Bathhouse Row Adaptive Use Program

The Superior Bathhouse: Technical Report 2

hot springs national park

BATHHOUSE ROW ADAPTIVE USE PROGRAM

THE SUPERIOR BATHHOUSE: TECHNICAL REPORT 2

HOT SPRINGS NATIONAL PARK
Garland County, Arkansas

June 1985

U.S. Department of the Interior / National Park Service

CONTENTS

PLANS AND FIGURES

TABLES

INTRODUCTION

The National Park Service is proposing to offer vacant bathhouses within the Bathhouse Row historic district at Hot Springs National Park for adaptive use. The leasing of historic properties was authorized by Congress in 1980 by amending Section 111 of the National Historic Preservation Act. The National Park Service has established procedures for the program in "Leases and Exchanges of Historic Property" (36 CFR 18) and the "Historic Property Leasing Guideline" (NPS-38). Proposed uses that would provide accommodations, facilities, or services to a substantial number of park visitors would be accomplished through concession contracts under the authorities of the Concessions Policy Act of 1965.

The purpose of the adaptive use program at Hot Springs is to preserve the historic bathhouses through compatible use and maintenance of the buildings by private businesses or individuals. The National Park Service also intends that such use will help restore the traditional levels of visitor activity along Bathhouse Row to maintain the historic scene and to contribute to the revitalization of downtown Hot Springs. Additional information on the park, Bathhouse Row, and National Park Service management proposals for the area is contained in the draft General Management Plan/Development Concept Plan which is available at the address below.

This report is number two in a series of seven technical reports (listed below) prepared by the NPS Denver Service Center to provide technical information for use in the development of proposals by prospective lessees or concessioners and in the evaluation of proposals by the National Park Service. The reports describe the Bathhouse Row landscape and structures and provide detailed information on historical development, significance, and present conditions of the landscape and each vacant bathhouse.

Bathhouse Row Adaptive Use Program
Technical Report Series

The Bathhouse Row Landscape: Technical Report 1

The Superior Bathhouse: Technical Report 2

The Hale Bathhouse: Technical Report 3

The Maurice Bathhouse: Technical Report 4

The Fordyce Bathhouse: Technical Report 5

The Quapaw Bathhouse:. Technical Report 6

The Ozark Bathhouse: Technical Report 7

For additional information on the Bathhouse Row Adaptive Use Program, please contact the following individuals:

Historic Property Leasing Coordinator
Southwest Regional Office
P.O. Box 728
Santa Fe, New Mexico 87501
(505) 988-6385

Superintendent
Hot Springs National Park
P.O. Box 1860
Hot Springs, Arkansas 71901-1860
(501) 624-3383

DESCRIPTION

The Superior Bathhouse contains 10,655 square feet of space divided into 23 rooms. It was constructed in the Classical Revival style, primarily using red brick and steel-reinforced concrete (see figures 1, 2, and 3). It has brick pilasters on both the forward-projecting sunporch and on the two-story portion of the main building. In both cases the pilasters are set out from the mass of the building with ornamental patterns in brick and painted concrete. The vaguely Tuscan pilaster capitals are inset with a center medallion of green tile, as are the pateria over the pilasters in the friezes of the upper and lower cornices. Both the sun porch and the two-story portion of this bathhouse have flat roofs and are topped with brick parapets. The cornice and the exterior trim are painted metal and stone. Brick from the previous Superior Bathhouse may have been reused in the new structure.

The ground floor of the Superior forms an "L" shape and consists of the lobby and sitting area in front, and stairs on either side of the lobby (see figure 4). The men's dressing room, bath hall, and pack room are on the north and longer side of the building, and the ladies' smaller, but similar, facilities are along the rear and south side of the building. The lobby and sun porch on the first floor have large double-hung wood windows; tile floors; and plaster, tile, and marble walls. The floors in the bath halls are tiled, and walls are plaster with tile wainscotting. All bath fixtures are built in. Marble is used for the bath stalls and lobby counter. The two stairways leading upstairs have marble treads and balusters with tile wainscoting on the walls.

The second floor is divided down the middle with dressing facilities, cooling rooms, and massage rooms on either side for men and women, each served by its own stairs (see figure 5). Floors are all tile, walls and ceilings are plaster. Fluorescent lighting, wood doors and windows with translucent glass, and wood dressing booths are found throughout the second floor rooms. Ventilation is provided by means of air vents ducted to the roof and radiators are used for heating. There are window air conditioning units in some locations.

The basement is below grade and about one-half the size of the first floor. Employee locker rooms are at either end with the storage and laundry spaces in between. The boiler and machinery rooms are immediately adjacent and east of the laundry space. Laundry and boiler equipment, ducts, and piping all remain in place.

The Superior roof is flat over both legs of the "L" and has a brick and clay-tile parapet. This building is of load-bearing masonry walls, concrete-beam and flat-slab construction, with a few interior concrete columns.

Figure 1. Superior Bathhouse, 1984 (Source: Historic American Buildings Survey)

WEST ELEVATION

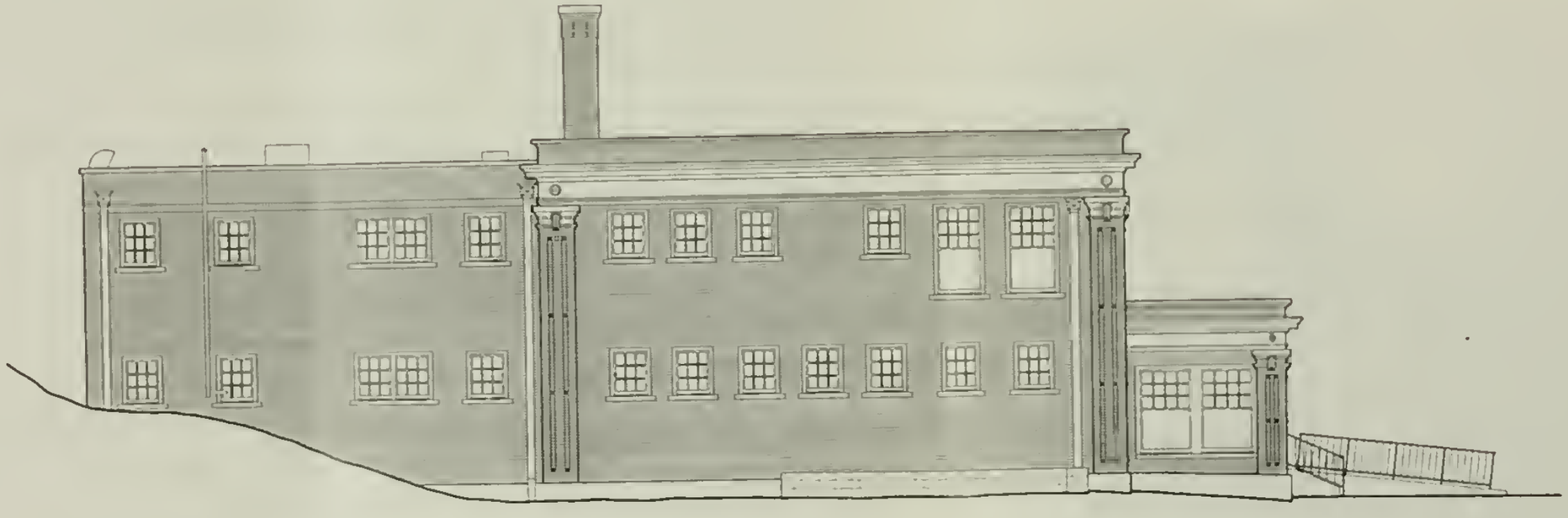
Figure 2

MATERIALS

FOUNDATION - CONCRETE
WALLS - BRICK WITH STONE TRIM
ROOF - ASPHALT ROLL ROOFING
CORNICE - FORMED SHEET METAL

SCALE FEET 3/16"=1'0"
METRES =64

SUPERIOR BATH HOUSE
HOT SPRINGS GARLAND COUNTY ARKANSAS
CENTRAL AVENUE
HISTORIC AMERICAN BUILDINGS SURVEY
AR 28 A
HOT SPRINGS NATIONAL PARK
BRIAN McCORMICK 1984



