition was conducted by slowly peeling back the exterior metal siding of each building to expose the support beams and then crippling the vertical columns on each side of the building by gently pulling downward and away from the building until the structure was no longer standing. After bringing down the structure, the building materials were segregated and staged for subsequent disposal. Steel from the buildings was placed in containers provided by Fort Drum for subsequent management and recycling under the base recycling program. Upon completion of building demolition activities, the concrete slabs were removed using construction machinery equipped with a hammer attachment. The concrete was broken into manageable pieces and inspected for contamination. There was no visual staining of the concrete or the soil below the former slab. The concrete and remaining demolition debris was then loaded into 30 cubic yard (CY) roll-off containers and disposed of at the Development Authority of the North Country (DANC) solid waste management facility. A total of six roll-off containers were sent to DANC. Scale tickets documenting the disposal are presented in Appendix A. A photographic log documenting the site activities is presented in Appendix B.



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3. Site Restoration

Upon removal of the concrete and demolition debris, the surrounding area was smoothed to match existing grade. Temporary fencing and individual temporary support devices were removed and equipment was demobilized from the site. Since the work was completed in late June, final grading and seeding was delayed until the fall. Silt fence was installed as an erosion and sediment control measure until final site restoration activities were conducted. The silt fencing was removed, and topsoil placement and hydro-seeding were conducted, during the week of 28 September 2015.



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Report

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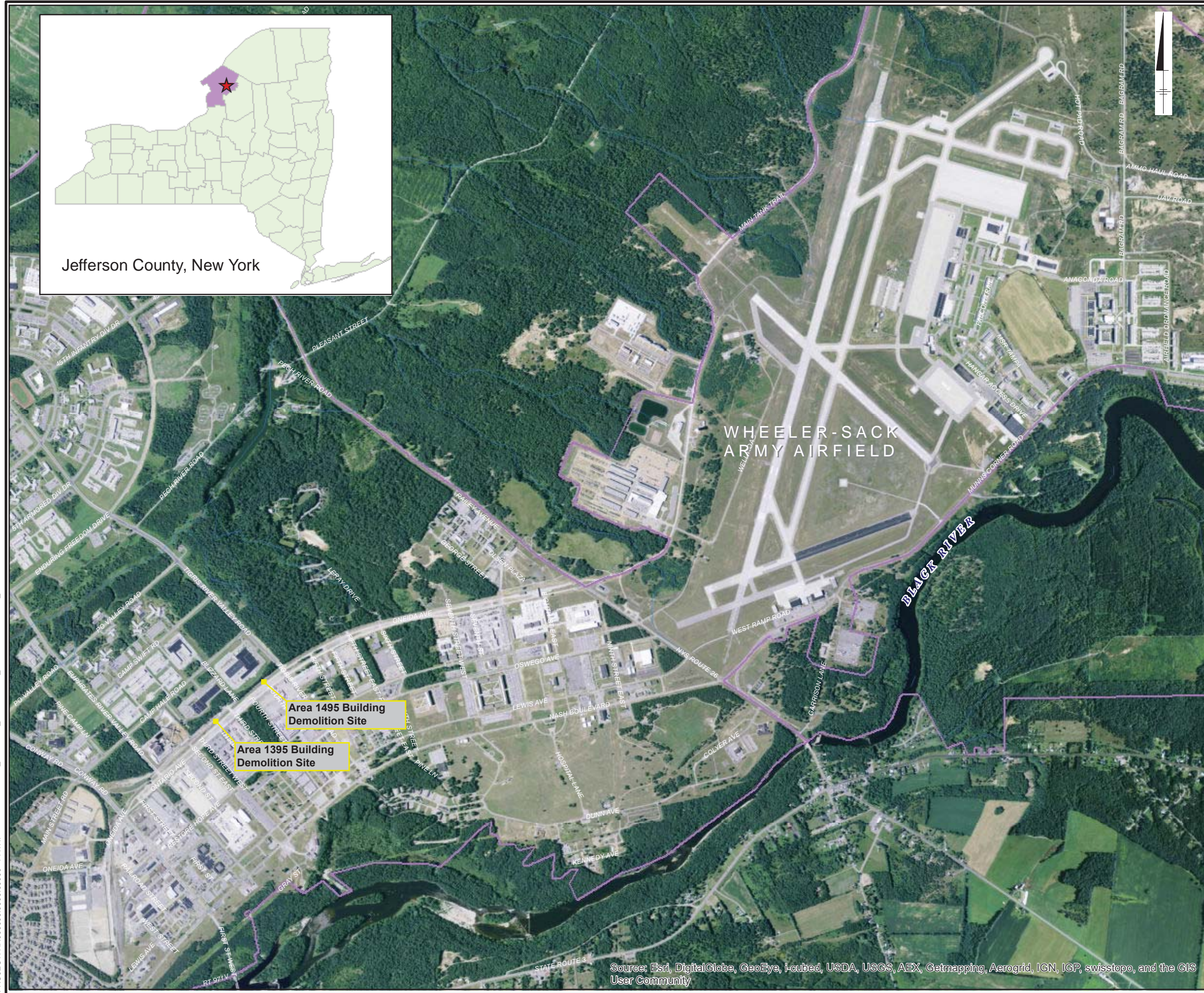
4. References

PIKA-MP JV, 2015. Demolition Work Plan – Buildings 1395 & 1495 Site, Installation Restoration Program, Fort Drum, New York. April 2015.



