5031

Department of Energy
Ohio Field Office
Fernald Environmental Management Project
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

SEP 05 2003

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0507-03

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

REQUEST FOR USE OF SCRAPERS IN EXCAVATION OF REMAINING IMPACTED SOIL IN AREA 3A/4A

This letter is to request your concurrence to use scrapers in the excavation of remaining impacted soil in Area 3A/4A, as discussed during our August 19, 2003 weekly conference call and August 27, 2003 meeting. This request is based on the approved Area 3A/4A Integrated Remedial Design Package (IRDP), which allows the most optimum method and equipment for removing the soil (Page 3-18 of the Implementation Plan), providing that all the On-Site Disposal Facility (OSDF) waste acceptance criteria (WAC) attainment requirements are met.

In addition to the equipment currently utilized for soil excavation, Fluor Fernald Inc. plans to also use scrapers to complete excavation of the remaining impacted subsurface soil around and below building structures in Area 3A/4A where most of the debris and all known/visible above-WAC materials have been removed. The portion of Area 3A/4A that is suitable for using scrapers to complete the remaining soil excavation is shown in the enclosed Figure 1. Representative cross-sections of this area that show current excavated surface and the design excavation depth are also included for your references.

When using scrapers the excavated soils will be directly taken into or by the OSDF grids where it will be directly placed or staged. All the Waste Acceptance Organization (WAO) functions including visual observation at excavation sites, manifesting, and visual

observation at placement grids will be conducted. A draft addendum to the OSDF Impacted Material Placement Plan for scraper operations inside the OSDF is enclosed with this letter.

Currently soil is first pushed by a bulldozer into a working stockpile and loaded by an excavator into dump trucks and then transported to the OSDF. When compared to the current excavation approach, using scrapers to excavate and transport remaining impacted soil in Area 3A/4A where debris and above-WAC materials have been removed will provide the following benefits:

- Minimize lateral spread of potential contamination by directly picking up soil into the scraper in stead of being pushed across the working area;
- Minimize vertical pushing/tracking of impacted materials further down;
- Provide a smaller lift increment (i.e., about 6 inches) and therefore more visual observation opportunities to identify abnormal conditions unearthed during excavation by WAO and/or other field construction personnel;
- Provide a thinner spread of lift in the OSDF after dumping in the OSDF for WAO and/or field construction personnel to observe and confirm that no abnormal and/or prohibited materials are present;
- Create no stockpile in the excavation area that may require control and management;
- Reduce fugitive dust emission during excavation and transportation;
- Generate smooth contours in the working area that will facilitate real time scanning, certification, and final grading;
- Simplify storm water management in the area;
- Eliminate double handing of materials and simplify the manifesting process;
- Increase daily excavation and placement capacity; and
- Reduce the number of equipment in the same working area.

This is a significant improvement to the current excavation approach for those relatively broad and flat areas where debris and above-WAC materials have already been removed. The current approach will still be used in circumstances when these conditions are not present. However as all new methods require, DOE intends to field evaluate the effectiveness of using scrapers in the next few months which constitutes a "trial period." If proven effective, this approach will then be formally incorporated as an option for

excavation/placement and applied when appropriate in all future excavation areas with your concurrence. Please review this request and provide your concurrence at your earliest convenience so this approach can be implemented as soon as possible.

If you have any questions or concerns, please contact Johnny Reising at (513) 648-3139.

Sincerely,

Glenn Griffiths
Acting Director

FCP:Reising

Enclosure: As Stated

cc w/enclosure:
D. Pfister, OH/FCP
J. Reising, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SR-6J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, MS78

cc w/o enclosure:
R. Greenberg, EM-31/CLOV
N. Hallein, EM-31/CLOV
R. Abitz, Fluor Fernald, Inc./MS64
J. Chiou, Fluor Fernald, Inc./MS64
M. Frank, Fluor Fernald, Inc./MS64
R. Friske, Fluor Fernald, Inc./MS64
T. Hagen, Fluor Fernald, Inc./MS1
M. Jewett, Fluor Fernald, Inc./MS52-5
U. Kumthekar, Fluor Fernald, Inc./MS64
S. Lorenz, Fluor Fernald, Inc./MS41
F. Miller, Fluor Fernald, Inc./MS64
T. Poff, Fluor Fernald, Inc./MS65-2
D. Powell, Fluor Fernald, Inc./MS64
R. Reynolds, Fluor Fernald, Inc./MS64
ECDC, Fluor Fernald, Inc./MS52-7

