

Harding Lawson Associates

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Transmittal/Memorandum

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To: Sparton Technology, Inc.
9262 Coors Road, Northwest
Albuquerque, New Mexico 87114
Attn: Mr. Richard Mico

OCT 06 1983

From: Thomas J. Stang *TJS*
Date: September 28, 1983
Subject:
Job No.: 6310,006.12

EID: WATER
POLLUTION CONTROL

Remarks: We have recently completed our closure plan for the surface impoundments at your Coors Road Facility. The final report is enclosed. If you have any questions, please call me at (713) 789-8050.

TJS:dhw

cc: Mr. Blair Thompson

Engineers
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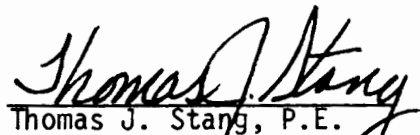
A Report Prepared For:


Sparton Southwest, Inc.
2400 East Ganson Street
Jackson, Michigan 49202

SURFACE IMPOUNDMENT CLOSURE PLAN
SPARTON SOUTHWEST, INC.
9261 COORS ROAD, NORTHWEST
ALBUQUERQUE, NEW MEXICO 87114

HLA Job No. 6310,006.12

Prepared By:


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September 16, 1983

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I. INTRODUCTION

Sparton Southwest, Inc., has interim status with the U.S.EPA and State of New Mexico for the storage of hazardous waste and the operation of two surface impoundments (see Plate 1). The company desires to modify its hazardous waste management facility by closing both surface impoundments and replacing them with an above-ground tank. The following closure plans and tank facility design have been prepared satisfying the requirements of both the New Mexico Hazardous Waste Management Regulations (January 1983) and 40 CFR 265.

II. SURFACE IMPOUNDMENT CLOSURE

A. Existing Conditions

Sparton Southwest, Inc., currently utilizes two surface impoundments in which waste water from plating operations is stored prior to disposal. The impoundments, each approximately 550 sq. ft. in area and six feet deep are located on the northeast side of the manufacturing area and approximately 35 feet from the building (see Plate 1).

The impoundments were excavated to approximately six feet below natural ground elevation. Reinforced concrete or cinder block walls were constructed around the perimeter of the excavation. A 30-mil two-ply hypalon, one-ply polyester scrim liner rests on a natural sand bottom and is supported by sloped sand backfill and the concrete sidewalls.

B. Proposed Operation

An above-ground tank approximately 5,000 gallons in capacity will replace the existing impoundments. The tank will serve the same purpose as the two surface impoundments. There will be no discharge from the tank other than for transfer to an authorized hazardous waste hauler for transport to a permitted disposal facility.

C. Proposed Surface Impoundment Closure

Closure of the two impoundments will follow the interim status closure requirements outlined in Section 206.C.6.f of the New Mexico Hazardous Waste Management Regulations (January, 1983). Closure will also be in accordance with 40 CFR 265.

The impoundments will be removed from service in a three-phased approach so as not to disrupt waste water management at the manufacturing operation. In the first phase, the first impoundment will be closed out. During the second phase, the above-ground tank will be constructed and put into service. The second impoundment will be closed during the third phase. Closure of both impoundments will be accomplished as outlined below.

- All remaining liquid in the impoundment will be removed and disposed at a permitted hazardous waste disposal facility.
- The synthetic liners, and side walls will be removed and disposed at a permitted hazardous waste disposal facility.
- Any contaminated soil will also be removed and sent to a permitted disposal facility. At this time, the quantity of contaminated soil is not known. During actual closure, a field engineer, experienced in site closure and remedial action, will be on-site to coordinate the closure activities. One of his main functions will be to evaluate the subsurface conditions and determine the amount of soil to be removed for disposal. The determination of contaminated soil will be made by field tests including testing for soil pH (pH 6.0-8.5 acceptable), soil discoloration (visual), and the presence of organic contaminants (odor threshold).

*Draft
1/10/84
T.H.*

*Any remaining liquid
to be removed and
disposed at a permitted
hazardous waste disposal
facility.*

After excavation and disposal of any contaminated soil, the pits will be backfilled with clean soil and brought to existing ground elevation. The site will be graded with a gentle slope away from the manufacturing area. An area of approximately 6000 square feet (60' x 100') will be covered with 4-inches of asphalt (see Plate 3). This asphalt service area will be slightly sloped away from the manufacturing area in order to divert water away from the closed out impoundments. The asphalt will be laid against, and will surround the concrete foundation of the proposed storage tank.

