

A CIVIC IMPROVEMENT STUDY
for
Jesup, Georgia

Prepared for
City of Jesup, Georgia and Georgia Power Company

by

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A Terminal Problem Presented For
Degree of Bachelor of Landscape Architecture

Department of Landscape Architecture
University of Georgia
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H.B. Owens Resource Center
School of Environmental Design
Caldwell Hall
University of Georgia

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PROBLEM STATEMENT

LAR 355 Terminal Problem Spring Quarter

A CIVIC IMPROVEMENT STUDY
FOR JESUP, GEORGIA

After making an initial survey of the commercial, residential and industrial districts of Jesup, Georgia, it was evident that numerous areas need improvement. The areas needing immediate attention are commercial Cherry Street and the Jesup Junior High School.

Cherry Street is where the principal retail industry is located and it is perhaps the most obvious commercial area needing beautification and civic improvement. This may be achieved by securing cooperation from the various retailers through the Chamber of Commerce.

Jesup Junior High School is the principal junior high school in Jesup and needs immediate attention to continue as an active secondary school. To best describe the condition of this school and its surrounding area, we quote the "Wayne County Press" dated January 21, 1965, describing the condition of the schools in Wayne County. "...many of these old buildings look drab as if they were an echo of the past..." Jesup Junior High School presently represents just such an "echo". The redevelopment of this school could be achieved through cooperation from the P. T. A. and the County School Board.

The Improvement Program of Jesup Junior High School and Cherry Street will include an extensive redevelopment and beautification scheme which will incorporate the following:

Cherry Street

- A. Existing
 - 1. Historical Analysis (Photographic)
 - 2. Site Analysis (Graphic)
- B. Proposed
 - 1. Suggested graphic illustrations proposing reconditioning of building facades
 - 2. Planting treatment
 - 3. Construction details

Jesup Junior High School

- A. Existing
 - 1. Historical sketch
 - 2. Site Analysis (Photographic)
(Graphic)
- B. Proposed
 - 1. Master Plan
 - a. Pedestrian Circulation
 - b. Vehicular Circulation
 - c. Parking (Automobiles, Bicycles)
 - d. Recreation Areas
 - e. Lawn Areas
 - f. Planting Areas (Trees, Shrubs, Vines, Ground Covers, Flowers)
 - 2. Grading and Staking Plan
 - 3. Planting Plan
 - a. Plant List
 - b. Drawings
 - 4. Construction Details
 - a. Walls
 - b. Curbing
 - c. Benches
 - d. Play Equipment
 - e. Road Paving
 - f. Walk Paving
 - g. Planting Details
 - 5. Plan Details (any necessary area to be enlarged)
 - 6. Perspective Sketches
 - a. Parking
 - b. Play Area
 - c. Entrances
 - 7. Specifications for:
 - a. Planting Plan
 - b. Construction Details
 - c. Paving
 - 8. Model

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HISTORICAL ANALYSIS AND STATISTICAL SURVEY

Wayne County, in southeast Georgia, was created from Creek Indian lands in 1803, ranking 28th in order of creation. It was named for General Anthony Wayne, a noted soldier of the Revolution. Jesup, the county seat, was named for General Jesup, who fought Creeks in Georgia in 1836.

Jesup is today, the central city of the labor market area and is located near the center of the county. It is the county's principal trade and manufacturing center. The population of Jesup in 1960 was 7,304 which reflects a gain of 58.6 percent from 1950. Today, the city of Jesup boasts almost 10,000 people.

The long-term upward trend in the population of Jesup has resulted primarily from a growing economy both in the manufacturing and non-manufacturing segments. Since 1954, Jesup has been a major center for the manufacturing of chemical cellulose at the local plant of Rayonier, Incorporated. Jesup is strategically situated with respect to both rail and highway transportation, being located on the mainline of the Atlantic Coast Line Railroad, and a branch line of the Southern Railway System. Jesup is the intersection point of four U. S. Highway Routes and three state routes. The greatly increased traffic over U. S. 301 in recent years has resulted in a major expansion in trade and services employment in Jesup and vicinity.

The Jesup area has a temperate climate with the winters being usually short and mild. Average monthly temperatures range

from 50.9 in January to 82.1 in July. The average annual precipitation is 51.0 inches. There is a long growing season with the first killing frost usually in the middle of November.

INTRODUCTION

Since the turn of the century, American communities have become increasingly aware of the many problems that affect their environment. Efforts have been made to improve transportation, recreation, economy, education and urban design. Almost always, the success of these efforts are dependent upon the civic pride generated by a few responsible organizations and citizens such as Chamber of Commerce, Parent Teacher Associations, Kiwanis, Elks, and the local garden clubs, to name a few.

The civic organizations of Jesup, Georgia have recognized this need for civic improvement and over the past year, they have been actively organizing the various civic groups with the hope of gaining their support.

The need for civic improvement presented us with a challenge on two fronts: first, it presented to us an opportunity to apply our undergraduate skills to the improvement of the two most obvious areas needing redevelopment; the Cherry Street commercial area, and Jesup Junior High School; second, it gave us the opportunity to work with these civic groups to see their goal progress toward reality.

As we progressed toward the completion of our project, we became increasingly concerned that our design become a reality, but at the same time, we hoped that the citizens of Jesup would not stop at this stage but will strive on seeking new ways to improve their community.

We cannot overemphasize the need for an overall, regional study in urban planning, and we sincerely hope that our small efforts are only the spark that kindles the fire.

GENERAL ANALYSIS - CHERRY STREET

Cherry Street is the principle street in Jesup, Georgia. It is located between West Broad and Macon Streets, and is incorporated in U. S. Highway 301. In the past, it has been the main area for commercial interest.

The majority of the buildings in this area are encrusted with neon signs of every shape, size, dimension, and color. Because of the number and size of these signs, they become eyesores and in many cases, hazardous.

Architectural features of the Cherry Street area have become disorganized and unrelated. Some buildings are constructed of new, clean brick, while others still have utility pipes exposed on their facades.

Power lines running from building to building and across the street only add to the chaos. Of course, with power lines come power poles.

Because of the advancing pace of commercial facilities, the lack of aesthetic value and unity in this area, many businesses have begun to move to outlying shopping centers.

In order for the merchants of Cherry Street to regain their commercial trade, they must unite in an effort to beautify their establishments.

GENERAL ANALYSIS - JESUP JUNIOR HIGH SCHOOL

Jesup Junior High School is the principal junior high school in Jesup Georgia. It serves over four hundred students from all of Wayne County.

The school is situated on a site of approximately 11.4 acres located in a residential area in the southeast section of the city of Jesup.

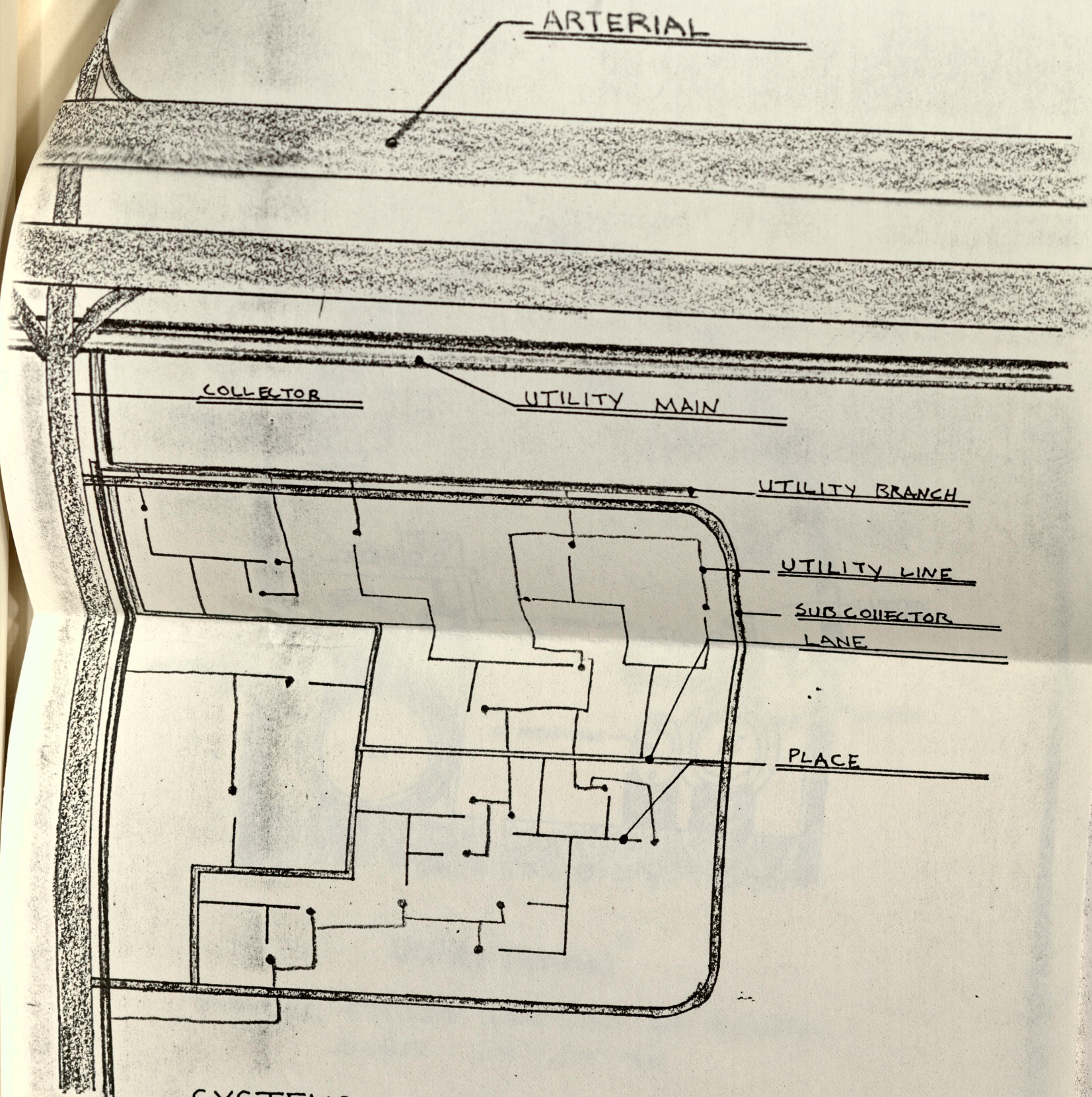
The site of the school is flat and sparsely wooded with Slash Pine and a few native oaks. The soil is principally a sandy clay loam and most of the ground is without grass of any type. The present condition of the soil is poor since the circulation of both pedestrian and vehicular traffic is chaotic. The lack of vegetation and poor circulation are largely responsible for the poor drainage conditions that exist throughout the site.

