

Proposed Facility Improvements for the "Jack and Jill" Building for the City of Columbia

711-713 North Main Street
Columbia, Tennessee

NUBER ARCHITECTURE, LLC
COLUMBIA, TENNESSEE

ARCHITECT

CARTWRIGHT ENGINEERING
NASHVILLE, TENNESSEE

STRUCTURAL ENGINEER

PLAN REVIEW DATA

BUILDING CODES:

2012 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS
2004 INTERNATIONAL ENERGY CONSERVATION CODE
2012 INTERNATIONAL PLUMBING CODE WITH LOCAL AMENDMENTS
2012 MECHANICAL CODE WITH LOCAL AMENDMENTS
2012 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS
2012 INTERNATIONAL FUEL GAS CODE WITH LOCAL AMENDMENTS
2012 NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS
2010 ADA (AMERICANS WITH DISABILITY ACT)

CONSTRUCTION TYPE:

TYPE III-B, UNPROTECTED, UNSPRINKLERED

OCCUPANCY TYPE:

GROUP B, BUSINESS

BUILDING HEIGHT:

3-STORY (PARAPET HEIGHT NOT DETERMINED THIS PROJECT)

SQUARE FOOTAGE TOTAL

TOTAL GROSS AREA (BASEMENT LEVEL)	807 S.F.
TOTAL GROSS AREA (MAIN LEVEL)	2,472 S.F.
TOTAL GROSS AREA (SECOND FLOOR)	2,472 S.F.
TOTAL AREA (ALL FLOORS)	5,751 S.F.

ALLOWABLE HEIGHTS & BUILDING AREAS (IBC TABLE 503)

GROUP B, BUSINESS
TYPE III-B, UNPROTECTED, UNSPRINKLERED
ALLOWABLE HEIGHT:
MAXIMUM STORIES ALLOWED: 3

19,000 S.F.
55'

OCCUPANT LOAD

MAXIMUM OCCUPANT LOAD BASED ON COND. AREA, 100 S.F./PERSON **58 PEOPLE**

DESIGN LIVE LOAD VALUES:

ROOF:	SEE STRUCTURAL DRAWINGS
FLOOR:	SEE STRUCTURAL DRAWINGS
WIND DESIGN:	SEE STRUCTURAL DRAWINGS
HANDRAILS/GRAB BARS:	NOT APPLICABLE (NO NEW CONSTRUCTION)

PARTITION FIRE RATING LEGEND

(WHERE APPLICABLE THIS PROJECT - REF. PLANS)

--- ONE HOUR PARTITION
--- TWO HOUR PARTITION
--- FOUR HOUR FIREWALL
--- SMOKE WALL PARTITION (30 MINUTE)

GENERAL NOTES

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING.
- THE ARCHITECT SHALL BE CONTACTED IMMEDIATELY BEFORE PROCEEDING WITH THE WORK FOR ANY CONFLICT BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS.
- FOR ANY AREAS WHERE WORK IS DONE, SEAL ALL EXISTING WALL PENETRATIONS AND MAINTAIN THE INTEGRITY OF THE EXISTING WALLS.
- WORK PERFORMED FROM THESE PLANS PRIOR TO ALL CODES AND ZONING APPROVALS IS AT THE RISK AND RESPONSIBILITY OF THE CONTRACTOR AND OWNER.
- COORDINATION OF THE VARIOUS TRADES WITH RESPECT TO THESE DOCUMENTS AND PRECEDING DOCUMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR AND OWNER.
- THESE DOCUMENTS ARE PROPERTY OF THE ARCHITECT. THE ARCHITECT RETAINS CONTROL OF THESE DOCUMENTS, WHICH MAY NOT BE USED OR REPRODUCED WITHOUT PERMISSION.

MATERIAL DESIGNATION

	Earth
	Porous Fill
	Gypsum Wall Board
	Concrete
	Brick
	Concrete Masonry Units
	Rigid Insulation
	Ceramic Tile
	Existing Walls (if Applicable)
	Plywood
	Steel
	Batt Insulation
	Rough Wood
	Finished Wood
	Acoustical Tile
	Resilient Flooring
	New Walls

MASTER ABBREVIATIONS LEGEND

ACOUST.	Acoustical
A.F.F.	Above Finished Floor
ALUM.	Aluminum
CONC.	Concrete
CONT.	Continuous
C.M.U.	Concrete Masonry Unit
C.J.	Control Joint
C.G.	Corner Guard
C.T.	Ceramic Tile
DTL.	Detail
D.S.	Down Spout
D.W.	Drywall or Gypsum Wallboard
E.I.F.S.	Exterior Insulated Finished System
E.W.C.	Electric Water Cooler
E.F.	Exhaust Fan
E.J.	Expansion Joint
E.O.S.	Edge of Slab
EXIST.	Existing
FIN. FLR.	Finished Floor (Concrete Slab/Wood Floor)
F.E.C.	Fire Extinguisher Cabinet
F.E.R.	Fire Extinguisher Rack
F.O.B.	Face of Brick
F.O.M.	Face of Masonry
F.O.S.	Face of Stud
G.I.	Galvanized Iron
G.A.	Gauge
H.M.	Hollow Metal
INSUL.	Insulation
M.T.	Marble Threshold
MTL.	Metal
MTL. T.	Metal Threshold
N.I.C.	Not in Contract
N.T.S.	Not to Scale
O.C.	On Center
O.F.E.	Owner Furnished Equipment
PT/PLAST.	Painted Plaster
P.T.	Pressure Treated
P.T.	Point
TYP.	Typical
V.C.T.	Vinyl Composition Tile
W.P.	Water Resistant

SYMBOL LEGEND

Door Symbol		See Door Schedule for Specific Information
Partition Type		See floor plan for partition description
Window Type		See door schedule for window details
Drawing Revision		Drawing Revision (See Comments in Title Block)
Section Marker		Detail # / Sheet# Section is located
Elevation Marker		Detail # / Sheet# Elevation is located
Enlarged Detail Marker		Detail # / Sheet# Detail is located
Break Mark		

ARCHITECT'S PROJECT

2015021

These drawings are protected by the 1990 Architectural Works Copyright Protection Act amending the U.S. copyright laws. The Owner / recipient shall not forward the information provided in these documents to other design professionals either directly or indirectly without written consent from the consultant(s) named herein.

It shall be the responsibility of the Contractor to ensure that all future revised drawings are issued to the respective subcontractors and that the cross-referenced drawings specified herein have been supplied to ensure a thorough understanding of the work required. A list of current drawings and revision dates will be made available at the Architect's office for review.

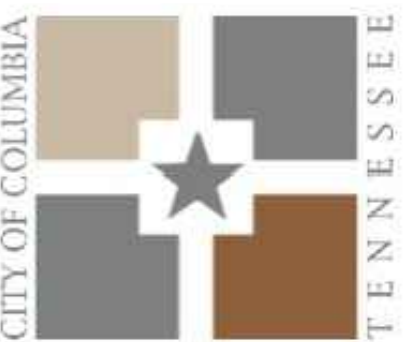
INDEX OF DRAWINGS

AO.1	Cover Sheet
AI.1	Record Documents/Demolition Plan
STRUCTURAL	
SO.1	General Notes
SO.2	Shotcrete Specifications
SI.1	Structural Reinforcement Plans
SI.2	Structural Reinforcement Plans

This drawing, its design, detail and invention, are the property of Nuber Architecture, L.L.C. and shall not be copied in any manner nor disclosed to any outside party without expressed written consent. Failure to comply with these terms may result in criminal prosecution.



Nuber Architecture
ECCLESIASTICAL PLANNING / DESIGN
COMMERCIAL ARCHITECTURE
1069 Rolling Fields Circle, Columbia, Tennessee 38401
Phone: (931) 540-8045 Fax: (931) 840-5771
E-mail: gnuber@nuberarchitecture.com



Proposed Facility Improvements for
the "Jack and Jill" Building for
the City of Columbia
Columbia, Tennessee

A0.1 Cover Sheet

Date:	10-10-2016	THIS DRAWING HAS BEEN ISSUED:	
Job #:	2015021	FOR REVIEW ONLY	<input type="checkbox"/>
Dr. By:	G. Nuber	FOR ESTIMATING/BIDDING ONLY	<input type="checkbox"/>
Clk. By:	G. Nuber	FOR CONSTRUCTION	<input checked="" type="checkbox"/>
File #:	2015021A01	DATE: 10/07/16 ISSUED BY:	G. Nuber



Nuber Architecture
 ECCLESIASTICAL PLANNING / DESIGN
 COMMERCIAL ARCHITECTURE
 1869 Rolling Fields Circle, Columbia, Tennessee 38401
 Telephone: 803.733.1111
 Email: gnuber@nubearchitecture.com



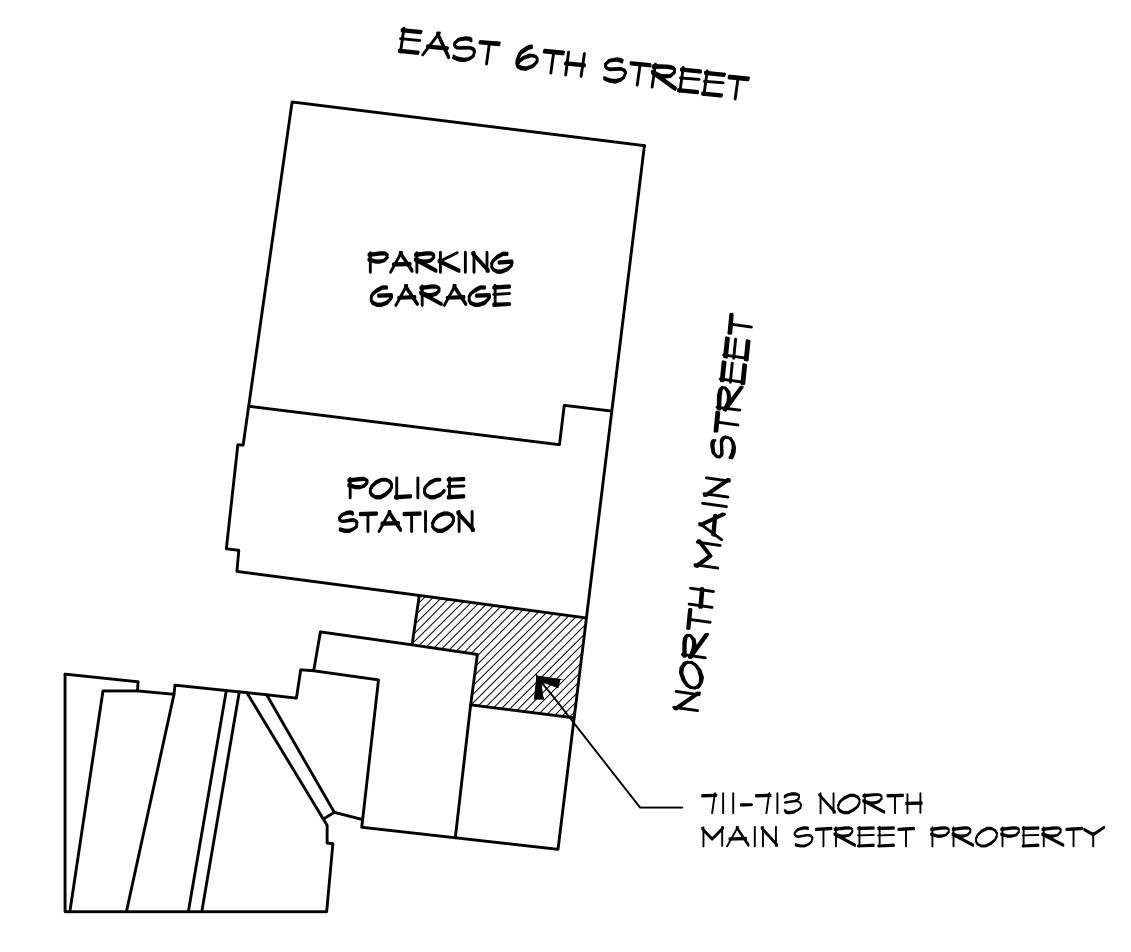
Proposed Facility Improvement for the "Jack and Jill" Building for the City of Columbia, Tennessee