NORTH ELEVATION

Figure 3

SCALE FEET 3/16"=1'-0" METERS 1:64

DRAWN BY DANIEL J WININSKY

HOT SPRINGS NATIONAL PARK

BATHHOUSE ROW–SUPERIOR BATHHOUSE

CENTRAL AVENUE

HOT SPRINGS

GARLAND COUNTY

ARKANSAS

AR-28 A

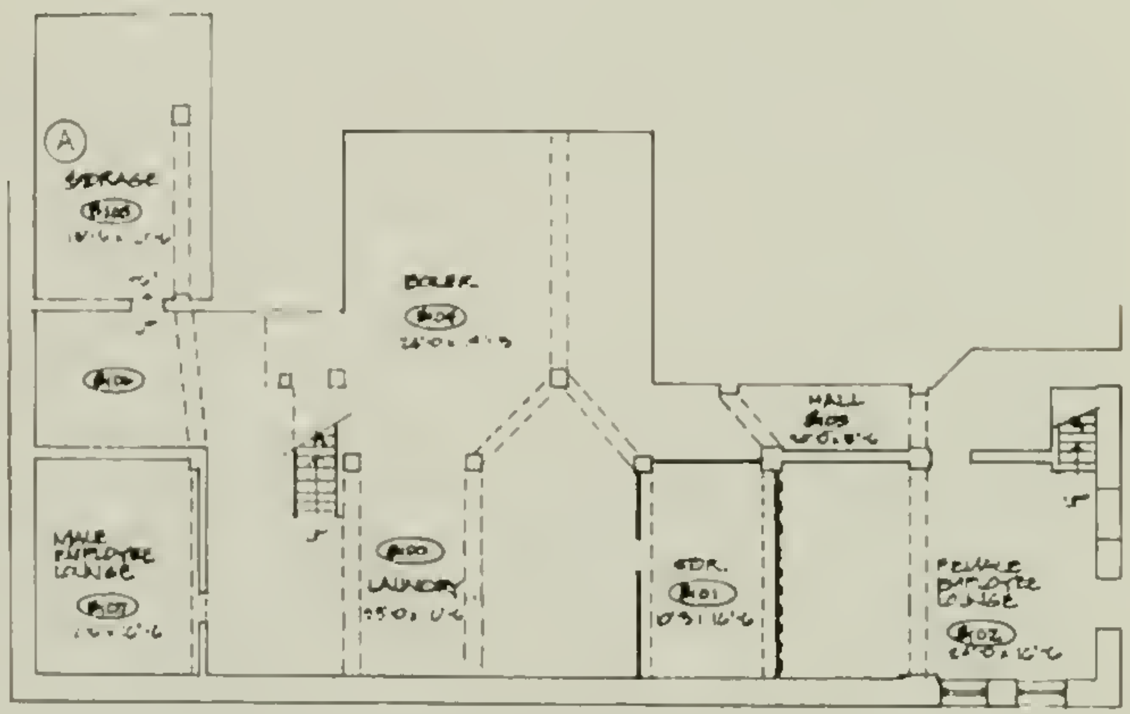
HISTORIC AMERICAN BUILDINGS SURVEY

SHT 2 OF 2 SHTS

TYPICAL HISTORIC FEATURES

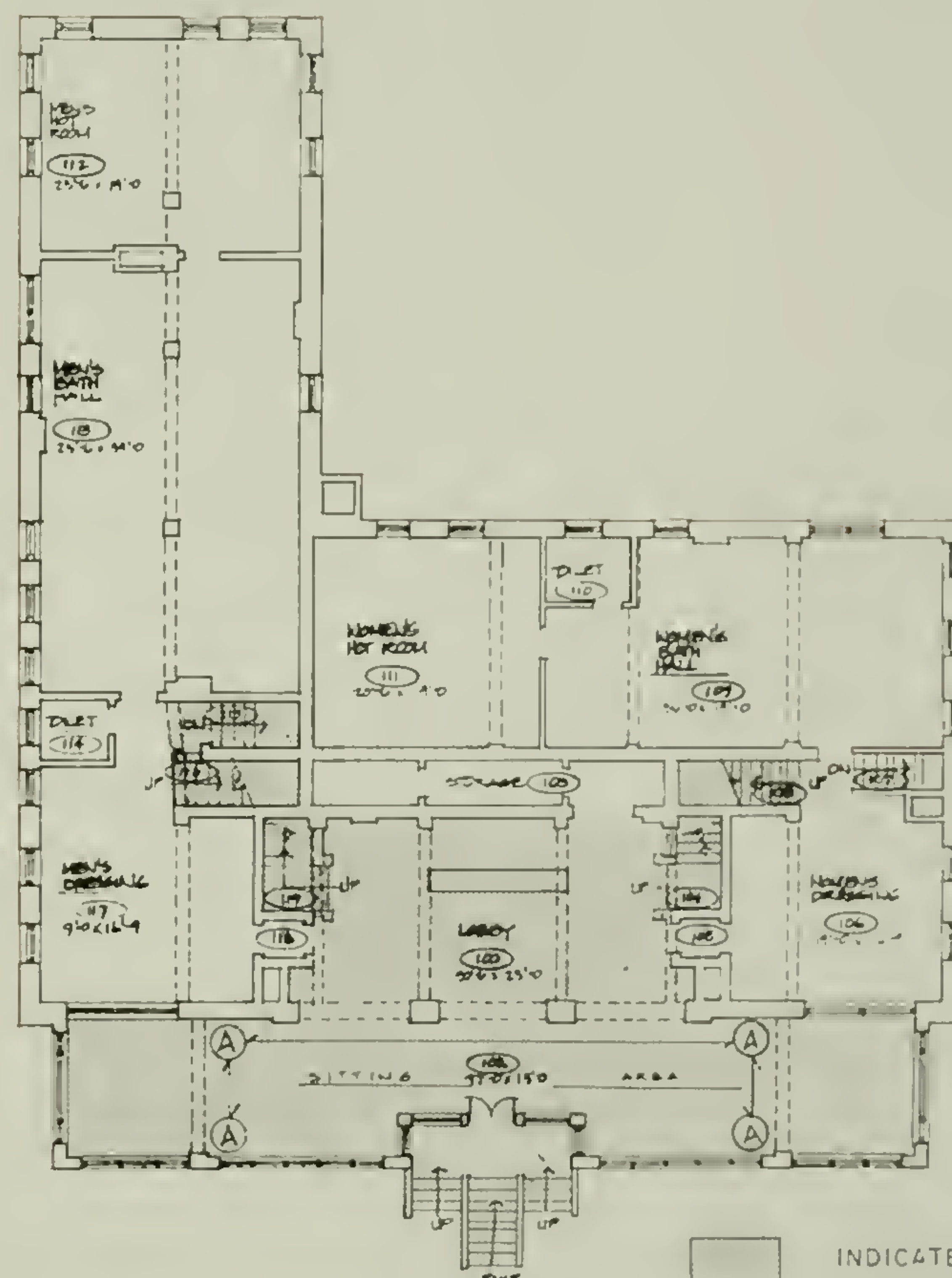
NOTE: THIS SCHEDULE IS INTENDED TO GIVE EXAMPLES OF TYPICAL DISTINGUISHING HISTORICAL FEATURES FOR EACH BATHHOUSE. THIS SCHEDULE IS NOT INCLUSIVE OF ALL DISTINCTIVE BUILDING FEATURES AND/OR EXAMPLES OF HISTORIC CRAFTSMANSHIP.

FEATURES	LOCATION
MARBLE WAINSCOT	MEN'S HOT ROOM, 112
MARBLE & BRASS	
PARTITIONS	MEN'S BATH HALL, 113



BASEMENT FLOOR PLAN

2,689.0 SQ. FT.



FIRST FLOOR PLAN

4,522.0 SQ. FT.