Parking facilities for service vehicles, buses and automobiles are totally lacking. At the present time, visitors and faculty park in undefined areas next to the main building. Bus circulation, pick up zones, and service areas are also undefined throughout the site. Buses now pick up and deliver the children at random spots throughout the site. Bicycle parking has not been accounted for and this phase of circulation also needs thought and attention. In short, automobile, bicycle, bus service, and pedestrian circulation comprise the items which need adequate organization

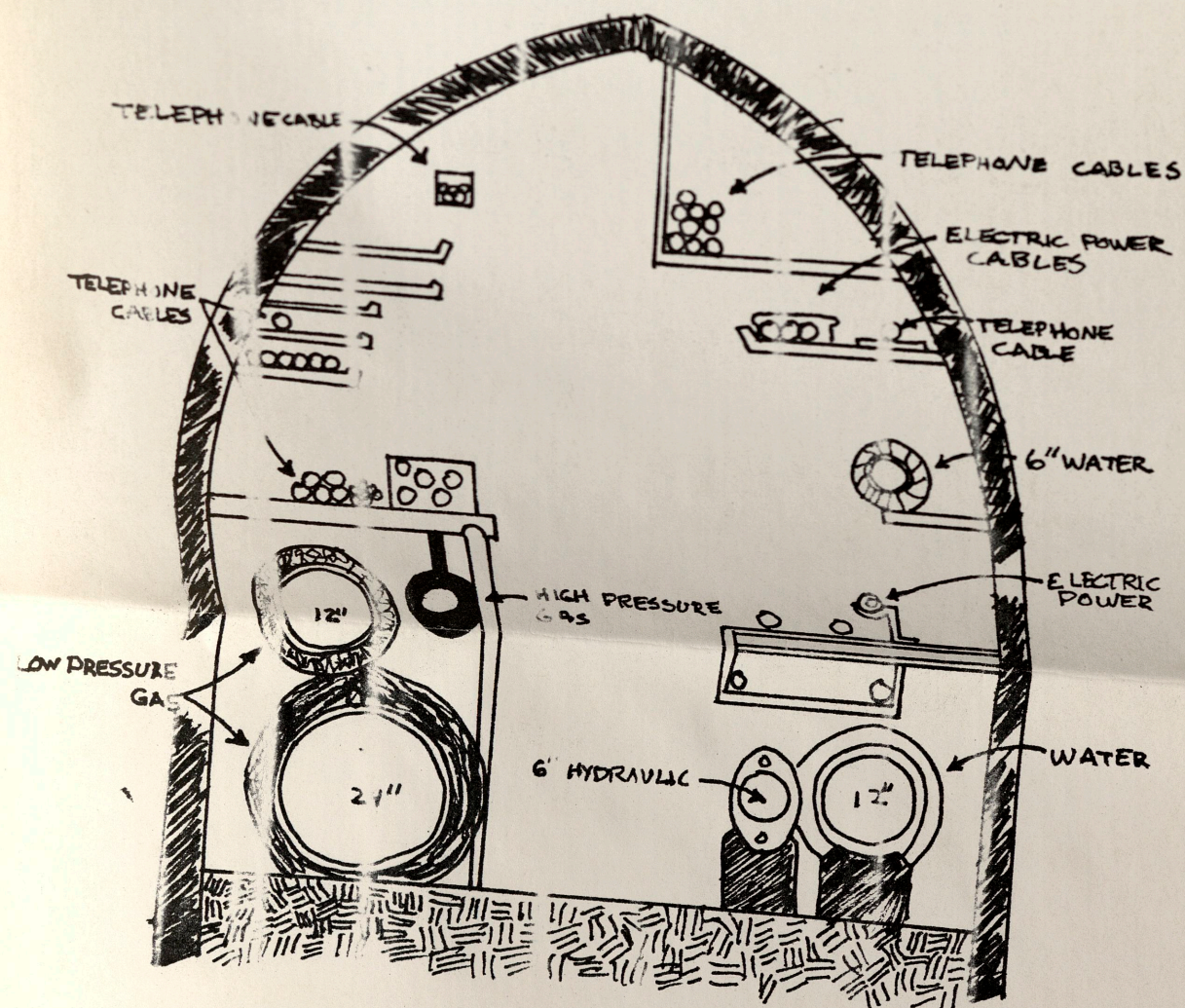
RESIDENTIAL STREET DESIGN CRITERIA.

	PLACE	LANE	SUBCOLLECTOR	COLLECTOR	ARTERIAL
SERVICE	V. LIGHT	LIGHT	LOCAL	LOCAL&THRU	THRU
TRAFFIC	0-75	75-100	200-1000	1000-3000	3000+
PAVEMENT WIDTH					
NO PARKING	16	18	20	28	
PARKING 1 SIDE	18	18	26	36	
PARKING 2 SIDES	26	26	36	40	
R.O.W.	24'-30'	24'-30'	44'--50'	44'-60'	
SIDEWALKS	NONE	NONE	ONE OR BOTH	ONE OR BOTH	
PROVISION TO WIDEN	NO	NO	NO	NO	
SLOPE	.5%-22%	.5%-22%	.5%-10%	.5%-8%	
SIGHT DIST.	75'	125'	250'	350'	
MAX. SPEED	15	20	25	25	

STANDARDS SET BY NAHB
VALUES SHOWN ARE TYPICAL
TOPOGRAPHIC AND CLIMATE
CONDITIONS MAY VARY AND
REQUIRE VARIATIONS



SYSTEMS HIERARCHY



"Utility Tunnel"

TYPICAL CROSS SECTION OF TUNNEL
USED IN LONDON

with particular regard to safety, function, and aesthetics.

At present, outdoor recreational facilities are almost non-existent with the exception of the athletic fields which are used principally for softball and baseball. It appears also, that organized supervision over these areas is almost non-existent and this problem must be solved in order to insure their proper maintenance.

The school has a courtyard which although it is now not being used, could be suited for some type of passive recreation for students as well as faculty.

The architecture of the five principal buildings are not related to each other and although this adds to the chaotic feeling, we feel that this can be solved by the introduction of plant material and other unifying elements.

JUSTIFICATIONS - CHERRY STREET

In view of existing conditions as previously described, it becomes obvious to even the untrained eye that Cherry Street, is totally lacking in aesthetics.

We feel that not only is Cherry Street lacking in aesthetics, the area is in desperate need of a unifying element.

Our object in this problem is to enable this area to once again become inviting.

We feel that on each side of the street, carefully spaced planters with redwood benches create a comfortable sitting area and provide the unifying element. One Crape Myrtle was used in each planter adding light shade down the street.

All signs that were protruding into the mall area were eliminated. Some signs were simplified while others were relocated against the facades of the buildings. Trite objects such as scales, bicycle racks, and thermometers were removed. Repainting of certain buildings, window shutters, and in some cases false facades were suggested. Suggestions were also made for removal of utility pipes exposed on building facades.

The suggestion for the power lines, poles, and transformers to be relocated in the alleys is a critical part of the design schematic. We hope for full cooperation from the Georgia Power Company, if this is to be realized.

JUSTIFICATIONS - JESUP JUNIOR HIGH SCHOOL

After careful consideration of the existing site and conditions, the landscape architect must formulate his design schematic. This process is based on the art of organizing outdoor spaces for optimum safety, use, and beauty. The schematic must be based upon the total, rather than the any singular detail of the area. .

The proposed design of this junior high school was based on careful consideration of the existing conditions and critically observing the chaos as school let out.

The circulation proposal will organize the bus loading areas, pedestrian walks, parking and service areas to their proper location. Bus loading areas were separated to two distinct locations on either side of the site. This is necessary because eighteen buses serve the school twice daily. They were placed in their respective locations because each area provided easy access to the city streets and to the school. This is particularly necessary in inclement weather. Faculty parking was located relatively close to the main building for the same reason and we were also influenced to choose this site because it totally lacked vegetation. Visitor parking was proposed where it is needed most, near the athletic and recreation facilities.

The service area is easily accessible to the lunch room and to the street immediately adjoining the lunch room facilities.

The pedestrian circulation was planned to provide functional access walks as well as defining areas and improving the visual organization.

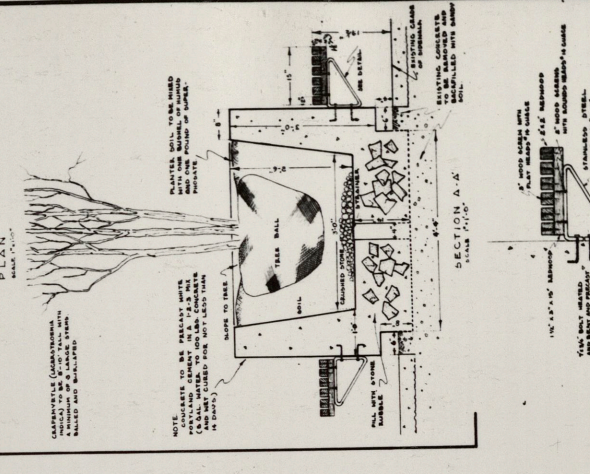
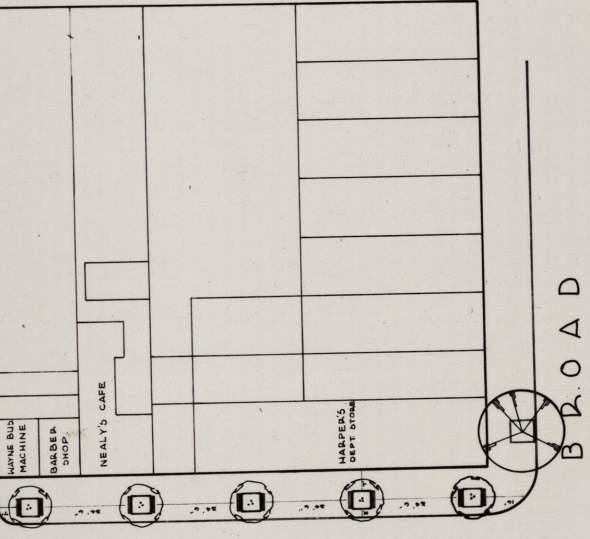
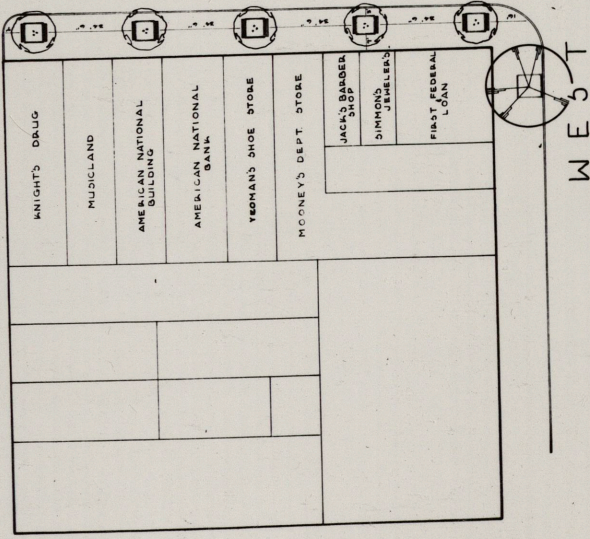
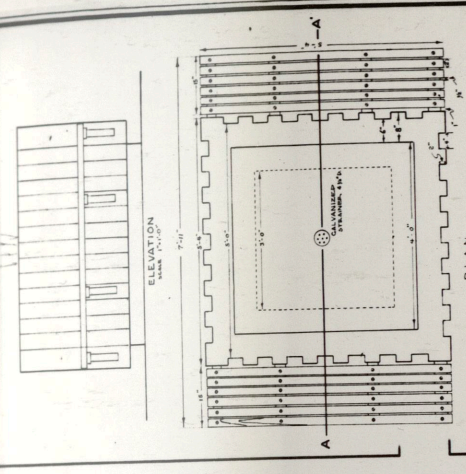
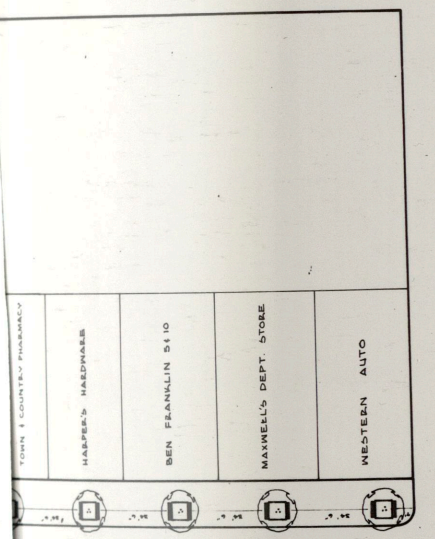
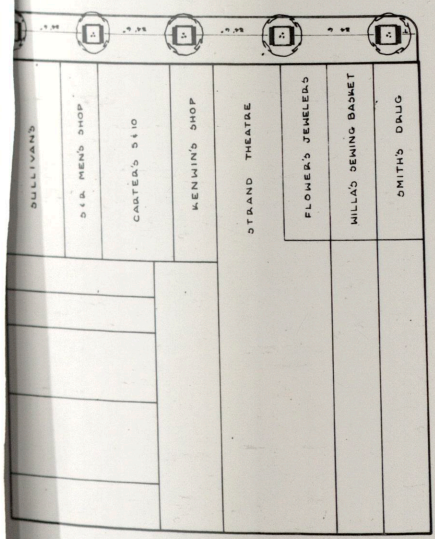
Proposed recreational facilities were provided near the gym where they might be properly maintained and supervised.