A1.1 Record Document/Work Scope

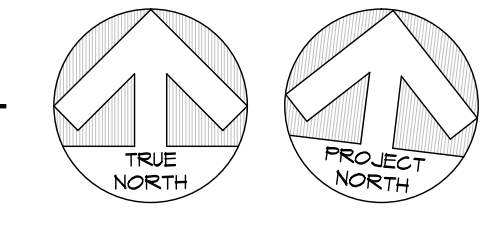
Date:	10-10-2016	THIS DRAWING HAS BEEN ISSUED:	Revisions:
Job #:	2015021	FOR REVIEW ONLY	1
Dr. By:	G. Nuber	FOR PERMIT ONLY (NOTHING ONLY)	2
Ck. By:	G. Nuber	FOR CONSTRUCTION	3
File #:	2015021A1.1a	DATE: 10/10/16 ISSUED BY: G. Nuber	4

GENERAL NOTES

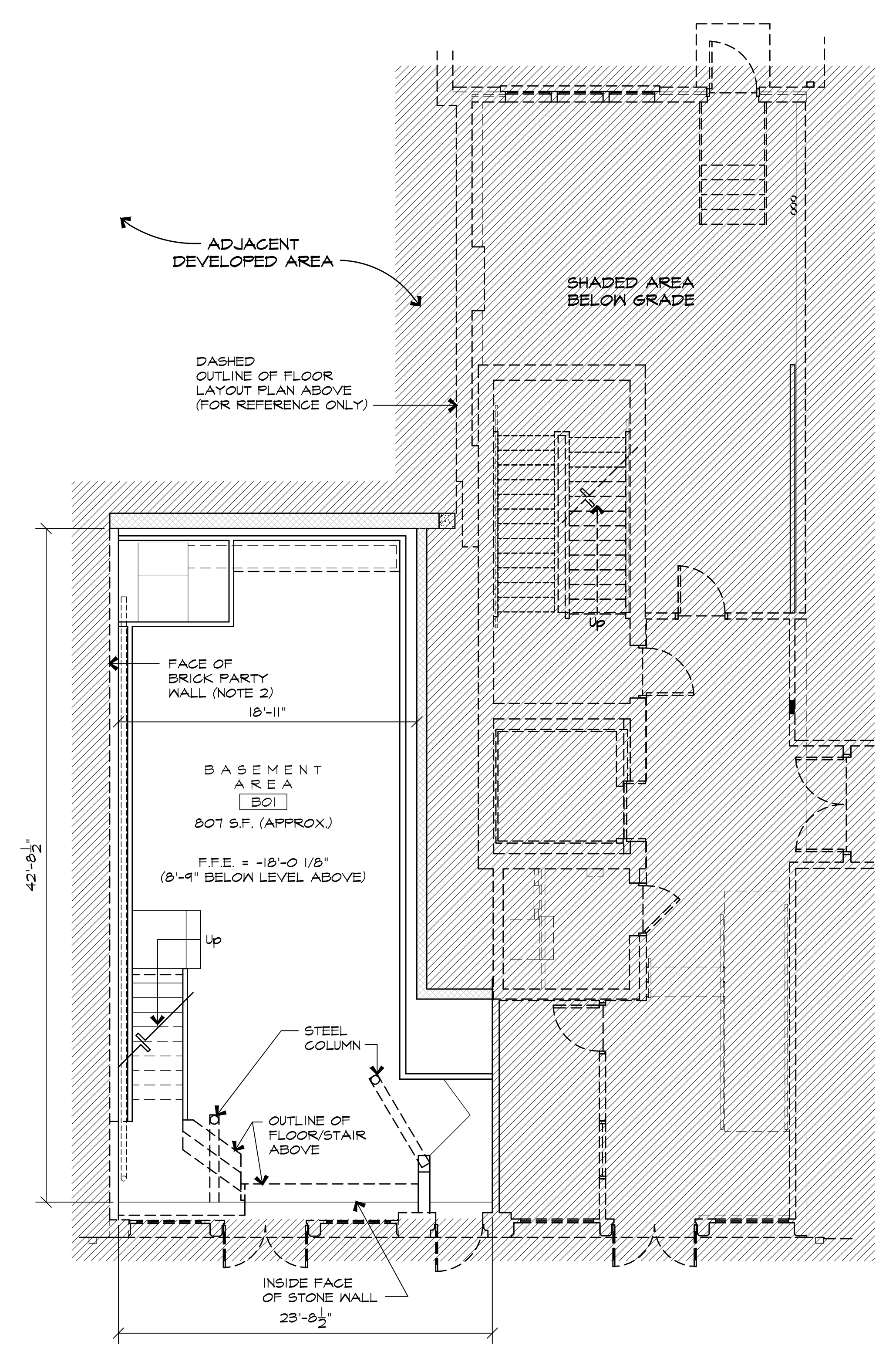
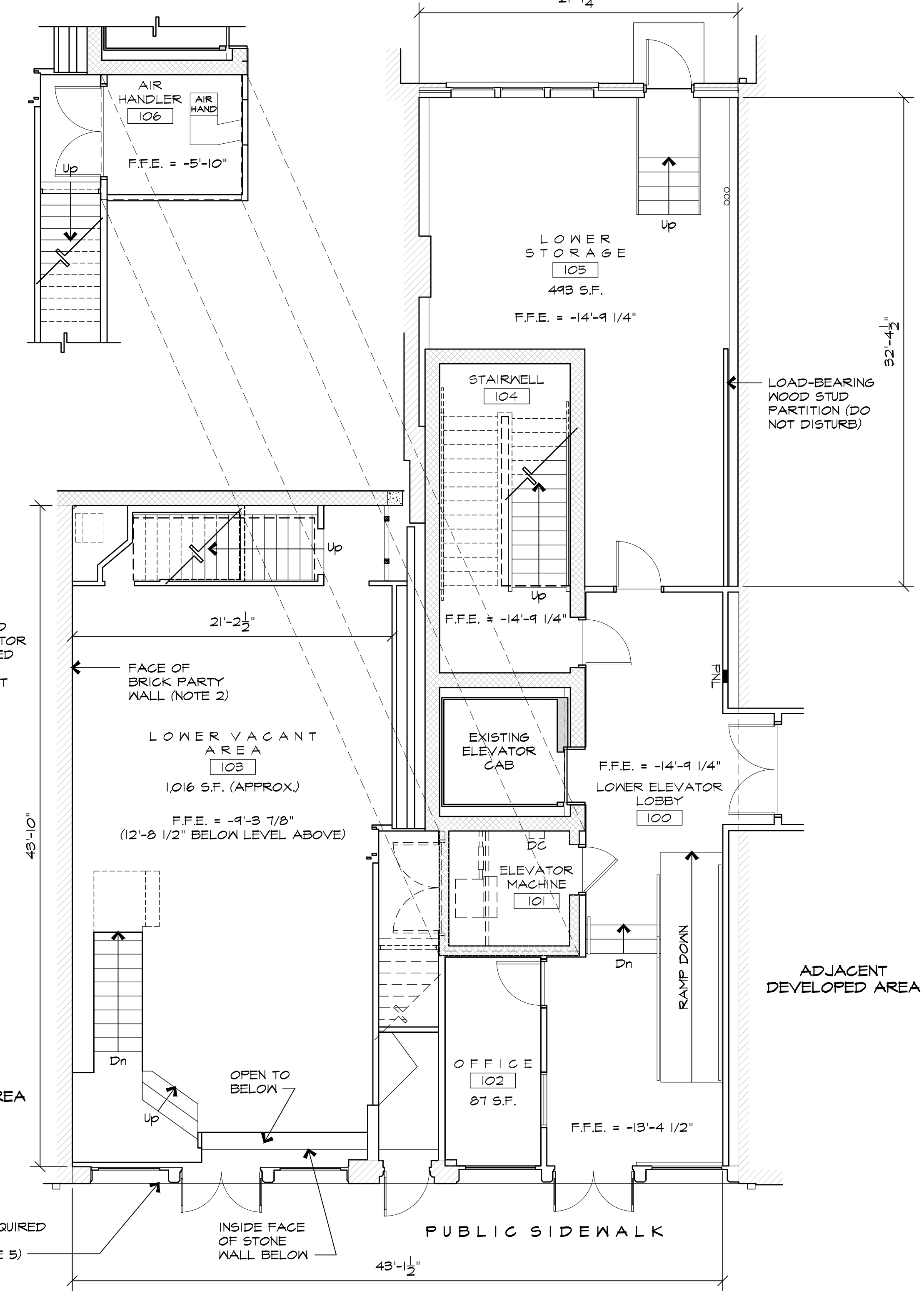
- THE SCOPE OF WORK FOR THIS PROJECT IS TO PROVIDE STRUCTURAL STABILIZATION FOR THE SUBJECT BUILDING. NO ARCHITECTURAL IMPROVEMENTS WILL BE MADE FOR THIS PHASE. THE INTENT OF THE ARCHITECTURAL DRAWINGS (THIS SHEET) IS TO PROVIDE A GENERAL OVERVIEW OF THE VARIOUS STRUCTURAL STABILIZATION IMPROVEMENTS TO BE MADE.
- SEE STRUCTURAL DRAWINGS FOR CORRECTIVE ACTION TO BE PERFORMED THIS WALL FACE.
- SEE STRUCTURAL DRAWINGS FOR INTEGRATING SECOND FLOOR DIAPHRAGM STRUCTURE TO EXISTING EXTERIOR MULTI-WYTHE BRICK WALL ASSEMBLY.
- SEE STRUCTURAL FOR REMOVAL OF PORTION OF MAIN LEVEL FLOOR STRUCTURE FROM EXISTING MULTI-WYTHE BRICK WALL THIS FACE TO LOAD-BEARING POINT OF EXISTING SUPPORTING 2X4 WOOD STUD LOAD-BEARING WALL. PROVIDE CORRECTIVE ACTION THIS WALL FACE AS NOTED ON SHEET 511.
- ON THE FACILITY EXTERIOR ABOVE THE EXISTING STOREFRONT, THE OWNER HAS REMOVED THE METAL BANDING TRIM EXPOSING THE WOOD LINTEL STRUCTURE THAT WILL BE USED TO ANCHOR THE SECOND FLOOR DIAPHRAGM TO THIS ASSEMBLY. THE CONTRACTOR IS ONLY REQUIRED TO PUT THE TEMPORARY METAL FLASHING BACK UPON COMPLETION OF THIS WORK. ARCHITECTURAL IMPROVEMENTS TO THIS AREA WILL TAKE PLACE UNDER SEPARATE CONTRACT IN THE NEAR FUTURE. REFERENCE THE STRUCTURAL DRAWINGS FOR SPECIFIC WORK SCOPE THIS AREA.