DRAFT ADDENDUM 4 – IMPACTED MATERIAL PLACEMENT PLAN
Dated: September 4, 2003

Add the following paragraphs at the end of Article 6.8 Spreading and Grading, Section 6, Impacted Material Placement (IMP) Plan, On-Site Disposal Facility:

"Impacted material may be hauled from the remediation areas and directly unloaded and staged or spread in OSDF by scrapers. Size of the scrapers including width and length, depth of spread, and turning radius will vary with type of scraper selected for excavation of the impacted material. For example, width and length of Caterpillar scraper Model CAT 627 is approximately 11-feet and 43-feet respectively with a maximum depth of spread of approximately 12-inches and turning radius of approximately 36-feet. With this turning radius, the CAT 627 scraper could make a complete circle within 100-feet by 100-feet area (grid) without much difficulty.

Impacted materials hauled by scrapers to the OSDF may be directly staged or spread in areas where a minimum 4-foot of materials has already been placed/compacted over the drainage layer of the liner system. Some of these placement activities where the impacted material may be directly staged or spread by the scrapers are as follows:

- Placement of select impacted material layer under the contouring layer of the final cover system

- Construction of impacted material berms for placement of Category 2, 3, and 4 impacted materials. Scraper shall control the spread of Category 1 material (loose lift thickness) to maximum 12-inches and shall provide uniform loose lift thickness

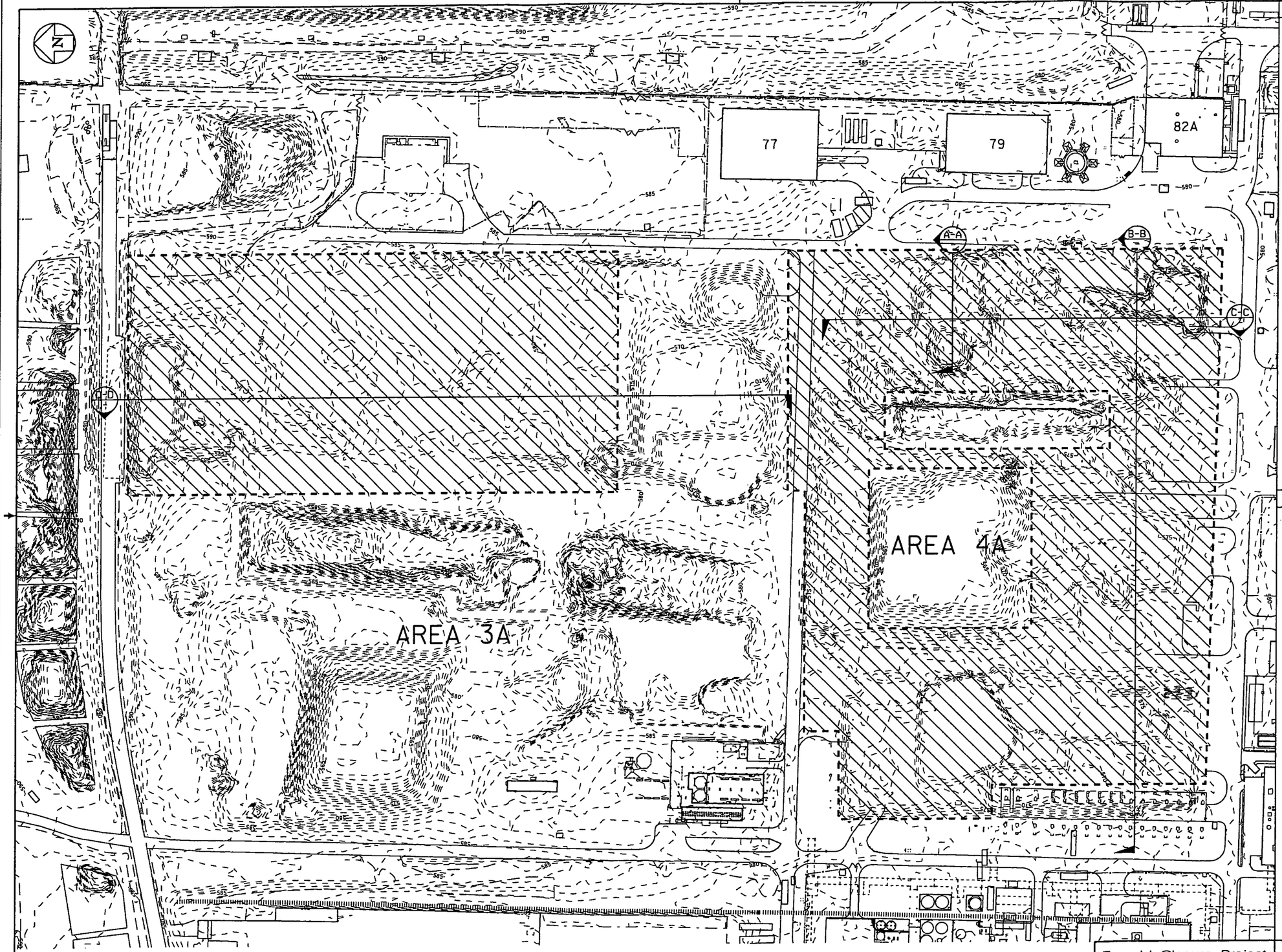
- Staging of Category 1 impacted material around the Category 2 grids for spreading and placement of the first lift of Category 1 material over the Category 2 debris. Staged impacted material may be spread over the Category 2 debris by a dozer or similar construction equipment