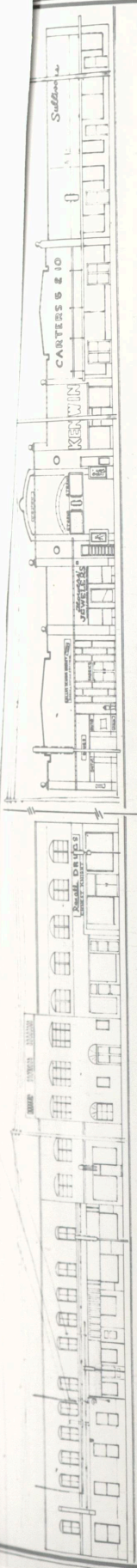
The interior court was designed on a module which create pleasing spaces for passive recreation for both students and faculty. The other outdoor sitting areas designated on the Master Plan were planned with the hope of providing areas where the student and faculty may come in contact with the naturalistic environment.

A CIVIC IMPROVEMENT STUDY
FOR
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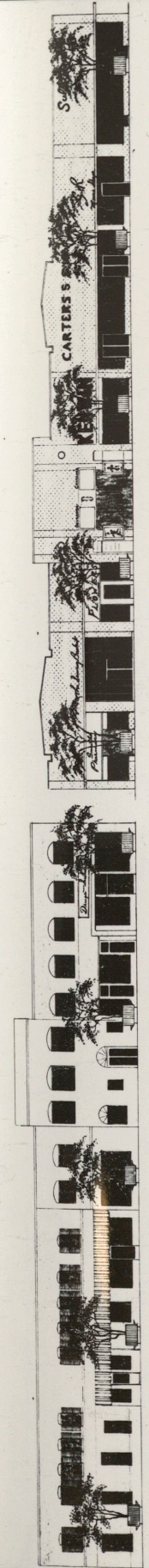
PREPARED FOR