SCALE OF FEET

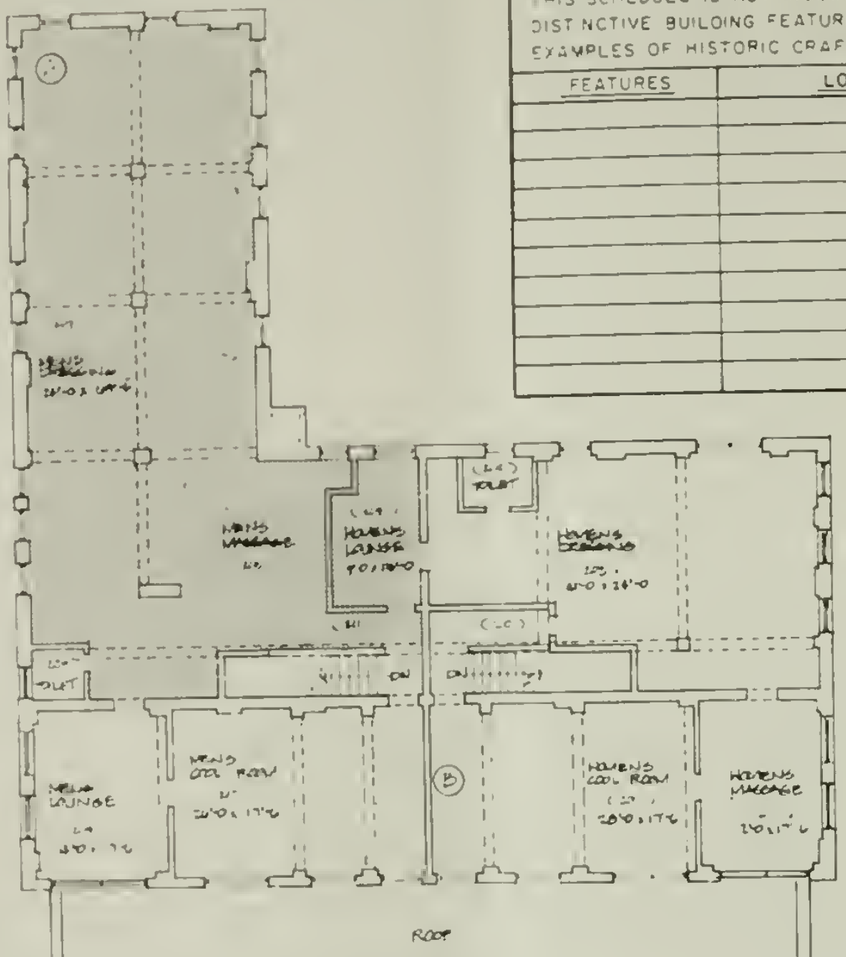
Figure 4

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

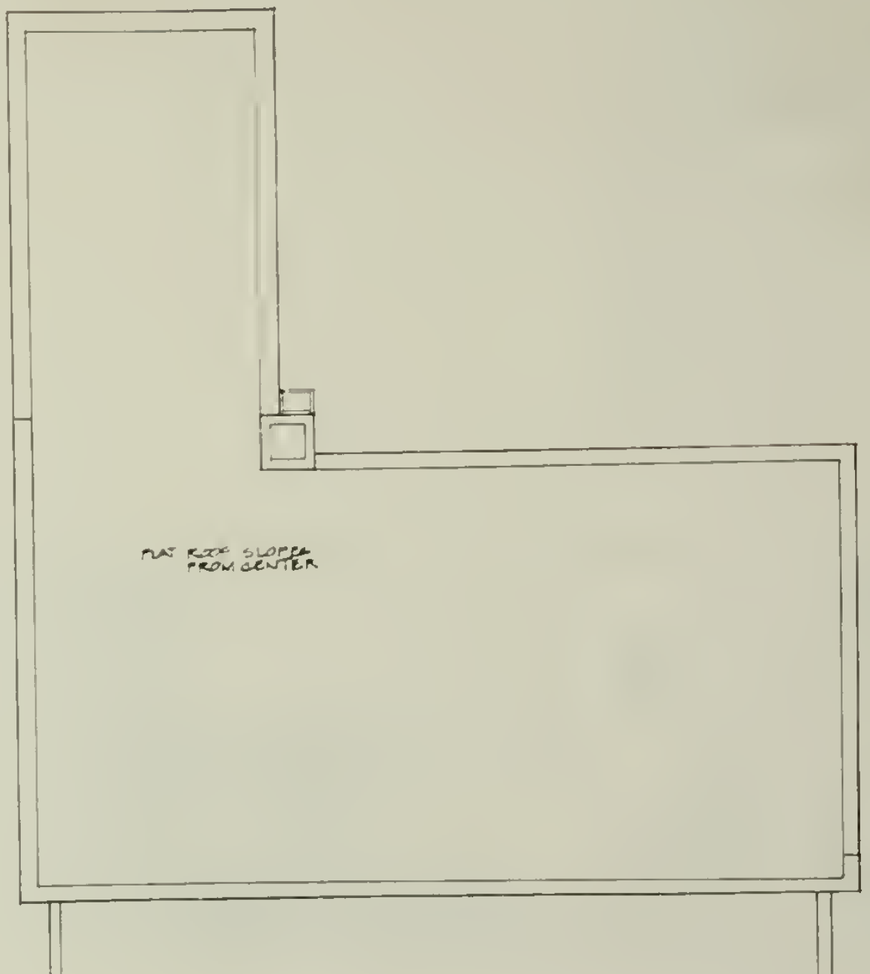
DESIGNED: EXISTING DRAWN: SE/SW TEAM TECH. REVIEW: THORSON DATE: 5/85	SUB SHEET NO.	TITLE OF SHEET SUPERIOR BATHHOUSE FLOOR PLANS TECHNICAL REPORT #2	DRAWING NO. 128 / 40,016 PKG NO. 112 SHEET 2 OF 16

...SIC DATA 128/26,000

TYPICAL HISTORIC FEATURES	
NOTE THIS SCHEDULE IS INTENDED TO GIVE EXAMPLES OF TYPICAL DISTINGUISHING HISTORICAL FEATURES FOR EACH BATHHOUSE THIS SCHEDULE IS NOT INCLUSIVE OF ALL DISTINCTIVE BUILDING FEATURES AND/OR EXAMPLES OF HISTORIC CRAFTSMANSHIP	
FEATURES	LOCATION



SECOND FLOOR PLAN
3,444.0 SQ FT



ROOF PLAN

Figure 5

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

8 0 8 16
SCALE OF FEET

DESIGNED EXISTING	SUB SHEET NO	TITLE OF SHEET SUPERIOR BATHHOUSE FLOOR PLANS TECHNICAL REPORT #2	DRAWING NO 128 40,016
DRAWN SE/SW TEAM			PKG NO 172
TECH REVIEW THORSON			
DATE 5/85			

BASIC DATA 129/39 +40

HISTORICAL DEVELOPMENT

The first Superior Bathhouse was built between 1887 and 1889 (figure 7). Although half interests in this brick bathhouse were held by L.D. Cain and Robert Proctor, the site was leased originally by Proctor and L.C. Young, about 1883. The old 1880s Victorian structure was razed and replaced by a new bathhouse of the same name at a cost of about $68,000. Architect Harry C. Schwebke of Hot Springs designed the new building in the Classical Revival style; it opened to the public in February, 1916 (figures 6 and 8).

The Superior's 23 rooms included a large sun parlor, a lobby, cooling areas, a ladies' parlor, and reading and writing rooms. Private lockers and dressing rooms were on the first and second floors, along with the smoking and rest rooms (figure 9). The Superior had showers, and equipment for all sorts of baths. Although smaller than many of the other bathhouses and built to cater to those persons desiring baths at popular prices, the Superior competed actively for business by providing excellent services and a well-decorated interior whose furnishings included high quality marble and a good deal of brass.

Several hot water reservoirs were situated under or adjacent to the old Superior (figures 10 and 11). A spring uncovered during excavation for the present building was routed through the basement, and the water was then piped into the main impounding reservoir (figure 12).

The Superior operated continuously from 1916 until it closed in November of 1983. The bathhouse operator's possessory interest was subsequently acquired by the National Park Service, and the building is now vacant.

Since completion of the present structure in 1916 a number of minor modifications and maintenance actions were performed on the Superior and are listed in Table 1. Remodeling and Maintenance. The listing in the table is based primarily upon the Superintendent's Reports and correspondence between the bathhouse and the superintendent. The table also indicates whether projects were proposed (by the bathhouse lessee or others), approved or recommended (by the National Park Service); or known to have been completed. In most cases, the date used refers to the correspondence or report which described the proposal or project. Drawing numbers refer to microfilmed documents on file at the park and the Technical Information Center at the NPS Denver Service Center.

In 1973, the National Park Service contracted with a private architecture and engineering firm to assess the physical condition of all the bathhouses on Bathhouse Row and to make recommendations concerning their preservation. The resulting historic structures report by Cromwell, Neyland, Truemper, Millett and Gatchell, Inc., was completed in November, 1973 (the Cromwell report) and describes the condition of each bathhouse at that time. A summary of the Cromwell report's findings for the Superior is included in the appendix.

