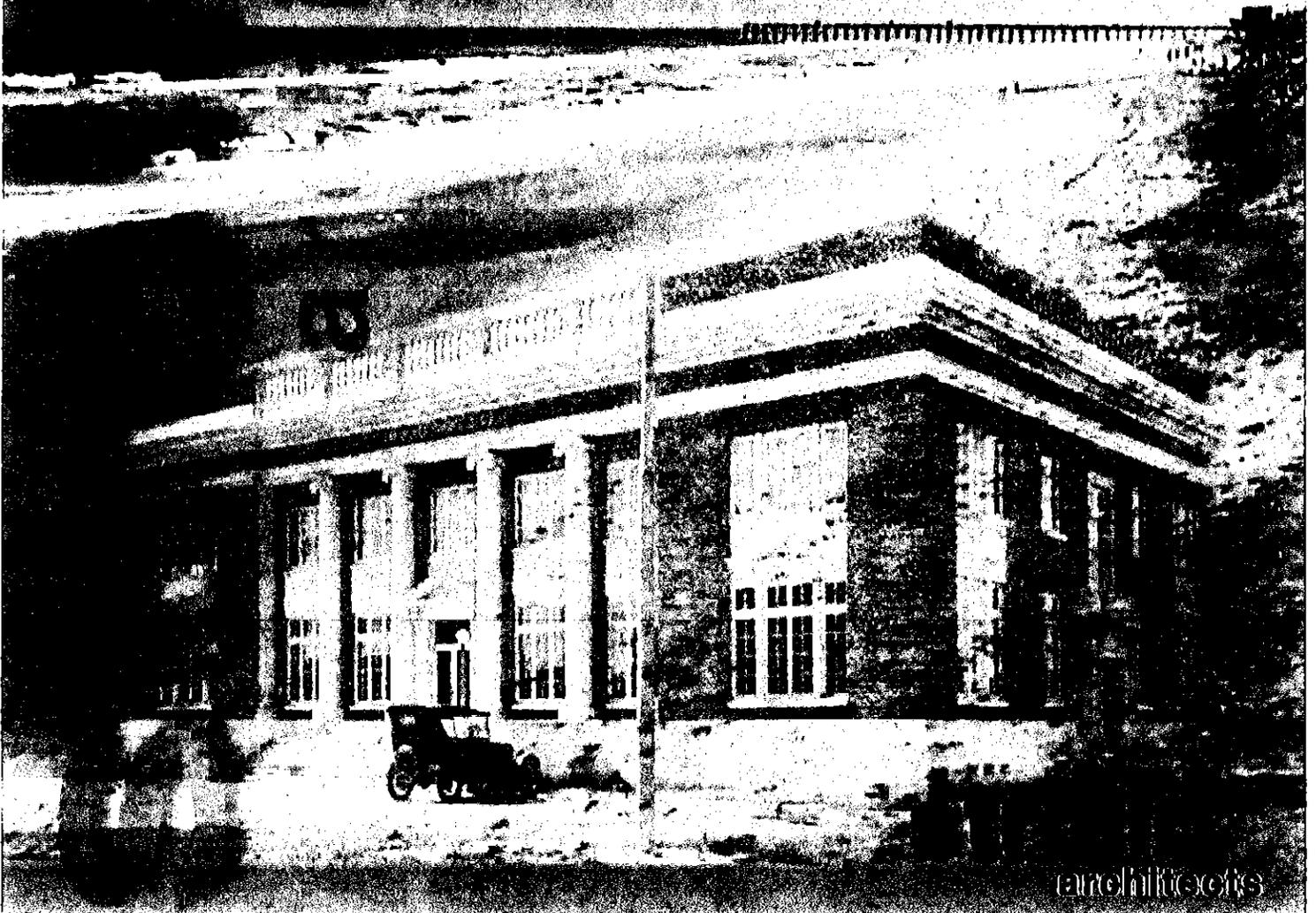


TASK 1

Structural Assessment of the Flagler County Historic Courthouse

County Project No. FC-07-007

20 February 2009



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INDEX

STRUCTURAL ASSESSMENT OF THE HISTORIC FLAGLER COUNTY COURTHOUSE

Engineers Assessment Report

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Architectural Drawings (Historic Courthouse)

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**Flagler County
Structural Investigation / Evaluation
Of the Historic Courthouse (Cir. 1926)
200 East Moody Boulevard
Bunnell, Florida 32110**

On January 21, 2009, Stollo Architects Incorporated was given a "Notice to Proceed" with the activities related to performing a Structural Investigation / Evaluation of the Historic Courthouse. This effort has been completed as Task I, identified in the First Amendment to the existing County / Architect Agreement.

The structural assessment addresses the current structural conditions of the Historic Courthouse roof structure, floor framing (2 floors), load bearing walls, columns, beams, foundation, and connection to the existing Courthouse Annex.

Repeat site visits were made by Stollo Architects and the structural engineering firm of Bowen Engineering Incorporated, to familiarize the consultants with the Facility and to document the visible existing conditions. Existing drawings, and past studies and reports as provided by the County were also reviewed.

K:\PROJECTS\0704-FLAGLER COUNTY\0704.002-Structural Ass. & Reroofing\CORRESPONDENCE\BOWEN\BowenLtrIntro02.19.09.doc

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**FLAGLER COUNTY HISTORIC COURTHOUSE
ASSESSMENT of EXISTING STRUCTURE**

2-19-2009: STRUCTURAL

Project Information

Flagler County Historic Court House; 200 E. Moody Blvd., Bunnell, FL
For: Flagler County Florida
Structural assessment by "BEC": Bowen Engineering Corp.
William H. Matthews, P.E. bmatthews@bowen-corp.com
1528 Vassar Street, Orlando FL 32804 PH: 407-423-7585 Fax: 423-4872
Assessment report prepared by structural consult to Strollo Architects Inc.

Bowen Engineering Corporation "BEC" is pleased to provide our services for the Structural assessment of the Flagler County Court House Historic 2 story (North portion) existing building built cir. 1926.

Structural Summary:

It is Bowen Engineering's professional opinion that the existing Flagler County Historic Court House building is a very sound existing structure. For the purposes of this report Bowen Engineering will rate the structural items on a scale of 1 to 10, with 10 being highest, effective structural soundness with respect to the structures original strength and an opinion of relevance to the construction practices of the building's era of construction.

