1.1 SPECIFICATIONS

A. REFER TO PROJECT SPECIFICATIONS FOR DETAILED REQUIREMENTS FOR MATERIAL AND WORKMANSHIP.THE WORK SHOWN ON THESE DRAWINGS ADDRESSES STRUCTURAL INFORMATION ONLY. THE STRUCTURAL DOCUMENTS INCLUDE THESE S-SERIES DRAWINGS AND GENERAL NOTES. THESE ARE NO TECHNICAL SPECIFICATIONS IN ADDITION TO THESE GENERAL NOTES.

1.2 ELEVATIONS & DIMENSIONS

A. ALL ELEVATIONS AND DIMENSIONS SHOWN FOR NEW CONSTRUCTION ARE BASED ON THE ORIGINAL CONSTRUCTION DRAWINGS FOR THE EXISTING BUILDING. FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION.

1.3 BUILDING CODES AND STANDARDS

- A. THE FOLLOWING BUILDING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT
- 1. "MONTGOMERY COUNTY EXECUTIVE REGULATION ER8-12," OFFICE OF THE COUNTY EXECUTIVE, MONTGOMERY COUNTY, MD.
- 2. "INTERNATIONAL BUILDING CODE 2015", INTERNATIONAL CODE COUNCIL, INCLUDING LOCAL JURISDICTION AMENDMENTS.
- 3. "INTERNATIONAL EXISTING BUILDING CODE 2012", INTERNATIONAL CODE COUNCIL, INCLUDING LOCAL JURISDICTION AMENDEMENTS.
- 4. "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", (ANSI/ASCE 7 10, 2010), AMERICAN SOCIETY OF CIVIL ENGINEERS.
- B. ADDITIONAL CODES AND STANDARDS FOR DIFFERENT MATERIALS ARE LISTED IN THE SECTIONS THAT FOLLOW.

1.4 DESIGN LOADS

- A. ROOF LIVE LOADS
- 1. MINIMUM LIVE LOAD: 20 PSF
- B. SNOW LOAD PLUS DRIFTING AND SLIDING WHERE APPLICABLE
- 1. PG = 30 PSF
- 2. PF = 30 PSF (MINIMUM)
- 3. CE = 1.0
- 4. I = 1.0
- 5. CT = 1.0C. SUPERIMPOSED DEAD LOADS (IN ADDITION TO STRUCTURE SELF-WEIGHT):
- LOW ROOFS:
- EXISTING: 9 PSF (1" THICK CLAY TILE AND PLYWOOD)
- 7 PSF (1/4" THICK SYNTHETIC SLATE AND SIP DECKING)
- 2. HIGH ROOFS:
- EXISTING: 10 PSF (GRAVEL SURFACING, BUILT-UP ROOFING MEMBRANE, INSULATION) 5 PSF (EXPOSED MODIFIED BITUMEN ROOFING, COVERBOARD, INSULATION) D. WIND LOAD PARAMETERS
- 1. BASIC WIND SPEED (3-SECOND GUST), V = 115 MPH
- RISK CATEGORY = II
- EXPOSURE CATEGORY: C
- 4. INTERNAL PRESSURE COEFFICIENT: GC(PI) = +/-0.18
- 5. EXISTING BUILDINGS: THE SCOPE OF WORK ON THIS PROJECT DOES NOT CHANGE THE DEMAND UPON NOR REDUCE THE RESISTANCE PROVIDED BY THE EXISTING WIND FORCE RESISTING SYTEMS (WFRS) BY MORE THAN 5%. BASED ON IEBC REQUIREMENTS, NO EVALUATION OR UPGRADE OF THE EXISTING WFRS HAS BEEN CONDUCTED.
- 6. COMPONENTS AND CLADDING
- a. ACTUAL PRESSURE(S) ON EVERY COMPONENT AND CLADDING ELEMENT SHALL BE DETERMINED BY THE CONTRACTOR'S SPECIALTY PROFESSIONAL ENGINEER, LICENSED IN THE PROJECT'S JURISDICTION. WHO IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF SUCH ELEMENT(S). PRESSURE VALUES LISTED BELOW ARE FOR REFERENCE ONLY. "+" INDICATES INWARD PRESSURE; "-" INDICATES OUTWARDS PRESSURE.
- b. REFERENCE PRESSURES FOR ROOFS:
- (I.) ZONE 1: +12 PSF; -35 PSF (II.) ZONE 2: +12 PSF; -58 PSF
- (III.) ZONE 3: +12 PSF; -87 PSF
- (IV.) ZONE 2 OVERHANG: -58 PSF -87 PSF (V.) ZONE 3 OVERHANG:
- c. REFERENCE PRESSURES FOR WALLS (INCLUDING SOFFIT AT UPPER ROOF OVERHANGS):
- (I.) ZONE 4: +32 PSF; -34 PSF
- (II.) ZONE 5: +32 PSF; -42 PSF
- d. SEISMIC LOAD PARAMETERS
- (I.) EXISTING BUILDINGS: THE SCOPE OF WORK ON THIS PROJECT DOES NOT CHANGE THE SEISMIC DEMAND UPON NOR REDUCE THE RESISTANCE PROVIDED BY THE EXISTING SEISMIC FORCE RESISTING SYSTEMS (SFRS) BY MORE THAN 5%. BASED ON IEBC REQUIREMENTS, NO EVALUATION OR UPGRADE OF THE EXISTING SFRS HAS BEEN CONDUCTED.