Figure 6: Superior Bathhouse under Construction, 1915-1916 (Source: Hot Springs National Park)

Figure 7: The Old Superior Bathhouse, ca. 1883 (Source: Hot Springs National Park)

Figure 8: Superior Bathhouse, 1916 (Source: Hot Springs National Park)

Figure 9: Interior Views, Superior Bathhouse, 1917 (Source: Cutter's Guide)

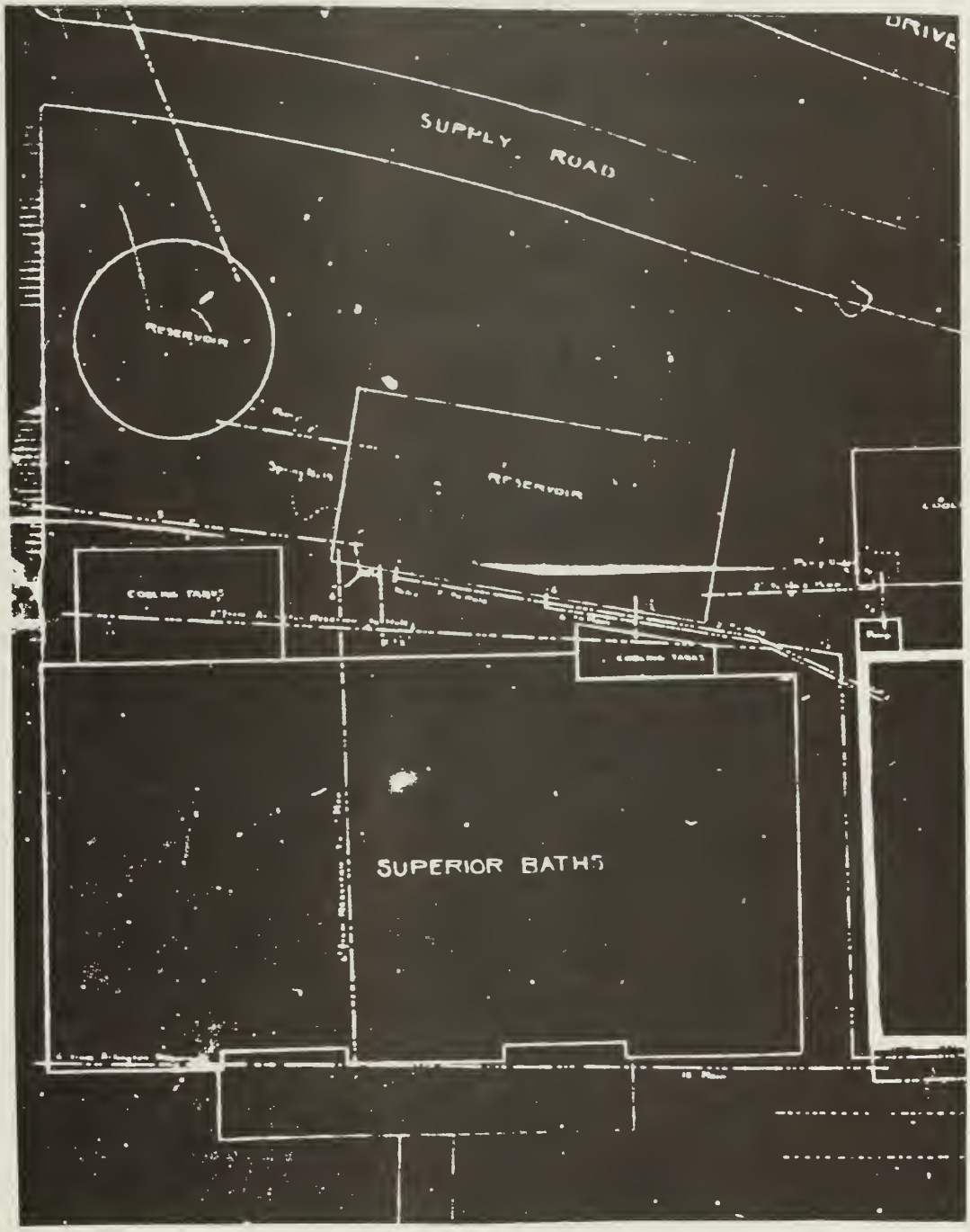


Figure 10: Plan View of Superior Bathhouse, circa 1890s (Source: Hot Springs National Park)

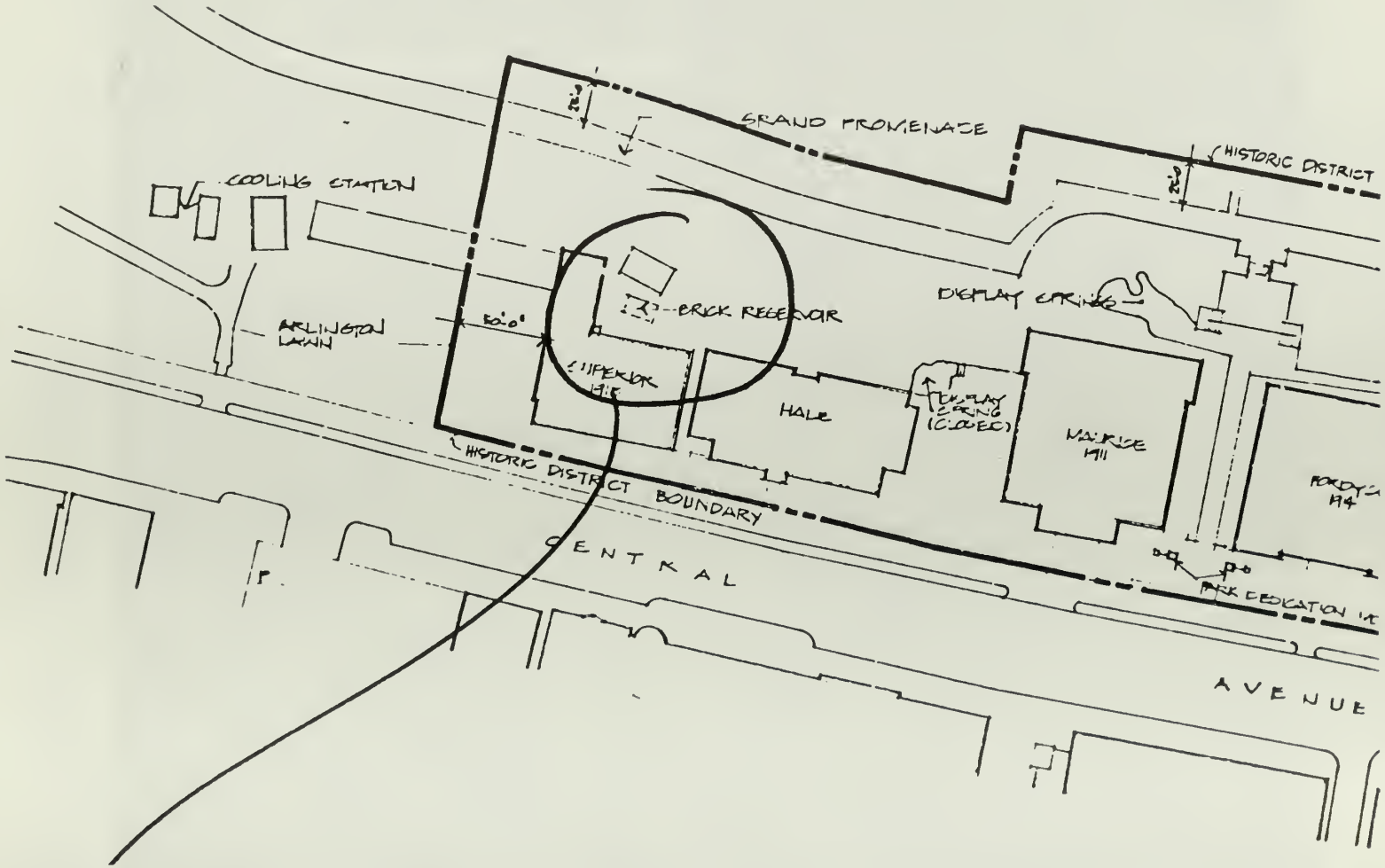


Figure 11: Reservoirs behind Superior Bathhouse, 1973 (Source: Hot Springs National Park)

Figure 12: Location of Spring, Superior Bathhouse, date unknown (Source: Hot Springs National Park administrative files)