- Placement of intervening layers directly over the Category 2, Category 3, and Category 4 impacted materials layers or staging impacted material adjacent to placement grids for intervening layers

- Placement of category 1 impacted material between and around the category 3 transite panels. With the scraper such as CAT 627 or similar, Category 1 material may be spread in uniform loose lifts in between the transite panels.

Impacted material hauled by scrapers directly to the OSDF shall be staged and managed in accordance with the Article "Materials Staging" of this Section. Impacted material shall be staged on the compacted surface. If the impacted material is staged on the uncompacted surface, loose impacted material shall be removed up to the top of the compacted surface and shall be placed in accordance with the IMP Plan.

Impacted material unloaded and spread in the active placement grids will be compacted using the same equipment and methods described in Section 5.0 of the Impacted Material Placement (IMP) Plan."



GENERAL NOTES

1. SCRAPERS MAY BE USED FOR EXCAVATION WITHIN THE SHADED AREAS AS SHOWN ON THIS DRAWING, EXCEPT AS NOTED OTHERWISE.
2. SCRAPERS WILL BE EXCLUDED FROM USE IN AREAS CONTAINING ONE OR MORE OF THE FOLLOWING:
   - ABOVE-WAC MATERIAL
   - FOUNDATIONS
   - UTILITIES
   - PADS
   - PAVED ROADWAYS
3. HAUL ROUTES NOT SHOWN.
4. FOR AREA 3A CROSS SECTIONS, SEE 3A TOPOGRAPHIC SURFACE, DATED 07/08/03. FOR AREA 4A CROSS SECTIONS, SEE 4A TOPOGRAPHIC SURFACE, DATED 07/08/03.

