Project Title: The Conceptual Design of an Industrial District to be Owned by the Community

Project No: A-2091

Project Director: W. G. Dodson

Sponsor: Gordon County Industrial Development Authority

Agreement Period: From 1/1/78 Until 3/31/78

Type Agreement: Std. Ind. dated 11/29/77

Amount: $4,575

Reports Required: Final Technical

Sponsor Contact Person(s):

Technical Matters
Mr. Michael G. Jones
Executive Vice President
Gordon Co. Industrial Dev. Authority
Calhoun, GA 30701

Contractual Matters (thru OCA)

 Defense Priority Rating:

Assigned to: Technology & Development Laboratory (School/Laboratory)

COPEs TO:

Project Director
Division Chief (EES)
School/Laboratory Director
Dean/Director—EES
Accounting Office
Procurement Office
Security Coordinator (OCA)
Reports Coordinator (OCA)

Library, Technical Reports Section
EES Information Office
EES Reports & Procedures
Project File (OCA)
Project Code (GTRI)
Other _______________________________

CA-3 (3/76)
GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

SPONSORED PROJECT TERMINATION

Date: 8/16/78

Project Title: The Conceptual Design of an Industrial District to be owned by the Community

Project No: A-2091

Project Director: W. G. Dodson

Sponsor: Gordon County Industrial Development Authority

Effective Termination Date: 7/31/78

Clearance of Accounting Charges: 7/31/78

Grant/Contract Closeout Actions Remaining:

- [X] Final Invoice
- Final Fiscal Report
- Final Report of Inventions
- Govt. Property Inventory & Related Certificate
- Classified Material Certificate
- Other

Assigned to: Technology & Development Laboratory (School/Laboratory)

COPIES TO:

- Project Director
- Division Chief (EES)
- School/Laboratory Director
- Dean/Director—EES
- Accounting Office
- Procurement Office
- Security Coordinator (OCA)
- Reports Coordinator (OCA)
- Library, Technical Reports Section
- Office of Computing Services
- Director, Physical Plant
- EES Information Office
- Project File (OCA)
- Project Code (GTRI)
- Other

CA-4 (3/76)
CONCEPTUAL DESIGN PLAN FOR A
PROPOSED INDUSTRIAL DISTRICT
IN THE CALHOUN AREA
GORDON COUNTY, GEORGIA

Prepared for
Gordon County Industrial Development Authority

by
Winfred G. Dodson

Economic Development Division
Technology and Development Laboratory
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
June 1978
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Introduction

During January, 1978 an industrial site survey was carried out in the Calhoun area of Gordon County. The purpose of the survey was to locate a site for an industrial district meeting the county's plant location needs. Six sites were examined, as shown on Map No. 1 in Appendix C of this report. Site No. 4, known as the Darby Property, was finally recommended to the Gordon County Industrial Development Authority for development and accepted by that group. A detailed description of Site No. 4 appears in Appendix C.

An industrial district is a specialized type of subdivision, especially created to serve the needs of industry. It has been defined as a "tract of land which is subdivided and developed according to a comprehensive plan for the use of a community of industries, with streets, rail lead tracks, and utilities installed before sites are sold to prospective occupants . . . with adequate control of the area and buildings through restrictions and zoning, with a view to protecting the investments of both developers of the district and industries occupying the improved sites."¹

The land area and location requirements for an industrial district are:²

1. A minimum parcel size of at least 50 to 100 acres, preferably the latter.
2. Economical access to necessary utilities -- water, sewerage, natural gas, electric power, and telephone service.
3. Adequate access to the community's major thoroughfare system, preferably with frontage along at least one major thoroughfare.

² Whitlatch, George I., Industrial Districts, Their Planning and Development, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, 1963.
4. Access to rail service.

5. Convenient access to an airport where commercial air service is available.

6. A well-drained land parcel, with a slope of 5% to 10%, without underlying bedrock of such type as to make grading expensive and, therefore, impractical.

The Darby property meets most of the industrial district criteria, but does not meet them all. While the site conforms to requirement 1 and requirements 4 through 6 it does not meet requirements 2 and 3; and only partially meets requirement 5. Utilities are not close by, except for telephone service and electric power. The property lacks frontage directly on a major thoroughfare, although it has generally good access through McDaniel Station Road, and Henderson Road to the community's major thoroughfare system. Access to the airport is very good. However, although charter service is available from Tom David Airport, regularly scheduled commercial service is not presently available.

Rarely, if ever, does a potential industrial site meet all the location criteria perfectly. In this case the site selected appeared to be the best situation out of all sites examined. No one site met all of the criteria.

Proposed Development Plan

Map No. 1 shows the development plan proposed for the county's industrial district. The plan proposes a district containing 11 sites ranging in size from six to twelve acres. Ten sites are intended to have rail service. One site, Number 6, cannot be easily served by rail because of flooding problems in the area to the west and is here proposed as a non-rail site. Acreages for individual sites are estimated in Table No. 1. Although the proposed district is subdivided into 11 sites, this particular subdivision pattern does not have to be followed precisely. The Authority may choose to follow the proposed
MAP 1
PROPOSED DEVELOPMENT PLAN
GORDON COUNTY INDUSTRIAL DISTRICT

LEGEND:

- EXISTING ROAD
- PROPOSED ROAD
- PROPERTY LINE
- SITE BOUNDARY
- 1-11 SITE NUMBERS
road pattern, but leave the area undivided, allowing it to subdivide naturally as industries locate in the district. However, if this course is followed the Authority should be careful to see to it that the last remaining site is generally square in shape and contains at least 10 acres. An odd-shaped site of less acreage will be difficult, if not impossible, to use.

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Acreage</th>
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<tbody>
<tr>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
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<td>5</td>
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<td>10</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
</tr>
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</table>

Highways and Roads

A highway intersection relocation is proposed to facilitate access to the district and to utilize otherwise wasted acreage immediately west of Site No. 1 and McDaniel Station Road. McDaniel Station Road is proposed to be relocated
as is a part of Henderson Road in order to form a "T"-intersection between the thoroughfares thus improving site distance, traffic flow and safety. At present, McDaniel Station Road makes an abrupt turn to the west shortly after intersecting with Henderson Road. Additionally, Henderson Road has a somewhat undesirable intersection with the Louisville and Nashville Railroad a short distance from its McDaniel Station Road intersection. The proposed realignment of the two thoroughfares is intended to improve this intersection in addition to eliminating these other problems.

Henderson Road forms part of the district's thoroughfare system, providing access to Sites 1 through 6. Sites 7 through 11 are served by a second road running west off of Henderson Road. It is proposed that this second road have a right-of-way width of 40 feet to meet the needs of industrial traffic. Accordingly, Henderson Road should also be improved to a pavement width which can accommodate industrial traffic.

The area can be served with rail.

Rail Service

A main line of the Louisville and Nashville Railroad forms the site's western boundary. Three rail leads are proposed to come off of the main line to serve the district. One lead track would serve Site No. 1, while a second lead would serve Sites 2 through 8. A third track would serve Sites 9 through 11, and could also serve sites on the adjoining property to the south should the district ever be extended. The lead track to Site No. 1 is optional depending upon whether or not a rail-using industry locates on that site. The rail layout, overall is subject to modification depending on the actual location of plants in the district, especially rail-using plants. The currently proposed design on Map No. 1 utilizes 970 feet of track and three turnouts at an approximate cost of $100,000. It is recommended that the Authority work closely with the railroad in locating turnouts and other rail facilities prior to undertaking engineering work on the district.

-5-
Floodplain Areas

The land area north of Henderson Road and between Sites 1 and 6 is considered undevelopable because it lies below the 650-foot contour elevation and, therefore, lies in the floodplain. However, several small drainage areas south of Henderson Road and lying within Sites 2, 3, 4, 5 and 8 can be piped and graded to permit their use. On-site inspection in January indicated that they could be so treated and used.

Water and Sewer

Water service currently extends along McDaniel Station Road to Henderson Road. Service is from the City of Calhoun via an 8-inch line. Reportedly, this line diameter is not sufficient to serve the district and a larger 12-inch line will have to be installed. The area presently lacks public sewer service. Development of the district will require its extension from Calhoun. Water and sewer service are discussed in more detail in Appendix C.

Other Utilities

Electric power and telephone service are currently available in the area. Natural gas will have to be extended, but is available from a 6-inch high-pressure line north of David Airport.