CITY OF JESUP AND GEORGIA POWER COMPANY





EXISTING FACADES

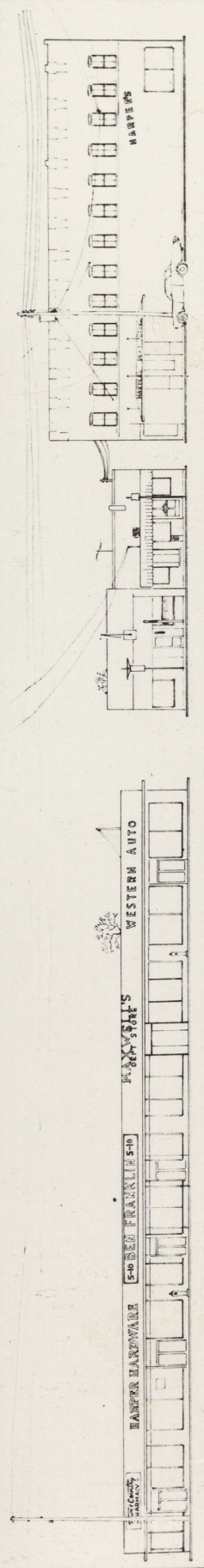


PROPOSED

FACADES

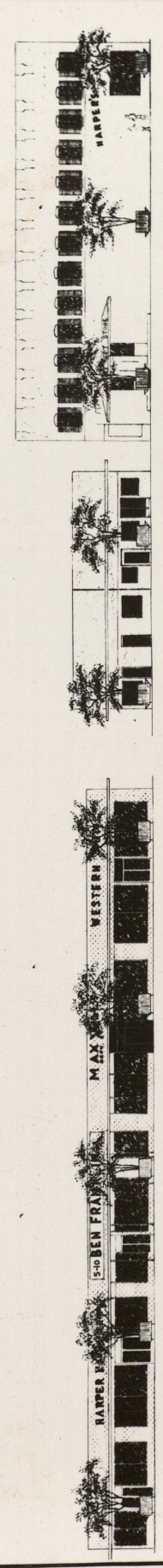
STREET SIGN TO BE REMOVED
AND THE LINE TO BE REMOVED

BUILDINGS TO BE REPAINTED AND
SHUTTERS ADDED
THREE EXISTING AWNINGS TO BE REPLACED
BY ONE UNIFORM TYPE



EXISTING

FACADES



PROPOSED

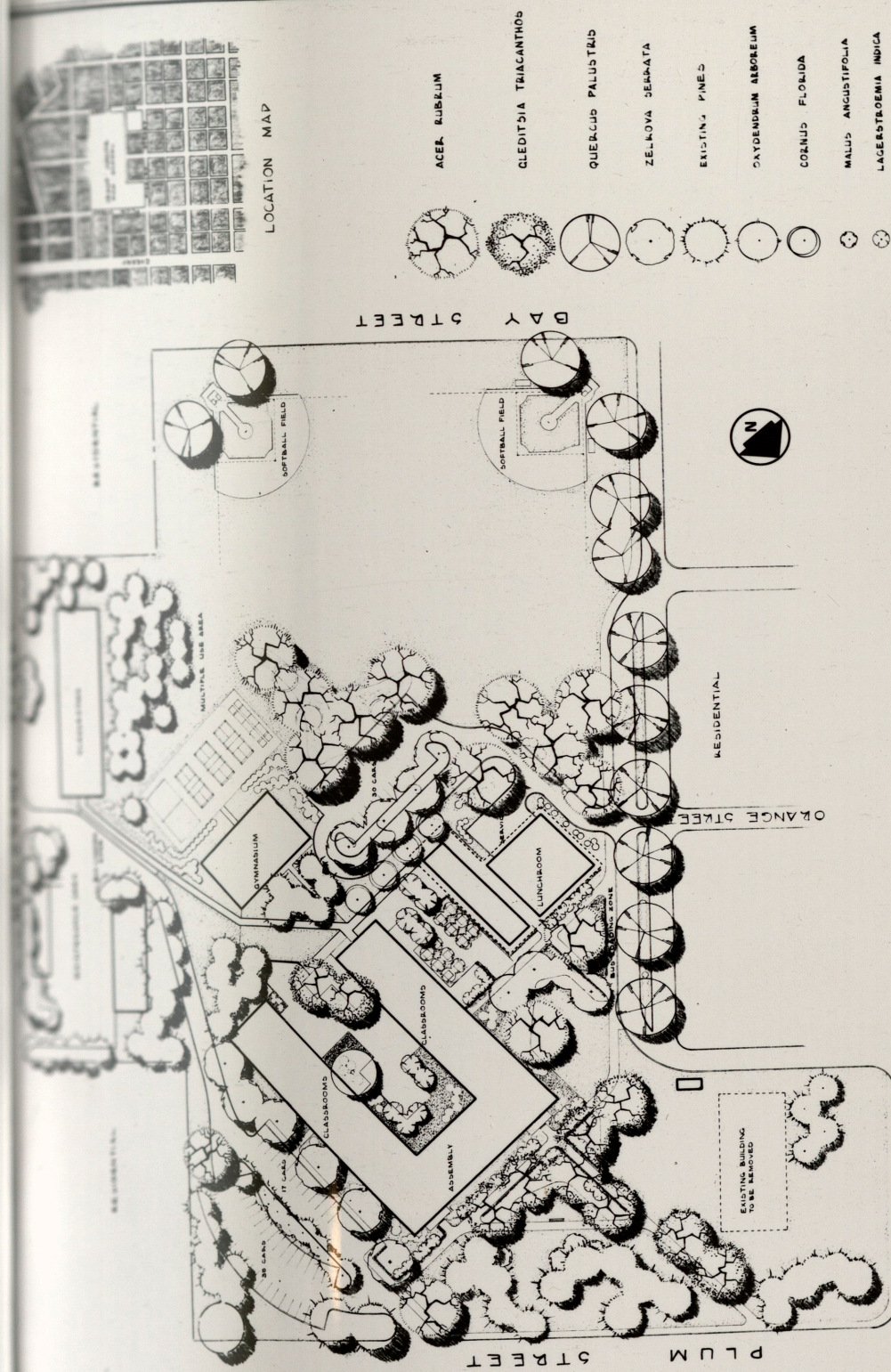
FACADES

STREET SIGN'S OVERHANGING SIGNS
AND SHUTTERS ADDED
ALUMINUM FRAME FACADE ADDED

BUILDING TO BE REPAINTED AND
SHUTTERS ADDED

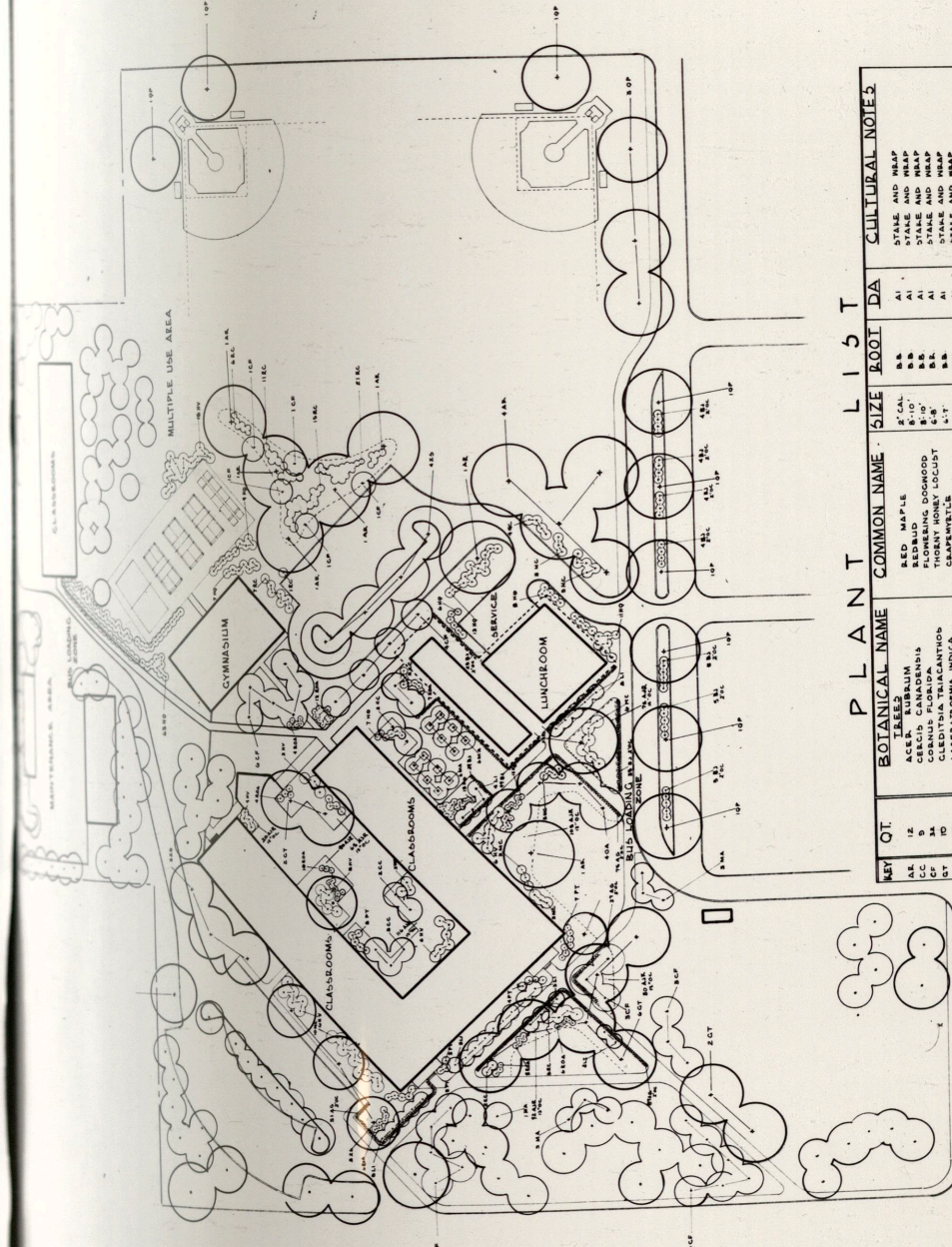
FACADES

SCALE 1" = 10'-0"



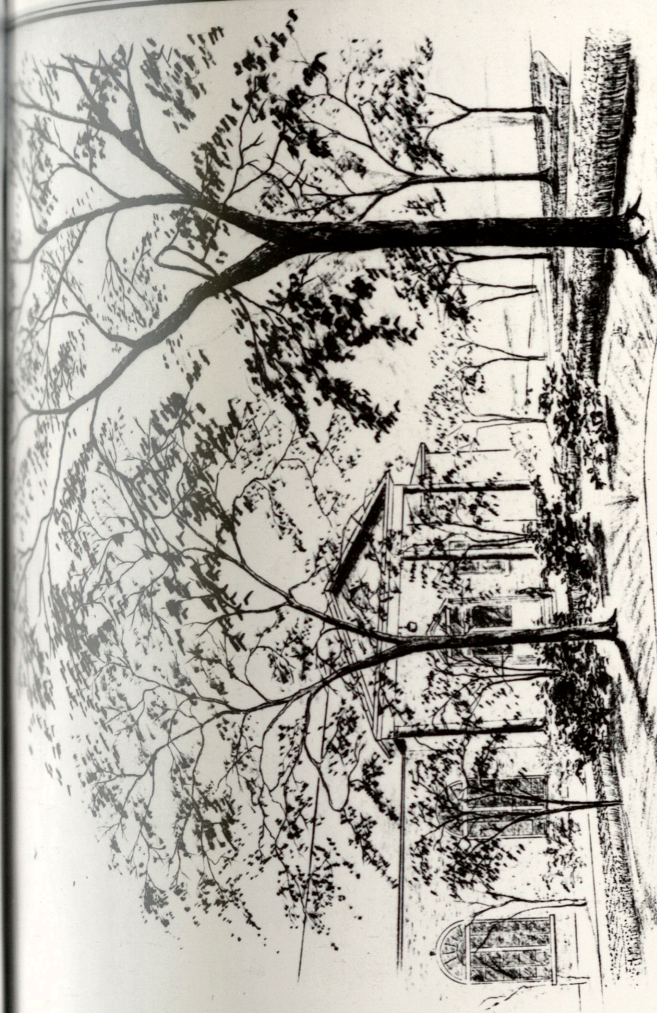
LOCATION MAP

- ACER RUBELIM
- QUERCUS TRIACANTHOS
- QUERCUS PALUSTRIS
- ZELKOVA DEMATA
- EXISTING PINES
- DAYDENRUM ABOREUM
- CORNUS FLORIDA
- MALUS ANGUSTIFOLIA
- LACERSTROEMIA INDICA



P L A N T		L I S T		C U L T U R A L N O T E S	
KEY	OF	BOTANICAL NAME	COMMON NAME	SIZE	FOOT
12	12	ACER PLURINERIS	RED MAPLE	8' 0"	12
13	13	ACER RUBRUM	RED BUD	8' 0"	12
14	14	ACER FLORIDA	FLORIDA RED BUD	8' 0"	12
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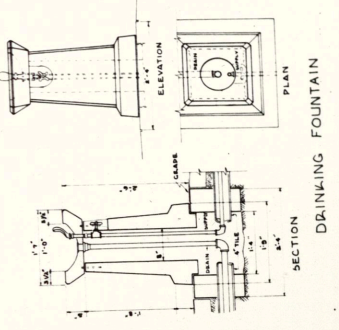
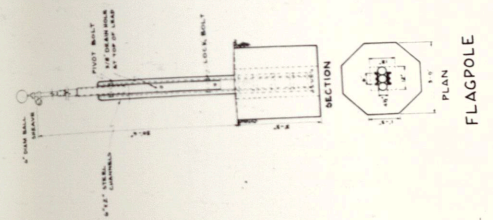
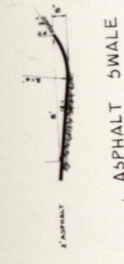
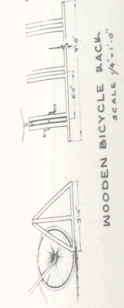
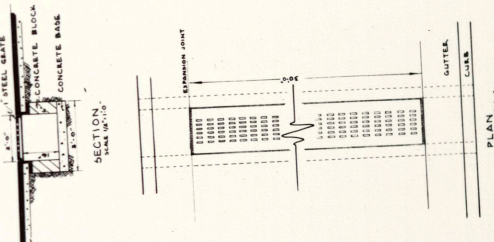
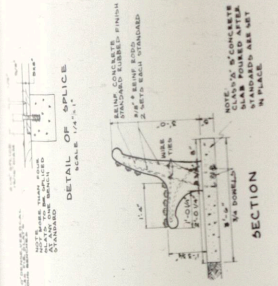
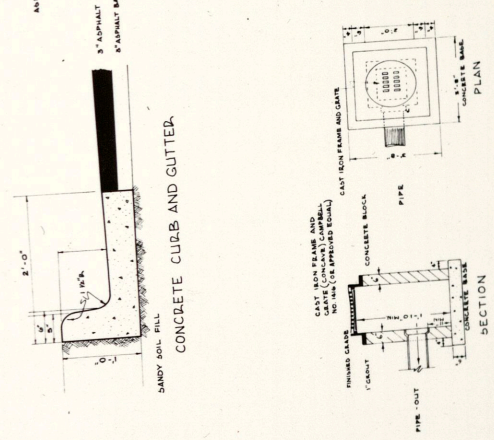
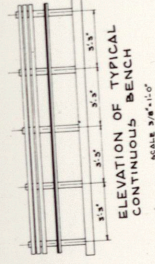
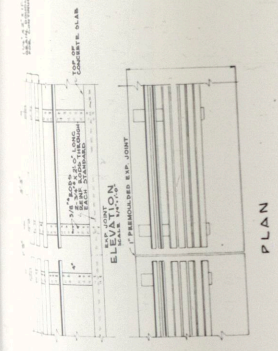
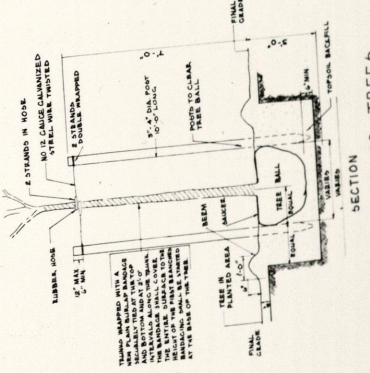
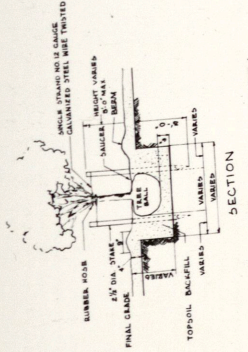
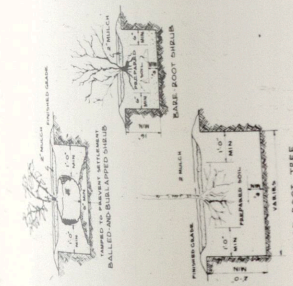
NOTE: TO BE TYPED BY CITY.
GRASS SHALL BE PROVIDED BY CITY.



TERMINAL PROBLEM
PREPARED FOR
CITY OF JESUP GEORGIA AND GEORGIA POWER COMPANY

A CIVIC IMPROVEMENT STUDY
FOR
JESUP JUNIOR HIGH SCHOOL
JESUP, GEORGIA

PERSPECTIVES
MAY 1965
SHEET 7 OF 8
DESIGNED BY: HARRY THOMPSON
ATHENS, GEORGIA
NEAL EASTABILL
FLUENING, NEW YORK



BENCH DETAILS

STAKING MINOR TREES

SECTION
STAKING MAJOR TREES

DETAILS

A CIVIC IMPROVEMENT STUDY

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PREPARED FOR
CITY OF JESUP GEORGIA AND GEORGIA POWER COMPANY

MAY 1965
SHEET 8 OF 8

DESIGNED BY HARRY THOMPSON
NIAL BASTABLE

ATHENS, GEORGIA
FLUSHING, NEW YORK

JESUP JUNIOR HIGH SCHOOL
JESUP, GEORGIA

CITY OF JESUP GEORGIA AND GEORGIA POWER COMPANY

MAY 1965
 DESIGNED BY HARRY THOMPSON ATLANTA, GEORGIA
 NIAL BASTABLE FLUSHING, NEW YORK
 SCALE AS SHOWN
 DETAILS

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Jesup, Georgia

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SPECIFICATIONS FOR
LABOR AND MATERIALS REQUIRED AND TO BE FURNISHED
FOR
JESUP JUNIOR HIGH SCHOOL
Jesup, Georgia

Date: May 28, 1965

Neal Philip Bastable
Harry Eugene Thompson
Landscape Architects
University of Georgia
Athens, Georgia

PLANTING PLAN

Dated: May 28, 1965

Approved by:

Mr. James E. Bacon
Superintendent of Schools
Jesup, Georgia

for
design

NOTICE TO BIDDERS

Mr. James E. Bacon
Superintendent of Schools
Jesup, Georgia

Notice is hereby given for installation of plant materials at the Jesup Junior High School. The site is located on Plum Street, Jesup, Georgia. Sealed bids shall be received by Mr. James E. Bacon, Superintendent of Schools.

