Rocky Flats Environmental Technology Site

RADIOLOGICAL CHARACTERIZATION PACKAGE

BUILDING 886 CLUSTER CLOSURE PROJECT

PHASE I

REVISION 1

March 1, 2001

Prepared by: Jay M. Britten / 2/27/01
Radiological Engineer

Reviewed by: Duane Parsons / 2/27/01
RISS Facility Characterization Coordinator

Reviewed by: Steve Luker / 3/1/01
Quality Assurance

Approved by: Jerry Anderson / 6 Mar 01
Closure Project Facility Manager

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DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

ADMIN RECORD
B886-A-000039

Y 18

Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875 Exterior, B888, 888A and T886A)

Building:	886	Last Updated:	Date:	2/26/01	Time:	730	Initials:	JMB

* This characterization package was prepared in accordance with MAN-077-DDCP , D&D Characterization Protocols (7/26/00), and MAN-127-PDSP, Pre-Demolition Survey Plan for D&D Facilities (02/14/01).
* PDSP Data Quality Objectives were used to develop this characterization package.

Instructions:

1. Verify characterization activities are on the Plan-of-the-Day (POD).
2. Perform a Pre-Evolution Brief and/or Job Task Brief in accordance with the Site Conduct of Operations Manual.
3. Verify personnel have appropriate training for the applicable tasks they will be performing.
4. Comply with RWP requirements, if applicable.
5. Comply with JHA and facility PPE requirements, as applicable.
6. Inform the Facility Manager, or designee prior to starting characterization activities.
7. Follow applicable characterization and sampling procedures.
8. Notify Wackenhut Security (x2444) and the Shift Supervisor (x2914), and verify appropriate safety precautions/requirements are followed prior to accessing facility roofs.
9. Coordination with the Environmental Restoration Program organization will be required to further characterize underneath facility foundations and slabs prior to removal.
10. Collect and maintain all characterization paperwork in the Project File(s).
11. All radiological surveys shall be conducted in accordance with the sampling and instruction forms included in 886 Cluster Package Identification numbers 01-0001, 01-0002, and 01-0003. Sample locations are denoted on scaled maps attached to each survey package.

Class 1 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 1 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 1 Totals	0	0	0	0	0	0	

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875 Exterior, B888, 888A and T886A)

Class 2 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 2 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 2 Totals	0	0	0	0	0	0	

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875 Exterior, B888, 888A and T886A)

Class 3 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
A	886-A-001 (Phase I)	3	886 Front Offices (Rooms 130, 131, 129, 128, 123, 125, 121, 119, 116, 127, 122, 118, 120, 117) & Room 111 (Utility), Room 106 (tools) EXCLUDE HALLWAY + T886A (interior)	2111	492	212	15 - Random 45 - Biased 3 - QC	15 - Random 45 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination *(e.g., floors and lower walls).*
B	886-B-009 (Phase I)	3	Exterior Walls and Roof of B886, B875, & T886A	3916	1582 (ceiling)	392	15 - Random 85 - Biased 5 - QC	15 - Random 85 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination.
C	886-C-010 (Phase I)	3	Entire Guard Shack (B888) [interior & exterior] & 888A slab and block walls	101	16	11	15 - Random 3 - Biased 2 - QC	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
			Class 3 Totals	**6128**	**2090**	**615**	**178**	**178**	**0**	
All Class Areas			**All Class Totals**	**6128**	**2090**	**615**	**178**	**178**	**0**	

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875 Exterior, B888, 888A and T886A)

Non-Impacted Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Non-Impacted Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Non-Impacted Totals	N/A	N/A	N/A	N/A	N/A	N/A	

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875, 828 Pit, Tunnel, B888, 888A and T886A)

Class 3 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
A	886-A-001 (Phase I)	3	Front Offices (Rooms 130, 131, 129, 128, 123, 125, 121, 119, 116, 127, 122, 118, 120, 117) & Room 111 (Utility), Room 106 (tools) EXCLUDE HALLWAY + T886A (interior)	2111	492	212	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
B	886-B-009 (Phase I)	3	Exterior Walls and Roof of B886, B875, & T886A	3916	0	392	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination.
C	886-C-010 (Phase I)	3	Entire Guard Shack (B888) [interior & exterior] & 888A slab and block walls	101	16	11	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
			Class 3 Totals	**6128**	**508**	**615**	**54**	**54**	**0**	
All Class Areas			**All Class Totals**	**6128**	**508**	**615**	**54**	**54**	**0**	