Estimated acreage allocations for the district appears on page 7.
Table 2
Estimated Acreage Allocations
Gordon County Industrial District

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
<th>Percent of Total Acres</th>
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<tr>
<td>Undevelopable Area</td>
<td>30</td>
<td>20</td>
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<tr>
<td>Roads and Easements</td>
<td>9</td>
<td>6</td>
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<tr>
<td>Railroad Right-of-Way @ 50-ft.</td>
<td>5</td>
<td>3</td>
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<td>Net Developable Site Area</td>
<td>105</td>
<td>71</td>
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<tr>
<td>Total Area</td>
<td>149</td>
<td>100</td>
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Phasing Development

Not all of the district can be developed at one time because of financial constraints. Development will have to be phased to permit creation of a cash flow to help finance other developments. The objective of phasing is to minimize initial expenditures while at the same time getting the district sufficiently developed to permit the location of new industry.

Development should begin with improving Henderson Road and with preparation of Sites 1 through 6 for showing. Drainage work on these sites should also be carried out to permit their showing to prospects even in wet weather. A rail turn-out should be developed in the vicinity of Site No. 2 so that rail can be readily extended once a plant locates in the district. An alternative to actual development of a turn-out would be a written statement from the railroad indicating that a turn-out will be developed at a specified cost within a specified number of days after purchase of a site. The statement would be shown to prospects, and when a prospect locates the order to build the turn-out can be given. Proceeds from the land sale could help pay for the rail improvements.
Utility development should begin at the same time as land and thoroughfare development, if economically feasible. Having proper sized water, sewer and natural gas lines available at the site has a very favorable impact on an industrial prospect. If utility development is not economically feasible at the outset, the city should provide the Authority with written indication of how soon utilities could be extended once work began and indicate the cost. This documentation could be shown to prospects as proof of the city's willingness to provide the kind of service needed by industry. If natural gas service cannot be extended at the outset, a similar written statement should be obtained from the gas company for showing to prospects.

Once the initial plant location occurs it will be necessary to provide those services needed by the company, if they are not already extended to the site. Further development phasing will be concerned with road and rail development and land preparation. Once Sites 1 through 6 have been developed, and served with utilities, attention must turn to Sites 7 through 11. Here it will be necessary to develop a new road and extend rail in addition to site development. Initially, the road serving Sites 7 through 11 should be graded but not paved until later. This provides access for showing sites to prospects but avoids paving costs. Sites should receive preliminary grading and draining, and a rail turn-out should be installed when the first rail-using industry locates.

Sites 1 and 6 can be phased into the development process at any point. The major cost consideration here is with rail service to Site No. 1, should a locating industry require it. Here, the Authority should withhold actual development of a rail turn-out and lead track until a prospect has located. The initial non-rail industry to look at the district should be encouraged to locate on Site No. 6, thus reserving the remaining sites for rail-using industry. To minimize utility and rail extension costs, the Authority should encourage development to begin in the district's northwest corner.
(Sites 1, 2, and 3) and progress eastward along Henderson Road toward Sites 5 and 6. In developing Sites 7 through 11, rail extension costs dictate initiating development in the vicinity of Sites 7 and 9 and proceeding eastward from there.

Future industrial site development, once this district is filled up, could occur to the south of the study area. With this in mind, Sites 9 through 11 have had their rail lead track location proposed so as to serve additional sites abutting them on the south.

Land Sales Policy

The Authority will have to decide whether or not it wants to make a profit on its land sales. This policy decision will determine, to some extent, how it will finance future improvements. For instance, profits from land sales can be used to help finance additional development, thus helping to cover preparation costs of future sites. The Authority has the additional option of selling its acreage at cost, in which case it realizes no profit; or at a loss, in which case it's providing a greater subsidy to the community to help create new jobs. In either case it generates no income for use in future development. Development and other costs may place the per acre selling price of a site so high relative to the going market price that a profit is impossible. A lot depends upon the degree of developmental assistance forthcoming from various potential aid sources. The degree of aid accepted by the Authority may preclude, from a public relations standpoint, making a profit on land sales. These are aspects of the problem which bear on the Authority's decision and, therefore, should be discussed by it prior to actually placing land on the local market.

Site Clean-Up

In keeping with good real estate marketing practice the Authority should prevent the dumping of litter or other trash on its property and along thoroughfares leading to or directly serving the site. The property should be kept in
a cleaned-up condition, ready for showing at all times to a prospect although on-site inspections did not indicate such a problem existed in the immediate area it could quickly develop, and the Authority should be on the alert for such a development and be prepared to handle the problem. A clean site area is a good advertisement for a community that takes pride in itself.

**Preserving Developmental Quality**

Development around the study area is largely relegated to agricultural use. While there is a zoning ordinance in effect in Calhoun, the county is presently without this form of land development protection. Without zoning, the Authority has no assurance that the type and quality of development on lands surrounding its property will not be detrimental to its development. While it is unlikely that this section of Gordon County will become densely developed within a short time, development over the years could result in a preponderance of residential land use rendering industrial development and the district an incompatible neighbor whose termination might be sought by local residents. Development Authority members should keep a close watch on land use trends in the area to try to avoid a bad situation from developing. Better still, the Authority should consider the benefits of zoning in the county and the protection it can give their investment and work for its development. When, and if, a zoning ordinance is developed in the county, the Authority will need to see that its property is properly zoned for industrial use and that adjacent zoning results in a land use pattern compatible with industry.

Along with seeking compatible land utilization adjacent to its district, the Authority needs to insure a type of development within its district indicative of high quality and, thus, enhancing its sales potential. The Development Authority may desire to include protective covenants in its sales deed. Since the area is not zoned, there is nothing to prohibit a buyer, once a sale is completed, from using his newly acquired parcel for a use which would be
detrimental to other development in the district. Such protective covenants might include restrictions on property use, type of building erected, screening outside storage areas, landscaping and maintaining grounds around plants, and offstreet parking requirements.

Inasmuch as it is beyond the scope of this report to discuss in detail the various protective restrictions desirable for this district, careful study should be made of pages 19 to 25 of the Georgia Tech Special Report No. 4., Industrial Districts: Their Planning and Development. A copy of these pages accompany this report as Appendix A. Although the Authority may not wish to use all the covenants referred to here, it may want to use some of them. This publication, with the assistance of Georgia Tech's Northwest Georgia Area Office at Rome, should enable the Authority to formulate covenants and standards that will provide satisfactory protection to the district's residents.

It is particularly recommended that any sales contract for land acquired by industry in the district contain a recapture clause. In other words, if an industry acquires a building tract within the district and does not commence construction within a specified time period, the Authority should have the right to repurchase the land at its original sale price. In addition, attention should be given to a formal procedure for the continuing management of the district. (See Appendix B for coverage of this last topic.)

District Promotion: The Job Isn't Over When the Grading is Done

Even when the district's development is under way, the job isn't done. The Authority still needs to tell the world where its district is and what it has to offer. In brief, a promotional "flyer" is needed giving pertinent information on the Calhoun-Gordon County area and its district. Such data should be contained in graphic, pictorial, and textual form, and brief enough to tell a prospect what he needs to know, yet not so brief it tells him nothing. Information should also be passed along to such statewide developers as utilities
railroads, banks and the Department of Industry and Trade. Here, too, Georgia Tech's Rome office can be of assistance in carrying out this phase of the district development program.
APPENDIX A

PROTECTION OF THE DISTRICT
PROTECTION OF THE DISTRICT

General Considerations

One of the most valuable assets of an industrial district is the protection afforded the occupant industries. Through zoning, private covenants and other restrictions and controls and by the design, improvement and maintenance of the area, the industries within a district are assured that their investments in land and plant are adequately protected against loss or depreciation in value due to unsightly or offensive neighbors.

In respect to zoning regulations, modern thinking as to zoning standards in industrial areas categorizes industries by their actual performance rather than by arbitrary classifications that formerly relegated certain types of industry to heavy or unrestricted districts. Today, many of the industries that were once considered obnoxious can, through improved equipment and techniques, be made a compatible neighbor with many light industrial operations. By the use of fume destructors and other modern equipment, a paint and varnish plant could be located next to a food processing plant, and they would still be completely compatible.

It is desirable, therefore, that cities fully consider the advantages of a performance-standard type of industrial zoning for their industrial districts in order to increase the flexibility of industrial operations within the restricted area. Certainly the restriction of residential uses from industrial areas is most necessary, since such zoning regulation prevents the indiscriminate mixing of industrial and residential uses that is to the detriment of both.