Bowen Engineering rates the original overall building construction a 10, this building was built very well with a high level of attention and adherence to basic sound standards of construction. The foundation and wall structures are sound "9" but the roof structure we rate a "5" because of wood rot in the North East and North West corners.

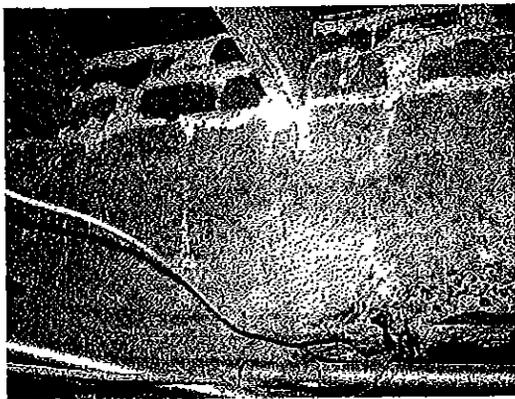
Our final overall recommendation is that the existing building is structurally good & sound for everyday use and office type occupation (50psf. Maximum Live Load) but during a high wind event, the building should not be occupied. If the roof is repaired and maintained we would rate the building at a "9" with respect to effective structural soundness in relation to the original structural strength.

(1)

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Foundation structural condition observations and opinion:

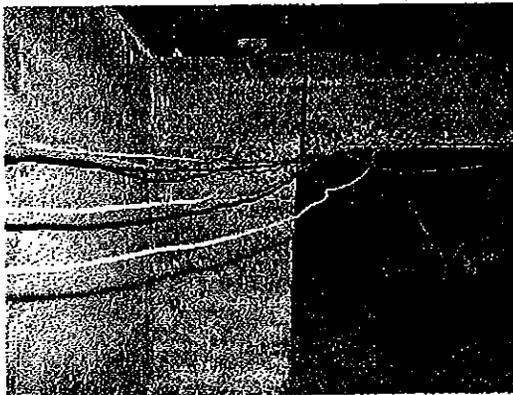
From BEC's observations of the foundation and stem wall system, we rate its existing condition an "8". We observed (3) headers in stem walls with bearing cracks that, in our opinion, are probably due to previous differential settlement and have been in this condition for some time. It is our opinion that the differential settlement that has occurred in the past has settled out and unless an event such as water erosion from a severe roof or pipe leak were to occur, future cracking and settlement should be minimal and structurally negligible. BEC did not observe structural member conditions that would indicate a deficiency that would cause an imminent structural failure due to gravity loads.



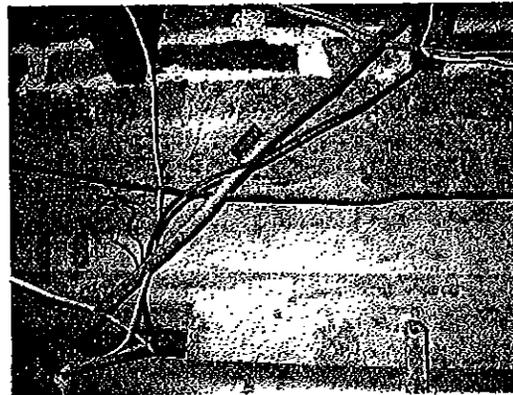
Picture: FHP1



Picture: FHP2



Picture: FHP3



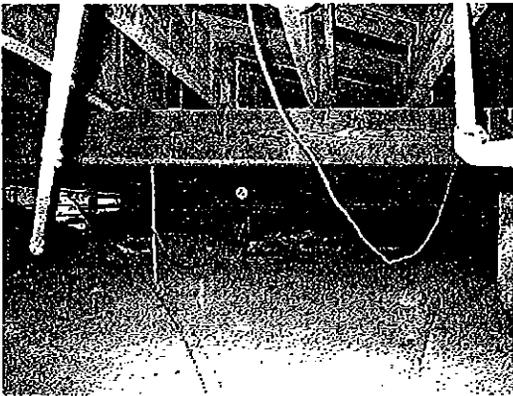
Picture: FHP4

**End bearing cracks in stem wall headers
(2)**

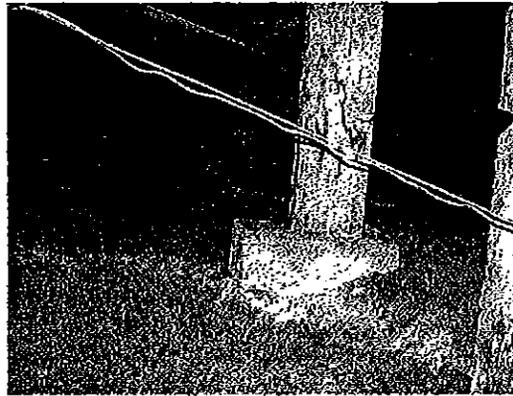
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First floor framing structural condition observations and opinion:

From BEC's observations of the first floor framing, we rate its existing condition a "9". We observed only superficial very minimal marks from old termite activity on only a couple of framing members that in our opinion are structurally negligible. We observed 5 or 6 shoring piers that were probably inserted long ago to reduce deflection (spring, bounce or vibration) of the 1st. floor framing in some areas, although not as proper as the original construction, these shoring piers apparently are performing adequately. BEC did not observe structural member conditions that would indicate a deficiency that would cause an imminent structural failure due to gravity loads. The maximum floor loading in the first floors should not exceed 125psf. in the vaults and 50psf. for all other rooms.



Picture: FSP1



Picture: FSP2



Picture: FSP3

Floor shoring piers

(3)

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Second floor framing structural condition observations and opinion:

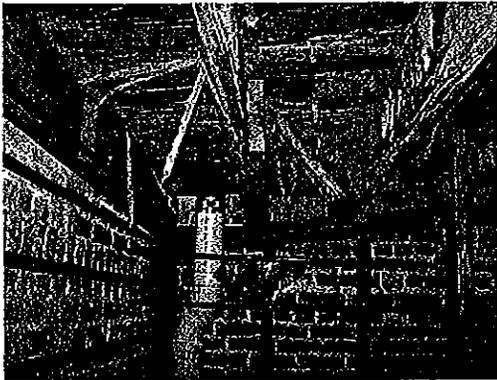
From BEC's observations of the second floor framing, we rate its existing condition a "9". BEC did not observe structural member conditions that would indicate a deficiency that would cause an imminent structural failure due to gravity loads. The maximum floor loading for the second floor should not exceed 50psf. for all rooms.