Superseded in order to add additional biased measurements. BHP 3/27/01

Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875 Exterior, B888, 888A and T886A)

Class 3 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
A	886-A-001 (Phase I)	3	886 Front Offices (Rooms 130, 131, 129, 128, 123, 125, 121, 119, 116, 127, 122, 118, 120, 117) & Room 111 (Utility), Room 106 (tools) EXCLUDE HALLWAY + T886A (interior)	2111	492	212	15 - Random 45 - Biased 3 QC	15 - Random 45 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
B	886-B-009 (Phase I)	3	Exterior Walls and Roof of B886, B875, & T886A	3916	0 (492 ceiling)	392	15 - Random 85 - Biased 5 - QC	15 - Random 85 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination.
C	886-C-010 (Phase I)	3	Entire Guard Shack (B888) [interior & exterior] & 888A slab and block walls	101	16	11	15 - Random 3 - Biased 2 QC	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
			Class 3 Totals	**6128**	**508**	**615**	**178**	**178**	**0**	
All Class Areas			**All Class Totals**	**6128**	**508**	**615**	**178**	**178**	**0**	

superseded in order to change Floor(m^2) value for 886-B-009 – to 1582 m2

JMB 4/23/01

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Rocky Flats Environmental Technology Site

RADIOLOGICAL CHARACTERIZATION PACKAGE

BUILDING 886 CLUSTER CLOSURE PROJECT

PHASE I

SUPERCEDED BY REV 1.

JMB 2/26/01

REVISION 0

January 30, 2001

Prepared by: Jay M. Britten / _____.
Radiological Engineer

Reviewed by: Duane Parsons / _____.
RISS Facility Characterization Coordinator

Reviewed by: Steve Luker / _____ 2/1/01.
Quality Assurance

V.D. _____ 2/1/01

Approved by: Jerry Anderson / _____.
Closure Project Facility Manager

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875, 828 Pit, Tunnel, B888, 888A and T886A)

Building:	886	Last Updated:	Date:	2/14/01	Time:	1345	Initials:	JMB

Class 1 Areas

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Classification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 1 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 1 Totals	0	0	0	0	0	0	

Note: B886 (Phase I) Radiological Characterization Package developed in accordance with MAN-077-DDCP; "D&D Characterization Protocols, and MAN-127-PDSP;"Pre-Demolition Survey Plan for D&D Facilities."

SUPERCEDED BY REV 1

JMB 2/26/01

Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875, 828 Pit, Tunnel, B888, 888A and T886A)

Class 2 Areas

Survey Area	Survey Date	Survey Unit	Description	Total m²	Floor m²	Wall m²	ISAs	Smears	Radiation	Comments
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 2 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 2 Totals	0	0	0	0	0	0	

Superceded by Rev 1. JMB 2/29/01

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Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875, 828 Pit, Tunnel, B888, 888A and T886A)

Class 3 Areas

[illegible]	Survey	[illegible]	[illegible]	Total [illegible]	Floor [illegible]	Scan [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A	886-A-001 (Phase I)	3	Front Offices (Rooms 130, 131, 129, 128, 123, 125, 121, 119, 116, 127, 122, 118, 120, 117) & Room 111 (Utility), Room 106 (tools), EXCLUDE HALLWAY + T886A (interior)	2111	492	212	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
B	886-B-009 (Phase I)	3	Exterior Walls and Roof of B886, B875, & T886A (≤8 ft from grade)	3316	0	332	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. Roof survey activities will be confined to areas greater than 6 feet from the edge of the roof in order to insure worker safety while performing radiological measurements in these low contamination potential (Class 3) areas. A 10% scan will be biased towards areas of greater potential for contamination (e.g., lower walls & roof areas >6-ft from edge).
C	886-C-010 (Phase I)	3	Entire Guard Shack (B888) [interior & exterior] & 888A slab and block walls	X 317	X OLD #s 19	X 32	15 - Random 3 - Biased	15 - Random 3 - Biased	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and years of routine radiological surveys in this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls).
			Class 3 Totals	**5427**	**492**	**544**	**54**	**54**	**0**	
All Class Areas			**All Class Totals**	**5744**	**511**	**576**	**54**	**54**	**0**	

SUPERSEDED BY REV 1 SMB 12/29/04

* All radiological surveys shall be conducted in accordance with the sampling and instruction forms included in 886 Cluster Package Identification numbers 01-0001, 01-0002, and 01-0003. Sample locations are denoted on scaled maps attached to each survey package.