The work will comprise the following:

SUPPLYING AND INSTALLING ALL PLANT MATERIALS
ESTABLISHING FINISHED GRADE AND LAWN, CONSTRUCTION OF PAVED AREAS, BENCHES, RETAINING WALLS, AND DRAINAGE SYSTEM.

The Contract shall be awarded to the lowest responsible bidder, subject, however, to the discretionary right reserved by the Owner to waive any informalities in, reject any or all proposals and to request new proposals, if in his opinion the best interest of Jesup Junior High School shall thereby be promoted.

Each bidder must deposit with his bid, security in an amount not less than five (5%) percentum of the bid, in the form and subject to the conditions provided in the Information to Bidders.

Date - June, 1965

mer
Design

INFORMATION FOR BIDDERS

FOR THE
PLANTING WORK
FOR

JESUP JUNIOR HIGH SCHOOL
JESUP, GEORGIA

1. RECEIPT AND OPENING OF BIDS

- (a) Mr. James E. Bacon, Superintendent of Schools, Jesup, Georgia, (herein after called the Owner) invites separate sealed bids for the:

SUPPLY AND INSTALLATION OF ALL PLANT MATERIAL, ESTABLISHING FINISHED GRADE AND LAWN, CONSTRUCTION OF PAVED AREAS, BENCHES, RETAINING WALL, AND DRAINAGE SYSTEM,

at the Jesup Junior High School.

- (b) Bids shall be received by Mr. James E. Bacon, Superintendent of Schools, Jesup, Georgia.
- (c) Any bids received after the time and date specified will not be considered. No bids will be withdrawn pending the decision of the Owner.

2. PREPARATION OF PROPOSAL

- (a) Proposals must be submitted on the prescribed form, two copies of which are attached hereto, all blanks filled by printing, in ink, in both words and figures. The Contractor shall remove proposal from Specifications, and submit as his bid one copy, and keep the other copy for his record.
- (b) All proposals must be submitted in sealed envelopes, bearing on the outside the name of the Bidder, his address, the name of the project, and the Contract bid upon.

- (c) Proposals so enclosed shall be delivered to the aforementioned place on or before the hour and the date noted above.

3. OBLIGATION OF BIDDERS

- (a) At the time of the opening of bids, each Bidder shall be presumed to have inspected the site and to have examined and to be thoroughly familiar with the drawing. General Conditions, General Requirements of the Contract, and Specifications (including all addenda thereto). The failure of or omission of any Bidder to receive or examine any drawings, form, instruction or document shall in no way relieve such Bidder from any obligation in respect to his bid.
- (b) Each Bidder shall, by careful examination of the site, satisfy himself as to the location of the work, the character, the quality and quantity of the work to be performed and materials to be furnished, the character of equipment and facilities needed preliminary to and during prosecution of the work, the general and local conditions and all other matters which in any way effect the work specified herein.
- (c) After the contract has been entered into, no consideration shall be given for any misunderstanding as to work and materials set forth herein and shown on any of the accompanying drawings, details and schedules, it being mutually understood that the tender of a bid carries with it an agreement to this and other obligations set forth in the Contract or Specifications, and further implies a full understanding of the Specifications, Drawings, and Details, notes, indications and requirements.

4. AWARDS

Contract will be awarded to the lowest responsible Bidder, subject, however, to the discretionary right reserved by the Owner to waive any informalities in or to reject any or all proposals and to advertise for new proposals if, in his opinion, the best interests of Jesup Junior High School shall thereby be promoted.

5. ADDENDA AND INTERPRETATION

- (a) Bidders are expressly notified that their proposals shall be based upon materials, products, and methods specified. For the purpose of estimate, no deviation from the drawings and specifications will be considered, except as provided. No interpretation of the meaning of the drawings, specifications, or other Contract documents shall be made to any Bidder orally. Every request for such interpretation should be in writing addressed to Mr. James E. Bacon, Superintendent of Schools, Jesup, Georgia, and to be given consideration must be received at least five (5) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental drawings which, if issued, shall be mailed to all prospective Bidders (at the respective addresses furnished for such purposes) not later than three (3) days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation, under his bid as submitted.

6. TIME FOR COMPLETION

The Contractor shall state in the bid form the number of days required for him to complete the project.

7. BID SECURITY

Each bid must be accompanied by the certified check of the Bidder, or by a Bid Bond duly executed by the Bidder as principal, and having as surety thereon a surety company approved by the Owner, in an amount not less than five (5) percentum of the amount of the bid. Such check of Bid Bond shall be returned to all except the successful Bidder within 48 hours after the Owner and the accepted Bidder have executed the Contract, or if no Contract has been executed within fifteen (15) days after the opening of bids, upon demands of the Bidder, or anytime thereafter, so long as he has not been notified of the acceptance of his bid.

8. SECURITY OF FAITHFUL PERFORMANCE

- (a) Simultaneously with the delivery of the executed Contract, the successful Bidder must deliver to the Owner an executed Performance Bond of a corporate surety licensed to do business in the State of Georgia in the amount of one hundred percent (100%) of the accepted bid for the faithful performance of the terms, covenants, and conditions of the Contract and a further separate labor and material payment Bond, in the amount of fifty percent (50%) of the accepted bid guaranteeing the prompt payment of all indebtedness incurred by the Contractor or Sub-contractor for supplies, materials, or labor furnished, used, or consumed in connection with or in or about the construction of the project, including fuels, lubricants, power, etc. The forms of both Performance Bond and Labor and Material Payment Bond shall be as per form No. 107 (AIA)
- (b) The Broker for the Bond and the Surety Company shall be approved by the Owner.
- (c) The premium on all bonds shall be paid for by the Contractor.

9. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

- (a) The successful Bidder, upon failure to enter into or refusal to execute the Contract, and the Bond required within eight (8) days after he has received notice of the acceptance of his bid, shall forfeit to the Owner as liquidated damages for such failure or refusal, the security with bond.

10. INSURANCES

- (a) The successful Contractor shall not commence work or allow his sub-contractors to commence work until the following insurances have been obtained, approved and certificates delivered to the Owner.
- (b) Workmans' Compensation Insurance.
- (c) Public Liability Insurance shall be furnished in amounts of \$100,000/300,000, and Property Damage Insurance in amounts of \$50,000.
- (d) Before final payment is made, this Contractor will provide an affidavit stating all costs for labor and materials have been paid, and that the Owner is indemnified against any lien.

GENERAL CONDITIONS

Art. I. Definitions

(a) The Contract Documents consist of the Agreement, the General Conditions of the Contract, the Drawings, and Specifications, including all modifications thereof incorporated in the documents before their execution. These form the Contract.

(b) The term Sub-contractor as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked.

(c) The term "work" of the Contractor or Sub-contractor includes labor or materials or both.

Art. II. Execution, Correlation, and Intent of Documents

The Contract Documents will be signed in duplicate by the Owner and the General Contractor. The Contract is complementary, and what is called for by anyone will be as binding as if called for by all. The intention of the documents is to include all labor and materials, equipment, and transportation necessary for the proper execution of the work. Recognized standards will apply to materials or work with well-known technical or trade meaning.

Art. III. Detail Drawings and Instructions

If necessary, the Architect will furnish additional instructions, by means of drawings or otherwise, for the proper execution of the work. The work will be executed in conformity with the drawings and instructions. The Contractor will do no work without proper drawings and instructions.

Art. IV. Copies Furnished

Unless otherwise provided in the Contract Documents, the Architect will furnish to the Contractor, free of charge, all copies of drawings and specifications necessary for the execution of the work.

Art. V. Drawings and Specifications on the work

The Contractor will keep one copy of drawings and specifications on the work, in good order, available to the Architect.

Art. VI. Ownership of Drawings

The drawings and specifications furnished by the Architect are his property. They are not to be used on other work and are to be returned to him on request, at the completion of the work.

Art. VII. Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor will provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the work.

Art. VIII. Surveys, Permits, and Regulations

The Owner shall furnish all surveys unless otherwise specified. Permits and licenses of a temporary nature necessary for the prosecution of the work will be secured and paid for by the Contractor. Permit, licenses, and easements for permanent structures or permanent changes in existing facilities will be secured and paid for by the Owner, unless otherwise specified.

Art. IX. Protection of Work and Property

The Contractor will maintain adequate protection of all his work from damage and will protect the Owner's property from injury or loss arising in connection with the Contract. He will make good any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. He will adequately protect adjacent property as provided for by law.

The Contractor will take all necessary precautions for the safety of employees on the work, and will comply with all applicable provisions of Federal, State, and Municipal safety laws to prevent accidents or injury to person on, about, or adjacent to the premises where the work is being performed. He will erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public.

Art. X. Inspection of Work

The Architect will at all times have access to the work wherever it is in progress, and the Contractor will provide proper

facilities for such access and for inspection. Re-examination of questioned work may be ordered by the Architect, and if so order the work must be uncovered by the Contractor. The Contractor will pay the cost of re-examination and replacement if such work is not in accordance with the Contract Documents.

Art. XI. Superintendence: Supervision

The Contractor will keep on his work, during its progress, a competent superintendent, satisfactory to the Architect.

The Contractor will give efficient supervision to the work, using his best skill and attention. He will carefully study and compare all drawings, specifications, and will at once report to the Architect any error, inconsistency, or omission which he may discover, but he will not be held responsible for their existence or discovery.

Art. XII. Changes in the Work

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to, or deducting from the work, the Contract sum being adjusted accordingly. All such work will be executed under the conditions of the original Contract. In giving instructions, the Architect will have authority to make minor changes in the work not involving extra cost.

The value of any extra work or change will be determined in one of the following ways:

- (a) By estimate and acceptance in a lump sum.
- (b) By unit prices named in the contract or subsequently agreed upon.
- (c) By cost and percentage or by cost and fixed price.

Art. XIII. Claims for Extra Cost

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this contract, he will give the Architect written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property, and the procedure will then be as provided for changes in the work.

Art. XIV. Correction of Work Before Final Payment

If the Contractor does not remove from the premises all work condemned by the Architect as failing to conform to the Contract within a reasonable time, fixed by written notice, the Owner may remove it and may store the material at the expense of the Contractor. If the Contractor does not pay the expenses of such removal within ten days' time thereafter, the Owner may, upon ten days' notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all the cost and expenses that should have been borne by the Contractor.

Art. XV. Correction of Work after Final Payment

Neither the final certificate nor payment nor any provision in the Contract Documents will relieve the Contractor of responsibility for faulty materials or workmanship, and, unless otherwise specified, he will remedy any defects due thereto, and pay for damage to other work resulting therefrom, which will appear within a period of one year from the date of substantial completion. The Owner will give notice of observed defects with reasonable promptness. All questions arising under this article will be decided by the Architect subject to arbitration.

Art. XVI. The Owner's Right to Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provisions of this contract, the Owner, after three days' written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor, provided, however, that the Architect will approve both such action and the amount charged to the Contractor.

Art. XVII. Owner's Right to Terminate Contract

If the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, ordinances, or the instructions of the Architect, or otherwise be guilty of a substantial violation of any provision of the contract, then the Owner, upon the certificate

of the Architect that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor seven days' written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method he may deem expedient. In such case, the Contractor will not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work including compensation for additional managerial and administrative services, such excess will be paid to the Contractor. If such expenses shall exceed such unpaid balance, the Contractor will pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, will be certified by the Architect.

