



CCR LANDFILL ANNUAL INSPECTION REPORT BYPRODUCT STORAGE AREA DECEMBER 2018

Lakeland Electric

C.D. McIntosh Power Plant

3030 East Lake Parker Drive

Lakeland, Florida

Submitted to:

City of Lakeland - Department of Electric Utilities

501 East Lemon Street

Lakeland, FL 33801 USA

Submitted by:

Golder Associates Inc.

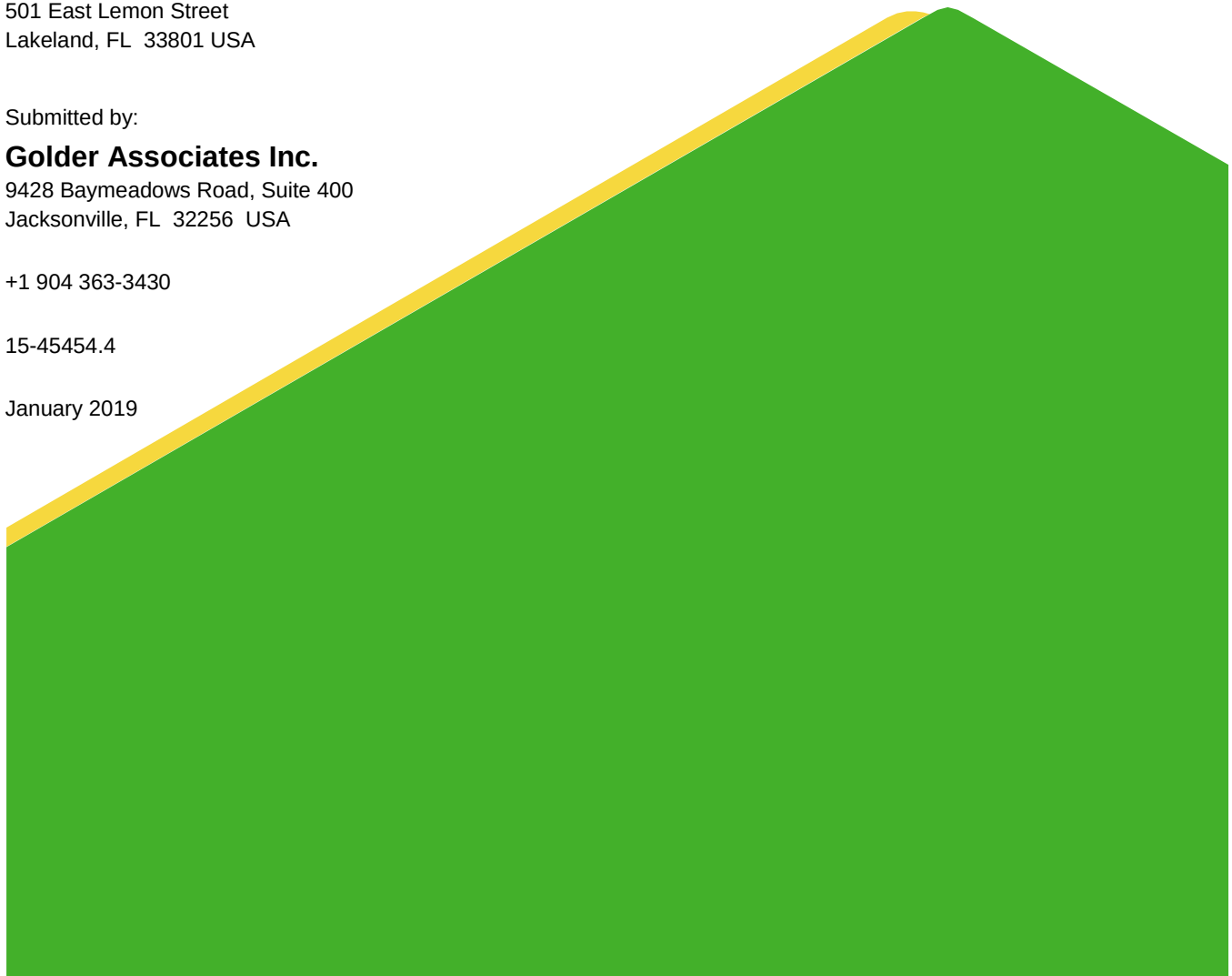
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January 2019



Distribution List

Lakeland Electric

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Figure 1	Site Vicinity Map
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INTRODUCTION

Golder Associates Inc. (Golder) conducted the annual coal combustion residual (CCR) landfill inspection of the Byproduct Storage Area (BSA) at Lakeland Electric's C.D. McIntosh Power Plant (MPP). The annual inspection conducted on December 10, 2018, and this report are intended to comply with the requirements of 40 CFR Section (§) 257.84(b).