D. Additional Closure Activity

A concrete sump located near the surface impoundments was used in the past to manage various waste solvents. The sump, approximately five feet on a side, two feet deep and four inches thick was constructed flush with the ground surface. The sump was removed from service with all residual waste drummed and sent to an authorized disposal facility. The actual concrete structure was left in place and filled with clean fill-dirt.

During closure of the two surface impoundments the concrete sump will also be removed. All concrete and any contaminated soil found around the sump area will be sent to a permitted disposal facility. The determination of contaminated soil will be made as outlined in Section II-C. The excavation will be backfilled and covered with asphalt being located under the proposed asphalt service area.

III. PROPOSED TANK STORAGE AREA

A. Facility Purpose

An above-ground tank is proposed to be constructed and operated as a storage facility, replacing the two closed-out storage impoundments. The tank will be diked in order to contain spills.

B. Tank Construction

A single, open top tank of 5,000-gallon capacity with approximate dimensions of 15'6"x" x 15'6" x 4'9" will be purchased from Modutank, Inc. The tank will be lined with a 30 mil reinforced hypalon liner.

C. Tank Foundation

The tank will be centered on a square slab of concrete 24 feet on a side, and 8 inches thick. The slab will be reinforced with 6"x6"-W6xW6 wire fabric. To facilitate spill and rain water removal, the concrete will be slightly sloped to one side (see Plate 4).

D. Diking

A continuous, reinforced, cast-in-place concrete dike will be constructed around the tank slab. The dike will be 2'6" high and 8" thick and will be tied to the slab by #4 rebar. The dike is designed to hold the entire contents of the tank in case of tank failure (see Plate 4).

E. Loading Pad

In order to protect the ground surface from potential spills during vacuum truck loading operations, a concrete truckloading pad will be constructed at the site. This pad will be the same dimensions as the tank foundation (24' x 24' x 8") and will be reinforced with 6" x 6"-W6 x W6 wire fabric. The loading pad will be placed contiguous to the tank foundation and separated by an expansion joint (see Plate 4). In order to contain spills, the pad will be sloped toward the tank. Concrete curbs 4" high will be constructed on the sides of the pad.

A 3" PVC pipe and valve will be located in line with the center line of the unloading pad at the bottom of the dike. The pipe will penetrate the dike with the valve on the inside of the diked area. The valve will be normally closed; however, during loading operations, it will be opened in order to channel any spill into the diked area. After loading, the valve will be closed (see Plates 4 and 5).

F. Spill and Storm Water Removal

A second 3" PVC pipe and valve placed through the bottom of the dike on the low side of the tank pad will be used to remove any storm water or spills accumulated inside the diked area (see Plates 4 and 5). The valve will be normally closed, but will be opened to drain any uncontaminated storm water.

G. Tank Filling

The tank will be filled by an overhead PVC line. The discharge from this pipe will be on an intermittent basis as is the current operation. A minimum of 2 feet of free board will be kept in the tank at all times. To prevent over filling, the tank will be equipped with an overflow alarm. The alarm will be audible to personnel working in the plating room, where the discharge originates.

H. Facility Inspection

The storage area will be inspected at the beginning of each shift. The information gathered during this visual inspection will be recorded, and dated and retained as part of the operating log. The inspection will monitor the integrity of the tank, containment system and loading area as well as any operational parameters. Specific information will include:

- Tank waste water level
- Presence of tank leaks
- Dike integrity (any breach in dike)
- Storm water within diked area
- Storage and loading pad integrity (cracks)
- Presence of spills
- Valve position (should be closed)