Art. XVIII. Contractor's Right to Stop Work or Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of three months, through no act or fault of the Contractor or of anyone employed by him, or if the Architect should fail to issue any certificate for payment within seven days after it is due, or if the Owner should fail to pay to the Contractor within seven days after of its maturity and presentation, any sum certified by the Architect or awarded by arbitrators, then the Contractor may, upon seven days' written notice to the Owner and the Architect, stop work or terminate this contract and recover from the Owner payment for all work executed and any loss sustained upon any plant or materials and reasonable profit and damages.

Art. XIX. Applications for Payment

The Contractor will submit to the Architect an application for each payment, and, if required, receipts or other vouchers, showing his payments for materials and labor, including payments to sub-contractors as required by article XXXI.

If payments are made on valuation of work done, such application will be submitted at least ten days before each payment falls due, and, if required, the Contractor will, before the first application, submit to the Architect, a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the divided so as to facilitate payments to

subcontractors in accordance with article XXXI (e), made out in such form as the Architect and the Contractor may agree upon, and, if required, supported by such evidence as to its correctness as the Architect may direct. This schedule, when approved by the Architect, will be used as a basis for certificates of payment, unless it be found to be in error. In applying for payments, the Contractor will submit a statement based upon this schedule, and, if required, itemized in such form and supported by such evidence as the Architect may direct, showing his right to the payment claimed.

If payments are made on account of materials delivered and suitably stored at the site, but not incorporated in the work, they will, if required by the Architect, be conditional upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest.

Art. XX. Certificates of Payments

If the Contractor has made application as above, the Architect will, not later than the date when each payment falls due, issue to the Contractor a certificate for such amount as he decides to be properly due, or state in writing his reasons for withholding a certificate.

No certificate issued nor payment made to the Contractor, nor partial or entire use or occupancy of the work by the Owner, will be an acceptance of any work or materials not in accordance with this contract. The making and acceptance of the final payment will constitute a waiver of all claims by the Owner, other than those arising from unsettled liens, from faulty work appearing after final payment or from requirement of the specifications, and of all claims by the Contractor, except those previously made and still unsettled.

Should the Owner fail to pay the sum named in any certificate of the Architect or in any award by arbitration, upon demand when due, the Contractor will receive, in addition to the sum named in the certificate, interest thereon at the legal rate in force at the place of building.

Art. XXI. Payments Withheld

The Architect may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Owner

from loss on account of:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of Claims.
- (c) Failure of the Contractor to make payments properly to sub-contractors or for material or labor.
- (d) A reasonable doubt that the contract can be completed for the balance then unpaid.
- (e) Damage to another Contractor.

When the above grounds are removed, payment will be made for amounts withheld because of them.

Art. XXII. Contractor's Liability Insurance

The Contractor will maintain such insurance as will protect him from claims under workmen's compensation acts and from claims for damages because of bodily injury, including death, which may arise from and during operations under this Contract, whether such operations be by himself or by any sub-contractor or anyone directly or indirectly employed by either of them. This insurance will be written for not less than any limits of liability specified as part of this contract.

Art. XXIII. Owner's Liability Insurance

The Owner will be responsible for and at his option may maintain such insurance as will protect him from his contingent liability to others for damages because of bodily injury, including death, which may arise from operations under this contract, and any other liability for damages which the Contractor is required to insure under any provision of this contract.

Art. XXIV. Fire Insurance

The Owner will effect and maintain fire insurance on all structures on property that the work of this contract is to be done to 100 per cent of the insurable value, including items of materials connected therewith whether in or adjacent to the structure insured, materials in place or to be used as part of the permanent construction including surplus materials in place or to be used as part of the work, and such structures, miscellaneous materials and supplies incident to the work. The loss, if any, is to be made adjustable with and payable to the Owner

as Trustee for the insured as their interests may appear, except in such cases as may require payment of all or proportion of said insurance to be made to a mortgagee as his interests may appear.

The Contractor and all sub-contractors shall be named or designated in such capacity as insured jointly with the Owner in all policies. If the Owner fails to effect or maintain insurance as above and so notifies the Contractor, the Contractor may insure his own interest and that of the sub-contractors and charge the cost thereof to the Owner.

Art. XXV. Guaranty Bonds

The Owner will have the right, prior to the signing of the Contract, to require the Contractor to furnish bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder, in such form as the Owner may prescribe and with sureties as he may approve. If such bond is required by instructions given previous to the submission of bids, the premium will be paid by the Contractor; if subsequent thereto, it will be paid by the Owner.

Art. XXVI. Damages

If either to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or of anyone employed by him, then he will be reimbursed by the other party for such damage, provided the Owner will be responsible for and at his option insure against loss of use of any of his existing property, due to fire or otherwise, however caused.

Claims under this clause will be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and will be adjusted by agreement or arbitration.

The Contractor is relieved of responsibility for damages to the work due to causes beyond the control of and without fault or negligence of the Contractor.

Art. XXVII. Liens

Neither the final payment nor any part of the retained percentage will become due until the Contractor, if required, will deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full lieu thereof, and, if required in either case, an affidavit that so far as he has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any sub-contractor refuses to finish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor will refund to the Owner all money that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

Art. XXVIII. Assignment

Neither party to the Contract will assign the Contract or sublet it as a whole without the written consent of the other, nor will the Contractor assign any money due or to become due to him hereunder, without the previous written consent of the Owner.

Art. XXIX. Mutual Responsibility of Contractors

Should the Contractor cause damage to any separate contractor on the work the Contractor agrees, to settle with such contractor by agreement or arbitration, if he will so settle. If such separate contractors sue the Owner on account of any damage alleged to have been so sustained, the Owner will notify the Contractor, who will defend such proceedings at the Owner's expense, and, if any judgment against the Owner arise therefrom, the Contractor will pay or satisfy it and pay all costs incurred by the Owner.

Art. XXX. Separate Contracts

The Owner reserves the right to let other contracts in connection with this work. The Contractor will afford other contractors reasonable opportunity for introduction and storage of their materials and the execution of their work, and will properly connect and coordinate his work with theirs.

Art. XXXI. Sub-contractors

The Contractor will as soon as practicable after the execution of the contract, notify the Architect in writing of the names of sub-contractors proposed for the principal parts of the work and for such others as the Architect may direct and will employ any that the Architect may within a reasonable time object to as incompetent or unfit.

If the Contractor has submitted before execution of the contract a list of sub-contractors and the change of any name on such a list is required in writing by the Owner after such execution, the contract price will be increased or diminished by the difference in cost occasioned by such changes.

The Architect will, on request, furnish to any sub-contractor, wherever practicable, evidence of the amounts certified on his account.

The Contractor agrees that he is as fully responsible to the Owner for the acts of his sub-contractors and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the contract document will create any contractual reaction between any sub-contractor and the Owner.

Art. XXXII. Relations of Contractor and Sub-contractor

The Contractor agrees to bind every Sub-contractor and every Sub-contractor agrees to be bound by the terms of the Agreement, the General Conditions, the Drawings, and Specifications as far as applicable to his work, including the following provisions of this article.

The Sub-contractor agrees--

- (a) To be bound to the Contractor by the terms of the Agreement, General Conditions, Drawings, and Specifications, and to assume toward him all the obligations and responsibilities that he assumes toward the Owner.
- (b) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under Art. XIX of the General Conditions.
- (c) To make claims for extras to the Contractor in the manner provided in the General Conditions for like claims by the Contractor upon the Owner, except that the time for making claims for extra cost is one week.

The Contractor agrees--

- (d) To be bound to the Sub-contractor by all the obligations that the Owner assumes to the Contractor under the Agreement, General Conditions, Drawings, Specifications and by all the provisions thereof affording remedies to the Contractor from the Owner.
- (e) To pay the Sub-contractor, upon the payment of certificates, if issued under the schedule of values in Art. XIX of the General Conditions, the amount allowed to the Contractor on account of the Sub-contractor's work to the extent of the Sub-contractor's interest therein.
- (f) To pay the Sub-contractor, upon the payment of certificates, if issued otherwise than as in (e), so that at all times his total payments will be as large in proportion of the value of the work done by him as the total amount certified to the Contractor is to the value of the work done by him.
- (g) To pay the Sub-contractor to such extent as may be provided by the Contract Documents or the subcontract, if either of these provides for earlier or larger payments than the above.
- (h) To pay the Sub-contractor on demand for his work or materials as far as executed and fixed in place, less the retained percentage, at the time the certificate is issued.
- (i) To pay the Sub-contractor a just share of any fire insurance money received by him, the Contractor.
- (j) To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specified in the contract.
- (k) That no claim for services rendered or materials furnished by the Contractor to the Sub-contractor will be valid unless written notice thereof is given by the Contractor to the Sub-contractor during the first ten days of the calendar month following that in which the claim originated.
- (l) To give the Sub-contractor an opportunity to be present and to submit evidence in any arbitration involving his rights.
- (m) To name as arbitrator as provided for in the General Conditions the person nominated by the Sub-contractor, if the sole cause of dispute is the work, materials, rights, or responsibilities of the Sub-contractor.

The Contractor and Sub-contractor agree--

- (n) In the matter of arbitration, their rights and obligations and all procedure will be analogous to those set forth in this contract. Nothing in this article will create any obligation on the part of the Owner to pay or to see to the payment of any sums to any sub-contractor.

Art. XXXIII. Architect's Status

He is the agent of the Owner as provided in the Contract Documents.

The Architect will side neither with the Owner nor with the Contractor, but will use his power under the contract to enforce its faithful performance by both.

Art. XXIV. Architect's Decisions

The Architect will, within a reasonable time, make decisions on all claims of the Owner or Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the Contract Documents.

Art. XXV. Arbitration

All disputes, claims, or questions subject to arbitration under this contract will be submitted to arbitration in accordance with the provisions, then obtaining, of the Standard Form of Arbitration Procedure of The American Institutes of Architects.

Art. XXXVI. Cash Allowances

The Contractor will include in the contract sum all allowance named in the Contract Documents and will cause the work so covered to be done by such contractors and for such sums as the Architect may direct, the contract sum being adjusted in conformity therewith.

The Contractor will not be required to employ for any such work persons against whom he has a reasonable objection.

Art. XXXVII. Use of Premises

The Contractor will confine his apparatus, the storage of materials, and the operations of his workmen to the limits indicated by law, ordinances, permits, or directions of the Architect and will not unreasonably encumber the premises with his materials.

Art. XXXVIII. Cleaning Up

The Contractor will dispose of, on the site or as directed by the Architect, all subsoil excavated from his work. All other debris including branches, paper and rubbish resulting from his work will be removed from the site as work proceeds.

All areas will be kept in a neat and orderly condition at all times. Prior to final acceptance the Contractor will clean up his work areas to the satisfaction of the Architect.

SPECIFICATIONS
FOR
PLANTING WORK

GENERAL

- (a) Work under this division is indicated on drawings entitled "Landscape Planting Plan" prepared by Neal Philip Bastable and Harry Eugene Thompson, Landscape Architects.
- (b) Each Bidder will familiarize himself with the Contract documents and shall visit the site of proposed work to acquaint himself with existing conditions pertinent to the execution of all work described herein.
- (c) Should a Bidder find discrepancy or omission in the Specifications, or should he be in doubt as to the meaning of any portion of them, he shall notify the Architect who shall then instruct all Bidders in the matter by an Addendum.
- (d) This Contractor shall protect, and guard against damage to existing work. Any work already completed, that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.