PROJECT KEY PLAN
 SCALE: NOT TO SCALE



MEZZANINE LEVEL HVAC ROOM
 SCALE: 3/16"=1'-0"



BASEMENT LEVEL RECORD DOCUMENT PLAN
 SCALE: 3/16"=1'-0"

WALL PARTITION LEGEND

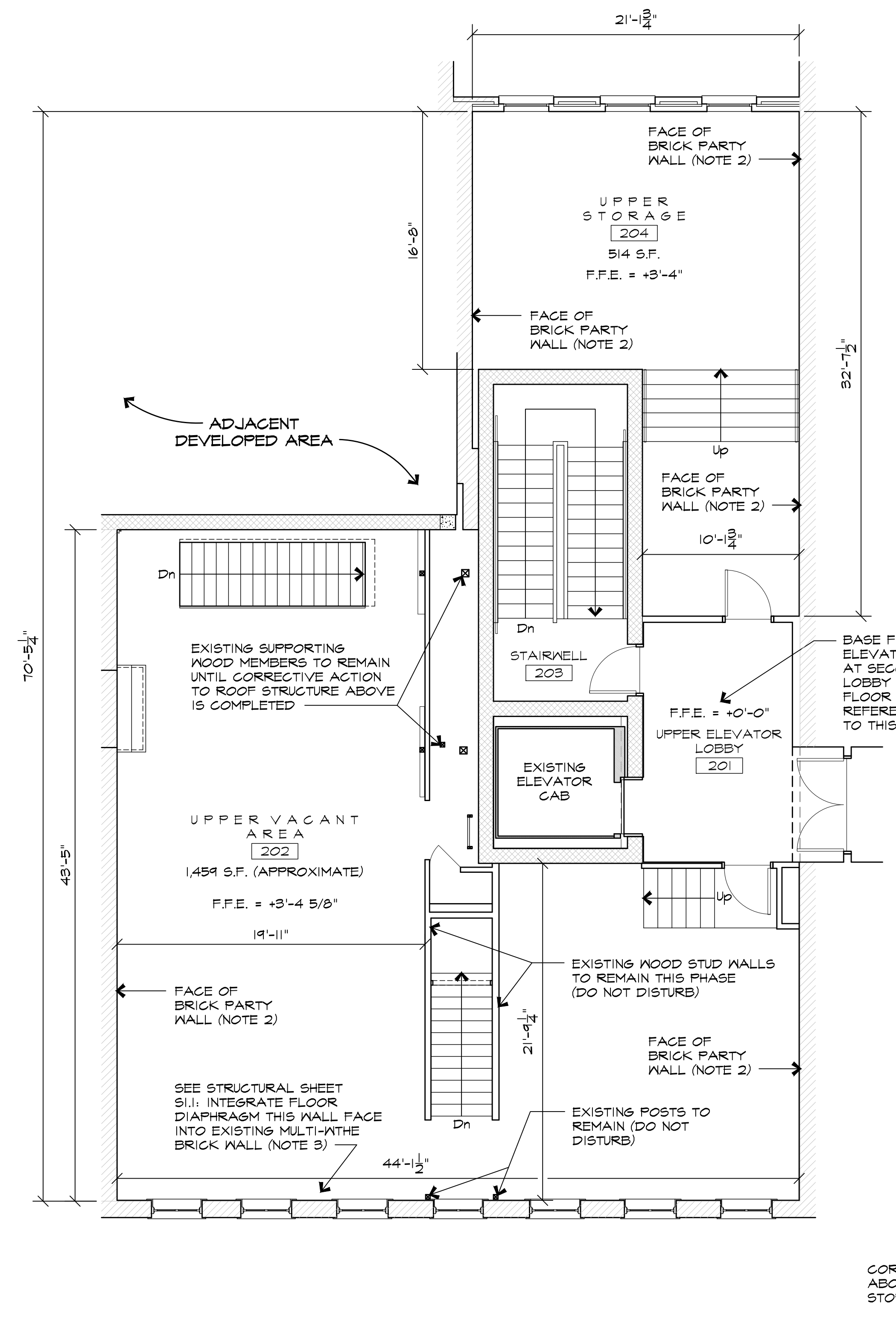
- PROPOSED WALL CONSTRUCTION
- EXISTING CMU (MASONRY BLOCK)
- EXISTING BRICK VENEER OR MULTI-WYTHE PARTY WALL
- NEW BRICK VENEER
- CONSTRUCTION TO BE DEMOLISHED
- NEW MASONRY CONSTRUCTION
- EXISTING GYPSUM WALLBOARD AND/OR PLASTER VENEERED WOOD PARTITION CONSTRUCTION TO REMAIN

PARTITION FIRE RATING LEGEND (WHERE APPLICABLE)

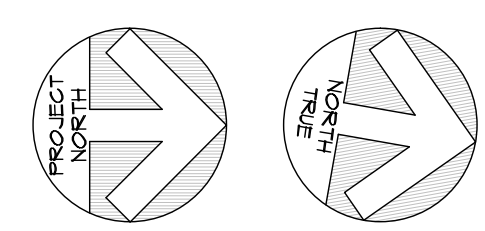
- ONE HOUR PARTITION
- TWO HOUR PARTITION
- FOUR HOUR FIREWALL
- SMOKE WALL PARTITION (30 MINUTE)

LEGEND (WHERE APPLICABLE)

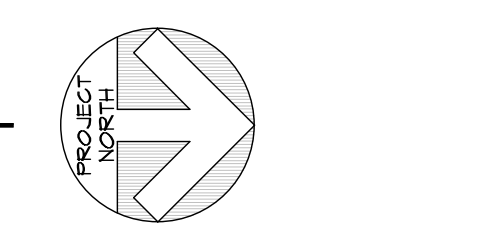
- STROBE LIGHT
- SMOKE DETECTOR
- EXISTING EMERGENCY BACKUP LIGHT
- FIRE ALARM PULL STATION
- EXISTING SINGLE OUTLET
- EXISTING GFCI OUTLET
- EXISTING QUAD OUTLET
- EXISTING TELEPHONE
- EXIT
- EXISTING CODE COMPLIANT EXIT SIGN
- EXISTING THERMOSTAT LOCATION
- EXISTING SINGLE POLE LIGHT SWITCH
- EXISTING DATA JUNCTION



UPPER (SECOND) LEVEL RECORD DOCUMENT PLAN
 SCALE: 3/16"=1'-0"



MAIN (STREET) LEVEL RECORD DOCUMENT PLAN
 SCALE: 3/16"=1'-0"



This drawing, its design, detail and invention, are the property of Nuber Architecture, L.L.C. and shall not be copied in any manner nor disclosed to any outside party without expressed written consent. Failure to comply with these terms may result in criminal prosecution.



Nuber Architecture
 ECCLESIASTICAL PLANNING / DESIGN
 COMMERCIAL ARCHITECTURE
 1069 Rolling Fields Circle, Columbia, Tennessee 38401
 Phone: (931) 540-8045 Fax: (931) 840-5751
 E-mail: info@nuberarchitecture.com

CARTWRIGHT ENGINEERING
STRUCTURAL ENGINEERING
 DAVID W. CARTWRIGHT, P.E.
 NASHVILLE, TN 37214
 (615) 934-2236
 daw25101@comcast.net

Proposed Facility Improvement for the "Jack and Jill" Building for the City of Columbia
 Columbia, Tennessee

S0.1 Structural Notes

Date: 10-10-16	THIS DRAWING HAS BEEN ISSUED:	Revisions:
Job #: 2013006	<input type="checkbox"/> FOR REVIEW ONLY	<input type="checkbox"/>
Dr. By: D. Cartwright	<input type="checkbox"/> FOR ESTIMATING / BIDDING ONLY	<input type="checkbox"/>
Ck. By: D. Cartwright	<input checked="" type="checkbox"/> FOR CONSTRUCTION	<input type="checkbox"/>
	DATE: 10/10/16 ISSUED BY: D. Cartwright	

GENERAL

- NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.
- CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS) BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.
- REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.
- MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.
- CONTRACTOR SHALL COORDINATE THE STRUCTURAL DOCUMENTS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION, FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SEE THE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.
- CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
- THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY ANALYSIS AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSEWORK, TEMPORARY BRACING, ETC.
- CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.
- SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS SHALL BE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE ARCHITECT/STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE ARCHITECT/STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- WHERE A SECTION OR DETAIL IS SHOWN OR DETAILED FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR AND LIKE CONDITIONS. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR. THE CONTRACTOR SHALL CONSIDER ALL OF THE CONTRACT DOCUMENTS IN DETERMINING SIMILAR AND LIKE CONDITIONS.

CURRENT CODE/DESIGN CRITERIA

- NEW STRUCTURES TO BE BUILT IN COLUMBIA, TENNESSEE ARE DESIGNED TO MEET OR EXCEED THE REQUIREMENTS OF: THE 2012 INTERNATIONAL BUILDING CODE AND THE MINIMUM DESIGN LOAD FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-10)
 - EXISTING BUILDINGS ARE TO MEET THE REQUIREMENTS OF THE 2012 INTERNATIONAL EXISTING BUILDING CODE.
 - ALL EXTERIOR MODIFICATIONS TO THIS HISTORIC BUILDING ARE SUBJECT TO THE APPROVAL OF THE CITY OF COLUMBIA
 - THE FUTURE USE OF THIS BUILDING (PHASE II BUILD-OUT) WILL BE CLASSIFIED UNDER RISK CATEGORY II, AS DEFINED BY ASCE 07-10.
- CURRENT GRAVITY LOAD REQUIREMENTS FOR NEW CONSTRUCTION:
 - UNIFORM FLOOR LIVE LOADS = 100 psf
 - CONCENTRATED FLOOR LOADS: = 2000 LB (OVER 2.5 SQ. FT.)
 - HANDRAILS:
 - CONCENTRATED LOAD = 200 lbs APPLIED AT ANY POINT IN ANY DIRECTION -OR-
 - UNIFORM LOAD = 50 plf IN ANY DIRECTION
 - GUARDRAILS:
 - CONCENTRATED LOAD = 200 lbs APPLIED AT ANY POINT IN ANY DIRECTION AT TOP -OR-
 - CONCENTRATED LOAD = 200 lbs APPLIED ON ANY 1 FT. AREA IN ANY DIRECTION -OR-
 - UNIFORM LOAD = 50 plf HORIZONTALLY AT TOP + 100 plf VERTICALLY AT TOP
- CURRENT WIND LOAD REQUIREMENTS FOR NEW CONSTRUCTION:
 - 115 MPH BASIC WIND SPEED (THREE SECOND GUST)
 - SURFACE ROUGHNESS CATEGORY - B
 - EXPOSURE CATEGORY - B
 - DESIGN METHOD: SIMPLIFIED
 - EAVE HEIGHT = 40 FEET
- CURRENT EARTHQUAKE LOAD REQUIREMENTS FOR NEW CONSTRUCTION:
 - Mapped Maximum Considered Earthquake Spectral Response Accelerations:
 - Short Period, Ss = 0.301
 - 1-Second Period, S1 = 0.145
 - Soil Site Class: D
 - Fa = 1.559; Fv = 2.221
 - SMS = 0.469; SM1 = 0.321
 - SDS = 0.313; SD1 = 0.214
 - Importance Factor: 1
- Existing Lateral Load System:
 - Originally built in the 1800's of load bearing unreinforced masonry (3-wythe brick with rough-sawn wood flooring and roofing materials), the structure was rehabilitated in the 1990's, under the Southern Building Code and was substantially reinforced with Ordinary Structural Steel Moment Frames.
 - The amount of added floor space is less than 5% of the total existing floor space and therefore will NOT adversely affect the lateral load resisting system, as allowed by the Code.

EXISTING FOUNDATION

- The existing original foundation was unreinforced masonry or stone.

SPECIAL INSPECTIONS:

- ALL SPECIAL INSPECTIONS WILL BE CARRIED OUT BY THE ARCHITECT OR ENGINEER-OF-RECORD (NUBER ARCHITECTURE OR CARTWRIGHT ENGINEERING), UNLESS REQUESTED BY THE OWNER OR THE LOCAL BUILDING OFFICIAL.
- ALL SPECIAL INSPECTIONS WILL BE PERIODIC, NON-DESTRUCTIVE, AND PLANNED ACCORDING TO THE SCHEDULE OF CONSTRUCTION. CONTRACTOR TO NOTIFY THE ARCHITECT, ENGINEER, OWNER OR BUILDING OFFICIAL WITH SUFFICIENT TIME PRIOR TO INSPECTION BEFORE FURTHER WORK MAY PROCEED.

STRUCTURAL STEEL (WHERE APPLICABLE)

- STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED ACCORDING TO THE "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- BOLTS, ANCHOR RODS, AND HEADED STUDS:
 - ALL CONNECTIONS SHALL BE SLIP CRITICAL WITH A MINIMUM 3/4" DIAMETER A325 HIGH-STRENGTH BOLTS.
 - ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE.
 - EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT II ANCHORS SUPPLIED BY HILTI FASTENING SYSTEMS, TRUBOLT WEDGE ANCHORS SUPPLIED BY ITW RAMSETRIED HEAD POWER-STUD ANCHORS SUPPLIED BY POWERS FASTENING, OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE EQUAL TO 6 TIMES THE ANCHOR DIAMETER, UNLESS NOTED OTHERWISE.
 - ADHESIVE ANCHORS SHALL CONSIST OF AN ALL-THREAD STEEL ANCHOR WITH HIT HY150 INJECTION ADHESIVE (HIT HY20 INJECTION ADHESIVE FOR MASONRY CONSTRUCTION WITH VOIDS) SUPPLIED BY HILTI FASTENING SYSTEMS, EPOXY SYSTEM CERAMIC B EPOXY ADHESIVE SUPPLIED BY ITW RAMSETRIED HEAD POWER-FAST EPOXY INJECTION GEL SUPPLIED BY POWERS FASTENING, OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE EQUAL TO 12 TIMES THE ANCHOR DIAMETER, UNLESS NOTED OTHERWISE.