Radiological Characterization Package
PHASE I
B886 Cluster (B886, B875, 828 Pit, Tunnel, B888, 888A and T886A)

Non-Impacted Areas

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
B	N/A	N/A	Exterior Walls > 8 ft. from grade of B886, B875, & T886A	600	300	N/A	N/A	N/A	N/A	Historical Site Assessments show that these elevated areas (> 8 feet from grade) have no greater contamination potential than areas less than 8 feet from grade. Additionally, consideration for survey technician's safety (e.g., elevated work issues, fall hazards, etc.) preclude the need to perform radiological measurements in these elevated areas on the exterior walls of 886 Cluster buildings.
			Non-Impacted Totals	600	300	N/A	N/A	N/A	N/A	

SUPERSEDED BY REV 1 SMB 2/2/01

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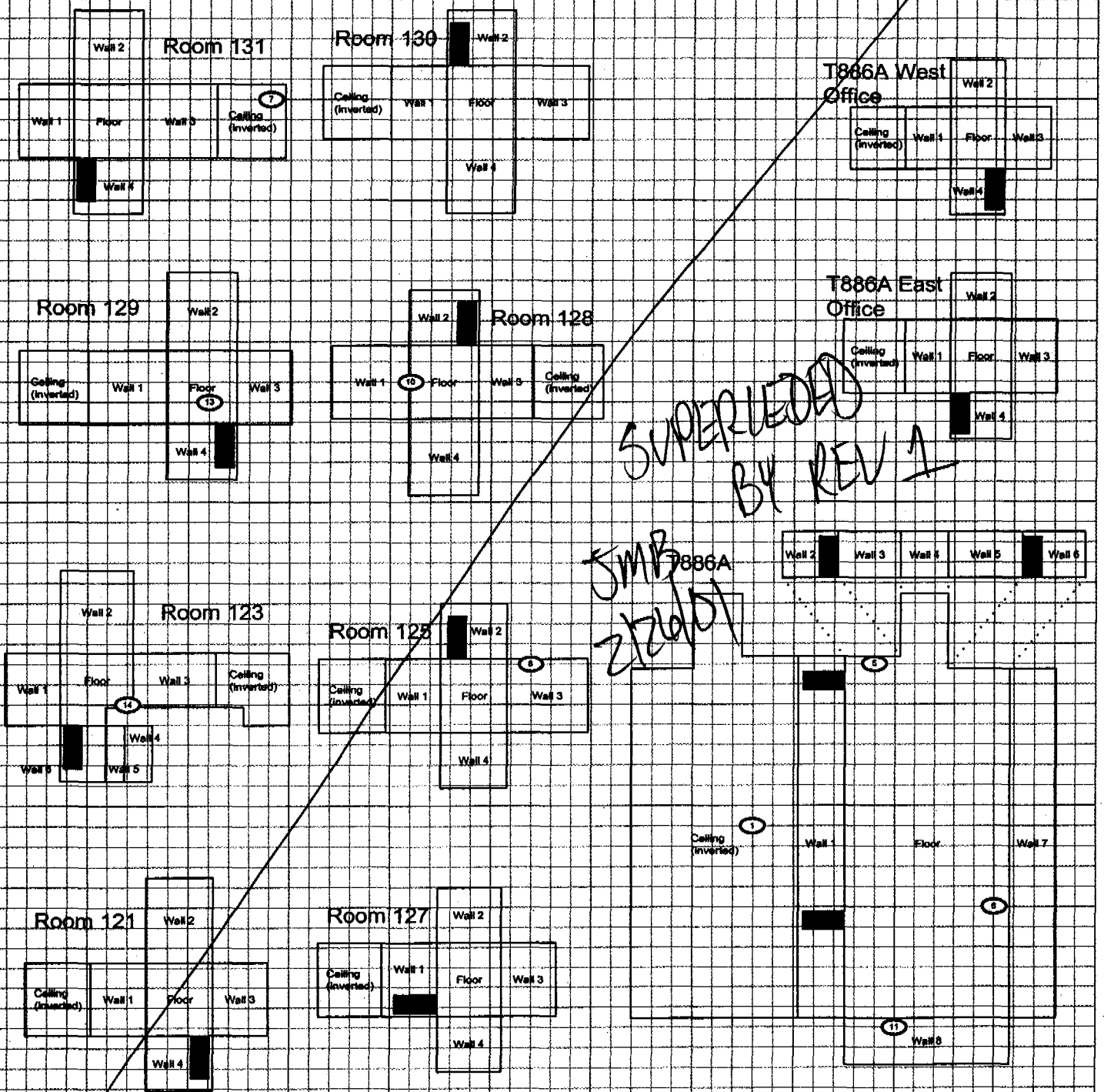
PRE-DEMOLITION SURVEY FOR B886 CLUSTER