WORK INCLUDED

- (a) The work covered by this Specification consists of furnishing all labor, materials, equipment and appliances necessary for Planting of Major and Minor Plants, as shown on drawings and schedules and as specified herein, including but not limited to the following:

Excavating for all tree shrub and ground cover pits and beds.

Furnishing and preparing of topsoil for backfilling of all shrub trees and ground cover pits and beds.

Furnishing and incorporating fertilizer and peat.

Furnishing and planting trees and plants as shown.

Furnishing and spreading topsoil as needed beyond that furnished on site.

Mulching.

Maintenance inspection.

Replacements of unsatisfactory plant material.

Installation of lawn area.

- (b) All labor, materials, and equipment necessary in establishing lawn area, as specified herein, include but not limited to the following:

Testing soil for content.

Furnishing and incorporating fertilizer and soil conditioner.

Establishing a grade.

Furnishing and installing sprigs.

Watering area as specified.

PROTECTION OF EXISTING UTILITIES

- (a) The Contractor shall ascertain the location of all electrical cables, utility lines, cesspools, and supply lines.
- (b) The Contractor shall be held responsible for any damage to existing utilities incurred during the process of work under this Contract.

INSPECTION

- (a) Plants shall be subject to inspection and approval at place of growth, or upon delivery, for quality, size, variety, and health.

FERTILIZER

- (a) Fertilizer for trees, shrubs, and lawn area shall be complete, shall bear manufacturer's guaranteed

statement of analysis, and will meet the following minimum requirements:

- (Six) 6% Nitrogen
- (Twelve) 12% Super Phosphate
- (Twelve) 12% Potash
- (b) Commercial fertilizer shall be thoroughly incorporated with topsoil and loam planting mixture at the rate of three (3) lbs. per inch caliper of tree (approximately three shovels per tree).
- (c) Fertilizer shall be applied on lawn areas at the rates that follow:
 - (1) Six (6), Twelve (12), Twelve (12) fertilizer shall be applied at the rate of thirty (30) pounds per thousand (1000) square feet.
 - (2) Ammonium Nitrate shall be applied at the rate of three (3) pounds per thousand (1000) square feet every six (6) weeks during the growing season.
- (d) Contractor shall provide weather-proof storage space for fertilizer until its use.
- (e) The Contractor shall use a fine mist when watering.
- (f) These specifications are based on warm season plantings. Adjustments will be necessary for earlier and later plantings, temperature and rainfall variations.

SOIL CONDITIONER

- (a) Peat moss shall be domestic, incorporated into soil planting mixture to sufficient quantity to provide a friable planting mixture.
- (b) Agriculture limestone, dolomitic limestone recommended, shall be incorporated into the fifty soil mixture for lawn area at the rate of fifty (50) pounds per thousand (1000) square feet.

TOPSOIL AND LOAM

- (a) Mixture to be used in plantings shall consist of 50% clean topsoil and 50% clay loam. 50% of clay loam will consist of clay. To this mixture add prescribed amounts of peat moss and fertilizer.

SPRIG LAWN INSTALLATION

- (a) Tifton 57 utility lawn shall be installed by using the broadcasting method.
- (b) The rate of application shall be five (5) bushels of chopped planting material per thousand (1000) square feet.
- (c) The soil shall be disturbed by discing.
- (d) Lime and fertilizer shall be applied and mixed into soil before planting aforementioned.

WATERING

- (a) The contractor shall not allow freshly planted grass to go more than two (2) hours without applying water after planting.
- (b) The contractor shall make three (3) light waterings per day at the rate one-eighth ($1/8$) inch per day.
- (c) If soil is dry at planting time the contractor shall apply one-half ($1/2$) of water the first day.
- (d) After a period of four (4) days the frequency of applications of water may be cut in half. As the grass gets established the irrigation frequency can again be reduced, but the amount of water per application should be increased.

GUARANTEE OF PLANT GROWTH

- (a) All plants shall be typical of their species or variety and shall have a normal habit of growth.
- (b) All plants and plant material shall be guaranteed by the Planting Contractor to be true to name and size, and in vigorous growing condition. All plant material shall be guaranteed for at least one year after acceptance. Replacements shall be made at the beginning of the first succeeding planting season.

EXCAVATION, HANDLING AND PLANTING OPERATIONS

- (a) All plants shall be handled so that roots are adequately protected at all times. During shipment they shall be protected by tarpaulin or other suitable covering. All balled and burlapped plants which cannot be planted immediately upon delivery shall be set on the ground and be well protected with soil.
- (b) All trees shall be planted as shown on the plan according to the standards of the Georgia State Nurserymen's Association.
- (c) No planting shall be done during unfavorable weather conditions.

PREPARATION OF TOPSOIL FOR PLANT PITS AND BEDS

- (a) Topsoil for planting pits and beds, except ericaceous plants shall be prepared by mixing with peat moss in the proportions of one (1) of peat moss to seven (7) of topsoil by volume. The mixture will be thoroughly blended before use.
- (b) Topsoil for beds of ericaceous plants shall be prepared by mixing topsoil with peat moss in the proportion of one (1) of peat to five (5) parts topsoil by volume, thoroughly mixed.

MULCHING

- (a) A 2" mulch of peat shall be applied on all planting beds, tree pits and shrub pits after planting.
- (b) All evergreens, broadleaved evergreens, ground cover plants and ericaceous material shall be mulched to a depth of 2" with a mixture consisting of 50% leaf mold, and 50% peat moss. A portion of this will be scratched into the top 1½" of soil.

PLANTING SEASON

- (a) Planting of plant materials shall be done during the season or seasons which are normal for such work as determined by weather conditions and by accepted practice in the locality.
- (b) At the option of and on responsibility of the Contractor, planting of plant material may be done under unseasonable conditions, without extra compensation, subject to approval as to time or work and methods of operation.

STAKING, BUYING, WRAPPING

- (a) All trees over 3" caliper shall be guyed by wire guys encased in water hose at the trunk. Guys will be securely staked or anchored to "dead men" or otherwise secured in an approved manner. All wire will be pliable iron of ga. shown on guying sketches.
- (b) Stakes for supporting trees shall be of sound wood of uniform size, capable of standing in ground at least two years. They will be at least 2" actual dimension and not less than 8' in length, unless otherwise specified.
- (c) Stakes shall be placed a minimum of 12" from the trunk of the tree, taking care to clear the roots. They shall be driven into the ground to the depth shown.
- (d) Wrapping material shall be first quality burlap or water-proofed crepe paper not less than 6" or more than 10" in width, and of suitable length.
- (e) The trunks of all trees of three inch caliper or greater shall be wrapped, and the material securely tied at top and bottom, and at two foot intervals. Bandaging will start at base, and will cover the entire surface of the trunk to the first branches.
- (f) All guying, staking and wrapping shall be done immediately after planting. All plants shall stand plump after guying and staking.

MAINTENANCE OF PLANTING UNTIL ACCEPTANCE

- (a) Areas around trees shall be kept cultivated, free of weeds and grass, and properly watered until acceptance. Replacement will be done as soon as dead material appears. If any tree, shrub, or plant bed settles more than three (3) inches below the established grade, it shall be raised to the proper level and not merely filled with additional topsoil.

CLEANING UP

- (a) The Contractor shall dispose of, on the site or as directed by the Architect, all subsoil excavated from his work. All other debris including branches, paper, and rubbish resulting from his work shall be removed from the site as work proceeds.

- (b) All areas shall be kept in a neat and orderly condition at all times. Prior to final acceptance the Contractor will clean up his work areas to the satisfaction of the Architect.

INSPECTION FOR ACCEPTANCE

- (a) Inspection by the Architect shall be made upon completion of all work, at the notification of the contractor.
- (b) Payment shall be made after acceptance by the Architect. Such payment shall not relieve Contractor of responsibility of guarantees, or of conformance with provisions for plant replacement as specified below.

GUARANTEE OR WARRANTY

- (a) This Contractor warrants that all work executed under this division shall be free from defective plant material or workmanship for a period of one year after Architect's acceptance of the work.
- (b) This Contractor shall guarantee to replace all defective plants and workmanship by approved methods and at his own expense, whensoever such defects may appear prior to the conclusion of this guarantee.

REPLACEMENTS

- (a) Any trees, shrubs, or vines not found to be in a healthy growing condition at any time during the period of guarantee, shall be removed from the site and replaced, as soon as weather and seasonal conditions permit, as determined by the Architect.
- (b) Plant replacements shall be the same kind and size as specified in the itemized plant list, all replacements shall be furnished, planted, and mulched as specified, at the Contractor's expense.
- (c) The Contractor shall be liable for any damage to property including lawns, sprinkler systems, pavements, curbs, etc. caused by replacing operations.

COOPERATION

- (a) This Contractor shall agree to complete cooperation and coordination with the General Contractor engaged in all adjacent work.

SEQUENCE OF THE WORK

(a) The Contractor shall do the work specified in the following order:

- (1) Sub. grade (1-2 inches)
- (2) Construction work and planting work
- (3) Spread topsoil
- (4) Spreading of seed

SPECIFICATIONS
FOR
CONSTRUCTION WORK

GENERAL

- (a) Refer to Planning work for information concerned with general provisions.

WORK INCLUDED

- (a) The work covered by this specification consists of furnishing labor and materials, equipment and appliances necessary for establishing finished grade and for construction of paved areas, benches, retaining wall, and drainage system as specified herein, including but not limited to the following:

- (1) General excavation of the site.
- (2) Grading and establishing base for paved areas.
- (3) Furnishing materials used in base.
- (4) Furnishing lumber, thread rods, concrete bench supports, and all other necessary materials for the construction of benches.
(If Contractor constructs cast concrete supports, the necessary ingredients shall be furnished by the Contractor)
- (5) Furnishing Asphalt for surface coarse.
- (6) Furnishing forms, temperature rods, reinforcement rods, tie rods, concrete bricks and all other materials necessary for the construction of the retaining wall.
(If Contractor constructs forms, the necessary materials shall be furnished by Contractor)
- (7) Furnishing drainage tile for drainage system.
- (8) Furnishing the necessary materials for the construction of manholes.
- (9) Furnishing the necessary materials for the construction of all athletic facilities

CONCRETE

- (a) All cement shall be Portland cement and shall be dry and shall be in its original container.
- (b) Fine aggregate shall consist of clean washed sand, ninety-five (95) percent which shall pass through a number four (4) seive. Not less than fifty (50) percent shall be retained on a number thirty (30) seive, and not more than five (5) percent shall pass a one hundred (100) mesh seive.

- (c) Coarse aggregate shall consist of well graded, uniformly mixed broken stone, crushed gravel, screened gravel, or broken slag.
Coarse aggregate coated with or containing mud, clay, dirt, stone dust, or other objectionable materials shall be washed to the satisfaction of the Landscape Architect. Coarse aggregate shall consist of a mixture of number one (1) and number (2) size particles, provided that not more than fifty (50) percent or less than thirty (30) percent shall be of number one (1) size and more than seventy (70) percent or less than fifty (50) percent shall be of number two (2) size.
- (d) All water used shall be clean filtered drinking water containing no alkalines, acids, vegetable matter or other chemicals objectionable to concrete.
- (e) All concrete shall have an ultimate compressive strength of three thousand (3000) pounds per square inch at the end of twenty-eight (28) days.