IV. SAFETY AND EMERGENCY RESPONSE DURING CLOSURE

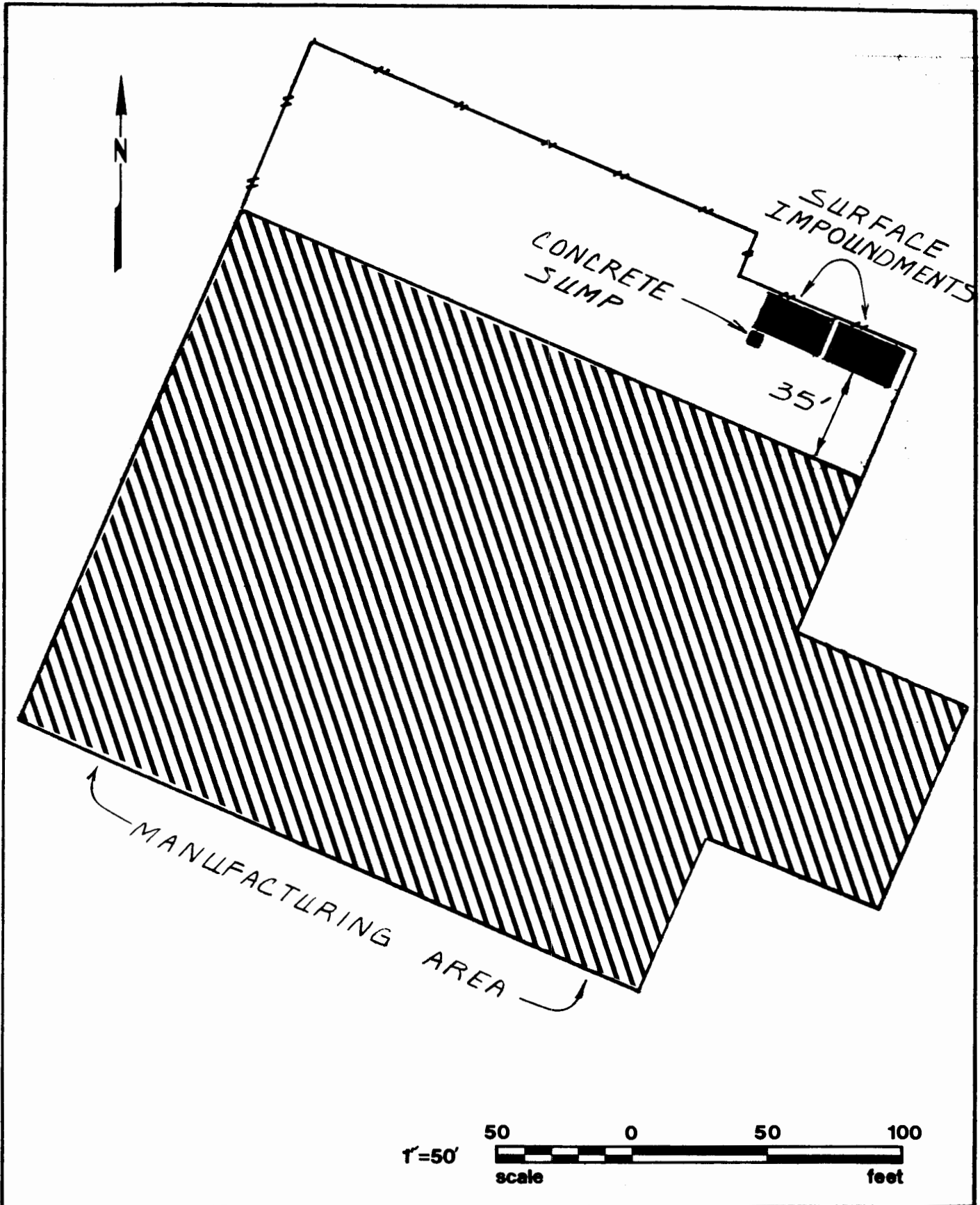
To insure the safety of everyone involved in the impoundment closure, the following safety precautions will be enforced during the construction phase:

- An area, designated as the construction area, will be cordoned off to prevent unauthorized access. Hard hats will be worn inside this area at all times.
- Anyone involved in the pit excavation will be required to wear gloves and goggles to protect from potential acid/base burns. An organic vapor/acid mist half-face respirator will also be required, to limit toxic fume inhalation.
- No fewer than two people will be allowed to be working on closure activities at all times.

Prior to any closure activity, the local hospital will be notified about the nature of the closure. The hospital will also be informed of any potential emergencies that may arise due to closure activities.

V. PLATES

- Plate 1 Existing Surface Impoundment and Sump Location
- Plate 2 Proposed Tank Storage and Loading Area
- Plate 3 Asphalt Service Area
- Plate 4 Tank Storage Area Plan
- Plate 5 Overall Facility View