The MPP, owned and operated by Lakeland Electric (City of Lakeland, Department of Electric Utilities), is located in Lakeland, Florida (see Figure 1). The main entrance of the facility is located at 3030 East Lake Parker Drive, Lakeland, Florida. The BSA is located in the southeast portion of the property and receives CCRs generated by Unit 3, which is the only coal-fired electrical generating unit at MPP (see Figure 2).

REVIEW OF AVAILABLE INFORMATION - §257.84(b)(1)(i)

Golder's inspection team reviewed available information regarding the status and condition of the BSA. The documents reviewed included:

- Operations Manual, Combustion By-Product Storage Facility, Shaw Stone & Webster, Inc., January 3, 2006;
- Design Report – Vertical Expansion, Existing Combustion By-Products Storage Facility, Black & Veatch, February 20, 2004;
- C.D. McIntosh, Jr Power Plant Units 3 and 5 Conditions of Certification, PA 74-06R, Florida Department of Environmental Protection, March 6, 2013; and
- Operating records, including weekly inspection results.

INSPECTION SUMMARY - §257.84(b)(1)(ii)

Golder conducted the visual inspection of the BSA on December 10, 2018, by traversing the BSA on foot in order to observe cover conditions, exterior slope conditions, the presence of any erosional issues, vegetative conditions, placement of CCRs, stormwater management features, the presence of potential slope stability issues, and the presence of other signs of distress or malfunction.

CHANGES IN GEOMETRY - §257.84(b)(2)(i)

Changes in geometry of the BSA were evaluated by comparing recent aerial photographs, past inspection results, past topography and the December 11, 2016 visual inspection. The primary changes in geometry in the active southern portion of the BSA are due to material reclamation and regrading of exterior slopes in the southern portion of the BSA.

APPROXIMATE CCR VOLUME - §257.84(b)(2)(ii)

The volume of materials in the BSA at the time of the inspection is estimated to be approximately 2.94 million cubic yards based on past topographic survey information, updated disposal records, previous capacity analysis, and other information provided by Lakeland Electric.

STRUCTURAL WEAKNESS/DISRUPTING CONDITIONS - §257.84(b)(2)(iii)

No indications of actual or potential structural weakness were noted during the December 10, 2018 inspection or during the review of available information.

Conditions identified during the inspection that could have the potential to disrupt the operations of the BSA include: damage to stormwater management features. Lakeland Electric was in the process of completing the necessary repairs.

CHANGES AFFECTING STABILITY OR OPERATIONS - §257.84(b)(2)(iv)

Based on the December 10, 2018 inspection and review of the available information, no other changes from the previous inspection conducted on December 11, 2017 that may affect the operations or stability of the BSA were observed.

CONCLUSION

Based on the review of the available information noted above, the December 10, 2018 field observations, and subsequent discussions with Lakeland Electric, the BSA's design, construction, operation, and maintenance appear to be consistent with recognized and generally accepted good engineering standards. If you have any questions or comments about this report, please do not hesitate to contact us.

Golder Associates Inc.