Survey Area: A **Survey Unit: 886-A-001** **Classification: 3**
Building: 886
Survey Unit Description: B886 - Interior Surfaces
Total Area: 2111 sq. m. **Total Floor Area: 492 sq. m.**



SUPERSEDED BY REV 1
SMB 2/26/01

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

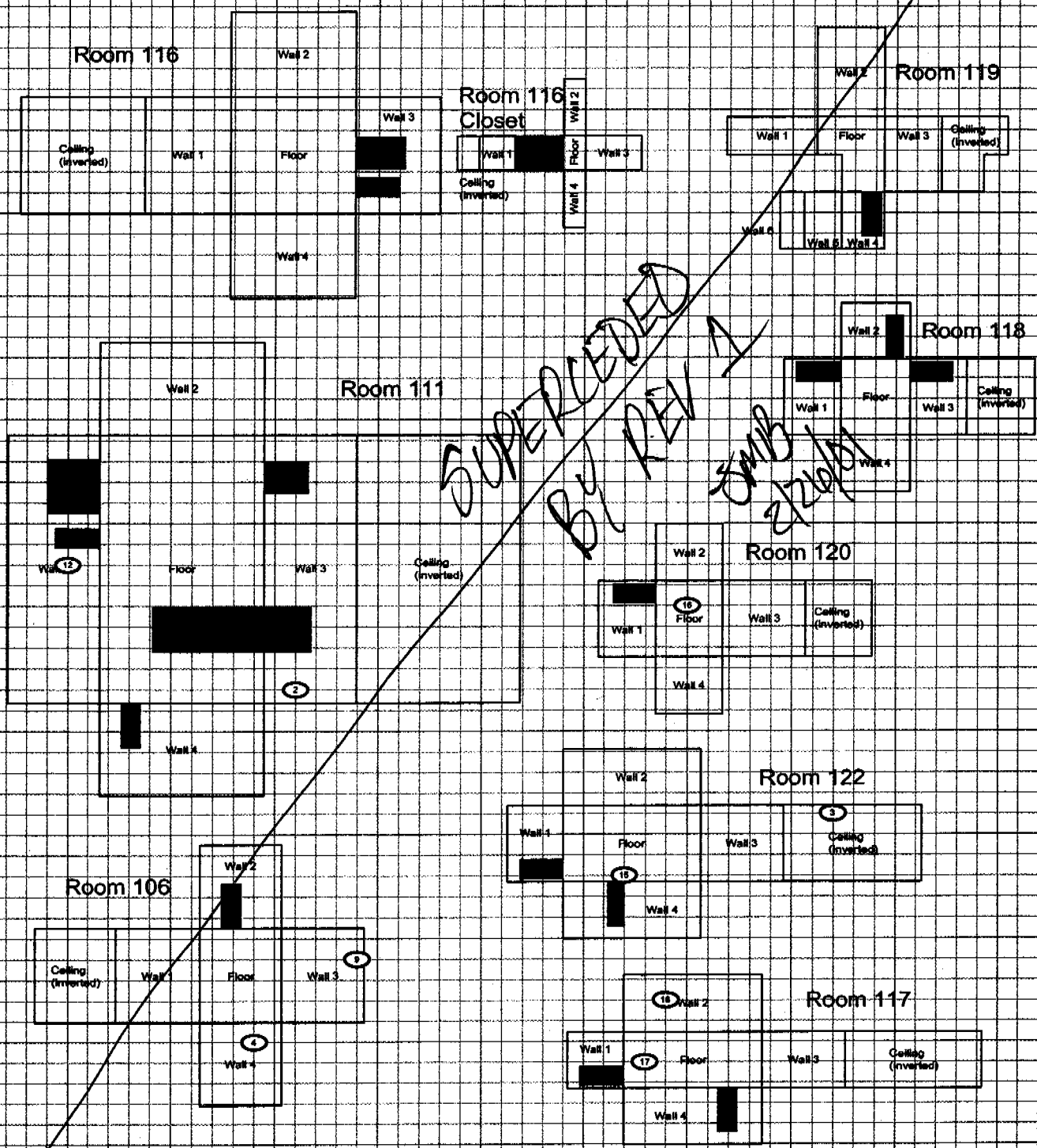
U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7797
DynCorp
THE ART OF TECHNOLOGY
Prepared for:
MAP ID: fy2001/01-0181
January 24, 2001

