TITLE I REPORT
INITIAL SITE IMPROVEMENTS FY '62
FOR
PROJECT M SITE

REPORT TO PROJECT M - NO. ABA-30
STANFORD UNIVERSITY SUBCONTRACT S-128
UNDER AEC CONTRACT AT-(04-3)-363

Submitted by

Approved by

AETRON-BLUME-ATKINSON
A Joint Venture
ARCHITECT-ENGINEER-MANAGER
1455 California Avenue
Palo Alto, California

November 25, 1961
INTRODUCTION

The work covered by this contract will be that portion of the site improvement work which is required for the initial FY '62 construction.

The following major items of work are included:

1. Earthwork for the Test Laboratory area, the Administration-Engineering area, and the temporary construction yard.

2. The entrance road from Sand Hill Road and the main interior road as far as the Test Laboratory yard area.

3. The parking lots adjacent to the above areas.

4. Storm drainage for the above areas.

5. Property fencing to enclose the building complex area, and security fencing around the temporary construction yard.

Under this contract most of the road paving will be a seal coat to serve during the construction period. The portions of final asphaltic concrete paving not in this contract will be placed under later contracts. Test Laboratory yard paving is included in the Test Laboratory contract.

OUTLINE SPECIFICATIONS

A. General

Site work shall consist of earthwork and grading, road base, paving, storm drainage, fencing and required slope protection and dust control.
B. **Earthwork and Grading**

1. **Stripping:** The top few inches of all top soil shall be stripped from areas to be graded. Suitable materials shall be used on cut and fill slopes for erosion control planting.

2. **Compaction:** Compaction requirements shall be specified for all fills so the fills will have adequate strengths and will be free from detrimental settlements.

C. **Storm Drainage**

1. **General:** Wherever feasible storm drainage will be routed in open watercourses to natural drainage ways.

2. **Materials:** Pipe and other materials shall conform to California Division of Highways Standard Specifications.

3. **Construction Methods:** Construction methods shall conform to California Division of Highways Standard Specifications.

4. **Erosion Control:** Runoff diversion waterways and essential planting shall be installed to protect all exposed cut and fill slope faces.

D. **Pavement**

1. **Base:** Conformance with California Division of Highways Standard Specifications shall be used for permanent roads, parking, and yard areas, and heavily traveled areas in the temporary construction operations area.

2. **Paving:** Paving work shall conform to California Division of Highways Standard Specifications. A portion of the permanent access road shall be surfaced with asphalt concrete; all other pavement shall be concrete. Temporary pavement shall be temporary seal coat.
E. Fencing

1. **Security Fence**: The temporary construction yard shall be enclosed with a salvageable chain-link security fence.

2. **Property Fence**: Portions of the project site shall be enclosed by a posted property fence suitable to bar grazing animals.

F. Roads

1. **Main Site Roads**: Effort shall be made to limit grades to 6 percent, and inside radii of curves shall be suitably widened. Traffic lanes shall be 12-feet wide on tangent, and shoulders may or may not be lightly paved, depending on drainage needs and according to likelihood of a need for temporary parking.

2. **Secondary Roads**: Traffic lanes shall be 12-feet wide. Shoulders shall be 3-feet wide.

Note: With the exception of driveways to yard and parking areas, all roadwork under this preliminary proposal is considered in the category as main site roads (see site plan).
## SCHEDULE

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Submission of Title I</td>
<td>November 20, 1961</td>
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<tr>
<td>Submission of Title II design</td>
<td>December 22, 1961</td>
</tr>
<tr>
<td>Start of construction</td>
<td>February 1, 1962</td>
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<tr>
<td>Completion of contract (3 months' contract)</td>
<td>May, 1962</td>
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COST ESTIMATE

A. Grading and Paving

- Excavation 60,000 cu. yds @ $0.70 = $42,000.00
- Cement treated base 155,000 sq. ft. @ $0.14 = 21,700.00
- Untreated agg. base 284,500 sq. ft. @ $0.11 = 31,300.00
- Asphalt concrete 70,000 sq. ft. @ $0.11 = 7,700.00
- Seal coat placement treatment 60,000 sq. ft. @ $0.03 = 1,800.00
- Erosion control 160,000 sq. ft. @ $0.025 = 4,000.00

Subtotal = $122,000.00

B. Storm Drainage

- Open ditch 5,000 lin. ft. @ $0.50 = 2,500.00
- 12" pipe 500 lin. ft. @ $4.50 = 2,200.00
- 15" pipe 200 lin. ft. @ $5.50 = 1,100.00
- 18" pipe 200 lin. ft. @ $7.00 = 1,400.00
- 21" pipe 100 lin. ft. @ $8.00 = 800.00
- 24" pipe 1000 lin. ft. @ $9.00 = 9,000.00
- Inlet structures 21 ea. @ $200.00 = 4,200.00
- Manholes 2 ea. @ $100.00 = 200.00

Subtotal = $22,000.00

C. Fencing

- Property 10,000 lin. ft. @ $0.75 = 7,500.00
- Security fence 1,200 lin. ft. @ $2.50 = 3,000.00
- Gates = 500.00

Subtotal = $11,000.00

D. Miscellaneous

- Signs, bumpers, traffic striping, etc. - Lump Sum = $10,000.00

E. Sand Hill Road - Traffic Channelization - Lump Sum = $15,000.00

TOTAL CONSTRUCTION = $180,000.00

10% Contingency = 18,000.00
Sub total = $198,000.00

Engineering and Inspection

A-E-M = 20,000.00
Stanford = 2,000.00

TOTAL - INITIAL SITE IMPROVEMENTS = $220,000.00