Samuel F. Stafford, PE
Senior Project Engineer



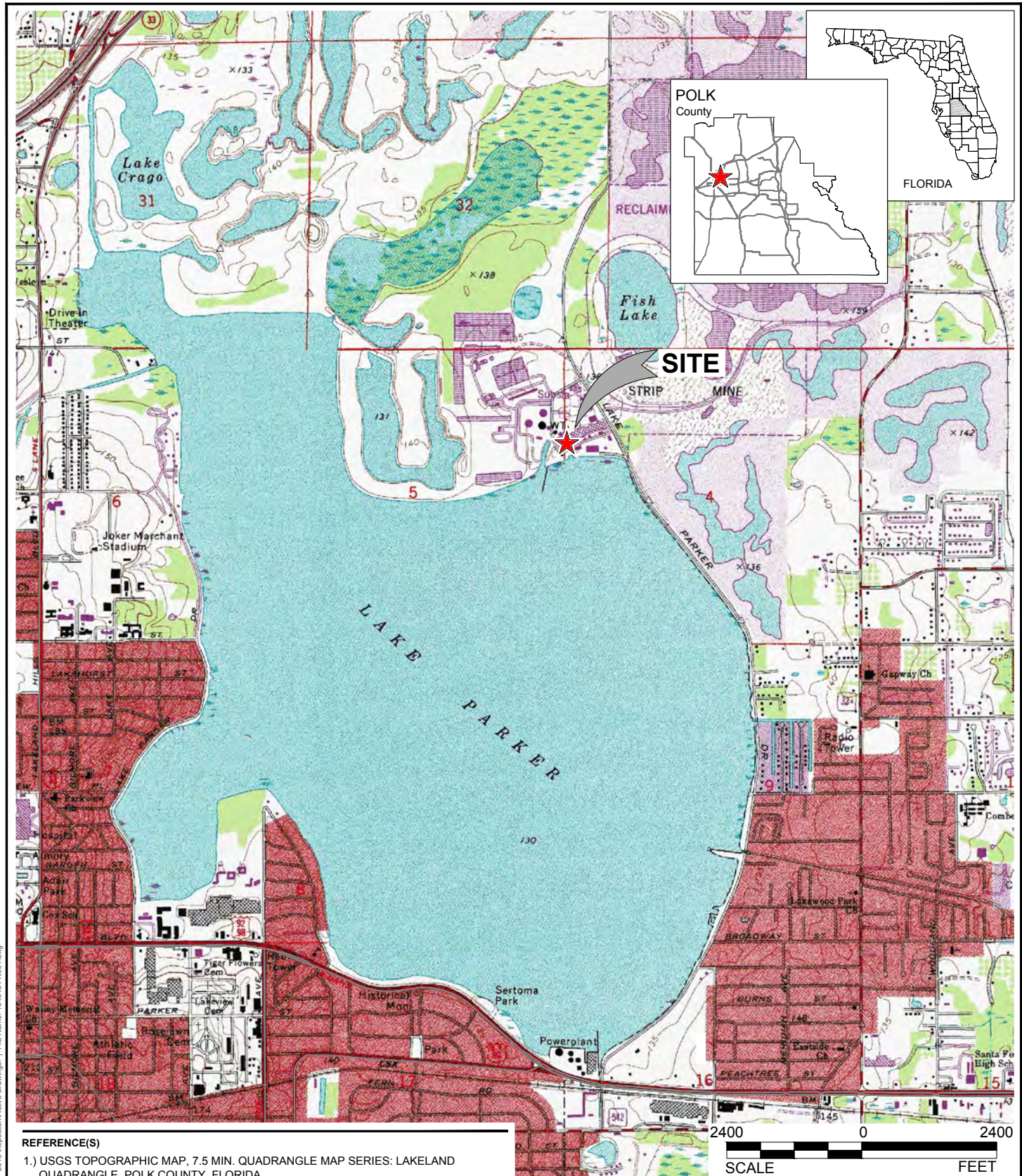
Gregory M. Powell, PhD, PE
Practice Leader and Principal