Harding Lawson Associates

**EXISTING SURFACE IMPOUNDMENT
AND CEMENT SUMP LOCATION**
Sparton Southwest Coors Road Plant
Albuquerque, New Mexico

PLATE

1

DRAWN *[Signature]*

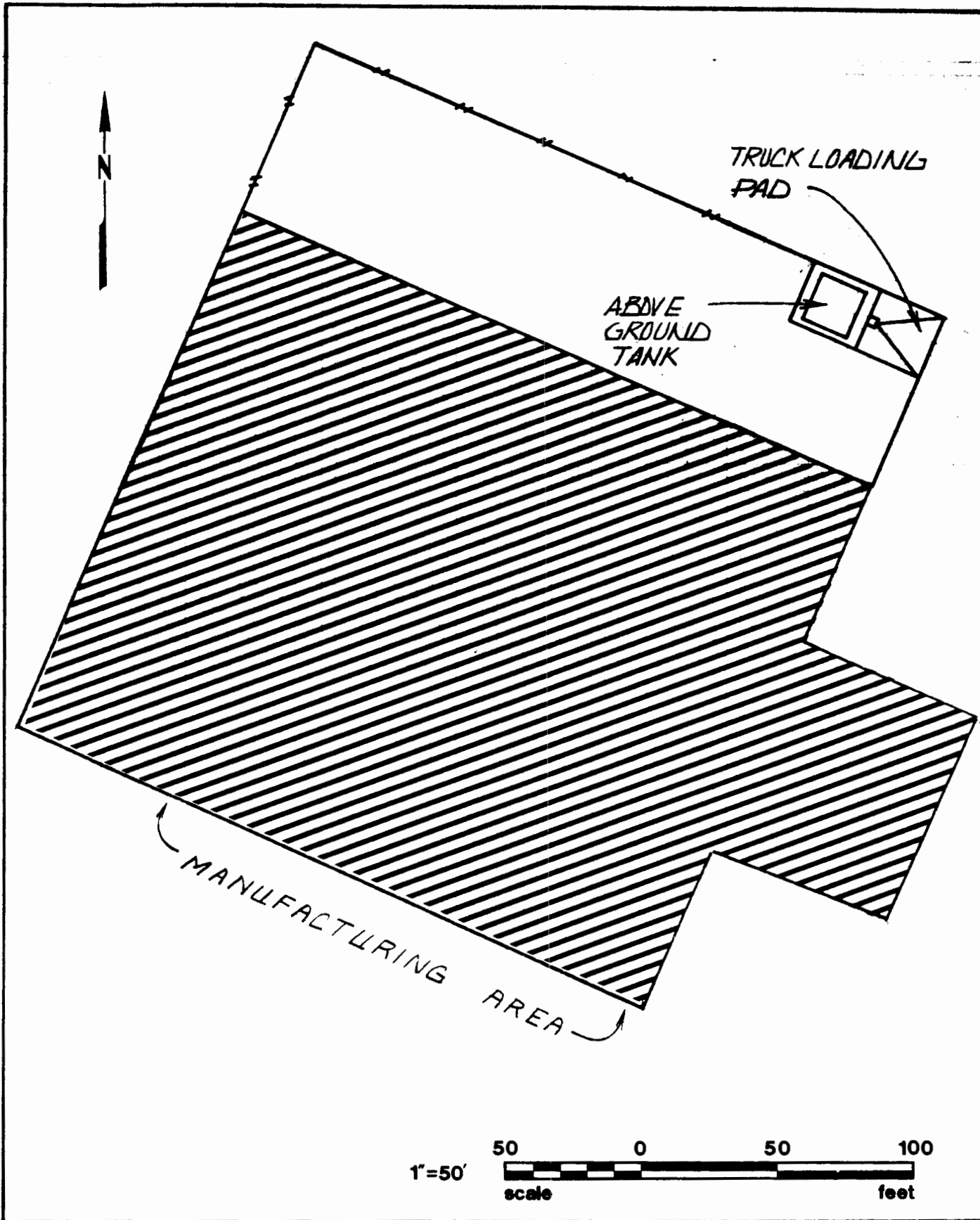
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DATE
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PROPOSED TANK STORAGE