TABLE 1. REMODELING AND MAINTENANCE

DATE	STATUS	DESCRIPTION OF ACTION/RESULTS	IMPACT ON STRUCTURE	FIGURE/ DRAWING #
February 1916	Completed	Initial construction	Adjacent landscape affected	Figure 3, 128/60227, 128/60028
March 1916	Completed	Concrete steps and a wrought iron railing were installed along the north side of the bathhouse.		Figure 7
May 22, 1918	Proposed	Excavate southeast corner of the basement for a coal and wood storeroom.		128/60214
1918	Proposed	Plans done by Mann and Stern proposed razing of the Superior to put in a concert garden		128/60114
October 23, 1920	Approved/ completed	Erect a steel frame surmounted by a steel tank to cool hot water; plan done by Fordyce. (Tax records show an expenditure of $1,258.71 for tank and supports that year.)		128/60229
August 10, 1928	Proposed	Addition to Superior ("old window in new location").	Minor structural modifications if accomplished	128/60215
June 8, 1923	--	Almost $1,700 damage done by the May flood.		
November 14, 1923	Proposed	Erect gold leaf sign. (Denied by NPS.)		
November 1937	Completed	Removed the second and third stories of the green cooling tower building at the rear of the bathhouse. Debris from removal was to be placed in the obsolete reservoir immediately to the rear of the Superior. (The floor of the reservoir was to be penetrated in several places, then the top sodded over after the debris was placed inside. This was done to improve the view from the Grand Promenade.)	Structural change to cooling tower, modifications to adjacent reservoir and landscape	
March 25, 1957	Recommended	Improvements to be made prior to signing new lease include (in men's rooms) extension of the massage parlor, installation of overhead radiator system, new floor tiles, complete ventilation facilities in basement, dressing rooms and up-grading basement quarters, fire extinguishers, guard protection for window sills, modern lighting fixtures, new lock-box system, and replacement/refinishing of furniture. Other maintenance items were painting and tile and marble work, and upgrade plumbing, vapor, sitz bath equipment, and needle shower. A new roof was installed. It is assumed most changes and repairs were made as requested. Exceptions: lock boxes were renovated, not replaced, and radiators were placed on walls instead of ceilings. Between $14,000 and $16,000 worth of work was done to obtain new lease.	Minor structural modification	

DATE	STATUS	DESCRIPTION OF ACTION/RESULTS	IMPACT ON STRUCTURE	FIGURE/ DRAWING #
November 6, 1962	Completed	Whirlpool equipment installed.		
April 4, 1969	Completed	New paint, cusions, awnings.		
December 29, 1969	Completed	Electric heater added, interior painted, windows repaired, turbine added.		
November 10, 1970	Completed	Repaired two furnaces		
June 15, 1971	Completed	Installed eight air conditioning units and did electrical work.		
December 20, 1972	Completed	Painted, redecorated, and interior repaired. Work done on wall outside near men's comfort station, and inside in men's bath hall.		
December 10, 1973	Completed	Painted exterior, awnings		
July 18, 1974	Approved	To prevent further flood damage, wall height was increased on the north side of the building, staircase on the south side of the building was extended, and the wall raised on the south and east sides of the staircase--all to the floor level of the building. Plan views prepared by Mr. Wade Spainhouse, and John Hammond Construction Company to do work. Approved July 18, 1974. (Plans for construction proposal done June 3, 1974 by W.S. Survey Co.)	Minor structural change	Unnumbered plans on file Hot Springs National Park
January 18, 1975	Completed	Repaired equipment.		
November 27, 1976	Completed	Restuccoed and painted exterior.		
October 12, 1978	Completed	Repaired/upgraded boiler.		
November 5, 1980	Completed	Painted some of the interior, and exterior trim		
May 1981	Completed	Ceiling in men's dressing room repaired.		
November 10, 1981	Completed	Painted front exterior, men's dressing room; painted plastered ladies cooling room.		
November 10, 1982	Completed	Painted exterior, men's cooling room, radiators.		
November 31, 1983		Closed and furnishings sold at auction.		

SIGNIFICANCE

The primary significance of the Superior Bathhouse is related to the overall significance of the Bathhouse Row area. The entire group of structures comprises one of the few collections of historic bathhouses remaining in the United States. Together with the setting of formally landscaped grounds, Bathhouse Row provides a picturesque reminder of America's interest in hot water spas, leisure, and recreation.

The Classical Revival style structure has not undergone major alterations since its construction in 1916 and thus provides a good example of the early bathhouses as they appeared in the late 1910s and early 1920s. Examples of typical, distinguishing historical features, such as marble wainscoting, and spaces, such as the lobby and sitting area, are depicted on the floor plans (figures 4 and 5).

In addition, the building may contain reused brick from its predecessor, the Old Superior Bathhouse. Any surviving portions of the water reservoirs of the Old Superior located behind the present building are significant as tangible remnants of the nineteenth-century hot water storage and distribution systems at Hot Springs.

EXISTING CONDITIONS

Two recent assessments have been made of the existing condition of the Superior Bathhouse. The National Park Service contracted with a private engineering firm in 1983 to conduct a study of the physical condition of the five bathhouses vacant at that time. The "Investigative Study of Five Bathhouses" (June, 1984) by Pitts & Associates Engineers, P.A., (the Pitts Report) focused on the structural condition of the bathhouses, but also provides some information on the condition of architectural materials and a comparison with conditions reported in the 1973 Cromwell report. The structural capacities recommended in the Pitts Report for the Superior Bathhouse are depicted on figures 13 and 14. Engineering drawings showing structural systems and details at 1/4 scale are available at the park. Appendix A contains excerpts from the Pitts report which describe existing conditions at the Superior Bathhouse in three parts:

1. Inherent Structural Deficiencies - These conditions are primarily caused by poor design or construction practices. They probably occurred early in the life of the buildings and have not changed much since. The environment may be a contributing factor.

2. Environmentally Caused Conditions - These conditions are primarily caused by poor maintenance, lack of use, age and the normal wearing of the elements on the buildings. These conditions are continuing to deteriorate. Poor design or construction practices may be a contributing factor.

3. Comparison of Conditions Reported in the 1973 Historic Structures Report to the Conditions Observed in this Investigative Study of Five Bathhouses.