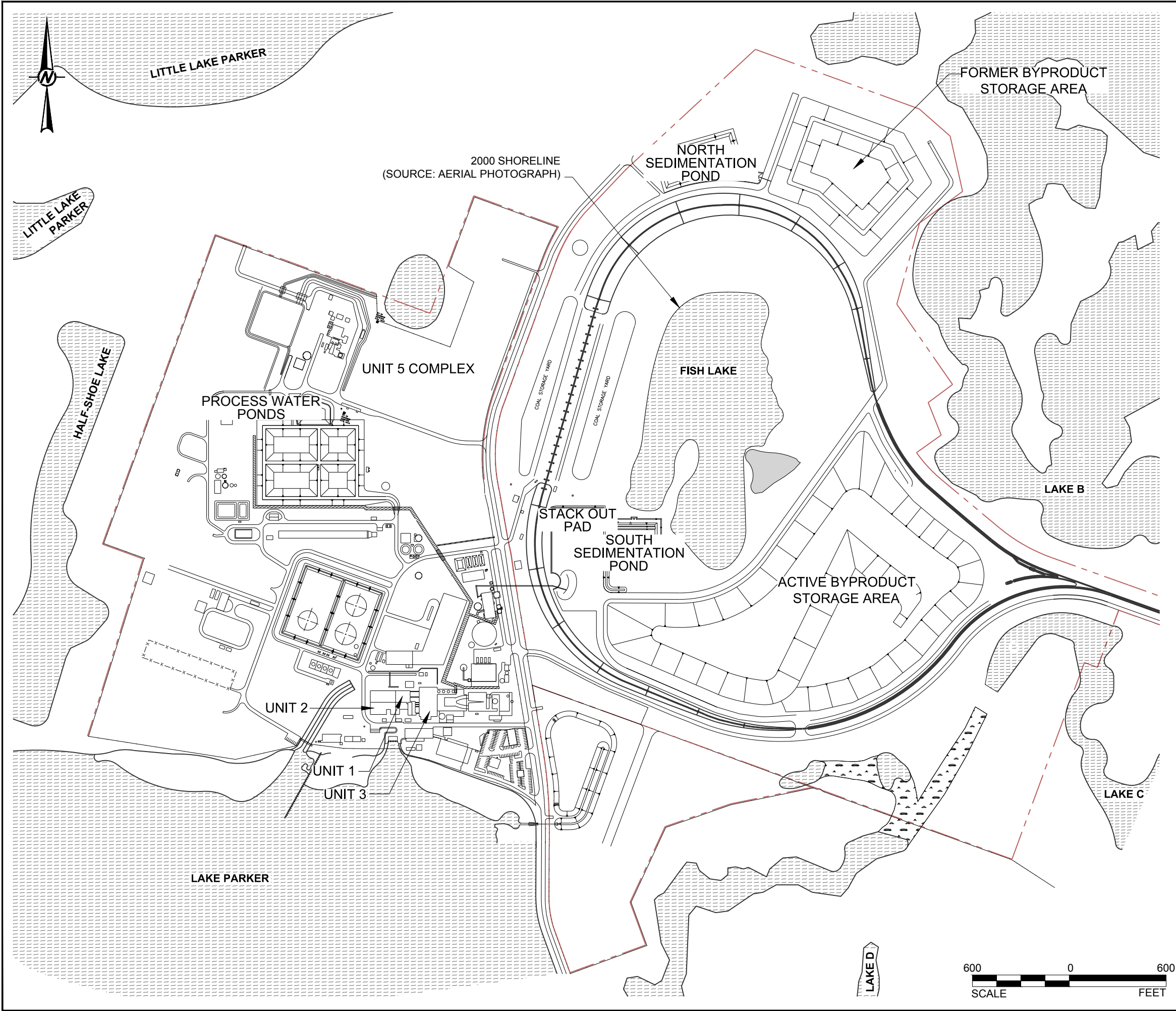
SFS/GMP/ams

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FIGURES





LEGEND

SURFACE WATER

PROPERTY BOUNDARY

FENCE

WET AREA

REFERENCE(S)