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LEGEND

SCRAPER EXCAVATION WORK AREA

FOR INFORMATION ONLY

Fernald Closure Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

AREA 3A/4A
SCRAPER WORK AREA 5

DATE	09/2003	20810-SK-003	A
DRAWN	R.L. MARRITT		

FILE NAME: osdf/TEMP/20810sk003.dgn

FOPS.DGN 5/30/03

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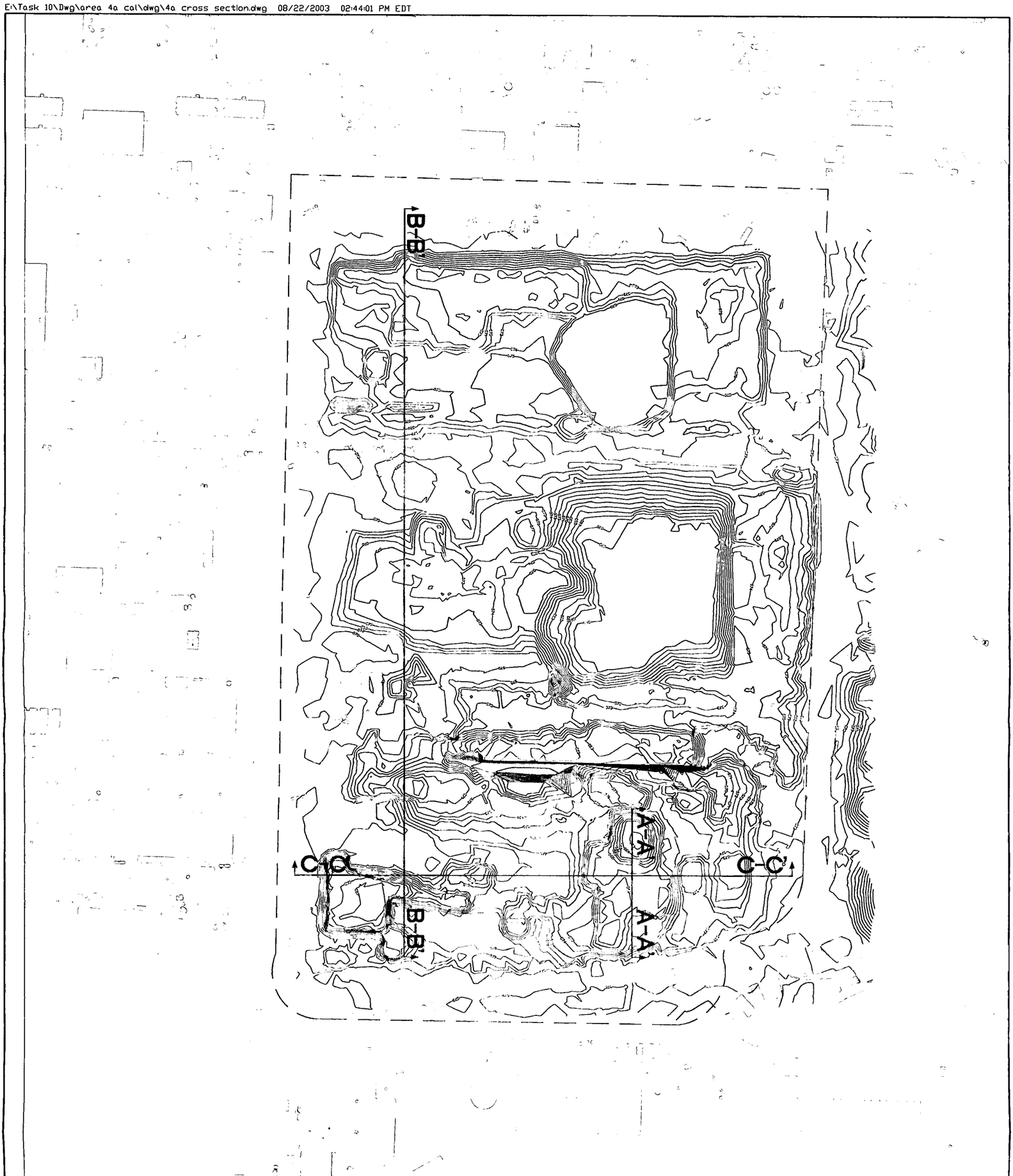

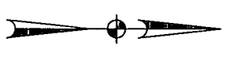

1 OF 3	4A TOPOGRAPHIC SURFACE 07-08-03			8-20-2003		M.C.K.	REVISIONS:

FLUOR FERNALD, INC.
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
EXCAVATION 3A/4A

TECUMSEH SURVEYING, INC.
4948 CINCINNATI-BROOKVILLE ROAD
SHANDON, OHIO 45013
TELEPHONE: 513 738-2134
FAX: 513 738-2756

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E:\Task 10\Dwg\area 3a\dwg\3a cross section.dwg 08/21/2003 01:57:26 PM EDT

CONTOUR INTERVAL = 1'

2 OF 3	3A TOPOGRAPHIC SURFACE 07-08-03			8-20-2003		M.C.K.	REVISIONS:

FLUOR FERNALD, INC.
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
EXCAVATION 3A/4A

TECUMSEH SURVEYING, INC.
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SHANDON, OHIO 45013
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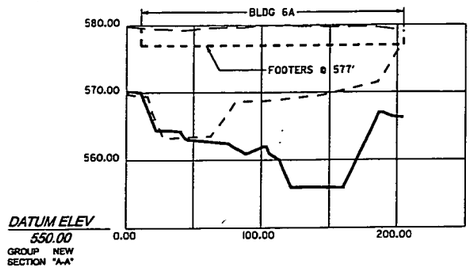
5031