While local zoning ordinances generally govern the location of industrial districts through the permitted types of use of an area, "most district developers go a step beyond these regulations and impose other limitations on the use of the tract. By their sales policies, by blanket protective covenants
against the land" -- applying in whole or part to the development -- "or by restrictions included in individual deeds or lease agreements, developers offer industrial occupants of a planned district the advantages of protection against nuisances created by undesirable neighbors."

Deed restrictions or blanket covenants for an industrial district should be carefully drawn so as to provide the maximum protection in combination with sufficient flexibility to meet future changed conditions. Standards as to minimum building setback, location and amount of offstreet parking, architectural control, landscaping, and maintenance can be covered by deed restrictions. Any specifications of type of material permitted in a building should be so written as to allow new materials to be approved. "A straight restriction for masonry or face brick exterior finish is far too rigid and ignores the use of architectural metal panels and various other new, attractive and economical materials. Restrictions should permit the approval of equivalent materials or leave the approval of new materials up to an architectural control committee or to the developer.

"Some building setback should be specified in the deed restrictions. Such setback may vary considerably depending upon the depths of tracts being proposed, and even the nature of the industrial district . . . Likewise, small buildings will require less open space to create an appropriate setting than would be required for larger buildings."

In the paragraphs below are summarized suggested restrictions and covenants for industrial districts. While these are all practical and commonly used provisions, their listing here does not mean that each is necessary to every district and that they should be used without modification. Further, legal assistance will be needed in writing up these provisions in order to keep them in conformity with local and state laws. As indicated in the preceding paragraph, considerable judgment should be exercised in establishing setback distances,
restricting usage of materials, etc. The degree of success in properly meeting these problems obviously is dependent upon the experience of the developer.

Restrictions and Covenants

Zoning. The entire district shall conform with the most exclusive industrial zoning classification possible. Even if this classification normally disallows all commercial activities; certain service-type activities (branch plants, cafeterias, etc.) considered essential for the most efficient functioning of the district and its industrial tenants should be permitted, provided these service establishments are restricted to a specified area within the district.

Use of Property. All property conveyed within the district shall be used only for industrial, manufacturing, warehousing, or distribution purposes, excepting only such land as may be expressly delineated as a service area for the district. Use for residential purposes shall be expressly prohibited, as well as the retail sale of any merchandise or service, excepting retail sales by district occupants of those products which they manufacture or handle at wholesale. The financing of the sale of such merchandise is expressly permitted, as is the retail sales of food, beverages, and other convenience items to the occupant industries' employees, as long as these items are not offered for sale to the general public. The purpose of this restriction is to prohibit operation in the district of any business primarily devoted to retailing of consumer-type merchandise.

Admission to the District. The admission of any industrial occupant to the district shall be at the discretion of the developer. Whether an industry or business is objectionable and shall be refused admission because of unsightliness or the excessive emission of smoke, dust, noise, glare, odors, fumes or vibrations shall be determined by the developer. The basis for decision can be their performance standards of industrial zoning. Further, occupant
industries shall not be permitted to use any of their land or premises for manu-
facture, storage, distribution or sale of materials or products that will in-
crease insurance rates, depreciate the value of adjoining property, or for any
purposes which constitute a nuisance.

Architectural Design and Materials. All buildings or other structures erected
in the district shall be fireproof and constructed of masonry or other strong
and architecturally acceptable materials, in conformity with local building codes.
No improvements shall be erected, placed or altered on any building site in the
district until the building or improvement plans, specifications and plot plan
showing the location of proposed improvements on the particular building site
have been submitted to and approved in writing by the developer. Such approval
shall necessitate that the proposed improvements are in conformity and harmony
of external design with existing structures in the district, are so located as
to not adversely affect adjoining structures, uses, or operations, and are com-
patible with existing topography, grade and finished ground elevation of the
building site.

Heights of Structures. Any structure erected within the district shall
not exceed 45 feet in height, measured from the average elevation of the finished
lot grade at the front of the building to the roof line. However, this height
may be exceeded, with the aprobal of the developer, for water towers or tanks,
standpipes, penthouses or structures for housing elevators or related equipment,
stairways, ventilating fans, or other equipment required to operate or maintain
the buildings; fire or parapet walls; cooling tanks or other towers; wireless
radio or television masts; signs on top of parapets; flagpoles, chimneys, or
smokestacks, storage and/or mixing towers; and similar structures. But no
structure or any space above the height limit shall be allowed for the purpose
of creating additional office or production floor space or for sign display
other than the permitted signs on top of the parapet.

Building Setbacks. Where a district fronts on a major highway route,
property fronting on that highway shall have a building line setback of 100 feet (or other specific distance -- see below) from the street right-of-way. Property facing all other interior streets of the district shall have a building line setback of 50 feet (or other specific distance) from the street right-of-way line. No buildings or other structures shall be located closer than 25 feet (or other specific distance) to any side building site line or real property line, to insure that an open area of at least 50 feet (more or less) shall exist between all adjacent but separately owned improvements, both sides and rear. Whenever a building site abuts upon a railroad lead track easement or right-of-way, sufficient space shall be reserved to permit the construction of a side track approximately parallel to the track easement.

The precise distances for setbacks should be established in relation to street widths and to building lot sizes, with the objective of creating ample open areas on all sides of the building that will occupy the site. It is of interest, therefore, to note the following setback ranges as found in an Urban Land Institute survey: Setbacks for buildings fronting on major highways usually range from 50 to 200 feet or more, while buildings fronting on district streets have 25- to 60-foot setbacks; from side and rear property lines, the setbacks generally are from 10 to 30 feet.

Site Coverage. No buildings or other structures should be built or maintained which, in the aggregate, cover more than 50% of the total land area, although the Urban Land Institute found in its 1960 survey that individual site coverages vary tremendously -- from less than 1% to over 90%. The great majority of district occupants, however, were found to utilize only 20% to 50% of their sites for buildings, and ultimate coverage of more than 60% was relatively infrequent, especially in districts established since 1950.

Some developers question the need for site restrictions if the district covenants require ample building setbacks, side yard areas, and adequate space for employee parking and truck maneuvering and loading.

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The required open areas between property lines and building lines may be left as green lawn areas or landscaped or may be used for off-street surfaced parking areas. If used for parking, the surfacing and parking arrangement must be approved in writing by the developer.

Off-Street Parking. No street parking of cars or trucks shall be permitted in the district. It shall be the responsibility of each occupant industry to provide off-street parking facilities for employees, customers and visitors at a ratio of at least one and one-half spaces for every person employed on the premises by the original occupant.

Establishment of a standard ratio that would be universally applicable would be practically impossible to derive and, consequently, any plans for the provision of parking facilities should be reviewed with local planning commissions or other technical advisors who are familiar with worker-travel habits in specific types of industry. Plants on shift operations may need to have their parking space requirement considerably expanded, but such upward adjustment should receive approval of the developer.

Off-street parking also shall be provided for all company trucks and for trailers awaiting pick up or arriving after plant closing time.

These parking areas may be provided anywhere on the premises except in the minimum front yard. "Most districts permit only guest parking in front of buildings with employee parking and truck loading relegated to side and rear yard areas."

Site Landscaping Improvements and Maintenance. Any area within a building site that is landscaped shall be done attractively with lawn, trees, shrubs and other plantings, according to plans approved in writing by the developer. All landscaped areas shall be properly maintained thereafter in a sightly and well-kept condition.

Front yards of building sites shall be maintained in grass, except walks,
drives, plantings and flagpoles. Suitable plantings shall be provided and main-
tained in front of the building or incorporated in the architecture of the
structure by means of planters. No driveways parallel to the street shall be
permitted in the required minimum front yard.

Side yards shall have a partial foundation planting.

Paved areas subject to wheeled traffic shall be surfaced with bituminous,
concrete or equivalent coatings and, when needed, bumper or wheel guards shall
be installed. Occupant industries shall have the responsibility of extending
driveways to existing or projected streets, at their own expense, even though
parts of this construction are within the street right-of-way.

Parking areas that are located between the front of the building and the
required minimum front yard shall be screened from the street. Light standards
for the illumination of parking areas shall be so shielded that the light source
will not be visible from the street or from adjacent properties.

Unpaved parts of the site shall be maintained in grass and landscaped, in-
cluding any such property which may be in a street, rail or utility right-of-way.