13

PRE-DEMOLITION SURVEY FOR B886 CLUSTER

Survey Area: A **Survey Unit: 886-A-001** **Classification: 3**
Building: 886
Survey Unit Description: B886 - Interior Surfaces
Total Area: 2111 sq. m. **Total Floor Area: 492 sq. m.**



SUPERSEDED BY REV 1 SMB 2/26/01

SURVEY MAP LEGEND

- (#) Smear & TSA Location
- (#) Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: D&S Dept. 303-966-7767
DynCorp
THE ART OF TECHNOLOGY
MAP ID: fy2001/01-6181

Prepared for:
[redacted]
January 24, 2001

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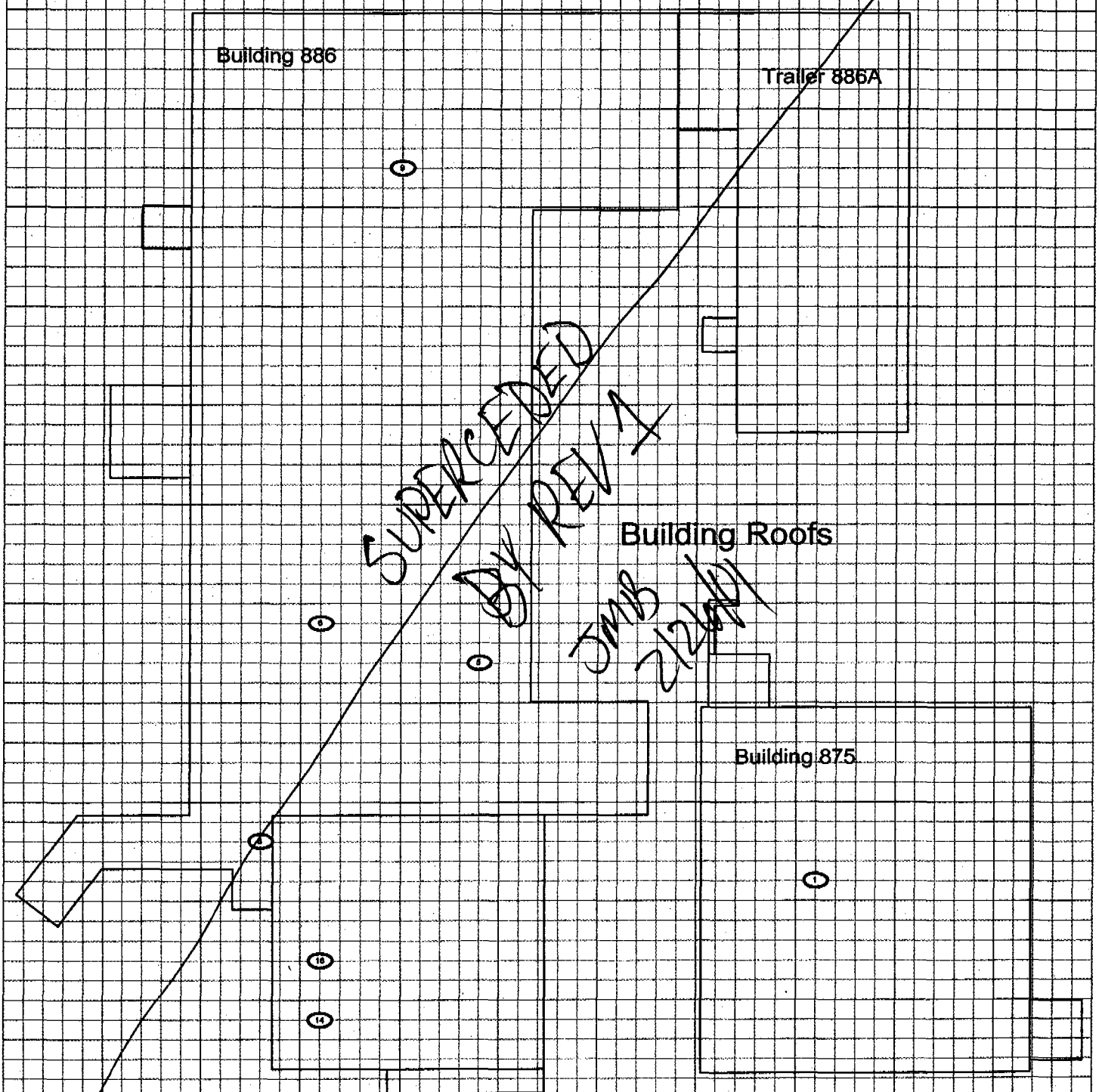
PRE-DEMOLITION SURVEY FOR B886 CLUSTER