WOOD

- PROVIDE DRESSED SEASONED LUMBER, S4S - MACHINE SURFACED ALL SIDES U.N.O. ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS, WITH A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF DRESSING, AS LISTED BELOW.
 - INTERIOR AND EXTERIOR LOAD-BEARING WALLS:
 - DOUGLAS FIR LARCH, NO. 2 GRADE
 - HEM-FIR, NO. 2 GRADE
 - SOUTHERN PINE, NO. 2 GRADE
 - SPRUCE-PINE-FIR, NO. 2 GRADE
 - LINTELS, FLOOR JOISTS AND BEAMS:
 - DOUGLAS FIR LARCH, NO. 2 GRADE
 - SOUTHERN PINE, NO. 2 GRADE
 - WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED, WOOD NOTED IN THE CONTRACT DRAWINGS AS "TREATED" SHALL BE PRESSURE-TREATED. USE GALVANIZED CONNECTORS AND NAILS IN PRESSURE-TREATED WOOD COMPATIBLE WITH TREATMENT PRESERVATIVES.
- ENGINEERED LUMBER PRODUCTS
 - LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE STRESSES AND PROPERTIES:

ALLOWABLE BENDING STRESS	FB = 2600 PSI
COMPRESSION PERPENDICULAR TO GRAIN	F _{CP} = 750 PSI
COMPRESSION PARALLEL TO GRAIN	F _{CP} = 2510 PSI
HORIZONTAL SHEAR	FV = 285 PSI
MODULUS OF ELASTICITY	E = 1,900,000 PSI
 - WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED, WOOD NOTED IN THE CONTRACT DRAWINGS AS "TREATED" SHALL BE PRESSURE-TREATED. USE GALVANIZED CONNECTORS AND NAILS IN PRESSURE-TREATED WOOD COMPATIBLE WITH TREATMENT PRESERVATIVES.
- STRUCTURAL PANELS
 - WALL PANELS SHALL BE CONSTRUCTED WITH APA RATED SHEATHING.
 - ROOF SHEATHING SHALL BE CONSTRUCTED WITH APA RATED SHEATHING BONDED WITH EXTERIOR GRADE GLUE.

EXISTING (HISTORIC) MASONRY WALL REPAIR - R9

- ALL REPAIRS TO EXPOSED BRICK MASONRY WALLS ARE TO BE UNDER THE DIRECT SUPERVISION OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- CARE MUST BE TAKEN AT ALL TIMES TO MATCH THE EXISTING BRICK SHAPES TYPES, MORTAR COLOR AND TEXTURES WHEN REPLACING OR REPAIRING EXISTING EXPOSED WALLS.
- SAMPLE REPAIRS AND REPAIR PRODUCTS MUST BE SUBMITTED FOR APPROVAL BY THE ARCHITECT, STRUCTURAL ENGINEER, AND OWNER IN A TIMELY FASHION SO AS TO NOT DISRUPT CONSTRUCTION SCHEDULE.
- REPAIR PRODUCTS:
 - MORTAR JOINT SEALANT - WATERPROOF POLYURETHANE
 - ACCEPTABLE MANUFACTURERS - SIMPSON - SIKA
 - EPOXY GROUT
 - ACCEPTABLE MANUFACTURERS - QUICKCRETE - SIMPSON - SIKA
 - EPOXY INJECTION
 - ACCEPTABLE MANUFACTURERS / PRODUCTS - SIMPSON / StrongTie CrackPac - SIKA / Crackweld
 - POLYURETHANE FOAM FILLER
 - ACCEPTABLE MANUFACTURERS / PRODUCTS - TERRATHANE / Terrathane Polyurethane System

CONCRETE

1. SHOTCRETE CONCRETE TO FOLLOW THE AMERICAN CONCRETE INSTITUTE (ACI) GUIDELINES ACI#506R "ACI GUIDE TO SHOTCRETE".

- 1.1 DEFINITIONS
A. Shotcrete: Mortar or concrete pneumatically projected onto a surface at high velocity.
B. Dry-Mix Shotcrete: Shotcrete with most of the water added at nozzle.
C. Wet-Mix Shotcrete: Shotcrete with ingredients, including mixing water, mixed before introduction into delivery hose.
1.2 SUBMITTALS
A. Submit under provisions of Section 01 33 00 - Submittal Procedures.
B. Product Data: Submit for manufactured materials and products including reinforcement and forming accessories, shotcrete materials and curing compounds.
C. Shop Drawings: Submit for details of fabricating, bending, and placing reinforcement. Include support and anchor details, number and location of splices and special reinforcement required for openings through shotcrete structures.
D. Samples: Approximately 24 by 24 by 2 inches, to illustrate quality of finishes, colors, and textures of exposed surfaces of shotcrete.
E. Design Mixes: For each shotcrete mix.
F. Quality Assurance/Control Submittals:
1. Submit manufacturer's certificates that products meet or exceed specified requirements.
2. Submit test results prepared by a qualified independent testing laboratory.
1.3 QUALITY ASSURANCE
A. Manufacturer Qualifications: Firm specializing in manufacture of shotcrete materials, with minimum 5 years* experience.
B. Quality Assurance/Control Testing: Test Reports prepared by a qualified independent laboratory indicating compliance with the following performance requirements:
1. ACI 301, Specifications for Structural Concrete.
2. ACI 506.2, Specification for Shotcrete.
C. Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
D. Pre-Installation Meeting: At least three weeks prior to commencing masonry work conduct a meeting at the project site to discuss contract requirements and job conditions; require the attendance of contractor, and installers of related materials; notify Architect in advance of meeting.
1.4 PROJECT CONDITIONS
A. Cold-Weather Shotcreting: Protect shotcrete work from physical damage or reduced strength caused by frost, freezing, or low temperatures according to ACI 306.1 and as follows:
1. Discontinue shotcreting when ambient temperature is 40 deg. F and falling. Uniformly heat water and pre-packaged materials before mixing to obtain a shotcrete shooting temperature of not less than 50 deg. F and not more than 90 deg. F.
2. Do not use frozen materials or materials containing ice or snow.
3. Do not place shotcrete on frozen surfaces or surfaces containing frozen materials.
4. Do not use calcium chloride, salt, or other materials containing antifreeze agents.
B. Hot-Weather Shotcreting: Mix, place, and protect shotcrete according to ACI 506R when hot weather conditions and high temperatures would seriously impact quality and strength of shotcrete, and as follows:
1. Cooling ingredients before mixing to maintain shotcrete temperature at time of placement below 100 deg. F for dry mix or 90 deg. F for wet mix.
2. Reduce temperature of reinforcing steel and receiving surfaces below 100 deg. F before shotcreting.

PART 2 PRODUCTS

- 2.1 FORM MATERIALS
A. Forms: Form facing panels that will provide continuous, straight, smooth concrete surfaces. Furnish panels in largest practicable sizes to minimize number of joints.
2.2 REINFORCING MATERIALS
A. Reinforcing Bars: ASTM A 615, Grade 60 (Grade 420), deformed, uncoated.
B. Plain-Steel-Welded Wire Fabric: ASTM A 185, fabricated from steel wire into flat sheets.
C. Supports: Bolsters, chairs, spacers, ties, and other devices for spacing, supporting, and fastening reinforcing steel in place according to CRSI's "Manual of Standard Practice". Use all-plastic bar supports.
D. Reinforcing Anchors: ASTM A 36, un-headed rods or ASTM A 307, Grade A, hex-head bolts; carbon steel; and carbon-steel nuts with Galvanized finish.
2.3 SHOTCRETE MATERIAL MANUFACTURER
A. Acceptable Manufacturers:
1. SPEC MIX*, Inc., 1230 Eagan Industrial Road, Suite 160, Eagan, MN 55121; Web: www.specmix.com approved equal
2.
2.4 SHOTCRETE MATERIALS
A. SPEC SHOT Shotcrete: SPEC MIX SPEC SHOT Shotcrete is a pre-blended, high early strength, low permeability and low rebound cement based product containing Portland cement, aggregate, fly ash, silica fume, steel or synthetic fibers, and chemical admixtures, specifically designed for ground support shotcrete applications.
1. Applicable Standards: ASTM A 820, ASTM C 33, ASTM C 150, ASTM C 260, ASTM C 494, ASTM C 618, ASTM C 1116, ASTM C 1141, ASTM C 1240, ACI 506.2.
B. SPEC PATCH Shotcrete: SPEC MIX SPEC PATCH Shotcrete is a pre-blended, high early strength, cement-based shotcrete patching product containing Portland cement, aggregate, fly ash, silica fume, steel or synthetic fibers, and chemical admixtures specifically designed for concrete repair.
1. Applicable Standards: ASTM A 820, ASTM C 33, ASTM C 150, ASTM C 260, ASTM C 494, ASTM C 618, ASTM C 1116, ASTM C 1141, ASTM C 1240, ACI 506.2.
C. SPEC FINISH Shotcrete: SPEC MIX SPEC FINISH Shotcrete is a pre-blended, high early strength, cement based product finish shotcrete containing Portland cement, aggregate, fly ash, silica fume, steel or synthetic fibers, and chemical admixtures specifically designed for finishing rock faces, sculptures or other architectural shotcrete applications.
2.5 CURING MATERIALS
A. Absorptive Cover: AASHTO M 192, Class 2, burlap cloth made from jute or kenaf weighing approximately 9 oz./sq. yd. dry.
B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
C. Water: Clean and free from deleterious acids, alkalis, and organic matter.
D. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

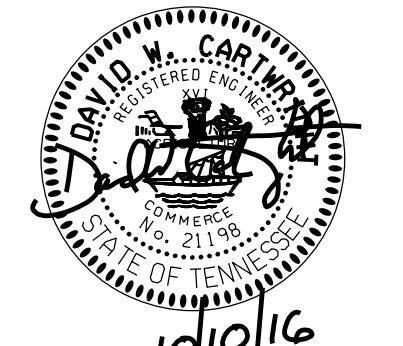
- 2.6 SHOTCRETE MIXTURES, GENERAL
A. Prepare design mixes for each type and strength of shotcrete.
B. Design-Mix Adjustments: Subject to compliance with requirements, shotcrete design-mix adjustments may be proposed when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant.
2.7 SHOTCRETE MIXTURES
A. Mix pre-packaged shotcrete materials with water either in dry mix or wet mix process to provide shotcrete with the following properties:
1. Compressive Strength (28 Days): 4000 psi.
B. NO AIR ENTRAINMENT ADDITIVES WILL BE ACCEPTED.
2.8 SHOTCRETE EQUIPMENT
A. Mixing Equipment: Capable of thoroughly mixing shotcrete materials in sufficient quantities to maintain continuous placement.
B. Dry-Mix Delivery Equipment: Capable of discharging aggregate-cement mixture into delivery hose under close control and maintaining continuous stream of uniformly mixed materials at required velocity to discharge nozzle. Equip discharge nozzle with manually operated water-injection system for directing even distribution of water to aggregate-cement mixture.
1. Provide uniform, steady supply of clean, compressed air to maintain constant nozzle velocity while simultaneously operating blow pipe for cleaning away rebound.
2. Provide water supply with uniform pressure at discharge nozzle to ensure uniform mixing with aggregate-cement mix. Provide water pump to system if line water pressure is inadequate.
C. Wet-Mix Delivery Equipment: Capable of discharging aggregate-cement-water mixture accurately, uniformly, and continuously.
2.9 MIXING
A. Dry-Mix Process: Dampen pre-packaged shotcrete materials and thoroughly mix prior to use.
1. Verify with manufacturer the water mix ratio at head to achieve specified mix design prior to application.
B. Wet-Mix Process: Thoroughly mix clean water with pre-packaged shotcrete materials in batch mixer prior to use.
1. Verify with manufacturer quantity of water to be added to batch to achieve specified mix design.