Maintenance of individual building sites within the district shall be the
responsibility of the occupant industry, and the premises, buildings and all
improvements shall be kept in a safe, clean, healthful and presentable condition
at all times.

The removal of undergrowth, weeds, debris, rubbish, trash, excess dirt,
industrial wastes, or garbage, and any other unsightly material from a building
site shall be done by the occupant industry.

Loading Facilities. The maneuvering of trucks and trailers shall be con-
fined to the premises of each occupant industry.

Minimum requirements for off-street loading facilities shall be one load-
ing space at least 14 x 60 feet with a 15-foot height clearance, if covered;
The total depth of the off-street maneuvering apron and truck position at dock shall be a minimum of 115 feet. The number of truck loading docks will be dependent upon the nature of the industry and types of transport service needed.

Loading bays shall be located only on those sides of the building not facing streets and at least 25 feet away from the nearest right-of-way.

Power. Power used in or developed or obtained for any operations within the district shall be confined to electrical or substantially equivalent type of power using in its production only oil, gasoline, gas, liquid petroleum products or similar combustible materials which do not produce excessive smoke, odor or fumes.

Signs. No billboards or advertising signs other than those identifying the name, business and products of the person or firm occupying the premises shall be permitted, except that plaques, directional signs, and "for rent" or "for sale" signs may be permitted as provided below.

A maximum of two signs should be permitted for each industry occupying a building, including any sign that is part of the building's architecture. In multiple-unit buildings the same number of signs may be allowed for each industry, provided that on any such building only a wall or a parapet sign be permitted, but not both, and that no sign affixed to the wall may extend above the roof or parapet.

Signs shall pertain only to the identification of the business conducted within a building and products sold or manufactured, and to the direction of visitors.

Permitted types of signs may include horizontal wall signs, excluding those painted on the wall itself; parapet signs, including those on top of canopy or marquee; identifying plaques attached to the face of the building near the main entrance; and signs offering the premises for sale or lease.
Wall and parapet signs shall have a maximum height of four feet and a maximum area of not more than three square feet for each running foot of the face of the building displaying the sign; maximum projection of the sign from the face of the building shall be 12 inches. Plaques shall not exceed eight square feet and directional signs, two square feet. Sale or lease signs shall be prescribed by the developer.

Any spotlight or other illumination of a sign shall be so directed or shielded that the light source is not visible from the street or adjacent property. Animated signs should not be allowed.

Outside Storage. Outside storage shall not be permitted. Where necessary to temporarily store finished or semi-finished products or other materials on the outside of the plant building, the rear part of the property shall be used for such storage, and the storage area shall be screened by a fence at least six feet in height. All fencing for screening, security or other purposes shall be attractive in appearance and be of an all-metal industrial type of galvanized or non-ferrous material.

Re-purchase of Land. One restriction that is very important to the orderly development of an industrial district is some provision for re-purchase of land. For example, after the expiration of one year from the date of execution of a deed to any site in the district, if the purchaser has not commenced in good faith the construction of an approved building, the developer should have the option to re-purchase the site at the original sales price. Moreover, until buildings cover at least one-sixth of the total area of a building site, the occupant industry should be prohibited from selling any of the site on which buildings have not been constructed without first offering such excess land to the developer, at the original sales price. In either instance, the developer should have a period of 90 days within which to exercise these rights of re-purchase.
Streets, Utilities and Rail Service. Paved street and water, power, gas, telephone and sewer lines in the easements or rights-of-way adjoining building sites shall be provided by the developer at no cost to district occupants. The developer shall make arrangements with the railroad(s) for serving the district and shall deed to the carrier(s) without cost all rights-of-way needed for lead tracks, but the occupant industries shall have the responsibility of individually negotiating with the carrier(s) for their spur trackage needs.
APPENDIX B

MANAGEMENT OF THE DISTRICT
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No single plan for the management of industrial districts would be generally applicable. This is especially true because of the diversity of organizations that are sponsoring districts throughout the country. Broadly grouped, these include private real estate developers, railroads, private local community organizations, governmental agencies, joint government-private ventures, utilities, universities and others. The objectives of the various sponsoring groups are equally diversified, as are the local situations that are responsible for bringing the many districts into being. As a consequence, there appears little justification for attempting here to present any specific outline of district management procedures.

Nevertheless, there is one procedure that apparently has been quite effective in guiding the development of some of the country's more successful districts. It is offered here for whatever value it may have to Georgia developers, particularly in those instances where districts are publicly sponsored. This procedure may be especially helpful in making the transition from public to private ownership of a district.

Over the developmental period of a district, the management is confronted with many problems, not the least of which is the enforcement of covenants and other restrictions. To a private developer, many of these problems are readily resolved through personal or corporate decisions. On the other hand, a publicly sponsored district creates a public trust obligation that is secondary to any profit motive, and many pressures must be resisted if the district achieves the anticipated objectives of increased tax base and maintenance of a high level of local employment. For example, in such publicly sponsored districts, there often is much public pressure to bring in industry at any price -- lowering of restrictions or discounting of land prices are among the concessions commonly sought by well-meaning but misguided citizens. Hence, the public sponsor frequently feels
a definite need for guidance and support during the developmental period of a
district, as well as for some procedure for being relieved of management con-
trol of the district after sales of all available building sites have been
completed.

To meet the above needs, an Advisory Committee should be created with the
eventual purpose of taking over management control of the district when all
sites have come into private ownership. In fact, the management of the district
might well be turned over to this committee when 75% of the available acreage has
been privately acquired. At that time, the committee may find it expedient to
form an association that would represent the occupant industries of the district.

The initial Advisory Committee should have wide representation among com-
munity business and community leaders and should be composed of about 15 members,
although the number need not be fixed. It should come into existence about the
same time as the district project is started and would meet at the call of the
public sponsoring group. This committee's purpose initially would be wholly ad-
visory and would give advice only on specific problems put to it by the public
sponsors.

In the selection of the committee members, persons should be chosen whose
experience backgrounds can contribute to the successful management and develop-
ment of the district. One member, for example, might be a representative of a
local bank or investment house, to provide knowledge of financing -- sources of
loans, mortgage requirements, etc. Another person with a public relations or
newspaper background could be responsible for keeping the public fully informed
at all stages of the district's development. There might also be a lawyer, an
industrial realtor, and a member of an architectural or construction firm included
in the committee membership.

As industries purchase property in the district, their representatives should
replace members of the original committee, so that eventually the committee is
composed largely, if not entirely, of these industrial representatives. Then,
when all property in the district has come into private ownership and the public sponsor's control has ceased, this committee will be ready to reorganize as an association and to take over the responsibility for enforcing covenants and restrictions and for organizing any other projects for the common good of the district tenants.

Although it is assumed that the resultant association's membership would be composed dominantly, if not wholly, of industrial representatives, it is not intended that others necessarily must be excluded. On the contrary, it is felt that some community interest should always be represented in the association so that the district may continue to receive the beneficial influence of local groups who understand and appreciate the significant economic contribution the district makes to the community and area.
APPENDIX C

EVALUATION OF POTENTIAL INDUSTRIAL SITES IN THE CALHOUN, GEORGIA AREA
Evaluation
of
Potential Industrial Sites
in the
Calhoun, Georgia Area

Prepared for
Gordon County Industrial Development Authority

by
Winfred G. Dodson

Economic Development Division
Technology and Development Laboratory
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GEORGIA INSTITUTE OF TECHNOLOGY
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Introduction

This report covers the first phase of a two-phase project to locate and design an industrial district in the Calhoun area of Gordon County. The district, when developed, is to be owned or otherwise controlled by the Gordon County Industrial Development Authority. This phase of the report reviews and evaluates six properties inspected as a possible location for the district. The properties involved were inspected by the author, a representative of Tech's Rome Area Office, and the Chamber of Commerce Executive Vice President on January 25 and 26.

Properties were evaluated according to these criteria:

1. That the site area contain at least 100 usable acres.
2. That it be located, preferably, on a major thoroughfare, and that it have access to rail transportation.
3. That it have a location within economic reach of utilities, including public water, sewer, electric power, natural gas and telephone service.
4. That it contain soils suitable for construction of industrial buildings, and that it have moderate slopes, preferably not exceeding 10%.
5. That it be available for sale or option for industrial use at a price considered reasonable in light of the current local land market.

The six properties inspected are located north, south and west of Calhoun as shown on the map on the following page. Properties will be discussed in order, beginning with the most northern as Site No. One.