Survey Area: B **Survey Unit: 886-B-009** **Classification: 3**
Building: 886
Survey Unit Description: B886 - Exterior Walls & Roof
Total Area: 3316 sq. m. **Total Floor Area: 0 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: fy2001/01-0101 January 24, 2001

Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

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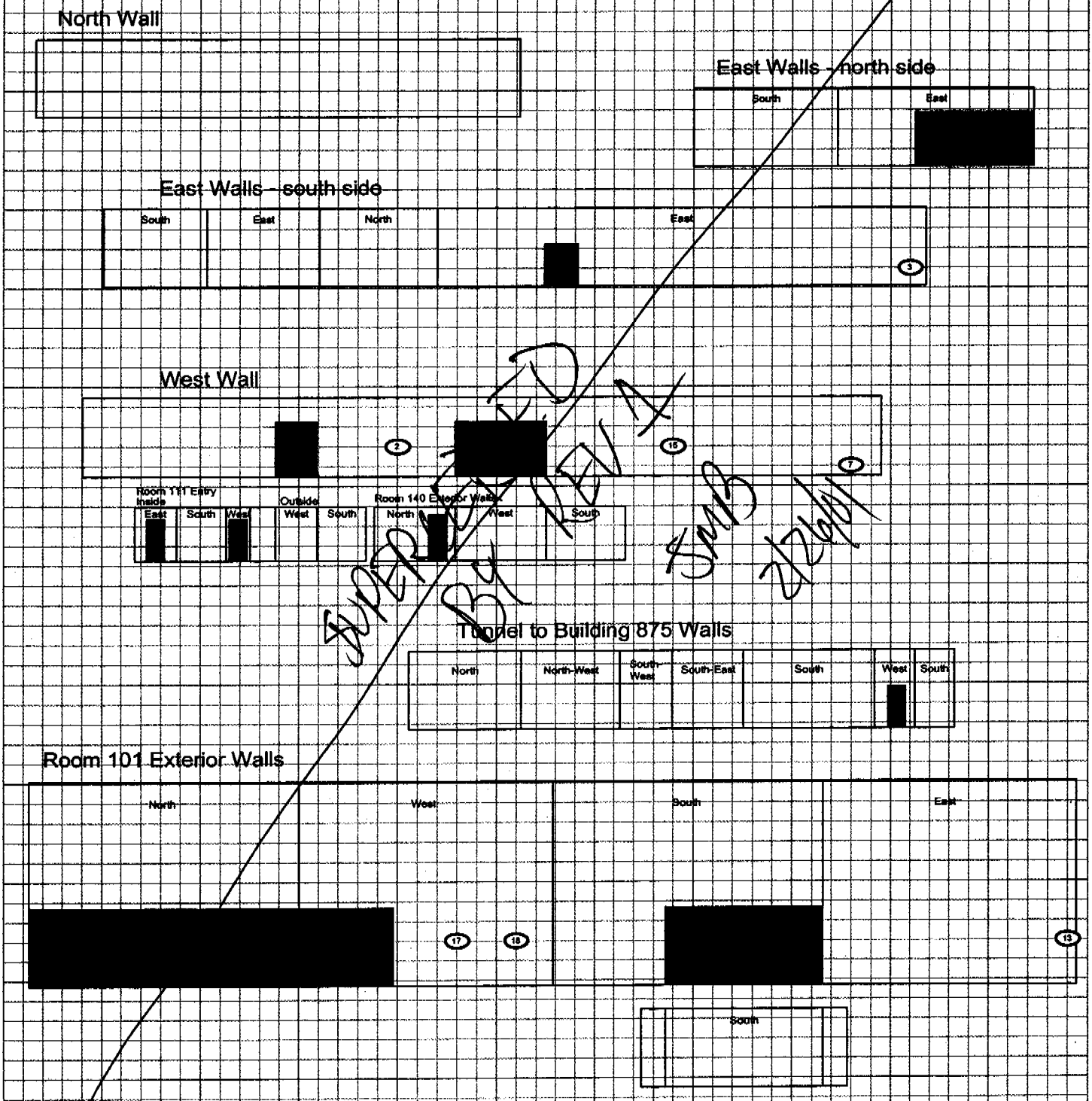
PRE-DEMOLITION SURVEY FOR B886 CLUSTER