Load bearing walls structural condition observations and opinion:

From BEC's observations of the load bearing walls, we rate their existing condition a "9". BEC did not observe structural member conditions that would indicate a deficiency that would cause an imminent structural failure due to gravity loads.

Roof framing structural condition observations and opinion:

From BEC's observations of the roof framing, we rate its existing condition a "5". We observed wood rot in the North East and North West corners. It appears this has been an on-going issue. In these areas the roof deck and framing must be repaired. It is our opinion that these areas are not safe for any personnel loads from casual observers and may fail due to gravity loads.



Picture: RP1

North West roof corner

(4)

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Existing interface between North Historic and Southern Annex:

BEC observed no visible serious structural defects or indications of serious structural distress in the interface or connection point of the North Historic Court House building and the Southern Annex. We observed the post tension cable tie rods "PTC." that were installed at various levels and various locations in the Historic North Court House building and we recommend these PTC be left as is. These PTC may have been added due to differential settling that occurred prior to and as the Southern Annex building pad was being prepared for the construction of the Annex. These PTC should be left as is and carefully worked around, undisturbed during any repair or renovation work. It is Bowen Engineerings' professional opinion that the existing Southern Annex should not be torn down as demolition of the southern Annex could constitute an event triggering new joint cracks and settlement in the Historic North Court House exterior brick.

The preceding opinion is rendered on the basis of the information provided to BEC and from observations made of the visible components of the existing structure during our site visits. It is to be understood that an observation report of the type performed by us on this facility may not reveal all structural defects, which might exist and may be discovered and addressed during construction repair work that may be performed in the future. It is to be understood that an observation report of the type performed by us on this facility is not a certification of the structure as a whole and in no way is to be interpreted as a certification that the structure meets current codes. If any of the preceding observations are noted by any party involved, to be in error, we honestly ask that the concerned party address the item, in writing to us, as soon as possible.

We thank you for our opportunity to work with you in this matter and if we can be of any further assistance please call on us.

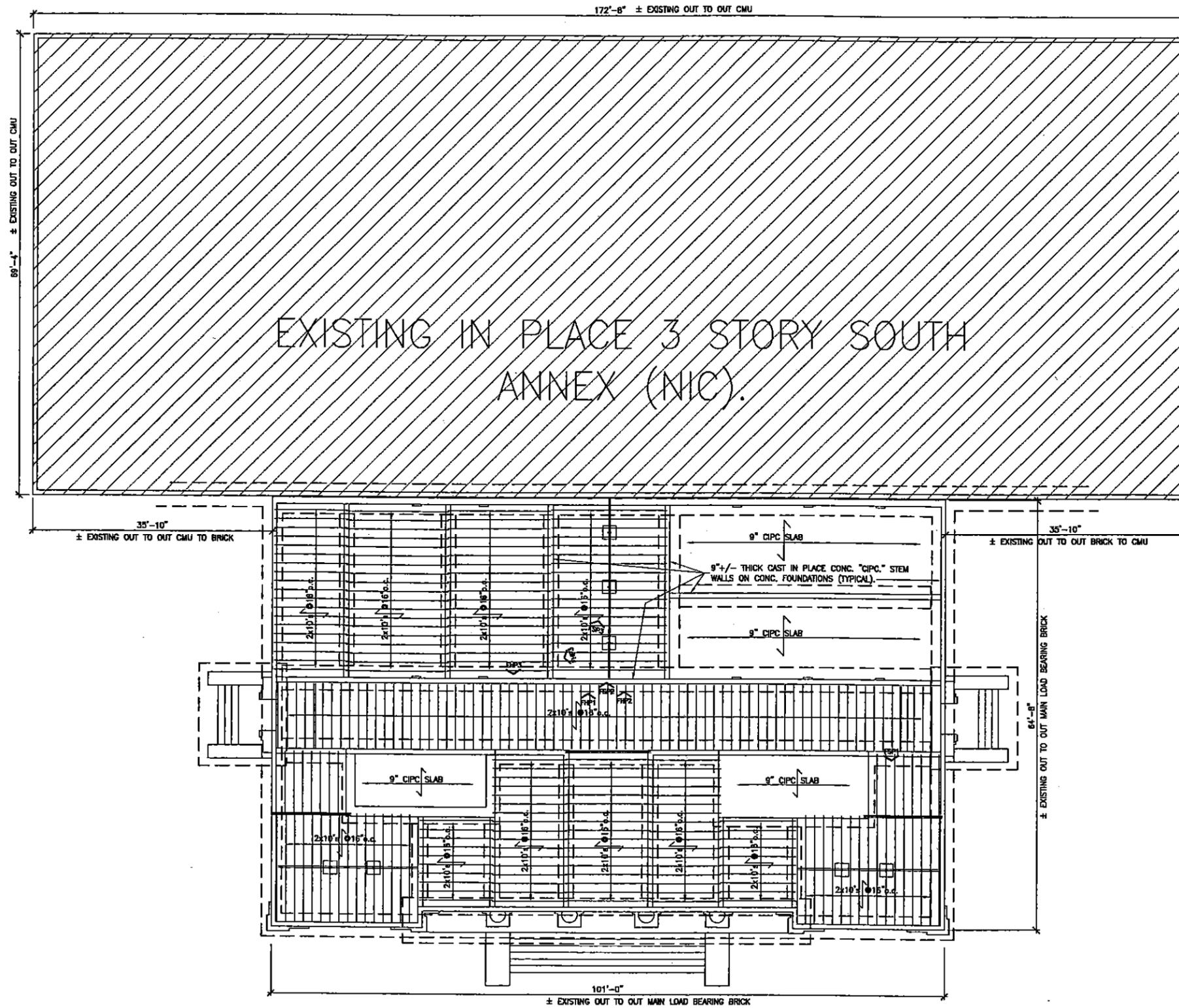
Sincerely:

William H. Matthews, FL. P.E. #54831
BOWEN ENGINEERING CORP.
1528 Vassar Street, Orlando FL 32804
PH: 407-423-7585 Fax: 407-423-4872
bmatthews@bowen-corp.com

END of STRUCTURAL ASSESSMENT REPORT

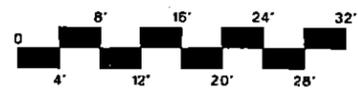
(5)

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structural existing foundation and 1st. floor framing plan

scale: 1/8" = 1'-0"



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1528 Vassar Street, Orlando, Florida 32804
407.423.7585 fax 407.423.4872
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mechanical, plumbing, and electrical engineering

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407.850.6622 fax 407.838.6636

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sheet title:
structural
existing foundation
and 1st. floor plan

revisions:

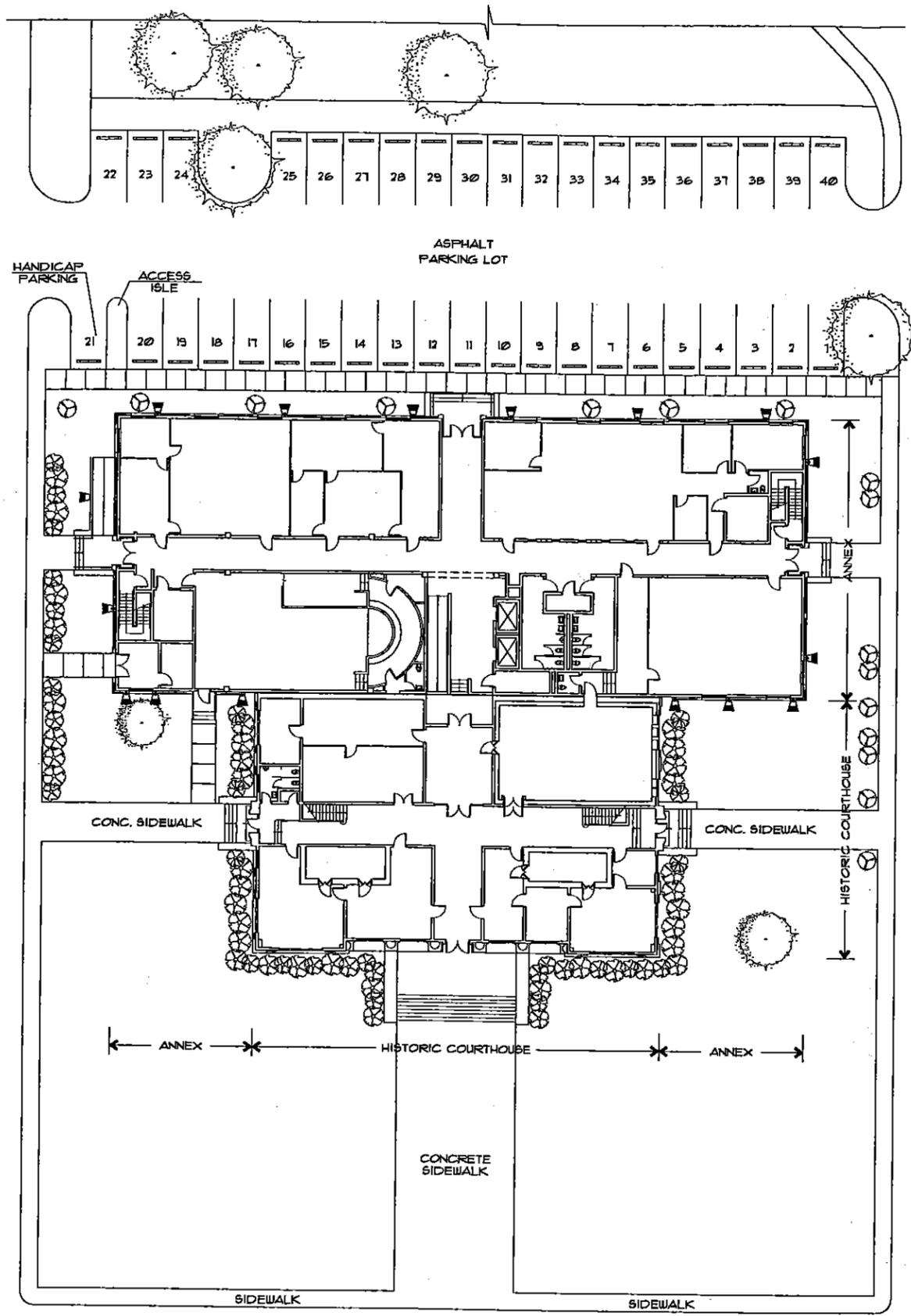
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check: ben

project no. 0704.002

date: 2-19-2009



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mechanical, plumbing, and electrical engineering
RLB, LLC
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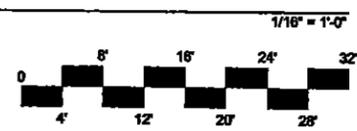
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sheet title:
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site plan**

revisions:

scale: as shown
drawn: dca
check: tr
project no. 0704.002
date: february 19, 2009