During the summer of 1984, a team of architects from the Historic American Buildings Survey (HABS) completed a documentation project for the vacant bathhouses which included elevation drawings (figures 2 and 3), photographs (figure 1), and a survey of conditions for the park's list of classified structures. The survey of the Superior Bathhouse is summarized in Table 2. Existing Conditions.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Exterior		
Roof		
Covering		Rolled roofing on flat roof. Buckling in some areas, and deterioration and bubbling along parapet in low spots.
Flashing		Galvanized metal. Bituminous coating deteriorating with some minor oxidation.
Chimneys		Brick chimney. Good condition except for loose/missing mortar around metal grill. Oxidation of grill is causing staining of walls.
Vents		Galvanized metal. Oxidation on top cover.
Drainage		Flat roof slopes to parapet and galvanized metal drain; pipes are attached to brick wall. Ponding along parapets; leaves and debris block entrance to roof. Leaders on main roof brackets pulling out of wall; paint peeling.
Walls		Brick with painted metal trim and concrete column capitols. Diagonal settlement cracks at NW and SW corners of first floor and under windows of west facade of sitting area. Underside of metal cornice trim missing in places; caulking generally missing or sporadic. Brick mortar missing in some places, but generally all right. Remains of past hardware fittings leave gaps in mortar and oxidation stained bricks.
Windows		Wood sash and trim, steel lintels, painted concrete sills. Paint peeling and chipping on majority of windows except at first floor sitting room. Broken head at second floor west elevation.
Doors		Front doors are wood and glass with brass trim; basement doors are wood. Basement doors require new hardware and have cracked paint; others are in good condition but need repainting.
Foundation		Concrete. Good condition, paint peeling. Unsightly CMV areaway addition on north side of building.
Site drainage		Flat to slight slope away from building. Minor puddling at spots along foundation.
Site features (walks, steps, ramps)		Concrete ramp and stairs at entrance. Former repairs of major settlement cracks in ramp and adjacent walks deteriorated, leaving raised jagged edge protrusions.
Electrical		Basement door light. Metal fixture hood oxidized.
Plumbing		Exposed water pipes at rear seem in generally good condition.
Interior, First Floor		
Ceilings		Painted plaster. Peeling in lobby and sitting area. Concrete beams and slabs exposed in men's and women's baths. Concrete floor beam in women's hot room has deteriorated badly. The beam reinforcing steel is almost completely intact, but concrete has been eroded by solvent. Plumbing pipe is visible in affected area. Plaster is falling from underside of lobby stairs.
Walls		Painted plaster: with marble in men's hot room; with tile in bathhalls and lobby stairs; with tile and marble in lobby; and mirrors on columns in lobby. Diagonal cracks at north and south walls of sitting room may be settlement or stress relief cracks, but appear to be stable. Plaster peeling and paint discolored in sitting room. Hairline cracks in tile at stairs. Marble at stairs has caulking missing, joints opening, disfigured by hardware fittings.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Doors		Wood and translucent glass except clear glass at men's hot room and basement stair north. Brass plates and painted metal pulls. Basement door--metal kickplate hardware, butt hinges. Pivot hinges on most doors. Closers at men's and women's dressing and basement doors. Frames of painted wood. Missing four doors (at men's bath, women's bath, women's toilet, and women's hot room). Missing glass at men's cooling room. Closers should be replaced. Generally frames are in good condition, except some jambs need to be painted.
Electrical		Ceiling surface mounted fluorescent fixtures with surface conduit to switches, also pull chains. Incandescent fixture in toilet with pull chain. Hot room has incandescent ceiling fixture plus column mounted fluorescent light, men's bath, column and columns mounted fluorescent fixtures. Ceiling fixtures are switched with exposed conduit. Wall mounted fluorescents at stairs and under stairs off lobby. Exposed conduit to supply power to whirlpool baths in each stall. Electric fan in lobby. Neon sign behind front desk.
Heating/Cooling/Air Circulation		Radiators (in metal cabinets in lobby and sitting areas). Electric wall unit heaters in men's and women's hot rooms. Air vents with large grills to roof in all areas. Good condition but pipe insulation is deteriorated in most cases.
Plumbing		All porcelain and metal bath, shower, steam, etc. Fixtures in place. All toilet fixtures, sinks, faucets, accessories in place. Most metal steam cabinets and shower stalls in poor condition. Most plumbing in good condition with toilets, sinks, etc. in fair to poor condition.
Windows		Interior windows, painted wood sash and trim. Porch/sitting area double hung windows with metal cover plate over sills at west wall. All others are inward hinged. These are in good condition except for oxidation of most hinges. One glass pane broken out at south wall of hot room.
Floors		Floors and base are tile except concrete at storage rooms under lobby stair. Generally floors are in good condition. Base tiles removed in sitting and lobby area. Cracks in tile floor at north and south ends of sitting room.
Other		Stairs are marble and tile. Generally good condition. Marble front desk. Marble is chipped, caulking gone, taped to cover cracks. Metal boxes behind desk. Rusted. Marble bath and toilet partitions with metal pipe supports. Generally good condition. Wood dressing stalls in changing rooms. Fair condition.
Interior, Second Floor		
Ceilings		Painted plaster. Paint peeling in women's dressing and massage rooms, and also in men's lounge and toilet.
Walls		Painted plaster. Diagonal cracks show through paint at beams in dressing rooms. Evidence of roof leak at north wall of men's dressing room; plaster discolored and falling. Paint peeling in men's dressing, toilet and cooling rooms and women's massage room.
Doors		Translucent glass and wood with brass kickplates and metal hardware and pivot hinges. Frames of painted wood. Metal push plates oxidizing. Doors and pivot hinges missing at men's cooling room, women's bath and women's toilet. Threshold cracked and paint chipped in women's dressing/lounge. Frames pulling apart and paint peeling in women's massage room.
Electrical		Ceiling mounted fluorescent fixtures with exposed metal conduit. Switches and/or pull chains except at men's dressing room which has wall and column mounted fluorescent fixtures. Neon sign in men's bath. Surface mounted wall duplex outlets with exposed metal conduit. Most are probably in working order but are fairly old fixtures.

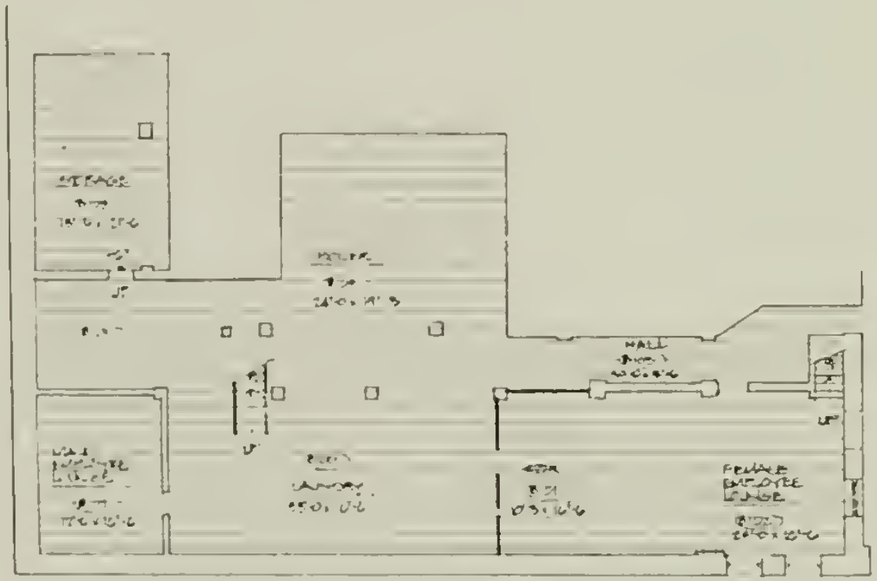
TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Heating/Cooling/Air Circulation		Window air conditioning units in women's bath. Air vents to roof. Cast iron radiators. Some grills covered and taped up. Radiators need painting, otherwise in good condition. Floor mountings missing in men's dressing room.
Plumbing		Toilets, sinks, fixtures remain. Generally plumbing is all right but one toilet is cracked at base (women's dressing room).
Windows		Hinged windows, painted wood. Double hung at west walls. Hardware (hinges) oxidizing. Sill broken at east wall, men's dressing room. Paint chipped and peeling on west walls.
Floors		Tile floors and base. Good condition except cove base tile broken out in men's cooling room.
Other		Metal guards around radiators. Rubber tread at top of lobby stairs. Wood dressing booths. Good condition; some with mirrors. Marble toilet partitions with metal accessories.
Basement		
Ceilings		Painted concrete. Broken away for plumbing and ducts. Needs repainting.
Walls		Painted concrete with wooden partitions and doors. Needs repainting. Wood in disrepair.
Doors		Painted wood. Missing door at male employees' room. Need new hardware, doorknob at women employees' room.
Electrical		Exposed conduit. Sockets for lightbulbs with pull chains at ceiling.
Heating/Ventilating/ Air circulation		Boilers and ducts remain.
Plumbing		Large array of pipes in crawl space. Raised platform for toilets at men and women employees' rooms. Toilets remain; platforms in disrepair.
Windows		Wood sash and trim with glass painted out except at boiler room. In good repair but paint is peeling.
Floors		Concrete.
Other		Wood stairway (north end) and concrete stairway (south end).
		Laundry equipment scattered throughout basement.