Survey Area: B **Survey Unit: 886-B-009** **Classification: 3**
Building: 886
Survey Unit Description: B886 - Exterior Walls & Roof
Total Area: 3316 sq. m. **Total Floor Area: 0 sq. m.**



SUPERSEDED BY REV A 8/26/01

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7767
DynCorp
THE ART OF TECHNOLOGY

Prepared for:
KAISER-HILL

MAP ID: fy2001/01-0181
January 24, 2001

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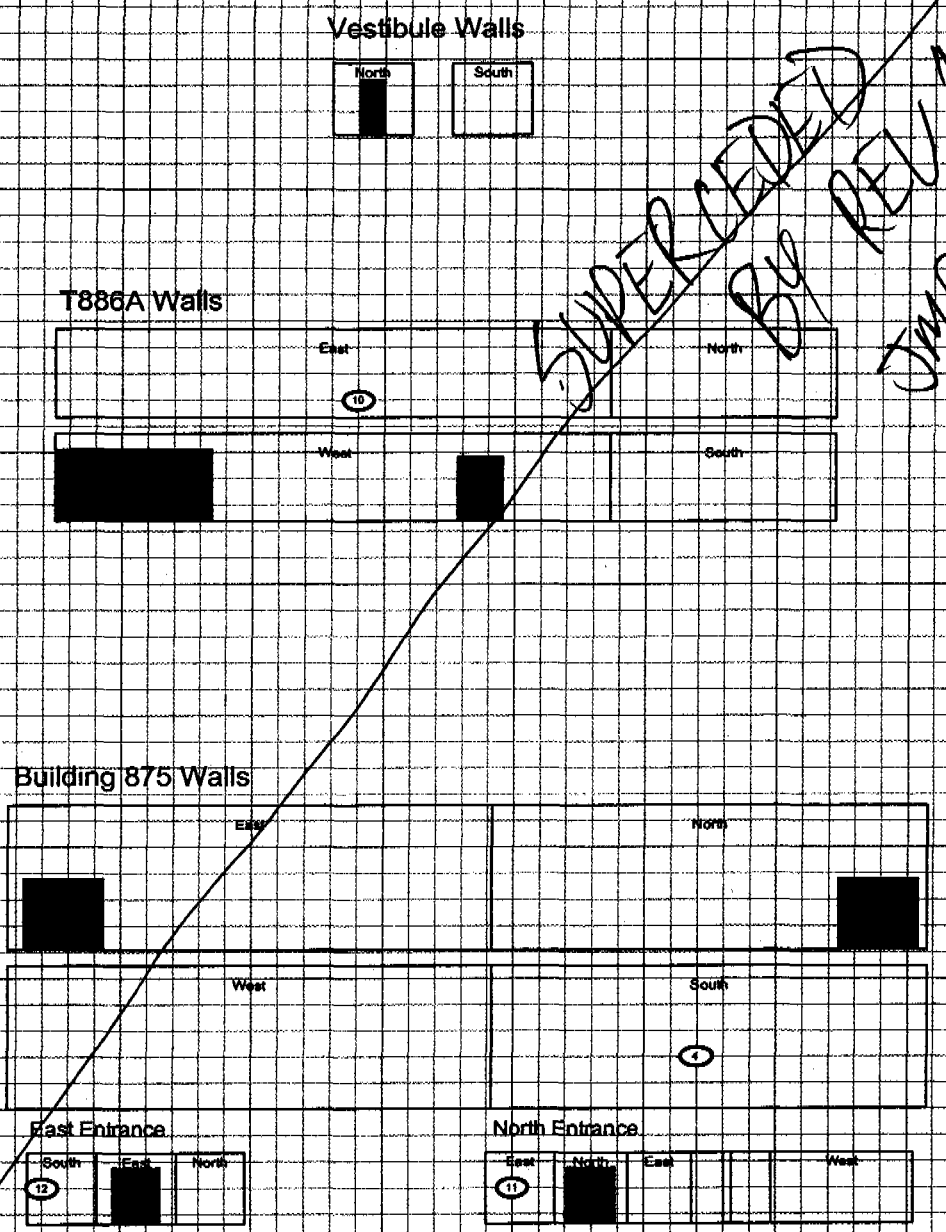
PRE-DEMOLITION SURVEY FOR B886 CLUSTER