1 architectural site plan





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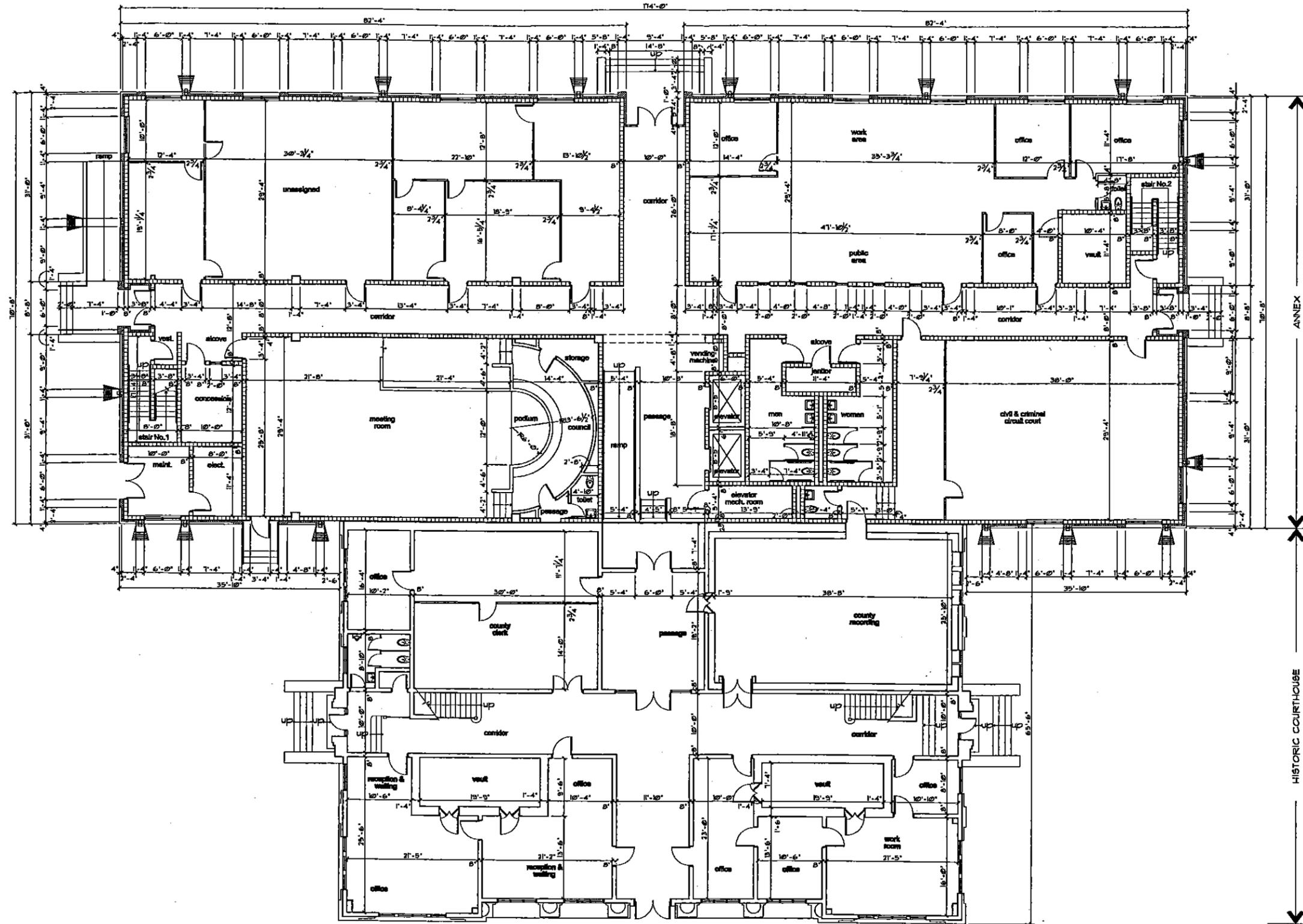
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mechanical, plumbing, and electrical engineering
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1 first floor plan

1/8" = 1'-0"



project name:

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sheet title:

**architectural
first floor plan**

revisions:

scale: as shown

drawn: dca

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project no. 0704.002

date: february 19, 2009

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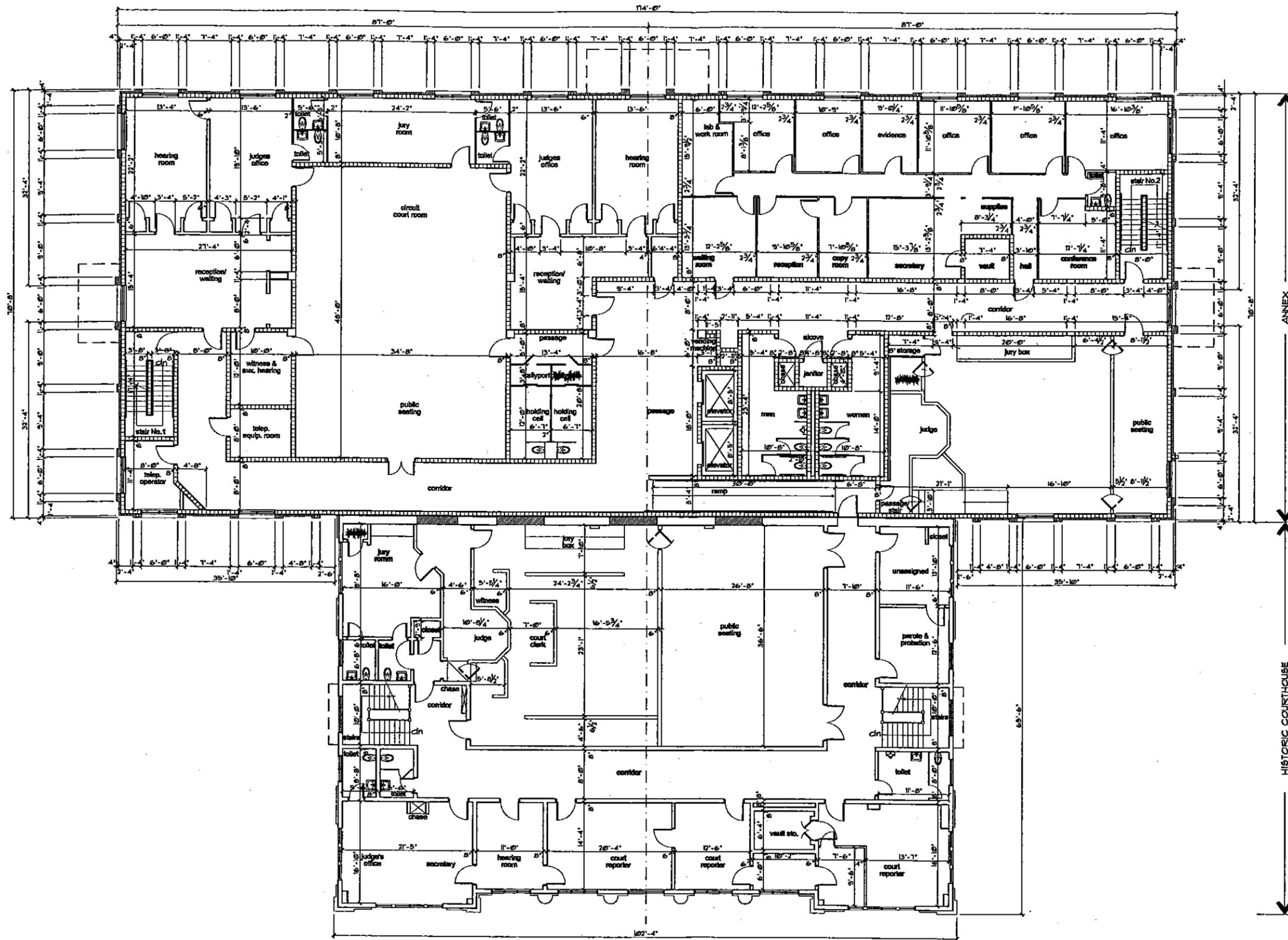