PART 3 EXECUTION

- 3.1 PREPARATION
A. Concrete or Masonry: Before applying shotcrete, remove unsound or loose materials and contaminants that may inhibit shotcrete bonding. Chip or scarify areas to be repaired to extent necessary to provide sound substrate. Cut edges square and 1/2 inch deep at perimeter of work, tapering remaining shoulder at 1:1 slope into cavity to eliminate square shoulders. Dampen surfaces before shotcreting.
1. Abrasive blast or hydroblast existing surfaces that do not require chipping to remove paint, oil, grease, or other contaminants and to provide roughened surface for proper shotcrete bonding.
B. Earth: Compact and trim to line and grade before placing shotcrete. Do not place shotcrete on frozen surfaces. Dampen surfaces before shotcreting.
C. Rock: Clean rock surfaces of loose materials, mud, and other foreign matter that might weaken shotcrete bonding.
D. Steel: Clean steel surfaces by abrasive blasting according to SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
3.2 FORMS
A. General: Design, erect, support, brace, and maintain forms, according to ACI 301, to support shotcrete and construction loads and to facilitate shotcreting. Construct forms so shotcrete members and structures are secured to prevent excessive vibration or deflection during shotcreting.
1. Fabricate forms to be readily removable without impact, shock, or damage to shotcrete surfaces and adjacent materials.
2. Construct forms to required sizes, shapes, lines, and dimensions using ground wires and depth gages to obtain accurate alignment, location, and grades in finished structures. Construct forms to prevent leakage but permit escape of air and rebound during shotcreting. Provide for openings, offsets, blocking, screeds, anchorages, inserts, and other features required in the Work.
B. Form openings, chases, recesses, bulkheads, keyways, and screeds in formwork. Determine sizes and locations from trades providing such items. Accurately place and securely support items built into forms.
3.3 STEEL REINFORCEMENT
A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that weaken shotcrete bonding.
C. Securely embed reinforcing anchors into existing substrates, located as required.
D. Accurately position, support, and rigidly secure reinforcement against displacement by formwork, construction, or shotcreting.
E. Locate and support reinforcement by metal chairs, runners, bolsters, spacers, and hangers, as required.
F. Place reinforcement to obtain minimum coverage for shotcrete protection. Arrange spaces and securely tie bars and bar supports to hold reinforcement in position during shotcreting. Set wire ties with ends directed into shotcrete, not toward exposed shotcrete surfaces. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

- 3.4 JOINTS
A. Construction Joints: Locate and install construction joints tapered to a 1:1 slope where joint is not subject to compression loads and square where joint is perpendicular to main reinforcement. Continue reinforcement through construction joints, unless otherwise indicated.
B. Contraction Joints: Construct contraction joints in shotcrete using saw cuts 1/8-inch wide by 1/3 slab depth or joint-filler strips 1/4-inch wide by 1/3 shotcrete depth, unless otherwise indicated.
1. After shotcrete has cured, remove strip inserts and clean groove of loose debris.
2. Space joints at 15 feet o.c. horizontally and vertically.
3. Tool edges round on each side of strip inserts if floated or troweled finishes are required.
3.5 ALIGNMENT CONTROL
A. Ground Wires: Install ground wires to establish thickness and planes of shotcrete surfaces. Install ground wires at corners and offsets not established by forms. Pull ground wires taut and position adjustment devices to permit additional tightening.
3.6 EMBEDDED ITEMS
A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by shotcrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
3.7 APPLICATION
A. Apply temporary protective coverings and protect adjacent surfaces against deposit of rebound and overspray or impact from nozzle stream.
B. Moisture substrate immediately before placing shotcrete.
1. Moisture wood forms immediately before placing shotcrete where form coatings are not used.
C. Apply shotcrete according to ACI 506.2.
D. Apply dry-mix shotcrete materials within 45 minutes after pre-dampening and wet-mix shotcrete materials within 90 minutes after batching.
E. Deposit shotcrete continuously in multiple passes, to required thickness, without cold joints and laminations developing. Place shotcrete with nozzle held perpendicular to receiving surface. Begin shotcreting in corners and recesses.
1. Remove and dispose of rebound and overspray materials during shotcreting to maintain clean surfaces and to prevent rebound entrapment.
F. Maintain reinforcement in position during shotcreting. Place shotcrete to completely encase reinforcement and other embedded items. Maintain steel reinforcement free of overspray and prevent buildup against front face during shotcreting.
G. Do not place subsequent lifts until previous lift of shotcrete is capable of supporting new shotcrete.
H. Do not permit shotcrete to sag, slough, or dislodge.
I. Remove hardened overspray, rebound, and laitance from shotcrete surfaces to receive additional layers of shotcrete; dampen surfaces before shotcreting.
J. Do not disturb shotcrete surfaces before beginning finishing operations.
K. Remove ground wires or other alignment control devices after shotcrete placement.
L. Gun Finish: Natural undisturbed finish.
3.9 CURING
A. Protect freshly placed shotcrete from premature drying and excessive cold or hot temperatures.
B. Start initial curing as soon as free water has disappeared from shotcrete surface after placing and finishing.
C. Curing Exposed Surfaces: Cure shotcrete by one of the following methods:
1. Moisture Curing: Keep surfaces continuously moist for at least seven days with water, continuous water-log spray, water-saturated absorptive covers, or moisture-retaining covers. Lap and seal sides and ends of covers.
2. Curing Compound: Apply curing compound uniformly in continuous operation by power spray according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
a. Apply curing compound to natural or gun-finished shotcrete at rate of 1 gal./100 sq. ft.
D. Curing Formed Surfaces: Cure formed shotcrete surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

- 3.10 FORM REMOVAL
A. Forms not supporting weight of shotcrete may be removed after curing at not less than 50 deg. F for 24 consecutive hours after gunning, provided shotcrete is hard enough not to be damaged by form-removal operations and provided curing and protecting operations are maintained.
1. Leave forms supporting weight of shotcrete in place until shotcrete has attained design compressive strength. Determine compressive strength of in-place shotcrete by testing representative field-cured specimens of shotcrete.
2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form facing materials are unacceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.
3.11 FIELD QUALITY CONTROL
A. Testing Laboratory: Independent of the Owner, Architect and Contractor; the testing laboratory, in addition to meeting requirements of ASTM E-329, and must be an approved laboratory competent to perform concrete physical testing. All tests must be performed in strict accordance with the applicable ASTM standard.
B. Distribution of Results of Tests: Within 24 hours of results of tests, copies of the results shall be submitted to the Architect, Contractor and the supplier if applicable.
C. Shotcrete Testing:
1. Air Content: ASTM C 173, volumetric method or ASTM C 231, pressure method; 1 test for each compressive-strength test for each mix of air-entrained, wet-mix shotcrete measured before pumping.
2. Shotcrete Temperature: ASTM C 1064; 1 test hourly when air temperature is 40 deg. F and below and when 80 deg. F and above, and 1 test for each set of compressive-strength specimens.
3. In-Place Shotcrete: Take a set of 3 unreinforced cores for each mix and for each workday or for every 50 cu. yd. of shotcrete placed; whichever is less. Test cores for compressive strength according to ACI 506.2 and ASTM C 42. Do not cut steel reinforcement.
a. Strength of shotcrete will be considered satisfactory when mean compressive strength of each set of 3 unreinforced cores equals or exceeds 85 percent of specified compressive strength, with no individual core less than 75 percent of specified compressive strength.
3.12 REPAIRS
A. Remove and replace shotcrete that is delaminated or exhibits laminations, voids, or sandrock pockets exceeding limits for specified core grade of shotcrete.
1. Remove unsound or loose materials and contaminants that may inhibit bond of shotcrete repairs. Chip or scarify areas to be repaired to extent necessary to provide sound substrate. Cut edges square and 1/2 inch deep at perimeter of work, tapering remaining shoulder at 1:1 slope into cavity to eliminate square shoulders. Dampen surfaces and apply new shotcrete.
B. Repair core holes from in-place testing according to repair provisions in ACI 301 and match adjacent finish, texture, and color.
3.13 CLEANING
A. Remove and dispose of rebound and overspray materials from final shotcrete surfaces and areas not intended for shotcrete placement.



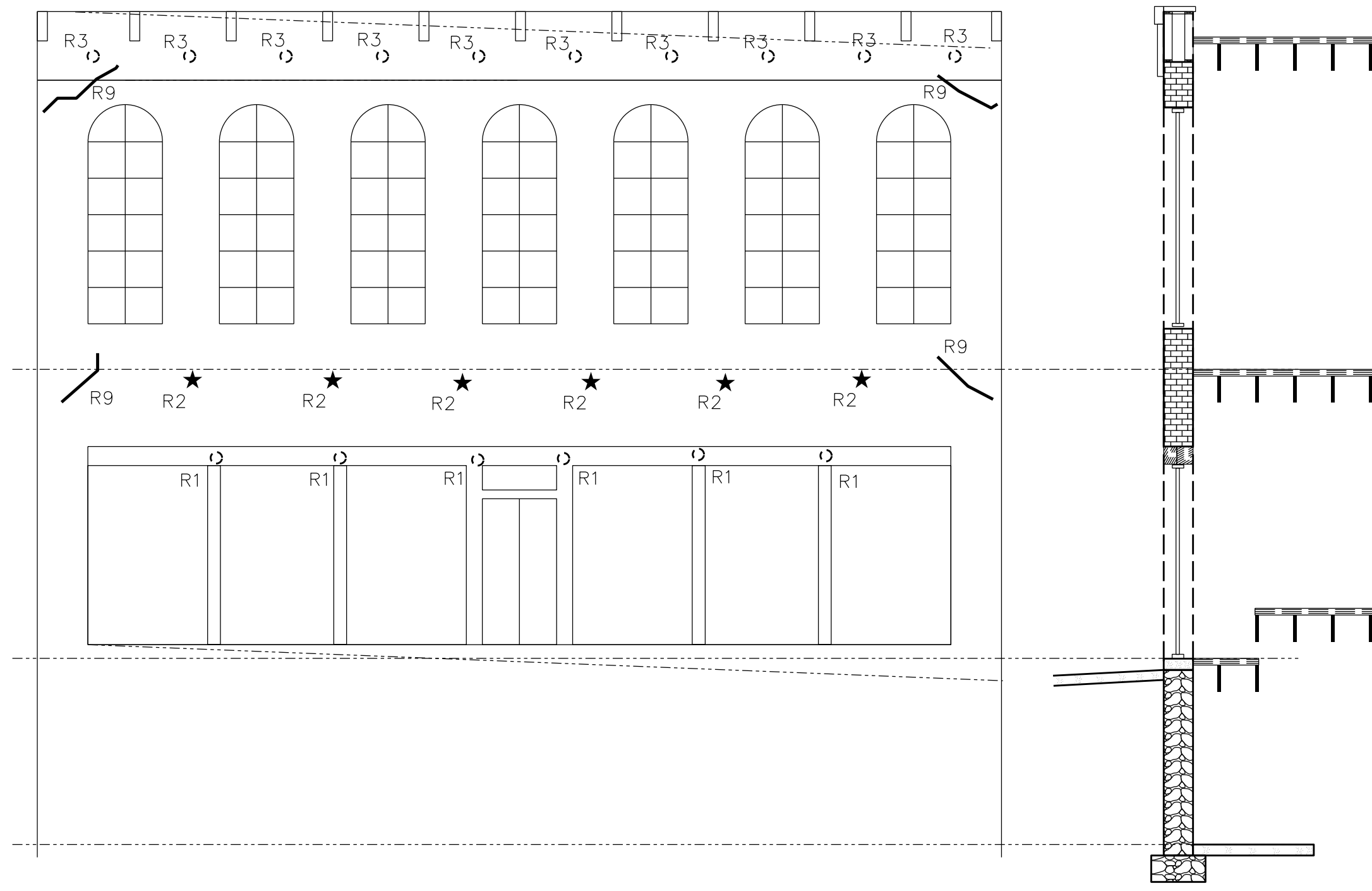
Nuber Architecture
ECCLESIASTICAL PLANNING / DESIGN
COMMERCIAL ARCHITECTURE
1069 Rolling Fields Circle, Columbia, Tennessee 38401
Phone: (931) 540-8045 Fax: (931) 540-5751
E-mail: nuber@nuberarchitecture.com

CARTWRIGHT ENGINEERING
STRUCTURAL ENGINEERING
DAVID W. CARTWRIGHT, P.E.
1001 NASHVILLE, TN 37241
(615) 934-2236
dwc2501@comcast.net