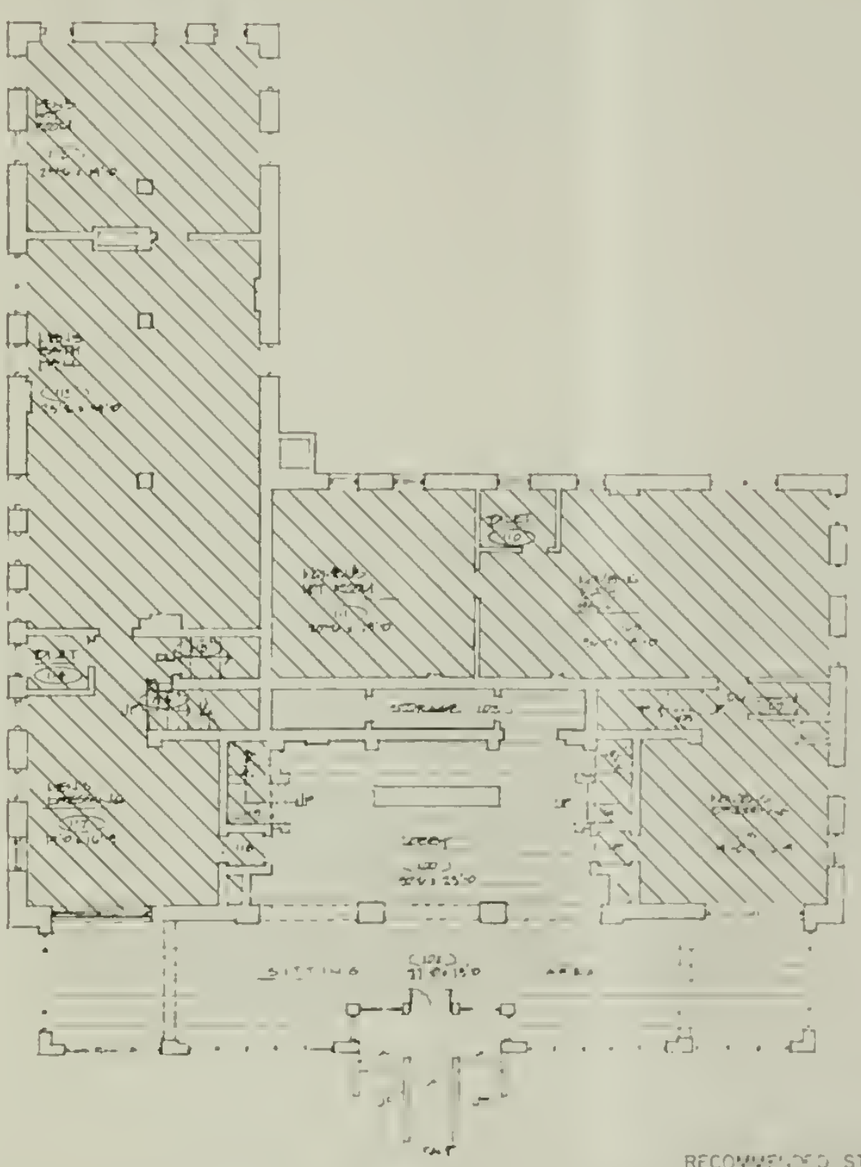
LEGEND

80 psf

125 psf



1 / S-1 BASEMENT PLAN



2 / S-1 1st FL. STRUCTURAL PLAN

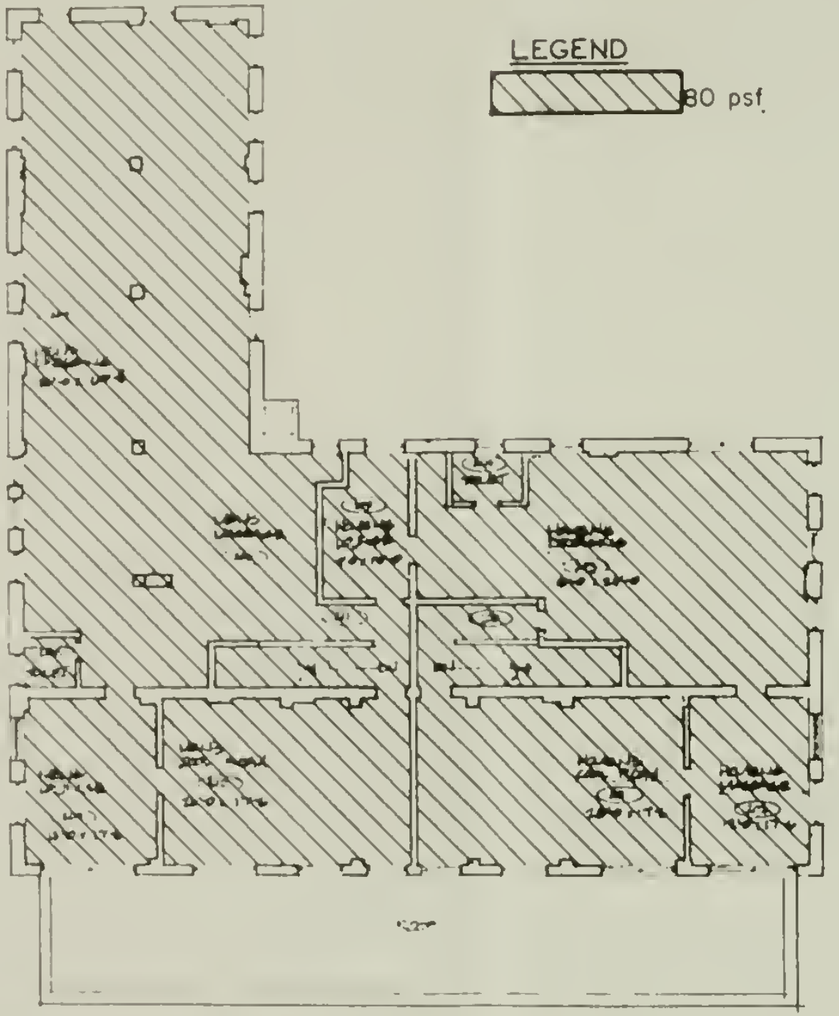
SCALE 1/16"-1'-0"

Figure 13

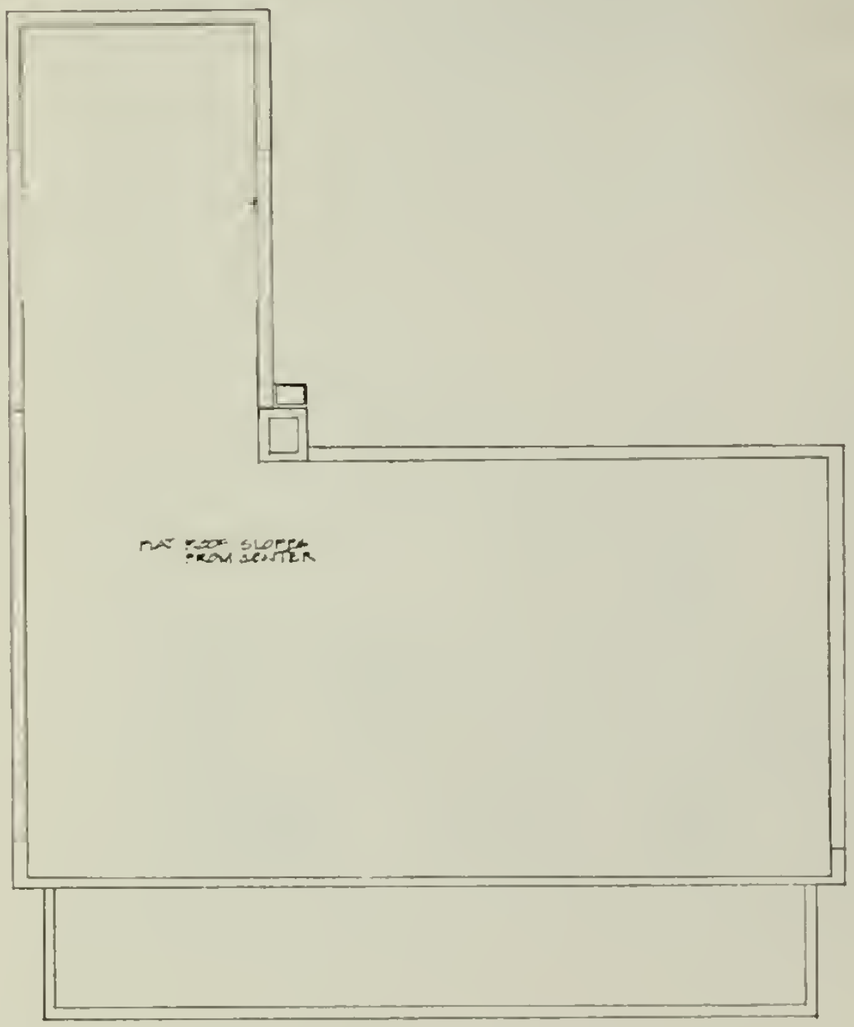
RECOMMENDED STRUCTURAL CAPACITIES

Project Date: INVESTIGATIVE STUDY OF FIVE BATHHOUSES CONTRACT NO CX7029B0004	By:	SUPERIOR-BSMT & 1st FL STRU PLAN
PITTS & ASSOCIATES ENGINEERS 100 N Rodney Parham Rd Suite 4B Little Rock, Arkansas	6/84	BATHHOUSE ROW HOT SPRINGS NATIONAL PARK