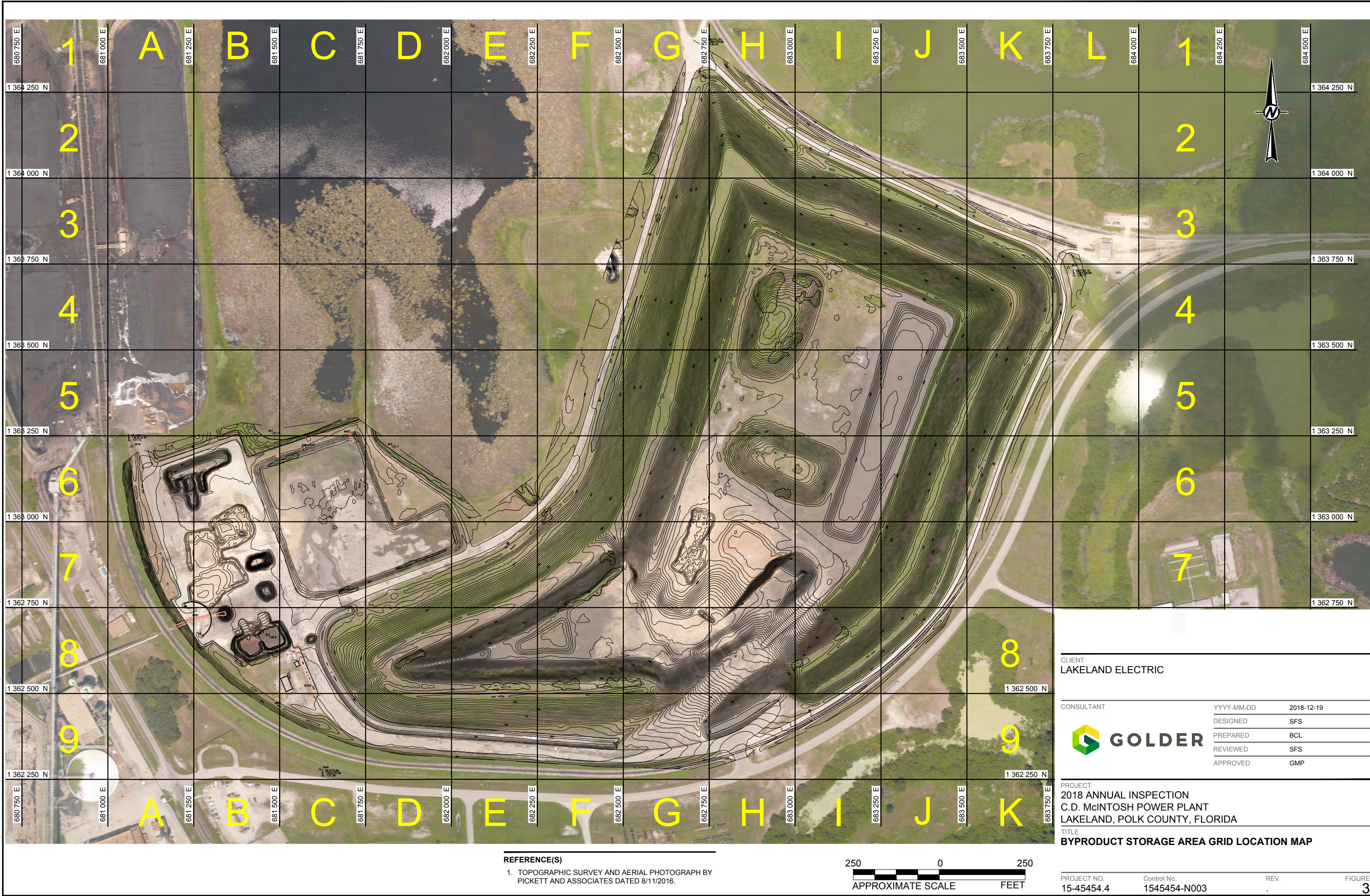
1. BASE MAP MODIFIED FROM SITE PLAN PROVIDED BY LAKELAND ELECTRIC.

CLIENT
LAKELAND ELECTRIC

CONSULTANT	YYYY-MM-DD	2018-12-19
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	GMP

PROJECT
2018 ANNUAL INSPECTION
C.D. McINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
McINTOSH POWER PLANT SITE PLAN



Path: \\A:\X1\3\CS\Drawing\Fig001015-45454 - Lakeland Electric\ - 2018 Inspection\Active Drawings\ | File Name: 1545454-N003.dwg

REFERENCE(S)
1. TOPOGRAPHIC SURVEY AND AERIAL PHOTOGRAPH BY
PICKETT AND ASSOCIATES DATED 8/11/2016.



CLIENT
LAKELAND ELECTRIC

CONSULTANT


PROJECT
2018 ANNUAL INSPECTION
C.D. MCINTOSH POWER PLANT
LAKELAND, POLK COUNTY, FLORIDA

TITLE
BYPRODUCT STORAGE AREA GRID LOCATION MAP

YYYY-MM-DD	2018-12-19
DESIGNED	SFS
PREPARED	BCL
REVIEWED	SFS
APPROVED	GMP

PROJECT NO.
15-45454.4

Control No.
1545454-N003

REV.
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FIGURE
3

1" IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



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