Site No. One. This site, known as the Stephens Property, contains approximately 144 acres and is located north of Calhoun on the Craigtown Road about one-half mile east of U.S. Highway 41. The area is presently used as open farmland and contains some forested area. A main line track of the
Louisville and Nashville Railroad runs along the property's west side. Land use west of the site is a mixture of residential and commercial and two industrial operations. Calhoun Padding and Calhoun Chemical Company, are also located nearby. East of the site, along Craigtown Road, land use is predominantly residential. Water service can be made available to the site, but is presently some distance away. A 10-inch line is located along Tate Bend Road approximately one mile southwest of the site. A 12-inch line is located at the north end of Calhoun Industrial Boulevard, about one-half mile south of the site. Sewer service is available from a 10-inch line south of I-75, also located at the north end of Calhoun Industrial Boulevard. However, extending service would require installation of a sewage lift station. Natural gas is not presently available to new industrial customers north of Calhoun because of an insufficient line size. A four-inch low pressure line lies along U.S. 41, and a two-inch line extends a short distance east from this in the vicinity of Craigtown Road. The Georgia Natural Gas Company has plans to eventually extend a six-inch high pressure line north from the general vicinity of Georgia 53 and I-75 to the Resaca area. This line when extended would provide additional gas to Site No. One. Electric power is provided to the area by the North Georgia EMC via 12 kv and 7.2 kv lines located along Craigtown Road. The area is served by a 10,000 kva capacity substation. The Louisville & Nashville Railroad forms the west boundary of the site and for approximately 1,500 feet runs along the 650-foot elevation. Most of the sites usable acreage is also located at this elevation, so that extending rail service onto this property would be possible. Most of the site area is contained within the 650-foot elevation with moderate slopes ranging from one to 10%. Topographically, the property contains a gently rolling hill at elevation 660, sloping to the 640-foot elevation on the property's east side, and to the 650-foot elevation on its west side. Almost all of the site's acreage is floodfree since it lies above the 640-foot elevation. Two small creeks, one at the northwest corner and another at the southwest corner, cross the site. Soils in the site area range from favorable to
poorly suited for industrial development, as interpreted by the U. S. Soil Conservation Service.\(^1\) However, this interpretation indicates that some soils in the site area will require more preparation and therefore, will be more costly to develop for industrial use than will other soils. This does not mean that the area cannot be developed industrially.

**Site No. Two.** This site area is in multiple ownership, and is generally known as the Bennett, Winkler, Holland, Knight and Putnam properties. In all ownerships combined, there are approximately 225 acres. The property is located in north central Calhoun and lies partially within the city limits. Those sections within the city are zoned industrially. The property lies west of the L & N Railroad and fronts on Henderson Bend Road for approximately 270 feet. Henderson Bend Road provides the site area's only major road frontage. Other access is available from U. S. 41 via the Jolly Road which is partially paved and bisects portion of the area's north end. In time, access to this site may improve if a current proposal to the State Highway Department is successful. Under this proposal, Georgia 156, Red Bud Road, would be extended west to intersect with a new north-south thoroughfare connecting Georgia 143, North River Street, with U. S. 41. This new facility would bisect Site No. Two, providing it with considerably improved access. Development of this proposed facility will be essential to development of this area for industrial use. The several ownerships are bordered on the east by the L & N Railroad, on the south by Henderson Bend Road and a property line, on the west by a series of property lines and on the north by a property line. The bulk of the property lies approximately 350 feet east of U. S. 41. Land use within the site area is predominantly agricultural, including scattered woods. Land use around the site is a mixture of open land to the south and west with some scattered residential area to the north. To the east, in the vicinity of U. S. 41, it is a mixture of residential, commercial and some industrial activity. Nearby industrial operations include Greenbrook and Atlantic Carpets.

\(^1\) U. S. Department of Agriculture, Soil Conservation Service; *Soil Survey,* Gordon County, Georgia; October, 1965; pp. 8-9
The property is dominated by a broad, shallow valley running northeast-southwest along a creek to the Oostanaula River. This valley area appears to contain approximately half of the area's acreage. Paralleling the valley to the west is a somewhat broad plateau rising from the valley floor at about elevation 630 to the 650-foot elevation; and again rising to a hilltop at elevation 715 in the property's northwest corner. Excluding the valley area, there are approximately 120 acres of usable land above the 650-foot elevation, in the site's western half. Slopes over the site are generally moderate, except for the northwest corner where they exceed 20%. Data on 100-year maximum flood level indicate flooding up to the 644-foot elevation, so that usable site acreage will be that area, approximately 120 acres, lying west of the creek above the 650-foot elevation, referred to above. This area will be somewhat difficult to develop as a unified industrial district because of its generally elongated shape, ranging in width from 300 up to 1,000 feet. However, development of the proposed new thoroughfare through this site could result in development of a more uniform width throughout, thus providing a land form with greater development potential. Soils in the area are similar to those found in Site No. One, and are considered to range from favorable to poorly suited for industrial development. Water service to the area if developed, would be from a new line to be extended northward from Calhoun's Water Filtration Plant, on the Oostanaula River approximately one-half mile south of Henderson Bend Road. Sewer service is from an existing 18-inch trunk line running along the creek that bisects the property. Natural gas is available from a four-inch, low-pressure line lying along U. S. 41, and a two-inch, low-pressure line located along Henderson Bend Road. However, this line cannot adequately serve industrial growth because the available pressure and quantity are insufficient for industry's needs. Adequate service must await extension of the six-inch line discussed in the above commentary on Site No. One. Electric power is available from the Georgia Power Company via a 12kv line located along U. S. 41 and Henderson Bend Road. The area is served by a 25,000kva substation.

2/ Data supplied by Northwest Georgia Area Office, Engineering Experiment Station, Georgia Institute of Technology.

Rail is available to the site from the L & N mainline which runs along the property's east side. Visual inspection of the site and of topographic maps indicates that rail service could possibly be extended to the site from a point south of the L & N crossing with U. S. 41. At this point the mainline track is on elevation 650, as is most of the usable site area west of the creek. Developing a lead track at this, or any other, point will require crossing the creek. Because of the irregular shape of the three properties, accomplishing a unified site development will be difficult.

Site No. Three. This area contains approximately 109 acres and is owned by J. M. Owen, Venture Carpets and Time-D.C. The site is in the form of a reverse "L" and is bounded on the north by a property line, on the east by Memorial Gardens Road, on the south by Belwood Road and on the west by U. S. 41. The property fronts on a major thoroughfare and two local streets. Access could be developed from the U. S. frontage which is approximately 900 feet. The property is presently open farmland and contains two large chicken houses in its north section. Surrounding land use is primarily scattered residential with some commercial and industrial uses. A trucking terminal is located to the east across Memorial Gardens Road. To the west, along U. S. 41, there are several industrial operations including Wellco Carpets, Goodyear Tire and Rubber Company, and Venture Carpets. Part of the property lies within the Calhoun city limits and is zoned for industrial use. Topographically, most of the site lies at the 650-foot elevation. However, the site area is dominated by a hill on its northeast side rising to elevation 680. A smaller hill is located on its south side, near U. S. 41, rising to the 670-foot elevation. Slopes on the site range from 6 to 10%. Below the 630 elevation, in the southwest corner, the property is subject to flooding. This end of the property will have to be raised three to four feet to prevent further flooding and to utilize an existing 12-inch city sewer line located in the area. Public water service is available to the site from an 8-inch line located along U. S. 41 and from another 8-inch line along Belwood Road. As previously mentioned, public sewer service is available from a 12-inch line extending along U. S. 41 to the southwest corner of the site. Natural gas service is available to the site from the Atlanta Gas Light Company via a 6-inch high-pressure line located along Belwood Road.
There is also a 4-inch high-pressure gas line nearby on U. S. 41 in the vicinity of Wellco Carpet. Reportedly the area has sufficient natural gas available south of Calhoun to serve additional industrial growth. Electric power is available to the site from the City of Calhoun, for that area within the city, and from the North Georgia EMC for that area outside the city. If the area lying beyond the corporate limits were to be annexed into the city, all development would be served by Calhoun. City electric service is provided by 12kv and 7.2kv lines located along U. S. 41. These lines are served by an 18,000kva substation. North Georgia EMC service is also provided by 12kv and 7.2kv lines located along U. S. 41, Belwood Road and Memorial Gardens Road. These lines are served from a 33kva substation. Practically all of the site area is considered floodfree since it lies above the 640-foot elevation, except for the small previously mentioned area lying in the property's southwest corner. Discussion with the city engineer indicated that maximum flooding in this part of the city reached an elevation of about 638 feet. Soils in the site area, are considered favorable for industrial development. 4/