PLATE

Sparton Southwest Coors Road Plant
Albuquerque, New Mexico

2

DRAWN *JS*

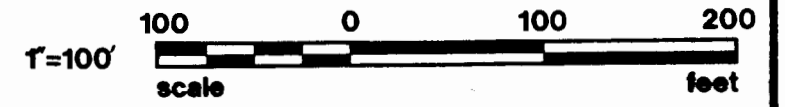
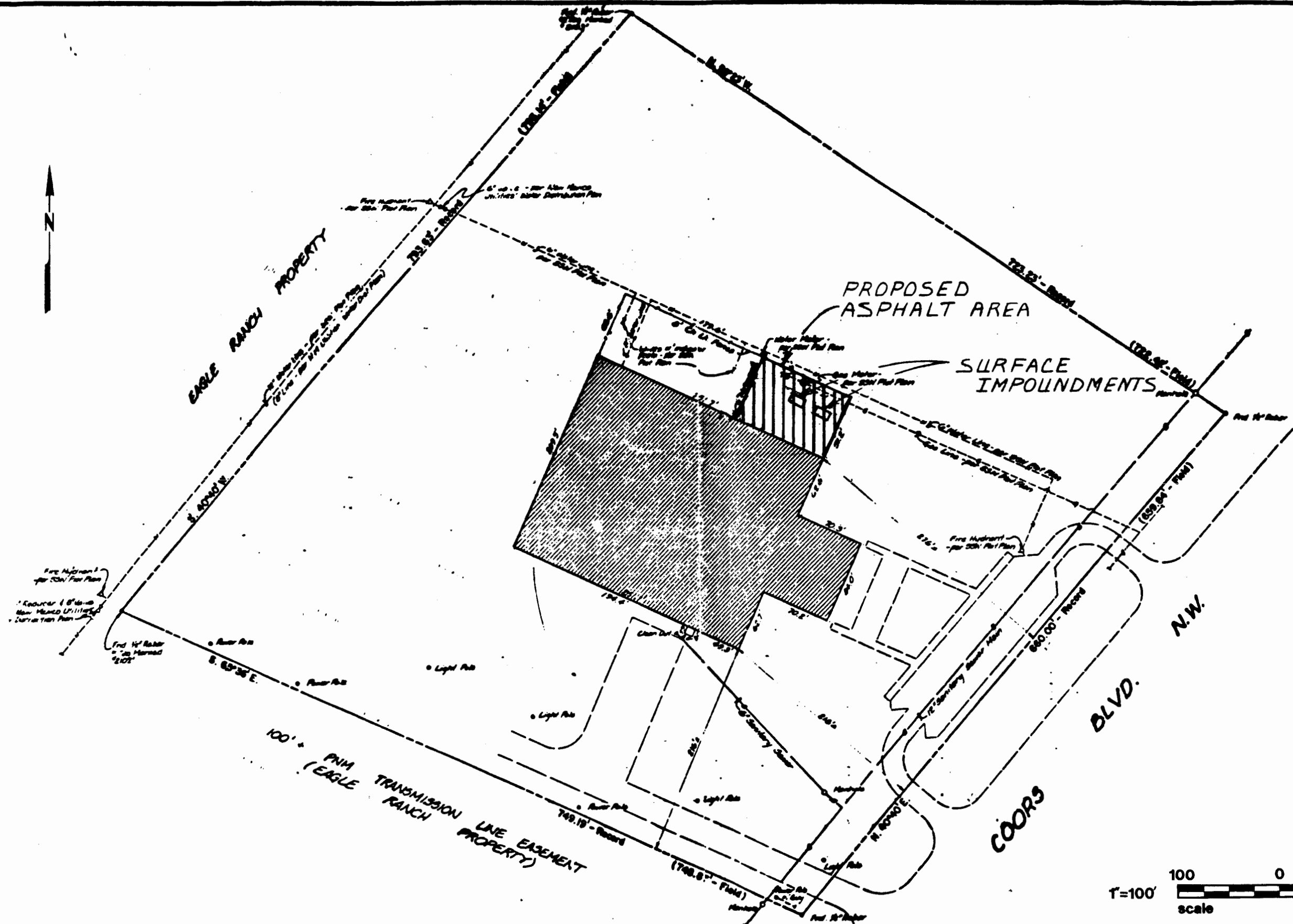
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