Figures

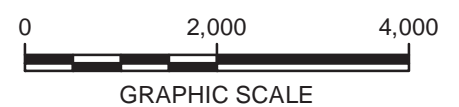
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Jefferson County, New York

LEGEND

 INSTALLATION AREA



FORT DRUM
FORT DRUM, NEW YORK
AREA 1395 AND 1495 BUILDING DEMOLITION

SITE LOCATION



FIGURE
1

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



APPENDIX A

C&D Disposal Scale Tickets

Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 06/30/15 TICKET #: 351890
TIME IN: 10:03 TIME OUT: 10:18

Bill Acct: WASTMANA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMANA
Company: Waste Management

TRUCK#: 5172	License#: 55604JS
Container#:	License#:
LBS	Tons
GROSS: 65700	32.85
TARE: 37440	18.72
NET: 28260	14.13

MATERIAL: 200 - C&D
County : 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 621.72
: 0.00
TOTAL FEE: \$621.72

NOTE: ARCADUS/DRUM

Weighmaster: Lisa Simpson
THANK YOU!

RB

Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 06/29/15 TICKET #: 351774
TIME IN: 09:52 TIME OUT: 10:13

Bill Acct: WASTMANA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMANA
Company: Waste Management

TRUCK#: 5172 License#: 55604JS
Container#: License#:
LBS Tons
GROSS: 80160 40.08
TARE: 36780 18.39
NET: 43380 21.69

MATERIAL: 200 - C&D
County : 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 954.36
: 0.00
TOTAL FEE: \$954.36

NOTE: ARCADIS/DRUM

Weighmaster: Lisa Simpson
THANK YOU!



Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 06/29/15 TICKET #: 351801
TIME IN: 11:52 TIME OUT: 12:08

Bill Acct: WASTMANA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMANA
Company: Waste Management

TRUCK#: 5172 License#: 55604JS
Container#: License#:
LBS Tons
GROSS: 71260 35.63
TARE: 36840 18.42
NET: 34420 17.21

MATERIAL: 200 - C&D
County : 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 757.24
: 0.00
TOTAL FEE: \$757.24

NOTE: ARCADIS/DRUM

Weighmaster: Lisa Simpson
THANK YOU!



Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 07/08/15 TICKET #: 352333
TIME IN: 10:02 TIME OUT: 10:19

Bill Acct: WASTMAHA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMAHA
Company: Waste Management

TRUCK#: 5170 License#: 11829MB
Container: # License#:
LBS Tons
GROSS: 53420 26.71
TARE: 36700 18.35
NET: 16720 8.36

MATERIAL: 200 - C&D
County: 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 367.84
: 0.00
TOTAL FEE: \$367.84

ARCADIS
NOTE: ARCADIA/FT DRM

Weighmaster: Jamie Perry
THANK YOU!



Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 06/30/15 TICKET #: 351906
TIME IN: 11:48 TIME OUT: 12:03

Bill Acct: WASTMAHA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMAHA
Company: Waste Management

TRUCK#: 5172 License#: 55604JS
Container: # License#:
LBS Tons
GROSS: 60180 30.09
TARE: 36800 18.40
NET: 23380 11.69

MATERIAL: 200 - C&D
County: 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 514.36
: 0.00
TOTAL FEE: \$514.36

NOTE: ARCADUS/DRUM

Weighmaster: Lisa Simpson
THANK YOU!



Development Authority of the North Country
Solid Waste Management Facility
23400 NYS Route 177
Rodman, New York 13682
Tel: (315) 661-3230

DATE: 07/07/15 TICKET #: 352226
TIME IN: 07:28 TIME OUT: 07:50

Bill Acct: WASTMAHA
Company: Waste Management
22360 Card Rd.
Felts Mills NY 13638

Haul Acct: WASTMAHA
Company: Waste Management

TRUCK#: 5173 License#: 53004JA
Container: # License#:
LBS Tons
GROSS: 73140 36.57
TARE: 38100 19.05
NET: 35040 17.52

MATERIAL: 200 - C&D
County: 10 - Jefferson
W/C: 177 - WASTE MANAGEMENT (C&D)

TIP FEE: 770.88
: 0.00
TOTAL FEE: \$770.88

NOTE: ARCADIS/FT DRM

Weighmaster: Jamie Perry
THANK YOU!



APPENDIX B

Photographic Log



Building 1395 Pre-Demolition



Building 1495 Pre-Demolition



**Equipment Delivered and Exclusion
Zone Established**



Manual Removal of Fiberglass Insulation



**Universal Waste Removed and
Staged in Building 1599**



Building Demolition in Progress



Building Demolition



Concrete Slab Removal



Concrete Slab Removal



Post Demolition Clean Up



**Final Grading
with Silt Fence**



Final Site Restoration (Soil and Seed) at Area 1395



Final Site Restoration (Soil and Seed) at Area 1495