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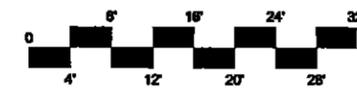
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407.423.5355 fax 407.422.6994

structural engineering
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1523 Vassar Street, Orlando, Florida 32804
407.423.7585 fax 407.423.8172
mechanical, plumbing, and electrical engineering
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1 second floor plan

1/8" = 1'-0"



project name:
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sheet title:
**architectural
second floor plan**

revisions:

scale: as shown
drawn: dcs
check: tr
project no. 0704.002
date: february 18, 2009

A-2.1



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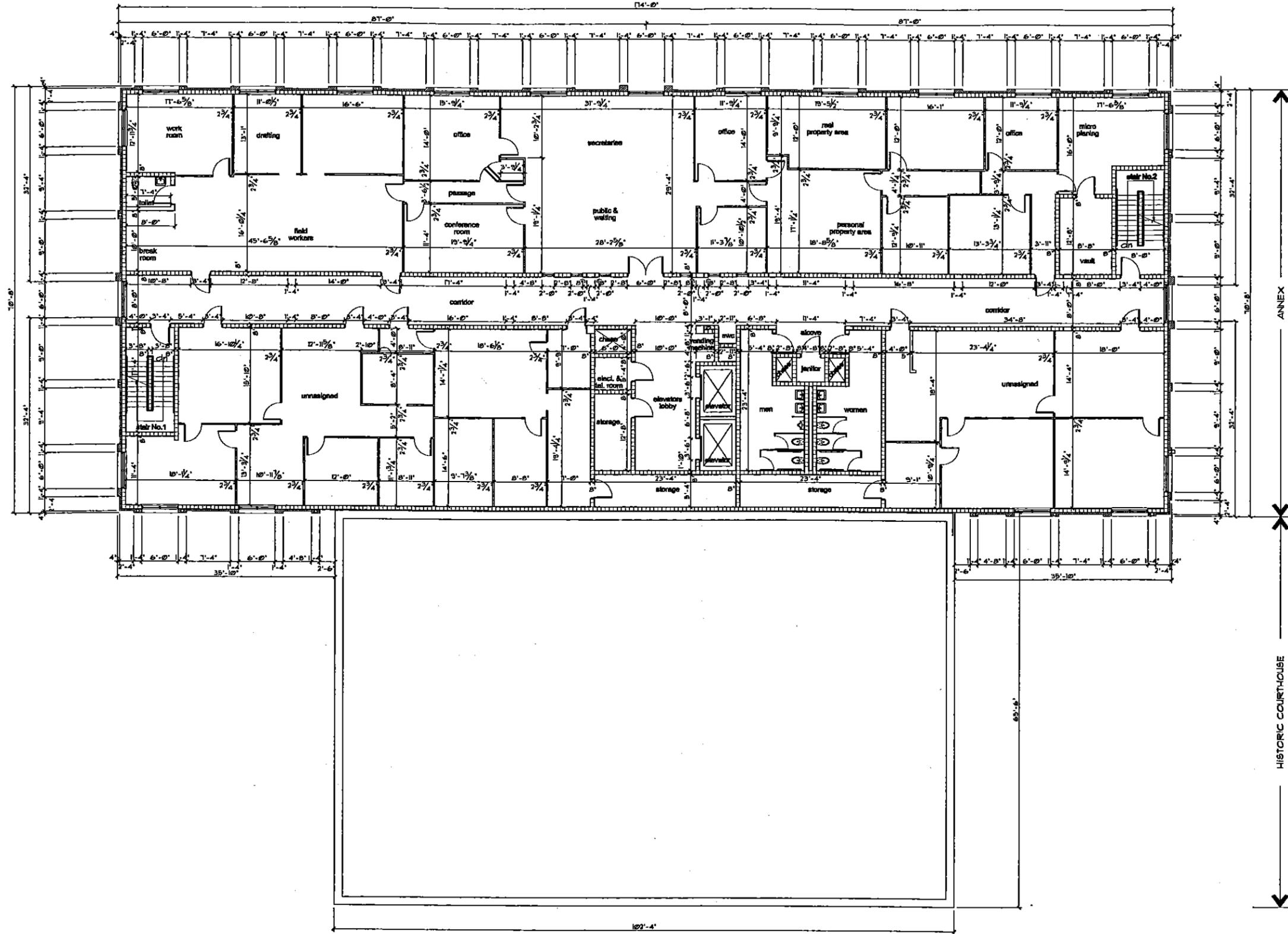
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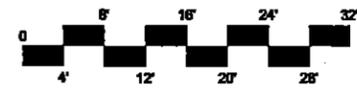
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1 third floor plan

1/8" = 1'-0"

