



GENERAL NOTES

Contractor shall verify all dimensions at the site.

Contractor to protect all mature trees, curbs, sidewalks, and lawns from damage during the construction phase. Any damage to existing structures shall be repaired at the Contractor's expense.

EARTHWORK

All soil to be used in the soil cut-off wall shall have a plasticity index of twenty-five (25) or higher and shall consist of clay as approved by the Engineer. All soil in the clay cut-off wall shall be placed in 5 inch lifts (loose measurement) and compacted to 95% of Standard Proctor at or above (-0% to +5%) optimum moisture content as determined by ASTM D698.

All soil for use under concrete aprons shall have a plasticity index of between twelve (12) and twenty-five (25) placed in eight inch lifts and shall be compacted to a minimum of 95% of Standard Proctor Density, at a plus or minus 2 percent of its optimum moisture content as determined by ASTM D698.

Material obtained on the site from cut areas may be used for fill purposes as long as it can be uniformly compacted to the required density, and meets above criteria.

Test reports of the soil compaction shall be submitted to the Engineer for approval before beginning excavation or placement of concrete.

FILTER FABRIC

1/2" Mirafi 140N filter fabric, or equivalent permeability, shall be installed between the crushed stone blanket drain and the surrounding soils.

Non-corrosive grates shall be placed on the backsides of all weep holes.

Gravel blanket drains shall consist of clean, well-graded, durable, washed, No. 20 to C-33, size 467 (1 1/2").

CONCRETE

All concrete for structures shall be of hardpack aggregate with a minimum compressive strength of 3,000 psi at 28 days.

All concrete shall have a minimum of 3 1/2 sacks of cement per cubic yard and a maximum slump of five inches. The water/cement ratio per cubic yard sack shall not be exceeded to arrive at an acceptable strength.

All concrete shall be designed, mixed, transported, and placed in accordance with the latest specifications of the American Concrete Institute.

Maximum size of coarse aggregate shall be 1 1/2".

Sleeves or other penetrations shall be allowed through structural members only with prior approval of Engineer.

REINFORCING STEEL

All ties, stirrups and #3 bars shall conform to ASTM Specifications A615, Grade 40. All other reinforcing steel for structures shall conform to ASTM A615, Grade 60. Foreign steel is acceptable if mill certificates of compliance with ASTM are provided.

All reinforcement shall be designed and detailed in accordance with the latest edition of the ACI "Manual of Standard Practice for Detailing Concrete Structures" (ACI 315).

Supply a turnout at discontinuous end of bars in slabs. The length of the turnout shall be equal to standard ACI 90 degree hook.

All hooks shall be ACI Standard 90 degree hooks unless detailed otherwise.

All reinforcing bar bends shall be made cold.

Reinforcement shall be supported on chairs providing the following minimum concrete covers:

Cast against and permanently exposed to earth	3 in.
Formed, exposed to earth or weather	3 in.

Stirrups of the size and spacing scheduled shall provide the cover listed above. Hooks on stirrups shall be 90 degree and shall have 4" minimum extensions.

Where laps are required in reinforcing bars shall be spliced a length equal to an 80% lap splice length in tension for the size bar used per the chart below.

Bar Size	Splice Length
#3	1'-0"
#4	1'-0"
#5	2'-0"
#6	3'-0"

Contractor shall provide for an allowance of 1/4 ton of reinforcing bars to be furnished, fabricated and placed during progress of work as may be directed by the structural engineer, in addition to all steel indicated on the drawings.

FORMWORK

Formwork shall comply with ACI 347, "Recommended Practice For Concrete Formwork".

CONSTRUCTION SEQUENCE

SELECT FILL SHALL be placed in the vicinity of exposed roots to provide protection of the roots of mature trees in the area.

It is recommended that the erosion and scour hole downstream of the dam be cleared and backfilled before any work is done on the dam. After clean-out of trash and debris, the backfill material should be placed against the downstream face of the dam to the level of the crest and sloped no greater than 1:1 to the level of the apron or finish grade.

For protection of the existing dam from collapse, it is recommended that the concrete apron be constructed in three phases parallel with the centerline of the creek, provided, that the backfill material is placed against the face of the dam as described above.

DATE: MAY 21 1991
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 REVISED:

GREENHAVEN VILLAGE APARTMENTS
 ADDISON TEXAS
EROSION CONTROL and DAM REPAIR

FOR REVIEW & PERMITTING

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