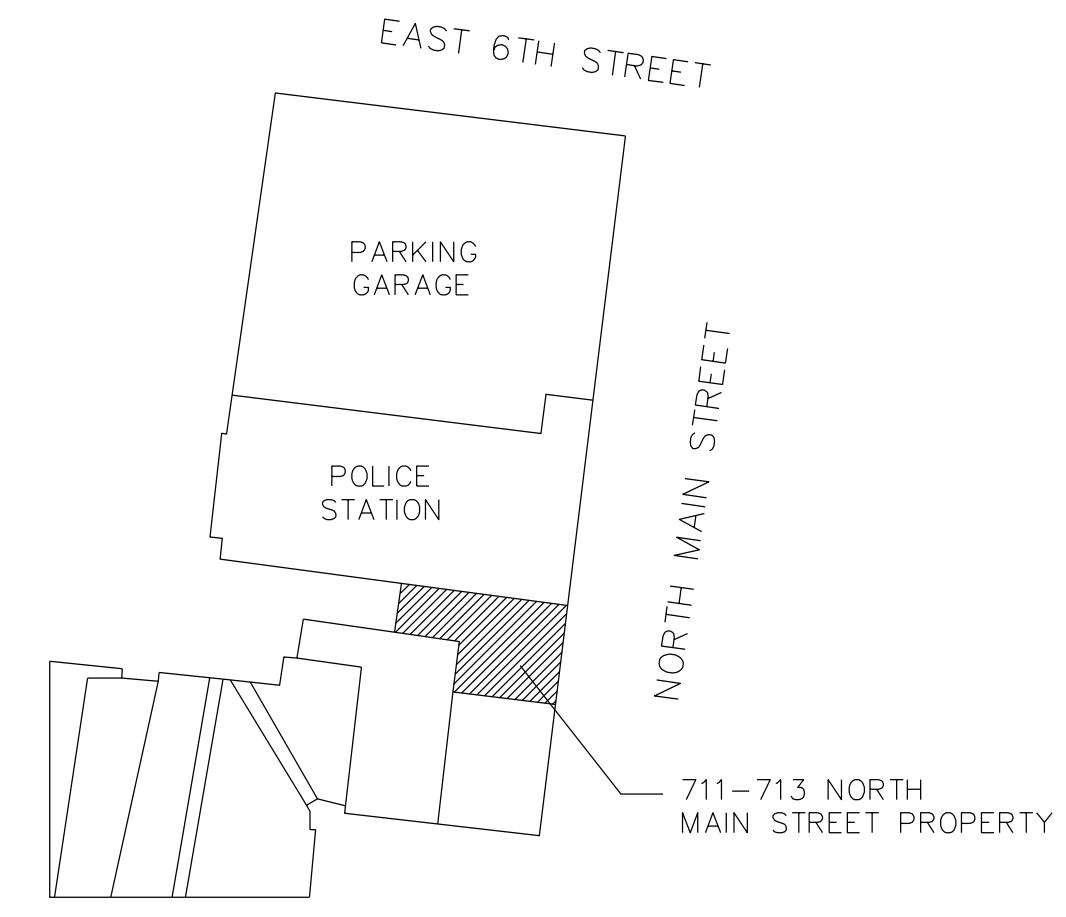
Proposed Facility Improvement for the "Jack and Jill" Building for the City of Columbia, Tennessee

S0.2 ShotCrete Specifications
Date: 10-10-16
Job #: 2013006
Dr. By: D. Cartwright
Ck. By: D. Cartwright
THIS DRAWING HAS BEEN ISSUED:
FOR REVIEW ONLY
FOR ESTIMATING/BIDDING ONLY
FOR CONSTRUCTION
Revisions:
DATE: 10/10/16 ISSUED BY: D. Cartwright

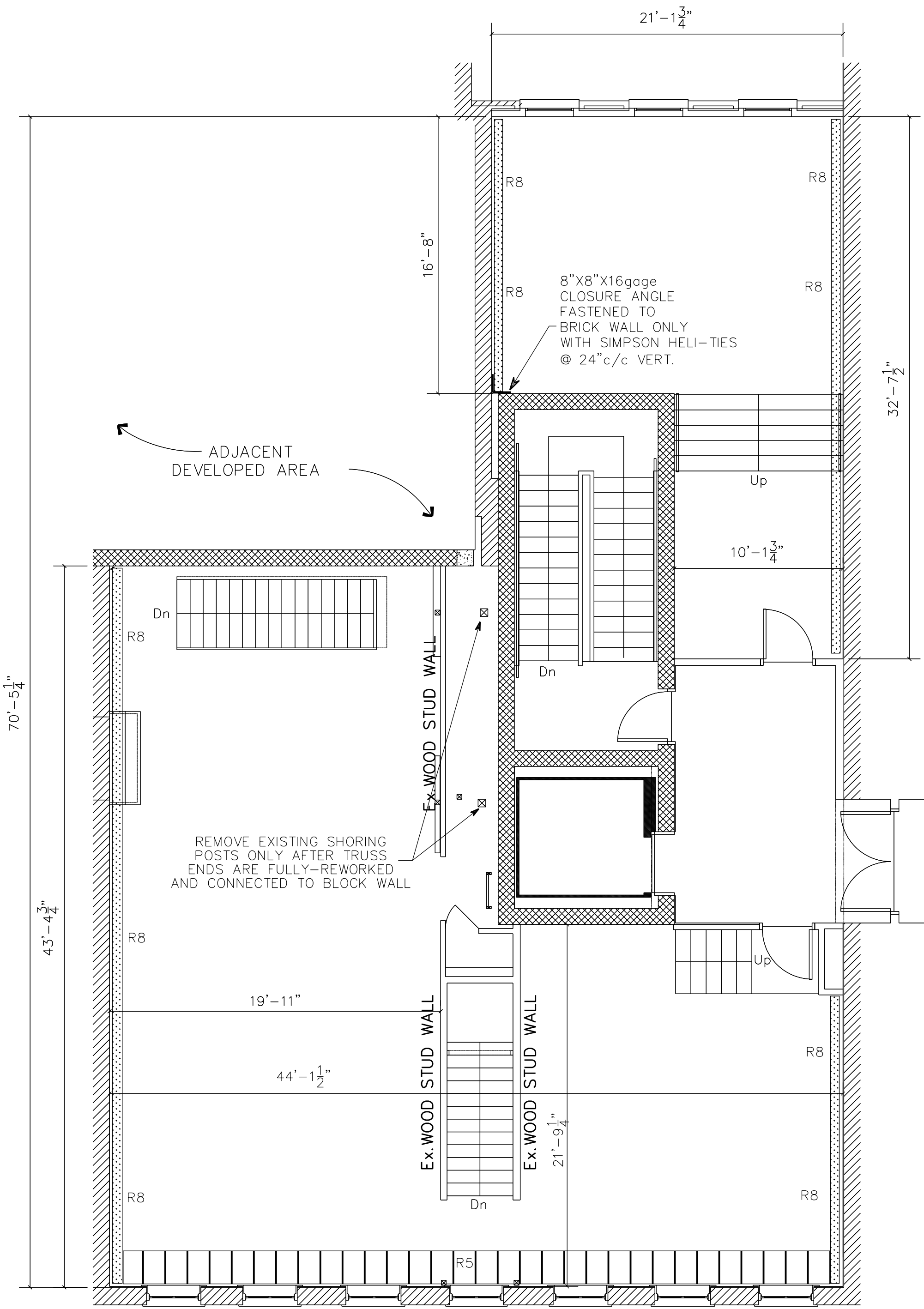
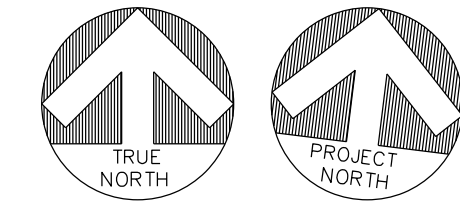
LEGEND	
	R1 LINTEL BEAM REINFORCING BOLTS
	R2 WALL BRACING BOLTS AT UPPER FLOOR
	R3 WALL BRACING AT ROOF
	R4 POST BASE REPAIR - SIMPSON BASE ABU66RZ REPLACE DAMAGED PORTION OF POSTS AS NECESSARY
	R5 FLOOR FRAMING INFILL (2x12 @ 16" c/c) 3/4" PLYWOOD SUBFLOORING
	R6 REWORK ROOF TRUSS END CONN.
	R7 WALL BRACING AT FLOOR OR ORFLOOR 2x12 @ 24" c/c
	R8 SIDE WALL REINFORCEMENT SEE S0-2
	R9 EXISTING BRICK WALL CRACK REPAIR SEE S0-1
	R10 REPLACE TRUSS WITH NEW 2-PLY 1 3/4"x16" BEAM 1. SHORE EXISTING ROOF 2. REMOVE EXISTING TRUSS 3. REWORK END POCKETS FOR NEW BEAM 4. INSTALL 2-PLY LVL BEAM



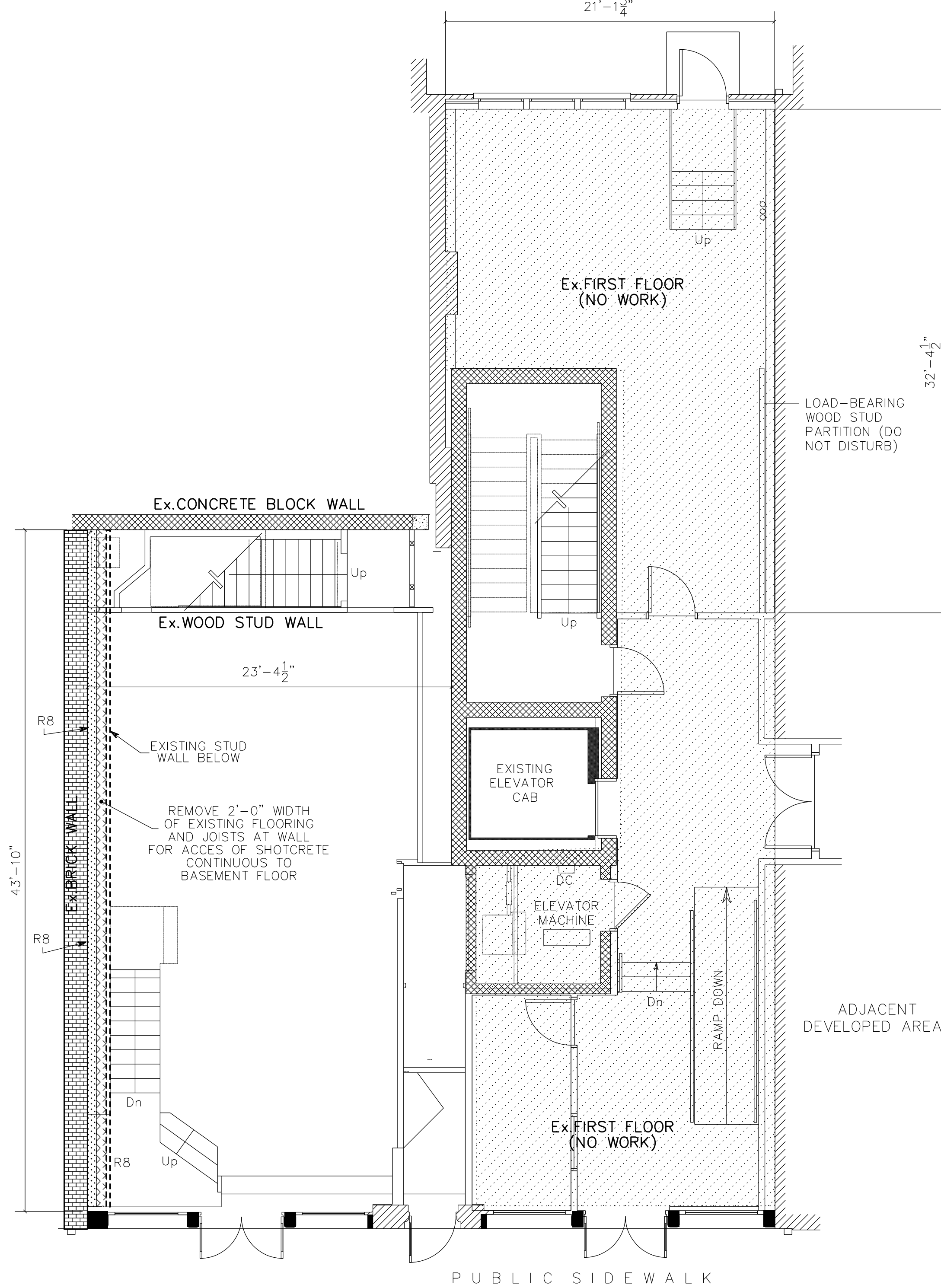
FRONT ELEVATION
STRUCTURAL REINFORCEMENT
SCALE : 3/16"=1'-0"