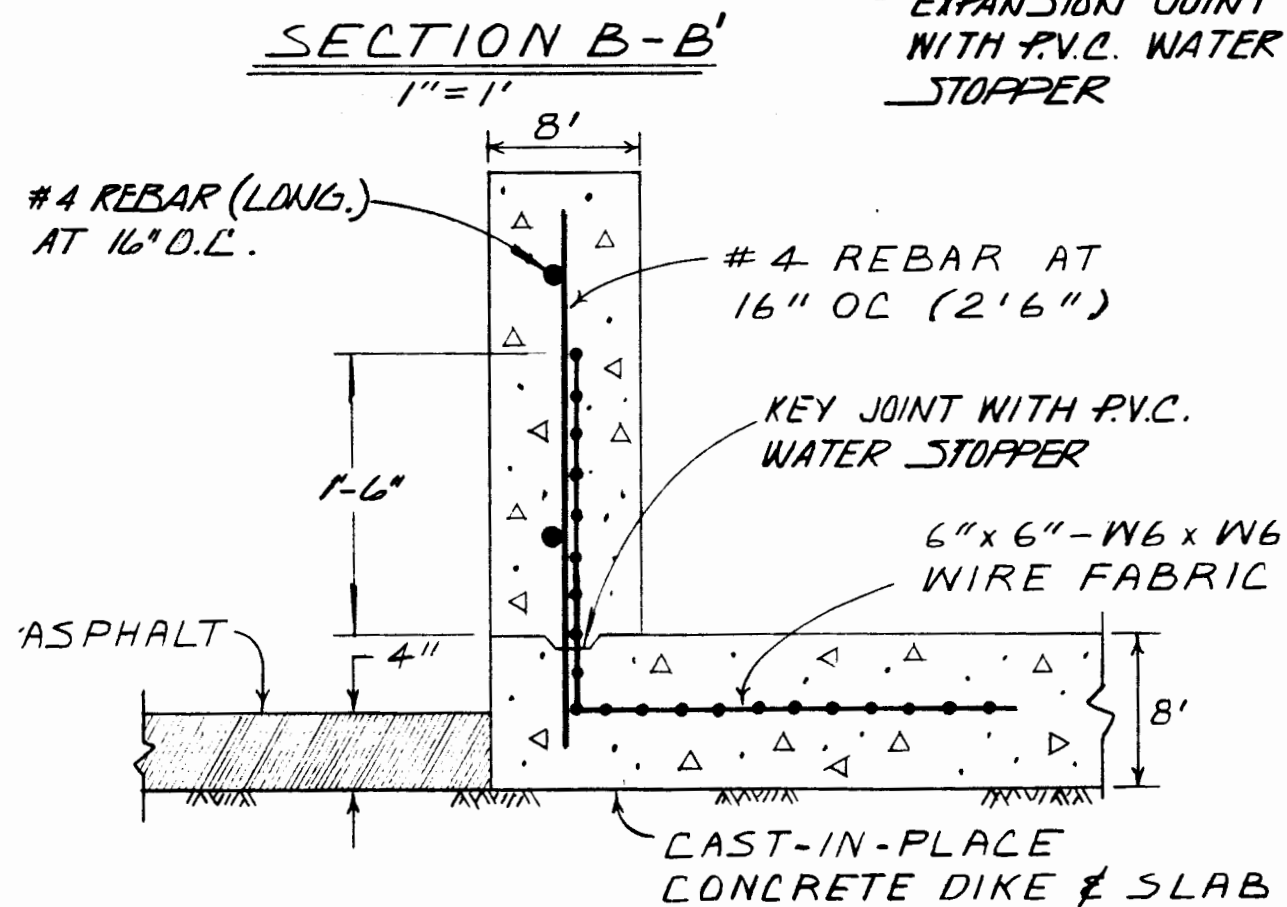
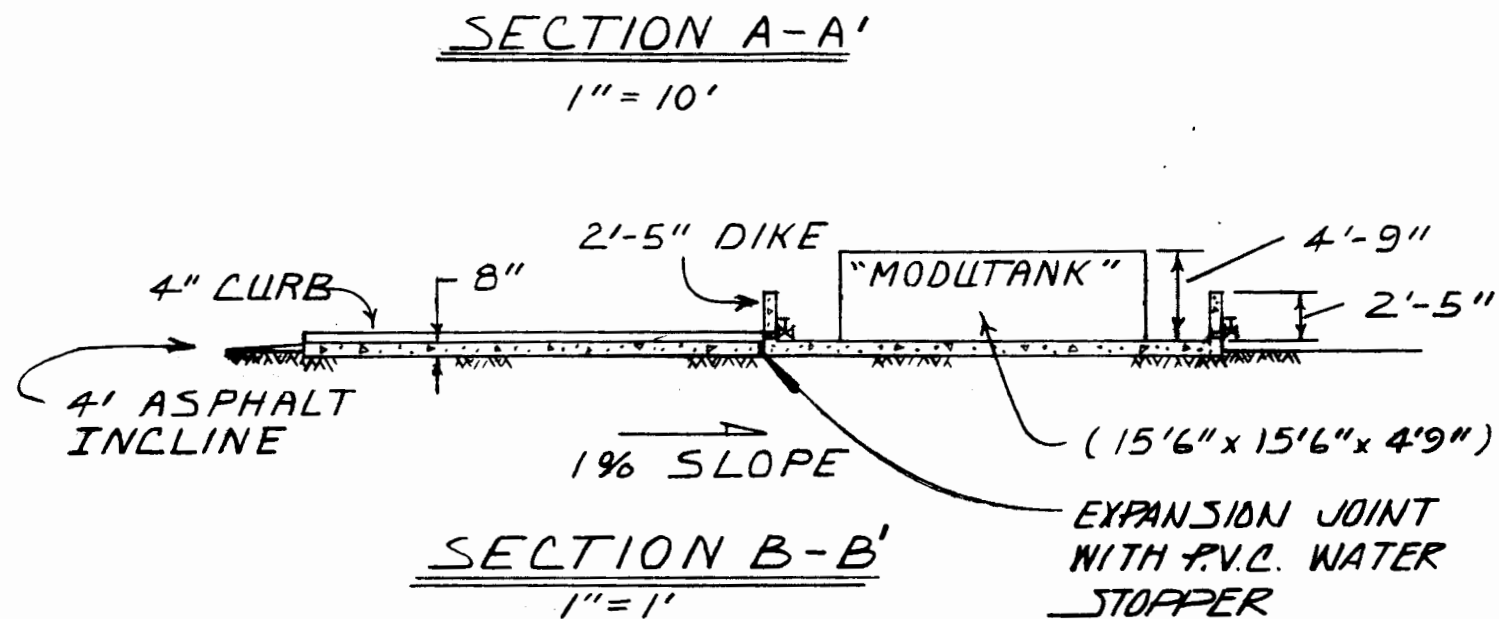
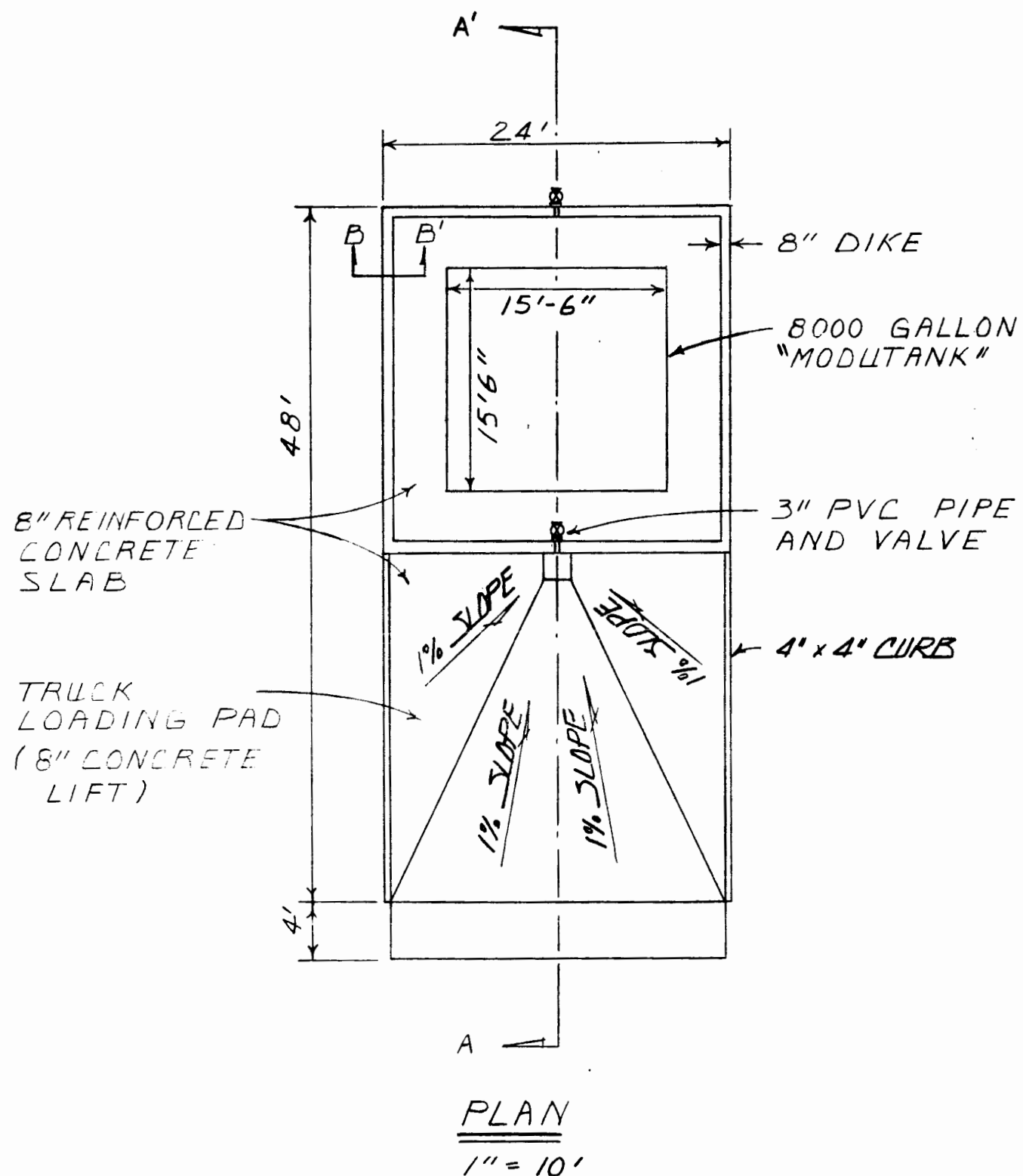