Site No. Three has the best highway access available to any of the properties surveyed. The property fronts on U. S. 41 for about 900 feet on its west side and for about 1,500 feet of frontage on Memorial Gardens Road, on its east side. Both of these thoroughfares intersect with Georgia 53, one mile north which in turn interchanges with Interstate 75 about one mile to the east. Additional access to I-75 is available about six miles south of Site No. Three on U. S. 41 in Adairsville. Rail service is not readily available to this property. A mainline track of the L & N Railroad lies approximately 3,500 feet west, along McDaniel Station Road. Extending rail service to Site No. Three would entail acquiring a right-of-way for the distance between the mainline and Site No. Three for location of the spur track. The track would also have to cross U. S. 41 before coming onto the property. An alternate possibility exists for extending rail service and that is partial utilization of existing trackage owned by the Goodyear Tire & Rubber Company. The Goodyear

plant site lies to the west across U. S. 41 from Site No. Three, and has several spur tracks serving its plant. It is possible that, with Goodyear's approval, additional trackage to serve Site No. Three could be developed in conjunction with Goodyear's track, thus reducing the total amount of track that would have to be developed, and with it the total cost. Lack of immediate rail availability is this site's biggest drawback. However, extending rail to this area could also open up other potential sites east of U. S. 41 for development for rail-using industries. Should prospective industry need it, air transportation is available via the Tom B. David Airport, located approximately one-half mile south of this site on U. S. 41. As previously mentioned, this property is adjacent to some scattered residential development; in fact, two very nice homes are located adjacent to the site's east boundary. In order to protect existing residential development close to the site while at the same time providing future industry with an acceptable environment, it will be necessary to buffer industrial development in a suitable manner to protect both industry and its residential neighbors. Taking this step also enhances the community economic development effort in that it makes for a better "marriage" between industry and the community, thus enhancing its reputation as a place for industry to locate. Proper buffering in this situation will require tree and shrubbery planting in selected areas between residential and industrial development, and the careful use of setbacks and landscaping in locating industrial plants along Belwood Road. It will also be necessary to carefully select the types of plants locating in the area to insure that they produce a minimum of smoke, smell, noise, vibration and other characteristics which would render their presence incompatible with nearby residential development.

If Site No. Three were to be developed, its primary access should be from U. S. 41 with a minimum of access from Memorial Gardens Road so as to discourage industrial traffic movement along Memorial Gardens and through residential development between the site and Georgia 53. Industrial sites within the property should back onto the residential development along Memorial Gardens Road and have a planted buffer area approximately 100 feet wide.
between these uses.

**Site No. Four.** This site, known as the Darby property, is located approximately three miles south of Calhoun on the McDaniel Station Road and contains about 147 acres. The property is bisected by Henderson Road connecting McDaniel Station Road with U. S. 41. The site covers most of a Land Lot and is bordered on the north, east and south by a Land Lot Line, and on the west by the L & N Railroad, the McDaniel Station Road and part of a Land Lot line. North of Henderson Road the property lies in a floodplain created by three small creeks draining into nearby Oothkalooga Creek. This part of the site lies below the 650-foot elevation and is very subject to total flooding during periods of heavy rainfall. This was evidenced during an on-site inspection by the author, the Chamber's Executive Director and personnel from Tech's Rome Area Office on January 25 and 26. Flooding, at that time, extended from Oothkalooga Creek southward to Henderson Road, rendering the site's northern section useless for industrial development. South of Henderson Road the land rises gently to the 660-foot elevation from the 650 elevation in the vicinity of the road. Most of the southern half of the site lies between 650 and 660 feet. Slopes in this part of the property are less than one percent (1%). Four small drainage lines, or creeks, are found in this part of the site; however, observed flooding along these lines appeared to be minimal and can probably be controlled by piping and proper grading, permitting industrial use. Because of the gentle slopes over the site's southern half, and because the adjoining railroad track lies within the 660-foot elevation for approximately 2,000 feet, extension of a rail lead track onto the property appears feasible. There is a small section in the property's northwest corner, north of Henderson Road and above the 650-foot elevation which probably cannot be served by rail. South of the road there are approximately 100 acres of usable land. To the north there are approximately 10 acres of usable land in the northwest corner, and another five usable acres to the northeast above elevation 650. This area south of Henderson Road would permit development of rail-served industrial district, while the two smaller areas to the north could be developed as individual sites without rail. If in the future additional land could be obtained...
south of the Darby property, Site No. Four would be even more attractive since development efforts could be concentrated in this part of the Calhoun area for a long time to come, thus justifying even further investments in utilities, roads and rail. Site No. Four is presently in agricultural use as is the surrounding area. Development of the property will require improvement of Henderson Road to a standard commensurate with industrial traffic. This property is also close to the Tom B. David Airport and will have good access to it and U. S. 41 with improvement of Henderson Road. Access to Interstate 75 would be from U. S. 41 at Adairsville, approximately four miles to the south. Access north to the Interstate, via Calhoun and Georgia 53 would be approximately six miles. Site No. Four is presently without public water and sewer. It also lacks natural gas. Electric power is available from the North Georgia EMC via a 7.2kv line along Henderson Road. The area is served by a 66000kva substation. The city of Calhoun intends to extend water service via a new eight-inch line to this site within three months (as of January 25, 1978). However, for industrial use this line size may be too small. Obtaining sewerage would require extending a line, south from a point approximately 6,000 feet north of Salem Road along Oothkalooga Creek to the Darby property. Depending upon various engineering considerations, this sewer extension could require from two-and-a-half miles up to four miles of line. Obtaining natural gas service would require extending a six-inch high pressure line south from a point approximately two miles north on McDaniel Station Road. The soils contained in Site No. Four are considered to range from fair to poorly suited for industrial type building development. 5/

Site No. Five. This site, known as the Mark IV property, contains approximately 145 acres and is located about two miles south of Calhoun on the McDaniel Station Road. Salem Road, connecting McDaniel Station Road and U. S. 41 crosses the property's southern edge. The property is bounded on the north by a property line, on the east by Tom David Airport, on the south by Salem Road, and a property line and on the west by the L & N Railroad. Elevations over the site range from a low of 630 feet along Oothkalooga Creek

on its east side to a high of 670 feet atop a hill dominating the site's western side. The site's eastern half lies between the 630 and 640-foot elevations and is bisected by Oothkalooga Creek. This area is primarily floodplain, with the maximum flood elevation lying at the 640-foot level. The site's western half lies above the 640-foot elevation and, on inspection, appears to be flood-free. There is a small area south of Salem Road which is also part of this property. Much of this area is floodplain except for a small hill at the 660-foot elevation. Essentially, the usable land area within the Site No. Five boils down to approximately 32 acres north of Salem Road, and an additional eight acres south of this road. The property is presently in agricultural use, and contains some woods. Except for Tom David Airport, adjoining properties are in a similar use. There is some scattered residential development to the west across McDaniel Station Road. The nearest industrial operation is probably Harbison-Walker Refractories, located about one-half mile north on McDaniel Station Road. Future expansion of Tom David Airport will require approximately the eastern half of this property, so that even if it were flood-free and usable it would not be available for industrial use. However, it is not anticipated that approach zones to the new airport will restrict development on the western half of Site No. Five since the new runway will generally parallel the east side of this property. Acreage remaining in Site No. Five after airport expansion will be approximately the same as that mentioned above as being north of Salem Road and floodfree. The small flood-free area south of Salem Road will be required for airport expansion. The site has generally good highway access. Because Salem Road intersects with both McDaniel Station Road and U.S. 41, Site No. Five has good access to these facilities and to Georgia 53 in Calhoun and to Interstate 75. U.S. 41 lies approximately one-half mile east, Georgia 53 approximately two miles north and Interstate 75 three miles north at Calhoun or seven miles south at Adairsville. The L & N Railroad borders the site on its west side generally at elevation 650. With grading, rail service could probably be extended to the 30-plus acre developable area of the site immediately east of the railroad. Service for private planes, or company aircraft is readily available at David.
Airport which currently offers a 3,600-foot runway. This will be extended to 6,000 feet when the airport expansion is carried out. Some utilities are available to the site, while others will have to be extended. Public water service is available via an eight-inch Calhoun system line located along Salem Road. However, public sewer and natural gas (Atlanta Gas Light Company) would have to be extended approximately 6,000 feet in the first case and 3,100 feet in the second. Electric power is available from the North Georgia EMC via a 12kv line located along McDaniel Station Road. The substation serving this area has a capacity of 33,000kva. Soils in the site area are considered to range from favorable to poorly suited for industrial development. This means that those soil areas less suited to industrial use may be more difficult to develop properly and, therefore, probably somewhat more costly to make ready for such use.6/ While Site No. Five is reasonably close to existing utilities and has good transportation access, its small amount of usable acreage is too small to merit consideration for industrial district development. However, this site could be useful industrially at some future date as a site area offering from one to three sites with rail. Should development take place further south, for instance on Site No. Four, the required utility extensions would also serve Site No. Five, opening it up to development.