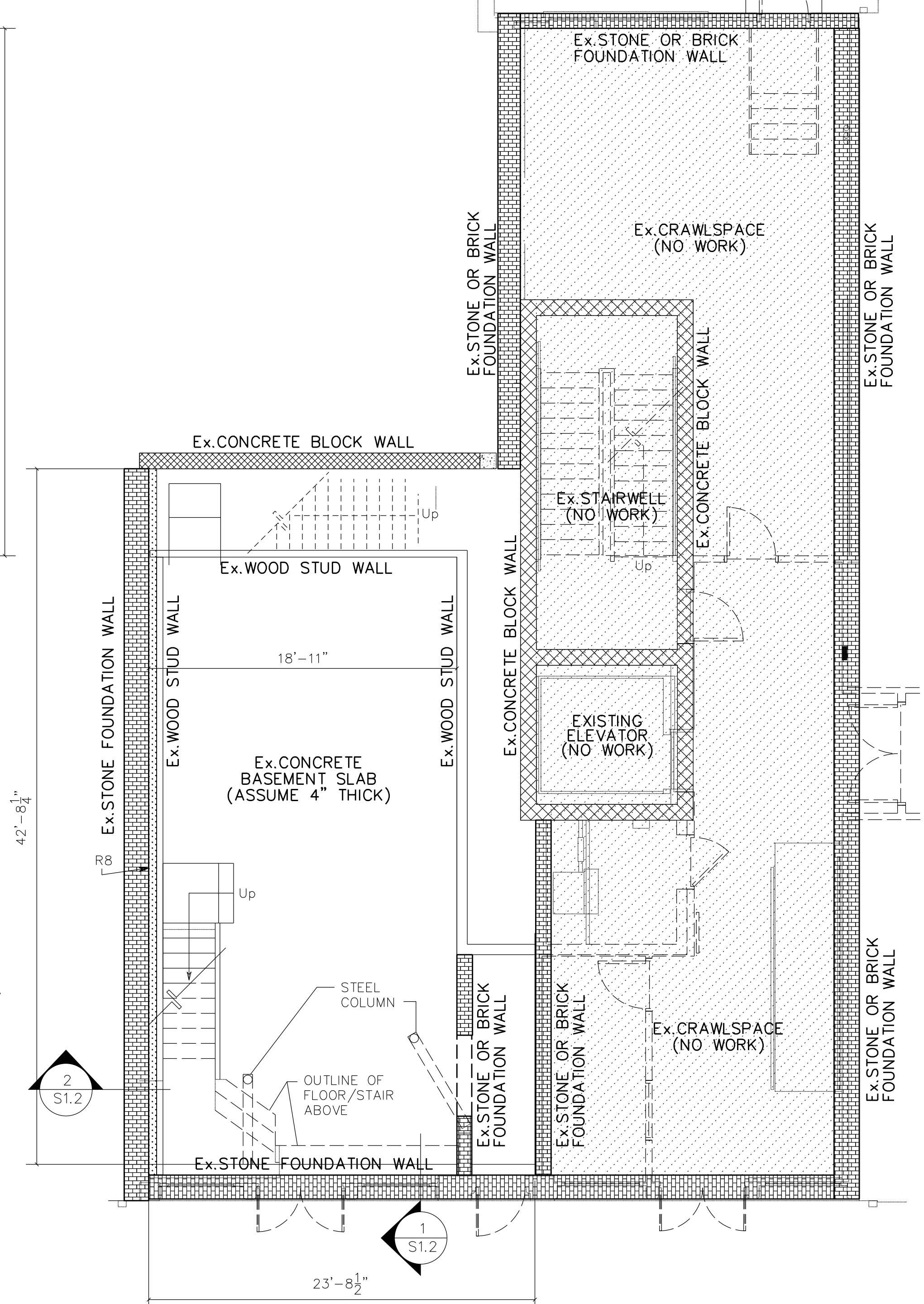
PROJECT KEY PLAN
SCALE : NOT TO SCALE



UPPER LEVEL
STRUCTURAL REINFORCEMENT PLAN
SCALE : 3/16"=1'-0"



MAIN (STREET) LEVEL
STRUCTURAL REINFORCEMENT PLAN
SCALE : 3/16"=1'-0"



BASEMENT LEVEL / FOUNDATION
STRUCTURAL REINFORCEMENT PLAN
SCALE : 3/16"=1'-0"



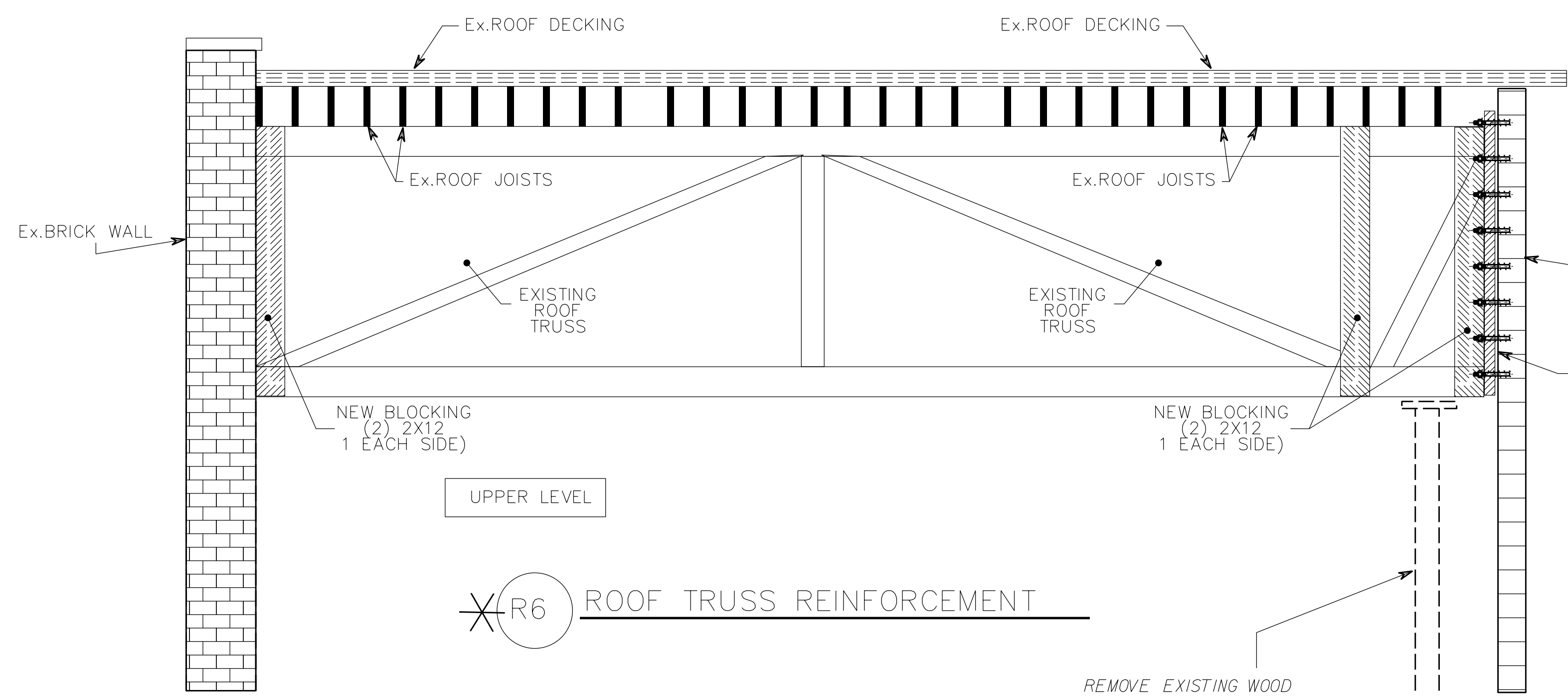
Nuber Architecture
ECCLESIASTICAL PLANNING / DESIGN
COMMERCIAL ARCHITECTURE
1069 Rolling Fields Circle, Columbia, Tennessee 39401
Phone: (931) 540-8045 Fax: (931) 840-5751
Email: nuber@nuberarchitecture.com

CARTWRIGHT ENGINEERING
STRUCTURAL ENGINEERING
DAVID W. CARTWRIGHT, P.E.
NASHVILLE, TN 37214
(615) 934-2236
dwc2501@comcast.net

Proposed Facility Improvement
for the "Jack and Jill" Building for
the City of Columbia
Columbia, Tennessee

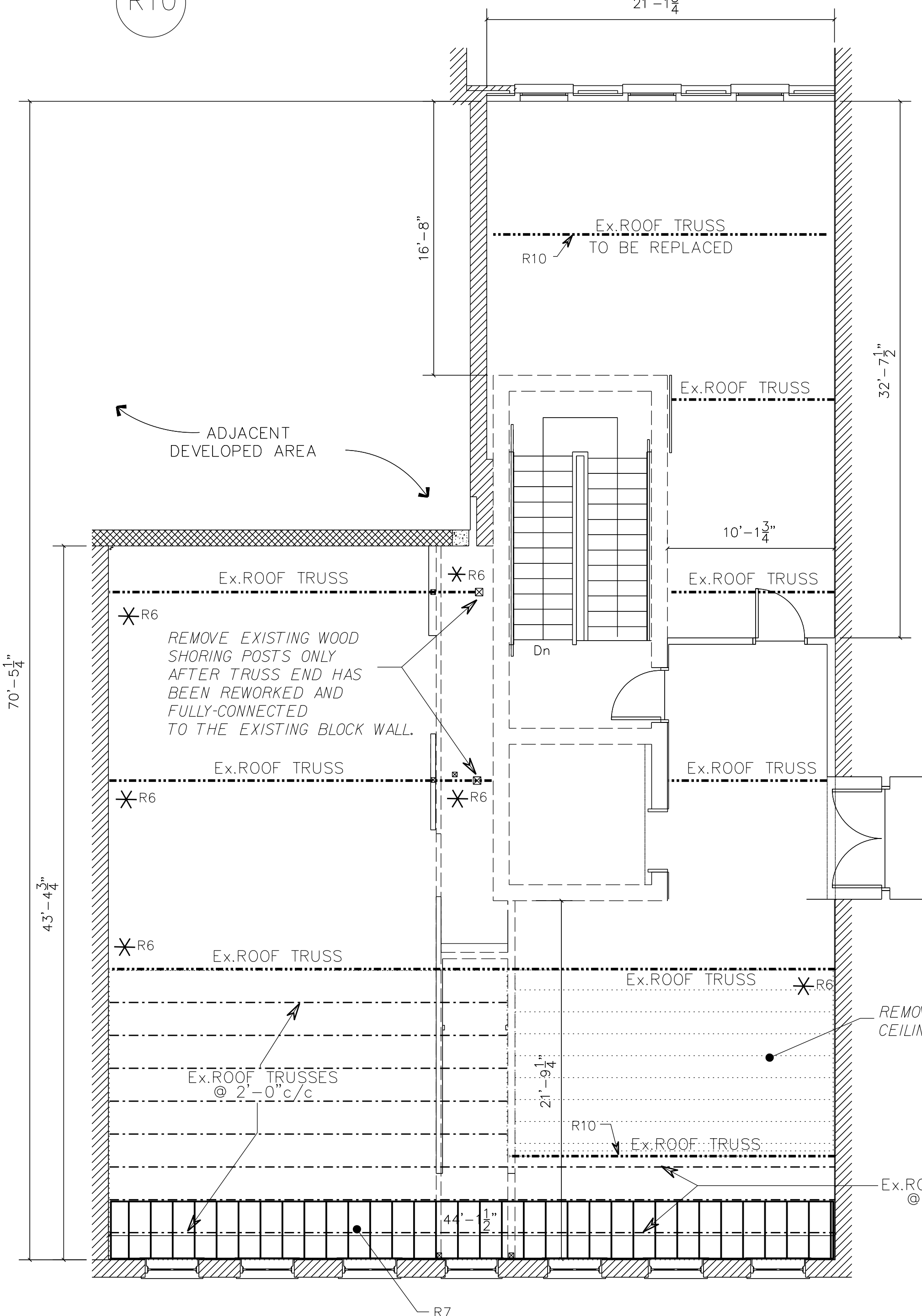
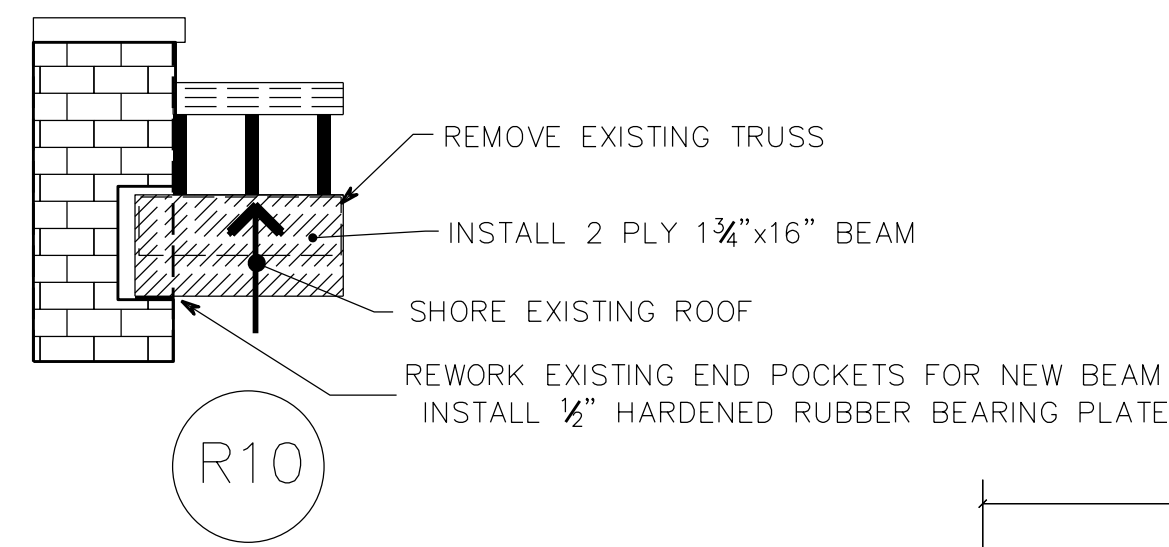
S1.1 Structural Reinforcement Plans