REINFORCED STEEL

- (a) All rods for concrete reinforcement shall be performed rods, rolled of new brillet steel, conforming to the specifications of the American Society for Testing Materials.

MASONRY WORK

- (a) All bricks used shall be new, sound, and hard, burned throughout, and of uniform size and quality.
- (b) Masonary units shall be laid in the best manner, well bonded with the joints and corners true and laid in a full bed of mortar with joints slushed full. Care must be taken during the course of work to keep this work free from injurious strains. After completion of masonary work, all exposed work shall be washed down and left clean and in everyway acceptable to the Owner.

EARTH WORK

- (a) The Contractor shall excavate or fill, as the case may be, to grades as shown on the drawings.
- (b) Excavation for walks, walls, and footings shall be cut full size as shown on the drawings.

PAVED AREAS

- (a) The Contractor shall construct paved areas as shown on the drawings as follows:

- (1) The Contractor shall have the responsibility of installing Asphalt walks, bicycle parking area, curbs, roads, and play area according to the Asphalt Institute Specifications 1(SS-1) Asphalt Institute, College Park, Maryland, March 1962.

RETAINING WALL

- (a) The Contractor shall construct a retaining wall as shown on drawings as follows:

- (1) Concrete structure shall be a total length of sixty (60) feet and have a width of two (2) feet.
- (2) The concrete used for the construction of the retaining wall shall be mixed in the proportions of one (1) part of Portland cement, three (3) parts sand, and five (5) parts gravel or crushed stone.
- (3) Form work shall be constructed as the Contractor so desires as long as the strength and appearance meet the previous specifications.
- (4) Concrete shall be poured in continuous layers, six (6) to eight (8) inches deep.
- (5) Number three (3) reinforcing rods, eleven and one half ($11\frac{1}{2}$) inches on center shall be wire tied to the tie rods as shown on drawings.
- (6) Number seven temperature rods shall be laid on top of tie rods and fastened with wire as shown on drawings.
- (7) A common bond brick facing shall be constructed on the exposed concrete surface.
- (8) The mortar shall be composed of one (1) part Portland cement and a maximum of two (2) parts of fine aggregate, with not more than five (5) parts of hydrated lime, or lime putty.

BENCH

- (a) The Contractor shall establish benches as follows:

- (b) Benches located in sitting areas as shown on drawings shall be constructed as follows:

- (1) Each bench section shall be constructed of eight $1\frac{1}{4}$ " x 2" dense douglas fir slats their length as indicated on plan.
- (2) Bench shall be tied together with three eights ($3/8$'s) inch thread rods.
- (3) Bench shall be painted with high quality green exterior paint.

- (4) Bench supports shall be located four (4) inches from end of bench on three (3) foot three (3) inches centers.
- (5) Concrete bench supports shall be two (2) feet long, six (6) inches, below finish grade, four (4) inches thick.
- (6) Form work plans shall be submitted by contractor and approved by Landscape Architect before being used on the work, no special remuneration shall be made for form work, the cost of such work being included in the price tendered for concrete.
- (7) The concrete shall be mixed in the proportions of one (1) part Portland cement, two (2) parts sand and (3) parts gravel or crushed stone.
- (8) Three quarter inch (3/4") reinforcement rods shall be placed in bench supports as shown on drawings.
- (9) After all forms have been removed, all exposed surfaces shall be rubbed with carborundum bricks and clean water only to a uniform color and finish satisfactory to the Landscape Architect.
- (10) After the cast standards have been removed from the forms, they shall be cured for a period of at least seven (7) days before being removed from the original pallet. Curing shall be done in a closed room which can be maintained at an even temperature. Cast standards shall be moistened every four (4) hours during the curing period.

MANHOLES

- (a) The Contractor shall build manholes of the size called for on the plans, where indicated on the plans or ordered by the Landscape Architect, in accordance with the plans and specifications, and the directions of the Landscape Architect.
- (b) The Contractor shall construct manholes as follows:
 - (1) The concrete shall be mixed in the proportions of one (1) part Portland cement, two (2) parts fine aggregate, and four (4) parts coarse aggregate, with the maximum size of stone limited to one (1) inch.
 - (2) Mortar shall be composed of one (1) part Portland cement and two (2) parts fine aggregate, with not more than five (5) percent of the cement content of hydrated lime or lime putty.
 - (3) Ladder rungs for manhole shall be constructed of wrought iron and shall be hot-dipped galvanized after bending.
 - (4) Frames and covers shall be of the type shown on plans or as directed by Landscape Architect.
 - (5) Frames shall be adjusted to the final grades by the use of cement mortar or by brick masonry set in cement mortar.

- (6) The Contractor shall furnish materials for and do all incidental work to complete the structure, including the work of setting and adjusting frames and plastering.

No additional payment will be allowed for the afore-said, but the cost thereof will be deemed to have been included in all the prices bid for all the items, for which prices are named in the contract.

FORM OF PROPOSAL FOR THE
PLANTING WORK

AT

JESUP JUNIOR HIGH SCHOOL
JESUP, GEORGIA

TO:
Mr. James E. Bacon
Superintendent of Schools
Jesup, Georgia

Dear Sir:

Pursuant to and in compliance with plans and specifications and documents related thereto, the undersigned hereby offers to furnish all labor, materials, supplies, equipment and other facilities and things necessary and proper for or incidental to the completion of the work as required by and in strict accordance with the applicable provisions of the Contract Documents, including the Drawings, the Specifications, and all Addenda issued by the Owner prior to the date of the opening of bids, whether received by the undersigned or not, for the following sum:

_____ Dollars, (\$ _____)

TIME OF COMPLETION

If awarded the Contract, the undersigned agrees to complete the work within _____ Calendar days from the date of the award of the Contract.

COST ESTIMATE

Neal Philip Bastable and Harry Eugene Thompson
Landscape Architects
University of Georgia
Athens, Georgia

PROJECT: Jesup Junior High School
Jesup, Georgia

COMPUTED BY: Neal Philip Bastable and Harry Eugene Thompson

CHECKED BY: Neal Philip Bastable and Harry Eugene Thompson

JOB DESCRIPTION: To landscape the entire property for the ultimate design of the said school.

PLANT MATERIALS:

<u>TREES</u>			<u>Size</u>	<u>Unit Price</u>	<u>Total</u>
<u>Qty.</u>	<u>Botanical Name</u>	<u>Common Name</u>			
12	Acer Rubrum	Red Maple	2" Cal	\$12.95	\$155.40
9	Cercis Candensis	Redbud	8'-10'	10.00	90.00
26	Cornus Florida	Flowering Dogwood	8'-10'	6.00	156.00
8	Gleditsia Triacanthas	Thorny Honey Locust	8'-10'	7.50	60.00
35	Lagerstroemia Indica	Crapemyrtle	6'-7'	5.00	175.00
21	Malus Augustifolia	Southern Crabapple	4'-5'	5.00	105.00
4	Oxydendrum Arboreum	Sourwood	2" Cal	10.50	42.00
12	Quercus Palustris	Pin Oak	2"-2 1/2"	10.50	126.00
10	Zelkova Serrata	Japanese Zelkova	"	10.00	100.00

<u>SHRUBS</u>			<u>Size</u>	<u>Unit Price</u>	<u>Total</u>
<u>Qty.</u>	<u>Botanical Name</u>	<u>Common Name</u>			
230	Abelia Grandiflora	Glossy Abelia	2'	\$ 1.49	\$342.70
188	Berberis Julianae	Wintergreen Barberry	2'	3.00	564.00
38	Hamamelis Virginiana	Common Witch Hazel	2'	3.00	114.00
68	Hydrangea Quercifolia	Oakleaf Hydrangea	2-3'	3.50	238.00
24	Myrica Cerifera	Southern Waxmyrtle	2-3'	3.00	72.00
25	Pittosporum Tobira	Tobira Pittosporum	3'	4.00	100.00
67	Rhododendron Calendulaceum	Flame Azalea	18-21"	2.00	134.00
58	Rhododendron Obtusum Amoenum	Krume Azalea	18-24"	3.00	174.00

GROUND COVER

Qty.	Botanical Name	Common Name	Size	Unit Price	Total
573	Ajuga Reptans	Carpet Bugle	Gal.	\$.50	\$300.00
22	Hedera Helix	English Ivy	Flat	1.00	20.00

GRASS

Tifton 57
Topsoil

Note: Grass and topsoil shall be provided by the City.

SPECIAL EQUIPMENT

<u>Material List</u>	<u>Unit Cost</u>	<u>Total Quantity</u>	<u>Total Cost</u>
			\$480.00
6-12-12 Fertilizer	\$4.00/100	12,000	37.50
Ammonium Nitrate	3.75/100	1,000	150.00
Lime	1.00/100	15,000	10.50
Tree Wrap	.70 roll	15	3.00
Wire	.01 Foot	300	11.00
Stakes	.04 Each	275	27.00
Hose	.09 Foot	300	200.00
Tractor	\$50/Day	4 Days	100.00
Rototiller	\$25/Day	4 Days	

	<u>PAVING</u>	<u>Total Quantity</u>	<u>Total Cost</u>
<u>Material List</u>	<u>Unit Cost</u>		
Asphalt Drives & Parking	\$.30sq.ft.	79,152sq.ft.	\$23,745
Asphalt walks (wood-edge)	\$.20sq.ft.	16,544sq.ft.	\$ 3,308
Asphalt Play Areas	\$.20sq.ft.	10,640sq.ft.	\$ 2,128
Concrete Curbs & Gutter	2.50lin.ft.	6,000 lin.ft.	\$15,000
Concrete Paving	\$.50sq.ft.	14,628	\$ 7,319

TOTALS

<u>Items</u>	<u>Sub-totals</u>	<u>Grand Totals</u>
Contingencies	\$ 150.00	
Overhead & Profit	<u>\$1,200.00</u>	\$1,350.00
<u>Totals</u>		
1. Planting Materials	\$ 3,068.00	
2. Special Equipment	\$ 1,022.00	
3. Labor		
Planting	\$ 3,068.00	
4. Construction, plus labor (walks, drives, parking)	<u>\$51,500.00</u>	\$58,658.00
	Grand Total	<u><u>\$60,008.00</u></u>

ACKNOWLEDGMENTS

We cannot escape the suspicion that "acknowledgments" are seldom read and insufficiently noticed - in comparison with the debt they are intended to recognize. However, with this in mind, we would like to thank: Mr. Hood of the Georgia Power Company for his financial support and initiative in starting this project. We would also like to thank Mrs. Madge Sewell, Mrs. E. Harrell, and Mrs. G. Madray for their interest and cooperation in organizing the various organizations to support this project. Our thanks also go to Mr. Earl W. May for his pertinent suggestions and information.

Directly involved were all the professors who have guided us through our courses at the University and especially to Professor Hubert Owens who guided this thesis toward completion.

On the mechanical side, but equally important to the presentation, we wish to thank Elizabeth Bastable, who, on a moment's notice came to her brother's aid to type, and keep our spelling and punctuation a secret from the public.

Finally, we wish to thank our families because without them we could not have come this far.

For the faults, of any kind whatever, we claim full credit.

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