

NATIONAL BUREAU OF STANDARDS REPORT

10 204

Operation Breakthrough

Preliminary Report

EXISTING BUILDING AND DEVELOPMENTAL REGULATIONS IN MACON, GEORGIA

Sponsored by
Department of Housing
and Urban Development



U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards¹ was established by an act of Congress March 3, 1901. Today, in addition to serving as the Nation's central measurement laboratory, the Bureau is a principal focal point in the Federal Government for assuring maximum application of the physical and engineering sciences to the advancement of technology in industry and commerce. To this end the Bureau conducts research and provides central national services in four broad program areas. These are: (1) basic measurements and standards, (2) materials measurements and standards, (3) technological measurements and standards, and (4) transfer of technology.

The Bureau comprises the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Center for Radiation Research, the Center for Computer Sciences and Technology, and the Office for Information Programs.

THE INSTITUTE FOR BASIC STANDARDS provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of an Office of Measurement Services and the following technical divisions:

Applied Mathematics—Electricity—Metrology—Mechanics—Heat—Atomic and Molecular Physics—Radio Physics²—Radio Engineering²—Time and Frequency²—Astrophysics²—Cryogenics.²

THE INSTITUTE FOR MATERIALS RESEARCH conducts materials research leading to improved methods of measurement standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; develops, produces, and distributes standard reference materials; relates the physical and chemical properties of materials to their behavior and their interaction with their environments; and provides advisory and research services to other Government agencies. The Institute consists of an Office of Standard Reference Materials and the following divisions:

Analytical Chemistry—Polymers—Metallurgy—Inorganic Materials—Physical Chemistry.

THE INSTITUTE FOR APPLIED TECHNOLOGY provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations in the development of technological standards, and test methodologies; and provides advisory and research services for Federal, state, and local government agencies. The Institute consists of the following technical divisions and offices:

Engineering Standards—Weights and Measures—Invention and Innovation—Vehicle Systems Research—Product Evaluation—Building Research—Instrument Shops—Measurement Engineering—Electronic Technology—Technical Analysis.

THE CENTER FOR RADIATION RESEARCH engages in research, measurement, and application of radiation to the solution of Bureau mission problems and the problems of other agencies and institutions. The Center consists of the following divisions:

Reactor Radiation—Linac Radiation—Nuclear Radiation—Applied Radiation.

THE CENTER FOR COMPUTER SCIENCES AND TECHNOLOGY conducts research and provides technical services designed to aid Government agencies in the selection, acquisition, and effective use of automatic data processing equipment; and serves as the principal focus for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Center consists of the following offices and divisions:

Information Processing Standards—Computer Information—Computer Services—Systems Development—Information Processing Technology.

THE OFFICE FOR INFORMATION PROGRAMS promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System, and provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

Office of Standard Reference Data—Clearinghouse for Federal Scientific and Technical Information³—Office of Technical Information and Publications—Library—Office of Public Information—Office of International Relations.

¹ Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.

² Located at Boulder, Colorado 80302.

³ Located at 5285 Port Royal Road, Springfield, Virginia 22151.

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NBS PROJECT

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NBS REPORT

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by

The Building Research Division Team

E. O. Pfrang, Manager

Sponsored by
Department of Housing
and Urban Development

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Approved for public release by the
director of the National Institute of
Standards and Technology (NIST)
on October 9, 2015

These accounting documents intended
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U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

INTRODUCTION

This report lists the regulatory documents that apply to the Department of Housing and Urban Development Operation Breakthrough site in Macon, Georgia; the documents themselves, insofar as they are obtainable, are also furnished. The report's overall content is indicated by its Table of Contents:

	Page
REGULATORY DOCUMENTS.....	2
COMMENTARY ON REGULATIONS.....	4
ADMINISTRATION--MACON, GEORGIA.....	7

REGULATORY DOCUMENTS

Included in the following list are the offices from which the documents are available as well as the documents' costs, if any, should additional copies be required.

1 Comprehensive Land Development Resolution, Subdivision Regulations, 1966

(Price: \$2.50) Macon-Bibb County Planning and
Zoning Commission
City Hall
Macon, Georgia 31201

2 1969 City of Macon Housing Code

Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201

3 Southern Standard Building Code, 1968 Revision to 1965 Edition

(Price: \$7.25) Southern Building Code Congress
1116 Brown-Marx Building
Birmingham, Alabama 35203

4 1969 City of Macon Supplement to the Southern Standard Building Code

Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201

5 Southern Standard Plumbing Code, 1967 and 1968 Revision

(Price: \$4, Code) Southern Building Code Congress
\$.25, Amend) 1116 Brown-Marx Building
Birmingham, Alabama 35203

6 1969 City of Macon Addendum to the Southern Standard Plumbing Code

Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201

- 7** National Electrical Code, 1968, NFPA No. 70
(Price: \$2)
National Fire Protection Association
60 Batterymarch Street
Boston, Massachusetts 02110
- 8** 1969 City of Macon Addendum to the 1968 National Electrical Code
Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201
- 9** Southern Standard Gas Code, 1965 Edition
(Price: \$3.50)
Southern Building Code Congress
1116 Brown-Marx Building
Birmingham, Alabama 35203
- 10** City of Macon Heating, Ventilating, Air Conditioning and Gas Code
Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201
- 11** 1966 City of Macon Supplement to Southern Standard Gas Code
Bureau of Inspection & Fees
City Hall
Macon, Georgia 31201

COMMENTARY ON REGULATIONS

General

Note 1: The 1968 Revision of the 1965 Edition of the Southern Standard Building Code as referenced in the current 1969 City of Macon Building Code Ordinance is now applicable.