Date:	10-10-16	Revisions:
Job #:	2013006	FOR REVIEW ONLY
Dr. By:	D. Cartwright	FOR ESTIMATING / BIDDING ONLY
Ck. By:	D. Cartwright	FOR CONSTRUCTION
DATE:	10/10/16	ISSUED BY: D. Cartwright

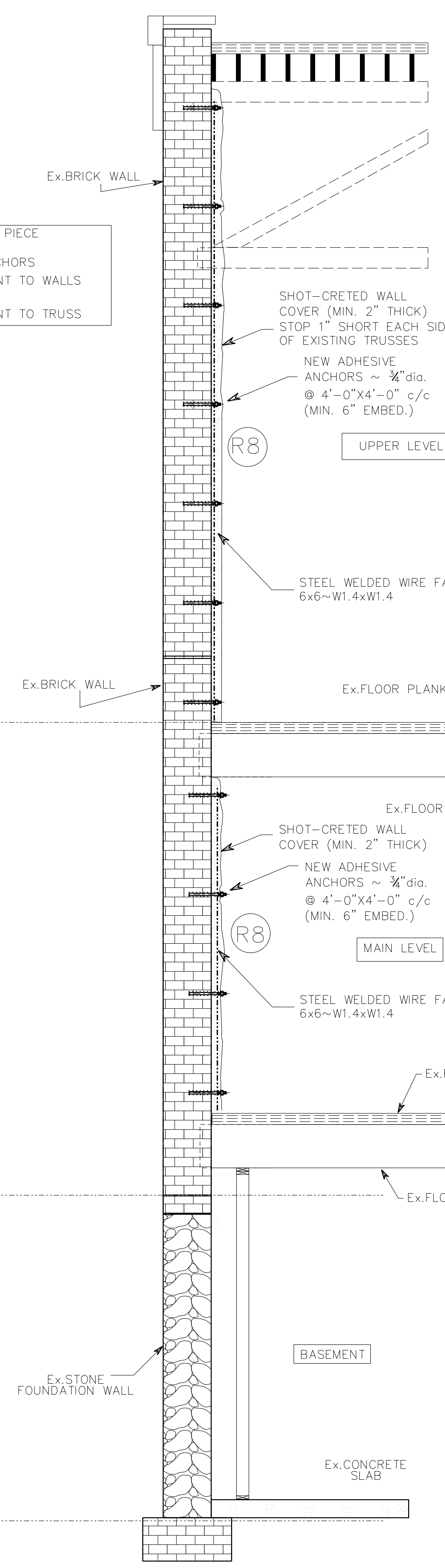


NEW 2~2x6 LVL END PIECE ONE EACH SIDE
 3/4" dia. ADHESIVE ANCHORS
 @ 16" c/c ATTACHMENT TO WALLS
 1/2" dia. BOLTS
 @ 16" c/c ATTACHMENT TO TRUSS

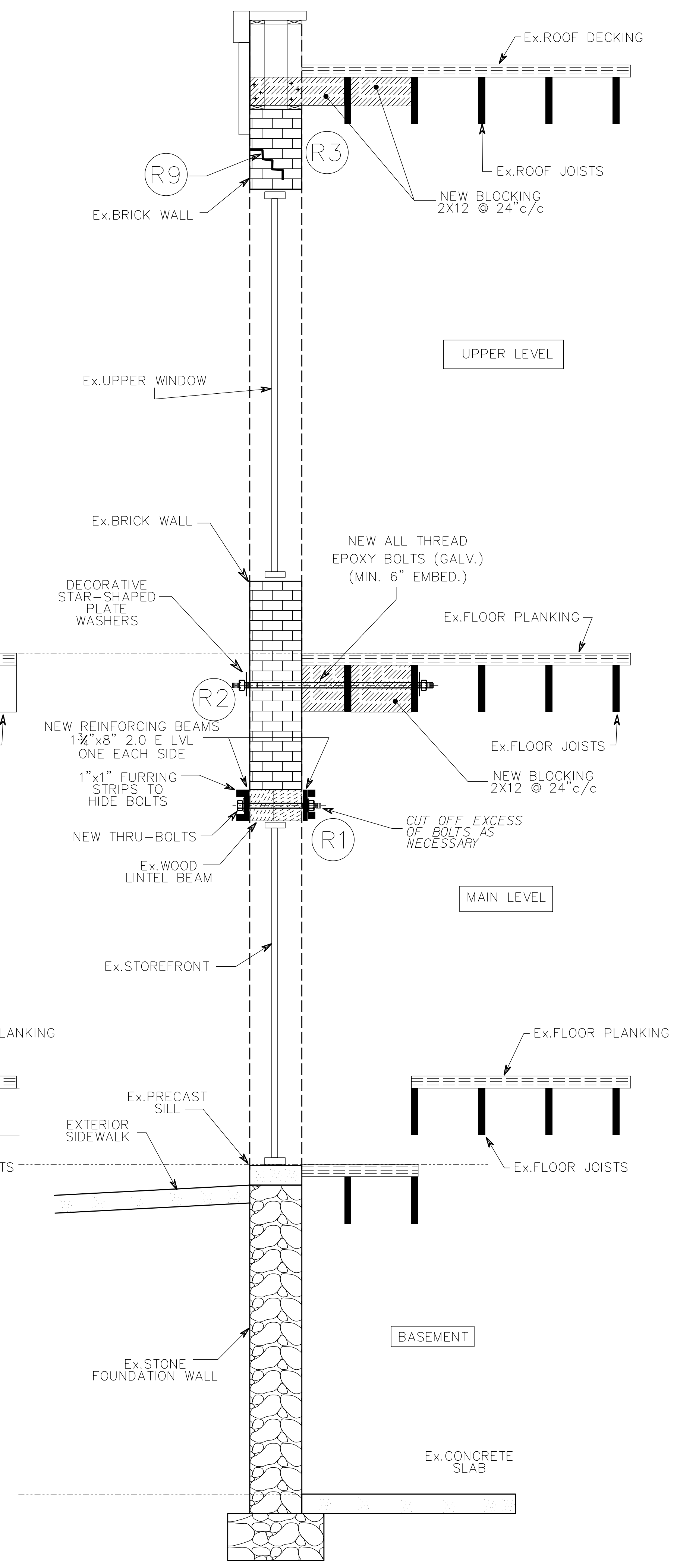
REMOVE EXISTING WOOD SHORING POSTS ONLY AFTER TRUSS END HAS BEEN REWORKED AND FULLY-CONNECTED TO THE EXISTING BLOCK WALL.



LEGEND	
○	R1 LINTEL BEAM REINFORCING BOLTS
★	R2 WALL BRACING BOLTS AT UPPER FLOOR
○	R3 WALL BRACING AT ROOF
□	R4 POST BASE REPAIR - SIMPSON BASE ABU66RZ REPLACE DAMAGED PORTION OF POSTS AS NECESSARY
▨	R5 FLOOR FRAMING INFILL (2x12 @ 16" c/c) 3/4" PLYWOOD SUBFLOORING
✕	R6 REWORK ROOF TRUSS END CONN.
▨	R7 WALL BRACING AT FLOOR OR ROOF 2x12 @ 24" c/c
▨	R8 SIDE WALL REINFORCEMENT SEE S0-2
~	R9 EXISTING BRICK WALL CRACK REPAIR SEE S0-1
✕	R10 REPLACE TRUSS WITH NEW 2-PLY 1 3/4" x 16" BEAM 1. SHORE EXISTING ROOF 2. REMOVE EXISTING TRUSS 3. REWORK END POCKETS FOR NEW BEAM 4. INSTALL 2 PLY LVL BEAM

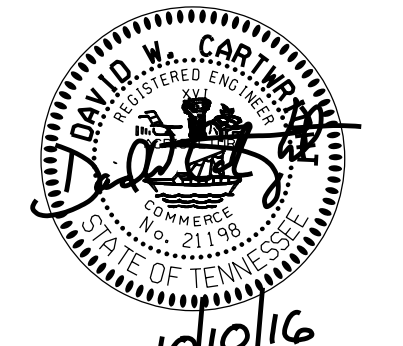
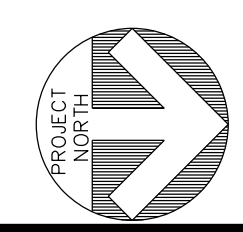


SIDE WALL SECTION STRUCTURAL REINFORCEMENT
 SCALE : 3/16"=1'-0"



FRONT WALL SECTION STRUCTURAL REINFORCEMENT
 SCALE : 3/16"=1'-0"

ROOF STRUCTURAL REINFORCEMENT PLAN
 SCALE : 3/16"=1'-0"



Nuber Architecture
 ECCLESIASTICAL PLANNING / DESIGN
 COMMERCIAL ARCHITECTURE
 1069 Rolling Fields Circle, Columbia, Tennessee 39401
 Phone: (931) 540-8045 Fax: (931) 840-5751
 Email: nuber@nuberarchitecture.com

CARTWRIGHT ENGINEERING
 STRUCTURAL ENGINEERING
 DAVID W. CARTWRIGHT, P.E.
 No. 11111
 NASHVILLE, TN 37214
 (615) 934-2236
 dwc2501@comcast.net

Proposed Facility Improvement for the "Jack and Jill" Building for the City of Columbia, Tennessee

S1.2 Structural Reinforcement Plans

Revisions:
THIS DRAWING HAS BEEN ISSUED:
□ FOR REVIEW ONLY
□ FOR ESTIMATING / BIDDING ONLY
✓ FOR CONSTRUCTION
DATE: 10/10/16 ISSUED BY: D. Cartwright