Survey Area: B **Survey Unit: 886-B-009** **Classification: 3**
Building: 886
Survey Unit Description: B886 - Exterior Walls & Roof
Total Area: 3316 sq. m. **Total Floor Area: 0 sq. m.**



SUPERCEDED BY REV 1 JMB 2/28/01

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

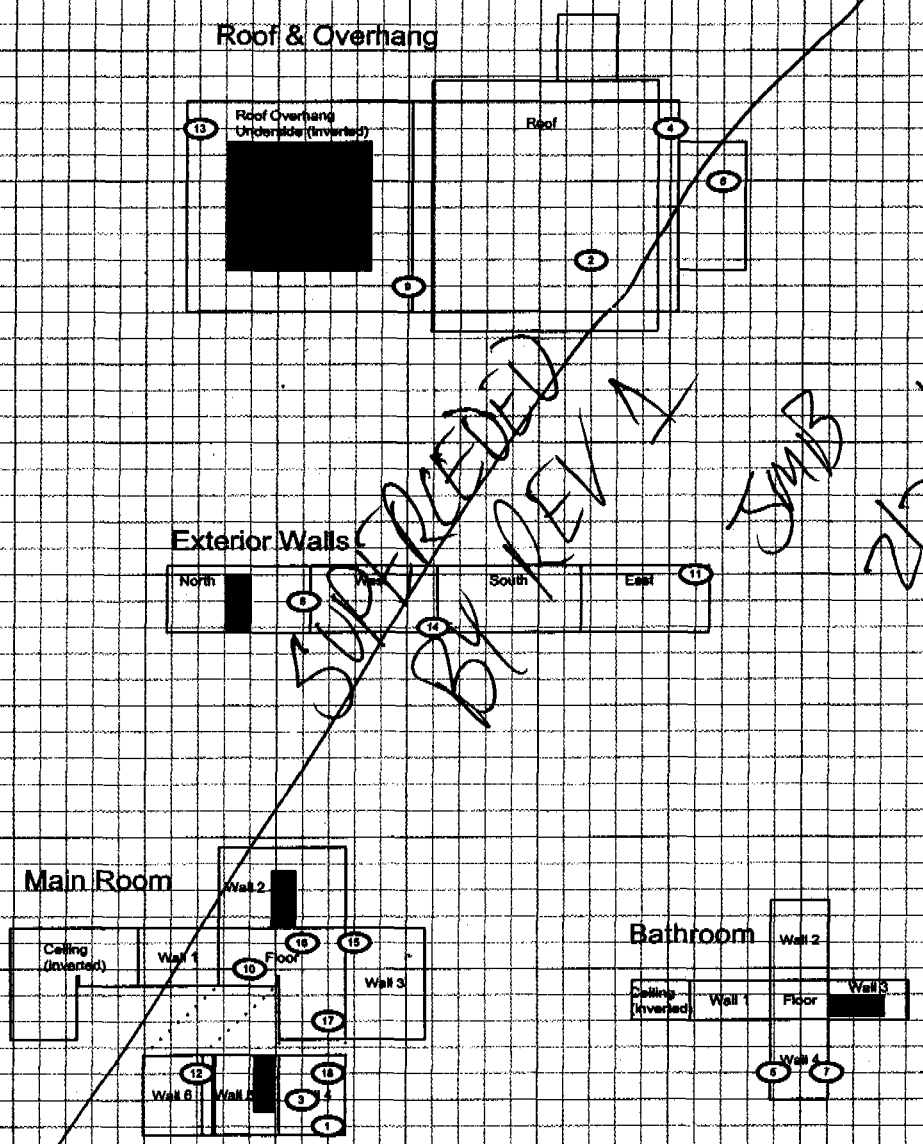
0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707
DynCorp
THE ART OF TECHNOLOGY
Prepared for:
MAP ID: fy2001/01-0181
January 24, 2001

PRE-DEMOLITION SURVEY FOR B888 GUARD SHACK

Survey Area: C **Survey Unit: 886-C-010** **Classification: 3**
Building: 888 Guard Shack
Survey Unit Description: B888 Guard Shack - Interior & Exterior
Total Area: 317 sq. m. **Total Floor Area: 19 sq. m.**



SUPERSEDED BY REV 1 SMB 2/26/01

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

[redacted]

MAP ID: fy2001/01-0181 January 24, 2001

Scan Survey Information
Survey Instrument ID #(s): _____
RCT ID #(s): _____

18 | 18