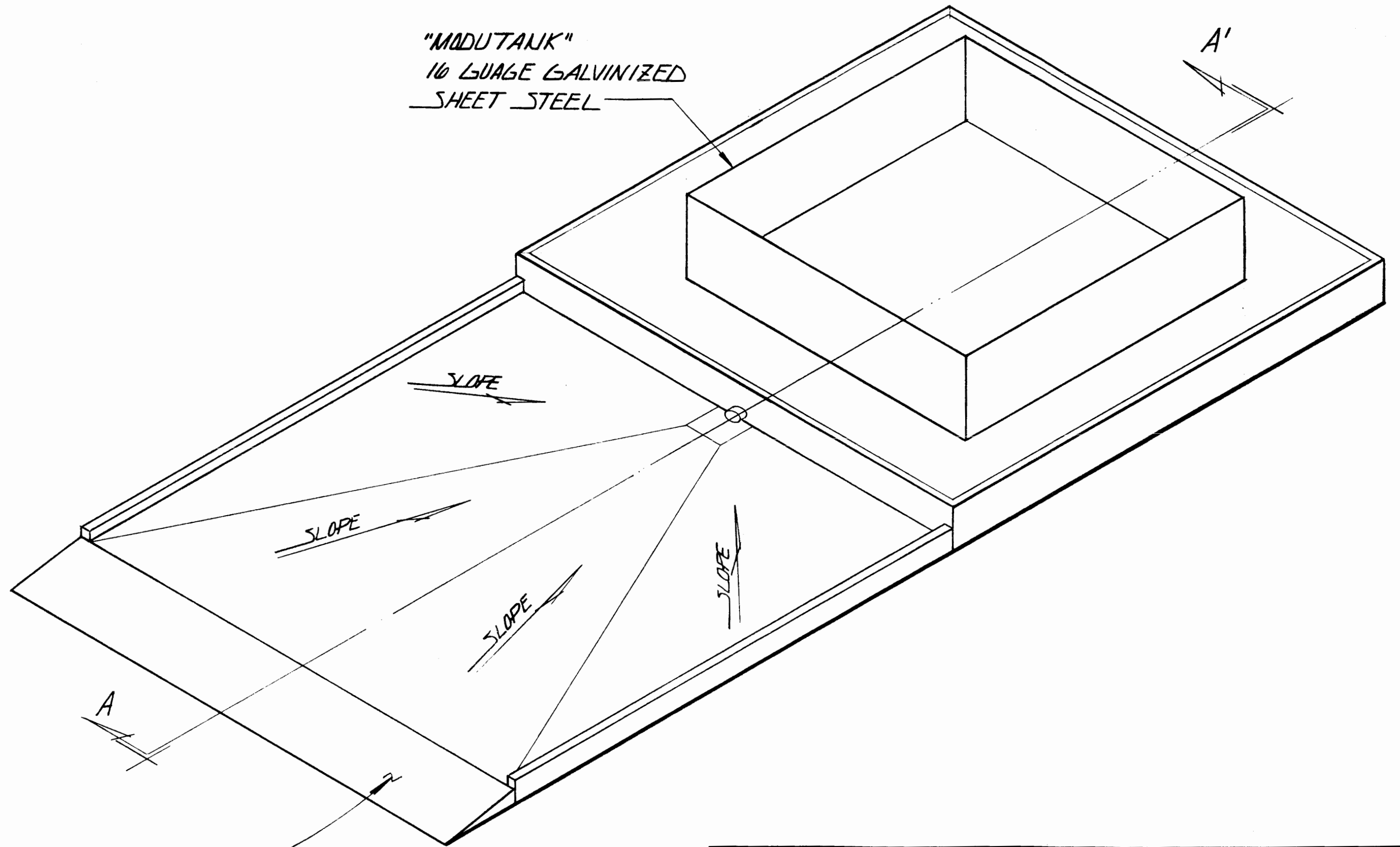
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 & Geophysicists

ASPHALT SERVICE AREA
 Sparto Southwest Coors Road Plant
 Albuquerque, New Mexico

PLATE
3


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"MODUTANK"
 10 GAUGE GALVANIZED
 SHEET STEEL

ASPHALT
 INCLINE

 Harding Lawson Associates Engineers, Geologists & Geophysicists	OVERALL FACILITY VIEW		PLATE		
	Sparton Southwest Coors Road Plant Albuquerque, New Mexico		5		
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