During the on-site survey, January 25 and 26, a second site area immediately south of Site No. Five, known as the Payne property, was also considered as a possible addition to Site No. Five. This property reportedly contains some 30 acres and is bounded by Salem Road on the north, Oothkalooga Creek on the east and south and the L & N Railroad on the west. While this property would have most of the advantages of its northern neighbor, Site No. Five, approximately the eastern half of its area lies in floodplain below the 650-foot elevation. That part of its area above the 640 feet contains approximately 19 acres of usable land in an irregular shape formed by the 640-foot contour line. For approximately 1,500 feet south of Salem Road the 640-foot contour, and usable land area, closely parallels the railroad. At the 1,500-foot point, however,

the contour line swings to the east, creating a small peninsula approximately 1,200 feet long and 400 feet wide and falling from a hilltop at the 650-foot level at an average slope of 3% to the creek. Providing access to this approximately 11-acre area would require extending a new road from Salem Road to the developable area. It is doubtful whether rail could be extended, but the small site size would likely not make it feasible. Adding this property to Site No. Five, or developing it as a separate site is not recommended at this time.

Site No. Six. This site known as the Hobgood property contains approximately 110 acres and lies west of Calhoun, across the Oostanaula River on Georgia 156. The property is bounded on the east by the Southern Railroad, on the south and west by property lines and on the north by Georgia Highway 156. Topographically, about half the site area lies above the 650-foot elevation. Elevations over the remainder of the property range between 640 and 650-feet. The site is bisected by a small creek running north to south through its center, draining into the Oostanaula River. Slopes over the site are quite moderate, averaging about 2%. Generally, most of the site area appears to be floodfree. The site has generally good highway access, with approximately 1,300 feet of frontage along Georgia 156. Other road access is provided by the Patterson Loop Road and Oostanaula Road which also intersects with Georgia 156. It appears that rail service to this site could be provided from the Southern Railway's mainline, bordering the property's east side, since most of this rail frontage lies at the 650-foot elevation, as does much of the abutting site area. Utility services, except for electric power are nonexistent. A city of Calhoun six-inch water main, extending to within a mile of the Georgia 156 bridge over the Oostanaula is probably the closest municipal service. Natural gas is not available in this area. Electric power is available from the North Georgia EMC via 12kv and 7.2kv lines along Georgia 156 and Oostanaula Road. This area is served by a 66,000kva capacity substation. The property is currently used as open farmland, and contains a house and several other structures. Surrounding properties are also in agricultural use, except for a
nearby community center. Soils in the site area are considered to be poorly suited to residential and industrial development because of internal and external excess water.7/

Site Evaluations and Development Recommendation

Based on data from the site survey, sites three and four are recommended for further consideration as an industrial district. Reasons for selecting these sites will be discussed later. Sites one, two, five and six are not recommended for developing at this time for the following reasons.

Site No. One. Although this area contains ample acreage, 144 acres, suitable topographically and potentially good access for an industrial district location, its current lack of natural gas is a major deterrent to recommending this site now. Additionally, owners of the property have not indicated to the Gordon County Industrial Development Authority a per-acre price, or price range, implying a lack of desire to sell. However, this property has relatively good industrial potential and should be kept in mind by the Authority for reconsideration at a future time when natural gas becomes available and additional site land may be needed.

Site No. Two. Again, the lack of natural gas prohibits recommendation of this property for development now.8/ In addition, this property has an elongated shape making unified development of the area difficult. The property will have improved access if the proposed new thoroughfare paralleling U. S. 41 is developed. This new facility may make unified development easier. This property should be reassessed for possible use after the new road has been completed.


8/ Before a real industrial site potential can develop in north Calhoun additional natural gas will have to be made available to this area. Reportedly, the Atlanta Gas Light Company will have to extend a six-inch, high-pressure main from the vicinity of Belwood School, south of Georgia Highway 53, north for about six miles to extend the necessary additional service to north Calhoun. Estimated cost for the extension is $356,000.
Site No. Five. The usable acreage in this site is approximately 51 acres, 32 in the northern half & 19 in the southern and is too small to accommodate an industrial district. The site's irregular shape makes unified development difficult. The southern half of the area probably cannot be served by rail. This area is north of Site No. Four. Should Site No. Four be developed, the resulting utility extensions to serve it would also be in a position to serve Site No. Five. In this case, Site No. Five could possibly be developed as an individual site, and the 19 acres south of it could possibly be developed as a second individual site.

Site No. Six. This property has good road access, via Georgia 156; adequate land area and rail access; but lacks all utilities including natural gas. This site is also a considerable distance from the existing industrial development in the Calhoun area. The cost of utility extensions would likely be prohibitive, and it is doubtful that adequate fire protection can be offered here, relative to the other site areas under study. It is possible that this site will have greater industrial use potential at some future time when growth has resulted in the necessary utility extensions.

Two sites, Nos. Three and Four, show a greater potential as a district location and, therefore, are considered in greater depth for industrial district development at this time. The relative merits of each will be reviewed below, along with estimated development costs. A final site recommendation will then be made to the Gordon County Industrial Development Authority.

Site No. Three. This property has the best existing highway access of any site studied. It also has adequate acreage to accommodate an industrial district, 109+ acres, and is located close to David Airport. Development of this area industrially could open areas east of U. S. 41 to industrial use, provided rail could be extended to Site No. Three and beyond. Areas east of U. S. 41 are proposed for future industrial use in the 1995 Comprehensive Plan.9/ Soils in the area are considered favorable for industrial development.

However, this site has several disadvantages. It lacks rail service,

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9/ Coosa Valley Area Planning and Development Commission; 1995 Comprehensive Plan, Gordon County, Georgia; Rome, Georgia; The Commission; June, 1976.
and extending rail will be costly unless the cooperation of the Goodyear Tire and Rubber Company can be obtained, and some of its existing rail lead track can be utilized. Rail extension will also require the approval of the L & N Railroad and the Georgia DOT to cross U. S. 41. To protect itself, the Development Authority should have an "iron-clad" guarantee, in writing, granting it use of Goodyear's rail facilities prior to any actual acquisition of Site No. Three. This should be obtained along with advanced approval by the L & N Railroad and Georgia DOT that track will be permitted to cross U. S. 41. A second problem is the high price per acre asked for its land by one of the ownerships. A third problem is the "L" shape of the property. The property would be easier to develop if additional acreage could be obtained, so that it could be "squared-off". This would also eliminate the possibility of incompatible development coming in the area between Venture Carpets and the toe-end of Site No. Three. Unfortunately, this section contains the site's most expensive acreage. A fourth problem is electric power. Who will serve the site? Currently, some of the site is in Calhoun and would be served by the city, while some parts of the site are outside the city limits and would be served by the North Georgia EMC. To prevent future electric service jurisdictional problems, which can only cause the area public relations problems, the Gordon County Development Authority should consider having all of Site No. Three annexed into the city and served by it, or de-annexing that section in Calhoun and having the entire site area served by the EMC.

Estimated land acquisition, utility and rail development costs for Site No. Three appear on the following page.

Extending the proper size utilities to the site, acquiring its 109+ acres and extending a rail spur from the Goodyear Tire and Rubber Company's existing lead track is estimated to cost almost $1,300,000 at current prices; or about $12,000 an acre. This is exclusive of industrial district development costs.