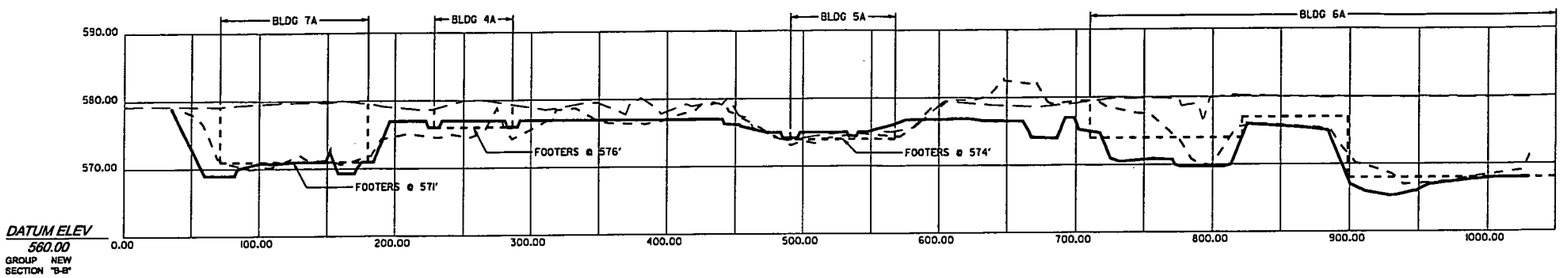
7

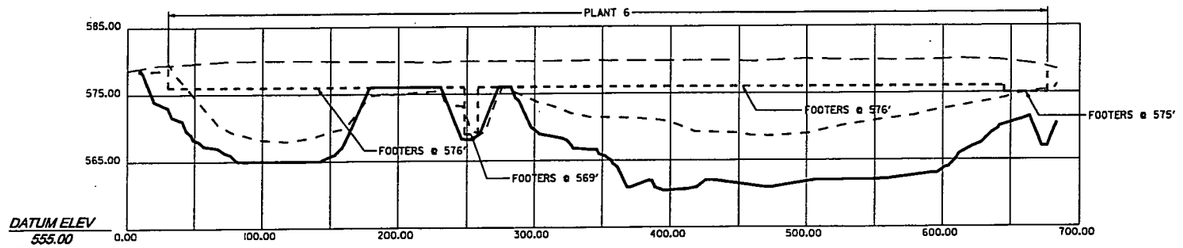
0' 1/2' 1' 2' 3' 4' 5' 6'

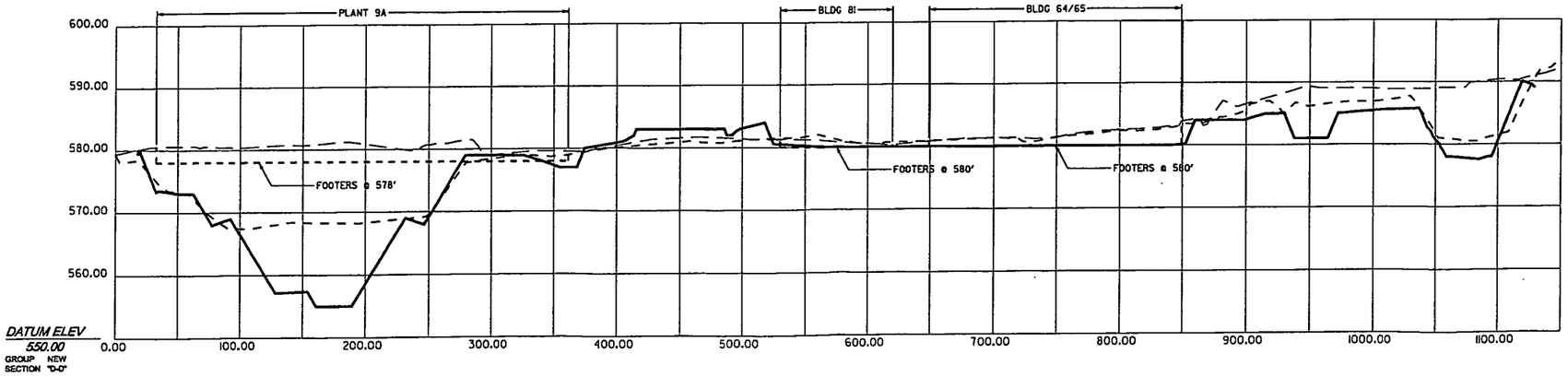
LEGEND

- ORIGINAL LIDAR GRADE
- JUNE 8, 2003 LIDAR GRADE
- FINAL GRADE
- LIMIT OF FOUNDATION DEPTHS









0 to 20 50 75 100 150 200 250

SCALE IN FEET

PRELIMINARY
INFORMATION ONLY
CADD SERVICES

8

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.

FCP4.DGN 5/30/03

NOTE:
FLUOR FERNALD CADD DRAWING, DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING
YES / NO
SYSTEMS, STRUCTURES OR COMPONENTS DEPICTED ON THIS DRAWING ARE UNDER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.
COGNIZANT ENGINEER DATE

APPROVALS			
			SAFETY ENG.
CIVIL & STR.			MAINTENANCE
ELECTRICAL			FIRE PROTECT.
ENGINEER			WASTE MANAGE
INSTRUMENT			SECURITY
MECHANICAL			PROJECTS
CHECKED			
APPROVED			

Fernald Closure Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

3A & 4A TOPOGRAPHIC SURFACE 07-08-03
CROSS SECTIONS

PROJECT		
DATE	8/27/2003	SHEET 3 OF 3
DRAWN	K.L. RABBITT	A

FILE NAME: /osdf/TEMP/3a4atopo.dgn