Drawing No. S-1



(1/S-2) 2nd FL. STRUCTURAL PLAN



(2/S-2) ROOF PLAN

RECOMMENDED STRUCTURAL CAPACITIES

SCALE 1/16" = 1'-0"

Revision Date	By	Description
INVESTIGATIVE STUDY OF FIVE BATHHOUSES CONTRACT NO CX702930004	Prepared RSP DESIGNED GLH DRAWN RSP CHECKED 6/84 DATE	TITLE OF DRAWING SUPERIOR-2nd FL. STRU & ROOF PLAN LOCATION WITHIN PARK BATHHOUSE ROW NAME OF PARK HOT SPRINGS NATIONAL PARK
PITTS & ASSOCIATES ENGINEERS 300 N Rodney Parham Rd Suite 4B Little Rock, Arkansas		SOUTHWEST REGION · GARLAND COUNTY · ARKANSAS STATE

Figure 14

APPENDIX

EXCERPTS ON THE EXISTING CONDITION OF THE SUPERIOR BATHHOUSE FROM THE 1984 PITTS REPORT

Page 7:

The primary purpose of this section is to report on the structural condition of the bathhouses. Many of the structural and architectural building components serve both functions or are so soundly bonded together that it is difficult to report on the structural aspect without referring to the architectural materials. In addition, structural deficiencies and adverse environmental conditions that affect the structure first manifest themselves as blemishes on architectural finishes. Therefore we must report on the condition of and the conditions affecting some architectural surfaces to convey a comprehensive report.

One problem is common to all of the bathhouses. It is best to define this problem and provide a term that will identify it so that it will not have to be repeated for each bathhouse. All building materials contract and expand with variations in temperature. These various building materials contract and expand relative to the temperature variations throughout the building and with the coefficient of linear thermal expansion of the materials. With the exception of metals, many building materials tend to expand with increases in moisture content or contract with losses of water. Portland cement products, such as concrete, concrete block masonry and portland cement plasters and mortars are reversible and will shrink or swell with changes in water content. Portland cement concrete will also experience non-reversible shrinkage during hydration. Burned clay products such as brick, structural tile, glazed tile and terra cotta expand slowly upon contact with water or humid air. This expansion is not reversible by drying at atmospheric temperatures. The architects for these buildings did not provide contraction joints to compensate for these differential movements. The brick masonry exterior walls have expanded because of the heat of the sun and the absorption of water. The interior floor slabs have contracted because of hydration, desiccation and the relative cool atmosphere. This places the walls in compression and the slabs in tension. The thick brick walls being strong in compression and the relatively thin concrete slabs being weak in tension cause the concrete to crack. We will call these cracks stress-relief cracks.

Another phenomenon that causes stress-relief cracks is concrete curling. When concrete floor and roof slabs are poured directly on masonry walls, curling of the slab often occurs due to shrinkage, deflection, and plastic flow of the concrete. If the slab warps, it may rupture the masonry or crack the slab, particularly at the corners. Horizontal cracks in the masonry often occur below the slabs.

The Superior bathhouse is, by far, in better shape than any of the houses that we have looked at. It just recently stopped operations and closed November 1, 1983. At the time of the survey, only three months later, the accumulation of dust and grime and the discoloration of finished surfaces is very apparent. Patches of plaster were beginning to fall from

the ceilings and walls six months after closing. Only minor inherent structural deficiencies and environmentally caused deterioration were observed.

1. Inherent Structural Deficiencies
   a. The front ramp and the front porch of this house has also settled. The 1973 Historic Structures Report recognized this condition. Very little change has occurred since then.

   b. A concrete floor beam in a limited area of the women's hot room has deteriorated badly. The beam reinforcing steel is almost completely intact, but the concrete has been attacked and eroded away by some solvent. A piece of plumbing pipe can be observed in the affected area.

2. Environmentally Caused Conditions
   a. The brick work on the east side needs to be repointed.

3. Comparison of Conditions Reported in the 1973 Historic Structures Report to the Conditions Observed in this Investigative Study of Five Bathhouses.

[Note: The capital letter symbols are cross references to the bathhouse floor plans, figure 4 and 5.]

		1973 Historic Structures Report	Investigative Study of Five Bathhouses
Basement	A	Ceiling crack.	Stress-relief crack. Stable.
First Floor	A	Crack around sitting area.	This could be a settlement crack or a stress-relief crack. It looks stable and probably has not changed much since 1973.
Second Floor	A	Wall crack in a pattern which indicate settlement.	This is a masonry crack caused by the curling of the concrete slab. There is no indication of foundation settlement in the basement nor on the second floor.
	B	Crack near ceiling which extends the length of the wall.	These must be stress-relief cracks in the walls or caused by plastic creep in concrete supporting beam. The structural slab on both sides of this wall were load tested. Therefore, it is structurally sound.

SELECTED REFERENCES

NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR

1973 "Historic Structures Report, Hot Springs National Park," by Cromwell, Neyland, Truemper, Millett and Gatchell, Inc., Little Rock, AR. On file at Hot Springs National Park.

1984 "Interim Report, Phase Two, Testing on Site: Investigative Study of Five Bathhouses," by Pitts and Associates Engineers, P.A., and Witsell and Evans, Architects-Planners, Little Rock, AR. On file at Hot Springs National Park.

1985 General Management Plan Amendment/Development Concept Plan/Environmental Assessment, Hot Springs National Park, Garland County, Arkansas. Denver, CO: Denver Service Center.

1985 "Historic Grounds and Structures: An Interim Report on Bathhouse Row," by Diane Rhodes, Denver Service Center, Denver, CO. On file at Hot Springs National Park.

LIST OF PREPARERS/CONSULTANTS

PREPARERS

Roger Brown, Project Coordinator, Denver Service Center (DSC)

Thomas McGrath, Historical Architect, DSC

Diane Rhodes, Researcher, DSC

Summer 1984 Recording Team, Historic American Buildings Survey (HABS), under the direction of Kenneth L. Anderson, Principal Architect

CONSULTANTS

Earl Adams, Chief, Division of Interpretation, Hot Springs National Park

Tony Crosby, Historical Architect, DSC

Diane Jung, Survey Historian, Division of History, Southwest Regional Office (SWRO)

Wilson Stiles, Architectural Historian/Arkansas State Historic Preservation Officer

Barry Sulam, Regional Historical Architect, Division of Conservation, SWRO

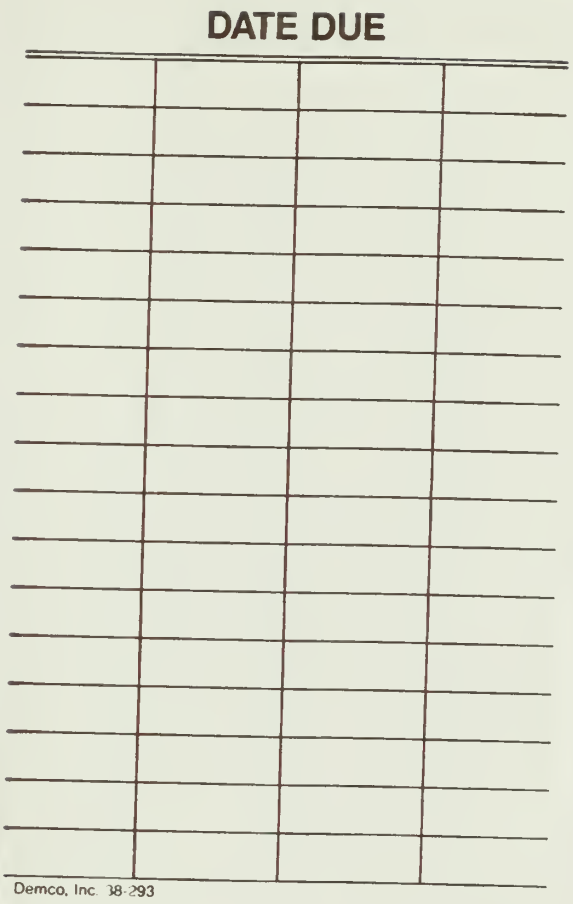
Marlys Bush Thurber, Historical Architect, Division of Conservation, SWRO

George Thorson, Project Manager for Historical Architecture, DSC

Julie Vosmik, Architectural Historian, Arkansas Historic Preservation Program

Melody Webb, Chief, Division of History, SWRO

☆ U.S. GOVERNMENT PRINTING OFFICE: 1985—576-039/10052 REGION NO. 8



As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS D-43 July 1985