Site No. Four. This property has the better rail access of the two sites considered here. The site is close to David Airport. It also has adequate acreage to accommodate an industrial district; for out of its 145 acres,
<table>
<thead>
<tr>
<th>Service Extension</th>
<th>Estimated Costs ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>3000' of 12&quot; line @ $17.00*</td>
<td>51.0</td>
</tr>
<tr>
<td><strong>Sewer Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>8000' of 24&quot; line @ $42.50*</td>
<td>340.0</td>
</tr>
<tr>
<td><strong>Natural Gas Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>In place along U.S. 41, Belmont Rd.</td>
<td>-0-</td>
</tr>
<tr>
<td><strong>Electric Power Extension</strong></td>
<td></td>
</tr>
<tr>
<td>In place along U.S. 41</td>
<td>-0-</td>
</tr>
<tr>
<td><strong>Land Acquisition</strong></td>
<td></td>
</tr>
<tr>
<td>25 acres @ $9500.</td>
<td>237.5</td>
</tr>
<tr>
<td>10 acres @ $6000.</td>
<td>60.0</td>
</tr>
<tr>
<td>74 acres @ $3000.</td>
<td>222.0</td>
</tr>
<tr>
<td><strong>Rail Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>1600' @ $35.00 (using existing Goodyear Track)</td>
<td>56.0</td>
</tr>
<tr>
<td>Turnout (from Goodyear lead track)</td>
<td>14.0</td>
</tr>
<tr>
<td>Signalized Intersection @ U.S. 41</td>
<td>75.0</td>
</tr>
<tr>
<td><strong>Highway/Road Improvements</strong></td>
<td></td>
</tr>
<tr>
<td>None required</td>
<td>-0-</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1055.5</td>
</tr>
<tr>
<td><strong>Professional/Administrative Services @ 10%</strong></td>
<td>105.6</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1161.1</td>
</tr>
<tr>
<td><strong>Contingency @ 10%</strong></td>
<td>116.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1277.2</td>
</tr>
</tbody>
</table>

Sources: *City of Calhoun, **Gordon County Chamber of Commerce, ***L&N RR, Atlanta. Does not include drainage and grading costs.
## Site No. 4

**Estimated Land Acquisition and Improvements Costs**

<table>
<thead>
<tr>
<th>Service Extension</th>
<th>($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>10,800' of 12&quot; line @ $17.00*</td>
<td>183.6</td>
</tr>
<tr>
<td><strong>Sewer Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>13600' of 24&quot; line @ $42.50*</td>
<td>578.0</td>
</tr>
<tr>
<td><strong>Natural Gas Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>10,600' of 6&quot; line @ $11.23**</td>
<td>121.3</td>
</tr>
<tr>
<td><strong>Electric Power Extension</strong></td>
<td></td>
</tr>
<tr>
<td>In place. Adjacent to property on McDaniel Station Rd.</td>
<td>-0-</td>
</tr>
<tr>
<td><strong>Land Acquisition</strong></td>
<td></td>
</tr>
<tr>
<td>145 acres @ $2000.***</td>
<td>290.0</td>
</tr>
<tr>
<td><strong>Rail Service Extension</strong></td>
<td></td>
</tr>
<tr>
<td>Adjoins the property on west side</td>
<td>-0-</td>
</tr>
<tr>
<td><strong>Highway/Road Improvements</strong></td>
<td></td>
</tr>
<tr>
<td>Henderson Rd. 9100' of 24' pavement @ $9.47*</td>
<td>86.2</td>
</tr>
<tr>
<td><strong>Bridge Improvements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30.0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1289.1</td>
</tr>
<tr>
<td><strong>Professional/Administrative Services @ 10%</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>128.9</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1418.0</td>
</tr>
<tr>
<td><strong>Contingency @ 10%</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>141.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1559.8</td>
</tr>
</tbody>
</table>

Sources:  * City of Calhoun; ** Atlanta Gas Light Co.; *** Gordon County Chamber of Commerce.
115 are quite usable for industry. The site has potential for expansion to the south, and addition of another 100 acres, should future growth require it. There is also a possibility for expansion to the east. However, the expansion of David Airport may prevent this because of approach zone expansion and its restrictions. The property also has a generally square shape, facilitating a more unified site development.

However, the property has several negative features. Utilizing Site No. Four will require improvement of Henderson Road to provide proper access to U. S. 41, McDaniel Station Road and to Site No. Four. Soils in the area are considered to range from fair to poor for industrial development, which can mean some additional cost in land development. It does not mean that area soils cannot be used for such development, however. The property lies approximately two miles south of existing utilities of a suitable size, meaning that serving the site will require extending necessary services this distance and paying a commensurate cost. Although extending services would also open up other areas along their route, such as Site No. Five, to development. Estimated land acquisition, utility and rail development costs for Site No. Four appear on the following page.

Extending adequate utility services, acquiring the property's 145 acres and improving Henderson Road will cost an estimated $1,560,000 at current prices; or about $11,000 per acre for the total site area. Equating total cost in terms of only the 115+ industrially-usable acres raises this cost to $13,600 per acre. This is exclusive of industrial district development costs.

Estimated costs for Site No. Four exceed those for Site No. Three by approximately $280,000. However, costs between the two areas are not completely comparable since rail extension cost for Site No. Three could be even greater by about $70,000, if a suitable agreement could not be reached with Goodyear. Costs of improving Henderson Road, fronting Site No. Four may be borne by the state or county thus reducing costs for that site. Additionally, not all improvements to either site would have to be carried out at one time; hence not all costs would have to be met at once. Improvements can be programmed, expenditures scheduled and the land optioned, so that spending would begin
on a phased basis when the first industry located in the district. At this point, execution of the site development plan would begin.

Some costs may be reimbursable over a period of years while others may be shifted to such other sources of developmental aid as the Economic Development Administration (EDA) or the Farmers Home Administration (FmHA). Assistance from the state, county or the City of Calhoun with such items as road and water and sewer improvements may also be a possibility.

In the case of Site No. Three, water and sewer costs might, in time, be reimbursable to some extent because the enlarged line sizes needed to serve the property would, conceivably permit additional industrial growth in their service areas and not just serve Site No. Three. As additional development occurred, and new customers used these utilities, the development authority could be reimbursed part of its original cost. Rail extension costs may be partially reimbursed over a period of up to eight years from initial development. Reimbursement is based on the number of loaded freight cars traveling over the site's lead track.

In the case of Site No. Four, water and sewer costs could be reimbursed to the Development Authority as additional growth occurs. Extension of these services to the site will enable additional growth to come about all along McDaniel Station Road from Glasrock south to Site No. Four; and the new sewerage provided may also permit additional growth to the east along U.S. 41. Likewise, costs of extending a new gas line to Site No. Four may be partly reimbursed over time as new customers tie into the line.

Site Recommendation

Despite its estimated higher cost, Site No. Four, the Darby property, is recommended as the location for Gordon County's latest industrial district. Site No. Four is recommended for several reasons. The lack of urban development in its immediate area permits development of a truly compatible industrial environment, free from incompatible uses. The undeveloped nature of the area offers a potential for future expansion, permitting future concentration of manufacturing in the immediate area; thus making even further use of utility
and other area infrastructure investments. Existing non-industrial development south and east of Site Three to some extent limits that site's expansion potential. Extension of utilities to Site No. Four will also permit development of areas to the north, such as Site No. Five.

The situation in the area of Site No. Four offers Calhoun and Gordon County an opportunity to develop an area especially suited for industry, an area free of incompatible uses which by its very size would provide its own environment, and be insulated from non-industrial intrusion. The existing rail situation is more certain on Site No. Four than it is in the case of Site No. Three. On Site No. Four the railroad borders its west side and extension of service would be from the L & N mainline track directly onto the Authority's own property. Obtaining rail service to Site No. Three requires a binding agreement with Goodyear to use its trackage, getting the L & N Railroad to request track be extended across U. S. 41 and, finally, getting Georgia DOT to approve a rail crossing on U. S. 41. Assuming all this gets accomplished, there is no guarantee that either Goodyear or the Development Authority will be satisfied with the arrangement in future years, and the results could be bad feelings between the company and the town. Having rail service available is extremely important to a community's industrial development program, especially where an industrial district is concerned. Because the community is placing most of its sites, if not all, in one area, or district, it must be able to offer rail service there or otherwise it will restrict its industrial prospecting to only non-rail industries, thus limiting its market.

For these reasons, Site No. Four is recommended to be the location of the Development Authority's new industrial district. Should the Authority approve this recommendation, work will then begin on a conceptual design for an industrial district located on Site No. Four.