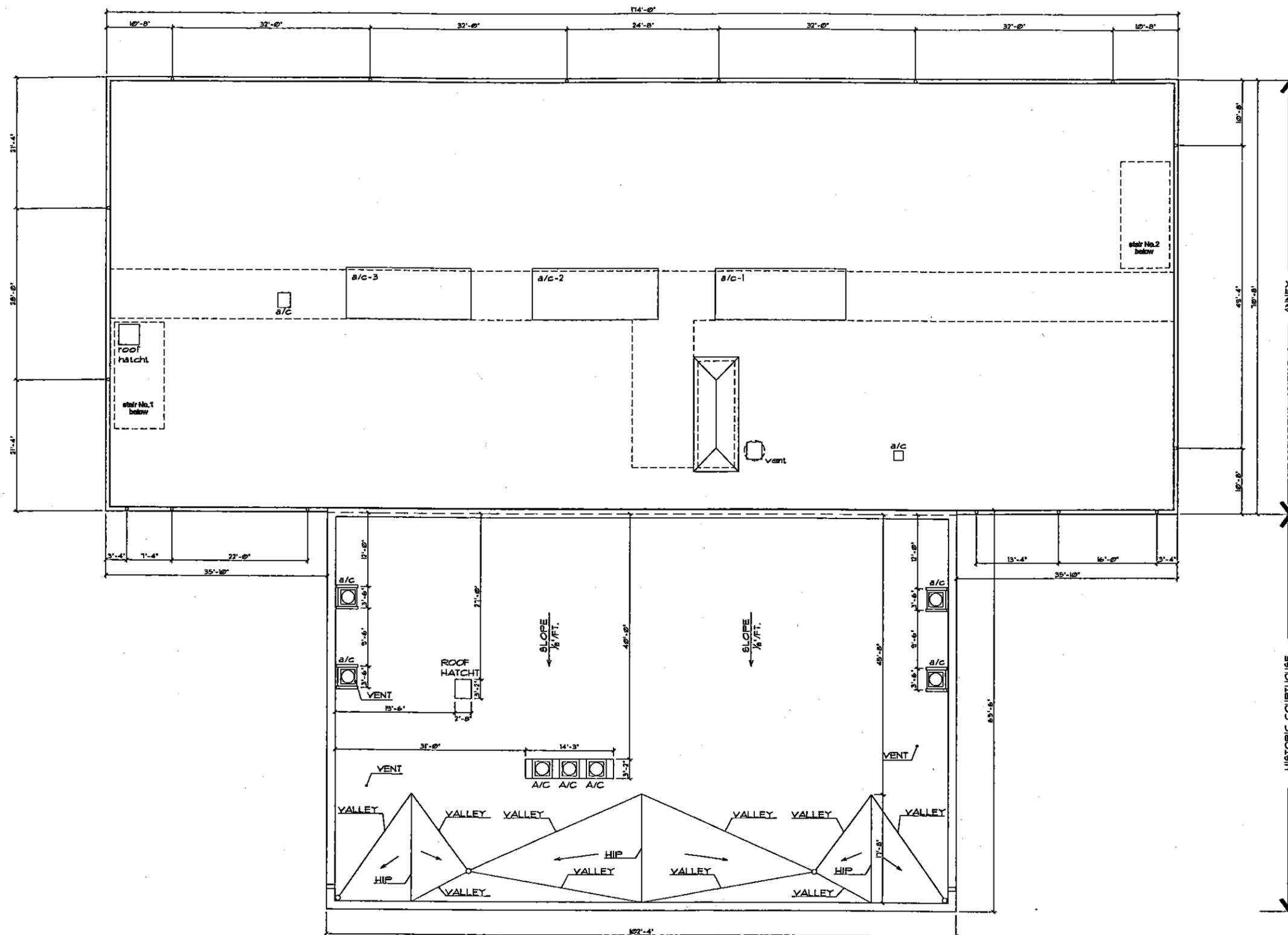


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sheet title:
**architectural
third floor plan**

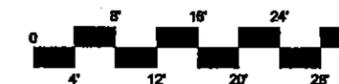
revisions:

scale: as shown
drawn: dca
check: tr
project no. 0704.002
date: february 18, 2009



1 roof plan

1/8" = 1'-0"





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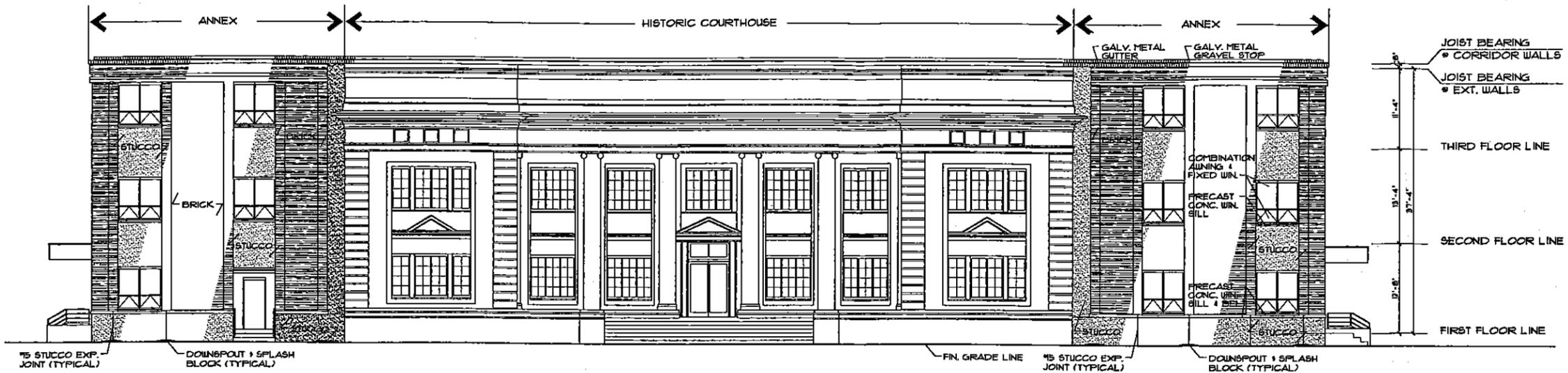
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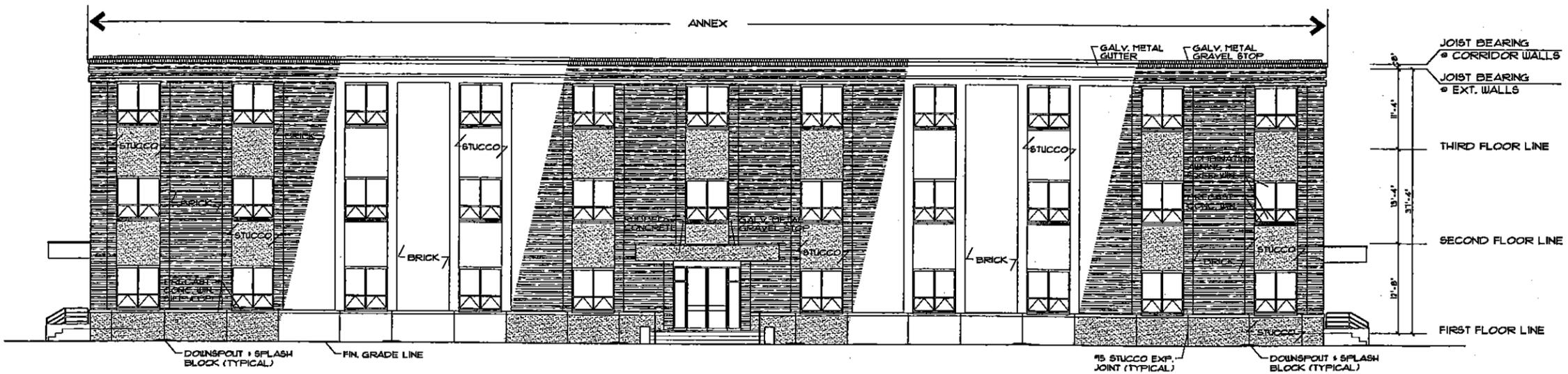
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11466 Corporate Blvd, Suite 120, Orlando, FL 32817
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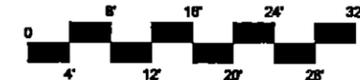
1 north elevation