Note 2: The several regulatory codes applicable to the Macon site, together with such other generally recognized codes and standards as may be referenced in them, furnish the housing system producer and/or site developer with all the requirements for usual housing construction on the site. These may be subject to waiver procedures to the extent the proposed housing system is at variance with the existing requirements.

Ordinances of the City of Macon, on which the acceptability of housing construction is based, follow in general the Southern Standard Building Codes and the National Electrical Code. However, these ordinances include significant addenda and supplements which must be considered.

In general, prefabricated components must be open for full inspection for compliance with appropriate ordinance requirements. An exception may be made when a component or material has been approved by the Southern Building Code Congress, Committee on Compliance, as meeting the requirements of the Southern Standard Building, Gas, and/or Plumbing Codes.

Housing Code:

This ordinance is based on the 1969 Southern Standard Housing Code with the 1969 City of Macon Housing Code Supplement. Requirements relate to minimum space provisions, allow mechanical ventilation of bathrooms, specify 100 amp service for over 25 outlets, and set a minimum ceiling height of 7 feet. All relate to minimums and should pose few problems to good design practices.

Building Code:

This ordinance includes:

- a. The Southern Standard Building Code, 1965 Edition;
- b. The Amendments to the Southern Standard Building Code, 1968 Revision to the 1965 Edition; and,
- c. The 1968 City of Macon Supplement to the above.

Contractors are required to be licensed, and if a hazard is determined to exist, also bonded. With the exception of those for one and two family dwellings, plans for all buildings of a cost exceeding \$25,000 must be prepared and officially certified by an architect or engineer registered in Georgia.

Plumbing Code:

The 1967 Southern Standard Plumbing Code, the 1968 revision thereof, and the 1969 City of Macon Addendum to the Revision comprise the city plumbing code.

Plumbing is required to be by plumbers qualified and licensed by the City of Macon. Inspection of all installations by City of Macon inspectors is required.

Electrical Code:

The 1968 National Electrical Code and the 1969 City of Macon Addendum thereto are the legally adopted electrical code of Macon.

A license and certification from the Board of Electrical Examiners is required for any electrician to engage in electrical work. No electrical work can be concealed before inspection to determine compliance with requirements. The use of Type MC and AC series metal-clad cable is not allowed. Type NM or NMC may be installed for concealed work in normally dry locations. Number 12 AWG is the minimum copper wire size permitted. Any feeder or branch circuit requires raceways except in single family and certain low-rise housing.

Elevator motors and controls must be connected to the line side of service mains in buildings of more than two floors.

Heating, Ventilating, Air Conditioning Code:

This ordinance is based on the 1965 Edition of the Southern Standard Gas Code with supplement and a 1966 Amendment of the 1962 City of Macon Heating, Ventilation, and Air Conditioning Code.

Certification from the Heating, Ventilating and Air Conditioning Board of Control and Licensing is required. Inspection is required, and covering up or concealing before inspection is prohibited.

Planning and Zoning

Most of the Breakthrough site is already zoned as an R3, multi-family residential district. However, the site will be treated as subdivision and fall under the Subdivision Regulations of the Comprehensive Land Development Resolution, adopted 1966, for the City of Macon and Bibb County, Georgia.

Administrative responsibility for planning and zoning rests in the Macon-Bibb County Planning and Zoning Commission, which is responsible for issuing permits and certificates of occupancy.

Planning and Zoning (Cont'd)

The R3 zoning and the conditional uses associated with this zoning appear to offer no obstacle to a reasonable mix of high and low rise multi-family and single-family housing.

Safety and Fire Prevention

The City of Macon Fire Prevention Ordinance is administered by the Fire Department. In general, it poses no difficulty for new construction conforming to the aforementioned codes. The Georgia Safety Fire Law governs means of egress, exits, and other safety to life requirements.

Appeals

An appeal board is available to hear appeals relative to code variances and interpretations.

USCOMM-NBS-DC

ADMINISTRATION--MACON, GEORGIA

Population (1960): 70,000
Metropolitan area population: 180,000

Government: Mayor and City Council

Administration of Codes:

Housing	
Building	Mr. William Branan, Jr.
Plumbing	Director, Bureau of Inspection & Fees
Electrical	City Hall
Heating	Macon, Georgia

Planning and Zoning:

Planning and Zoning Commission Staff:

Mr. A. O. Brown, Executive Director	City Hall
Mr. Craig W. Lindelow, Planning Director	Macon, Georgia

Safety and Fire Prevention:

Mr. R. T. White, Chief
Fire Department
City of Macon, Georgia