1/8" = 1'-0"



2 south elevation

1/8" = 1'-0"



project name:
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STRUCTURAL ASSESSMENT /
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sheet title:

**north and south
elevations**

revisions:

scale: as shown

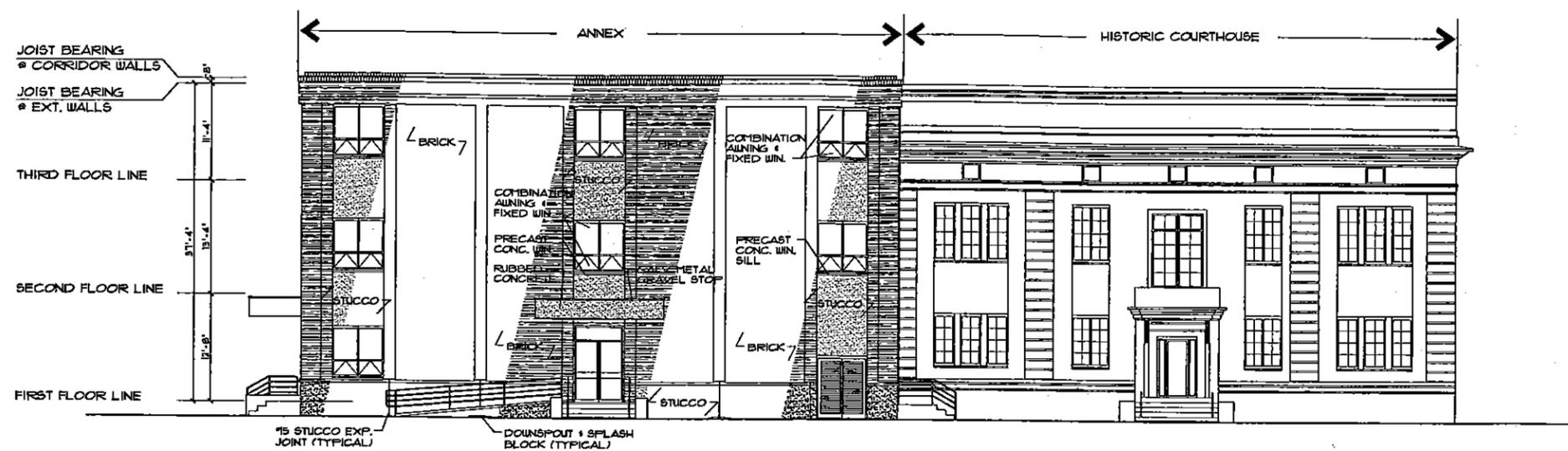
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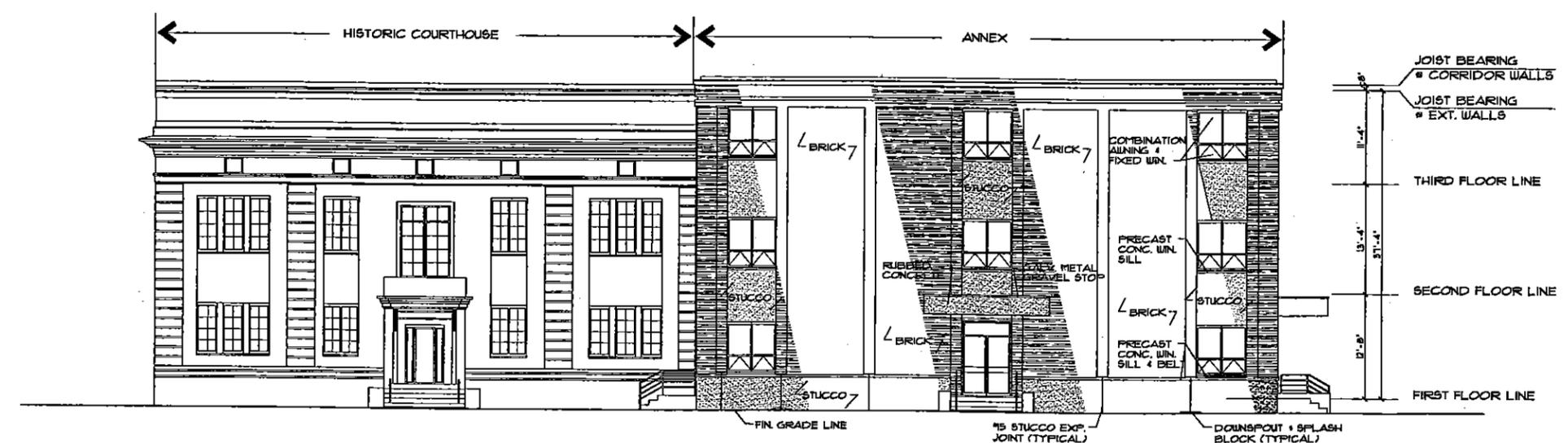
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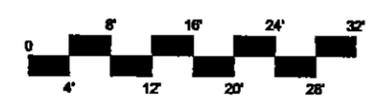
1 east elevation

1/8" = 1'-0"



2 west elevation

1/8" = 1'-0"



project name:
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sheet title:
east and west elevations

revisions:

scale: as shown
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