PART 2 - CONSTRUCTION

2.1 GENERAL

A. UNAUTHORIZED REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RE-SUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED.

B. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE WEIGHTS

- OF MATERIALS, FOR THE SUPERIMPOSED LOADS INDICATED IN THE DESIGN LOAD CRITERIA ABOVE, AND FOR LOADS INDICATED ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSE WORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
- C. DEVELOPING AND IMPLEMENTING JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- D. ALL COSTS OF INVESTIGATION AND REDESIGN DUE TO CONTRACTOR MIS-LOCATION OF STRUCTURAL ELEMENTS OR OTHER LACK OF CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- E. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS, SLEEVES, INSERTS AND DEPRESSIONS.
- F. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILED INFORMATION REGARDING FINISHES, WATERPROOFING, FIREPROOFING, ETC.
- G. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES AND THE DETAILS, THE MOST STRINGENT SHALL
- H. WORK IN SOME AREAS IS NOT EXPLICITLY DETAILED ON THE DRAWINGS BUT IS IMPLIED TO BE SIMILAR TO CORRESPONDING AREAS. WORK IN THESE AREAS SHALL BE THE SAME AS THAT SHOWN AT THE CORRESPONDING LOCATIONS.
- 2.2 SHOP DRAWINGS

- A. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS ARE REQUIRED TO BE SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE STRUCTURAL ENGINEER. I A CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, SIMPSON GUMPERTZ & HEGER INC. WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT
- B. SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY IN PORTABLE DOCUMENT FORMAT (PDF). A MARKED-UP PDF COPY OF THE SHOP DRAWINGS WITH THE STRUCTURAL ENGINEER'S COMMENTS WILL BE RETURNED TO THE CONTRACTOR.
- C. ALLOW 10 BUSINESS DAYS FOR STRUCTURAL REVIEW OF SHOP DRAWINGS. THIS TIME SHOULD BE ALLOTTED IN THE CONTRACTOR'S SCHEDULE
- D. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL WHICH SHALL CONSTITUTE CERTIFICATION THAT THEY HAVE VERIFIED ALL FIELD MEASUREMENTS, CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAVE CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS
- E. THE CONTRACTOR SHALL SUBMIT FOR REVIEW, SIGNED AND SEALED DRAWINGS AND CALCULATIONS PREPARED BY A SPECIALTY STRUCTURAL ENGINEER REGISTERED IN THE PROJECTS JURISDICTION FOR THE FOLLOWING ASSEMBLIES. THIS REVIEW SHALL BE FOR GENERAL CONFORMANCE WITH THE PROJECT'S PARAMETERS AS INDICATED ON THE DRAWINGS, SPECIFICATIONS AND GENERAL NOTES. THE DESIGN OF THESE ASSEMBLIES IS THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER WHO HAS SIGNED AND SEALED THESE DRAWINGS AND CALCULATIONS. THESE SUBMISSIONS SHALL BE MADE AVAILABLE IN CONJUNCTION WITH OR PRIOR TO THE SHOP DRAWING FOR THE PRIMARY BUILDING STRUCTURE THAT SUPPORT THESE ASSEMBLIES.
- 1. NON-STRUCTURAL COLD FORMED STEEL STUD SYSTEMS, OTHER SYSTEMS WHERE INDICATED, AND RELATED CONNECTIONS:
- a. DESIGNS SHALL TAKE INTO ACCOUNT ALL VERTICAL AND LATERAL LOADS REQUIRED BY APPLICABLE CODES AND STANDARDS. LIMIT DEFLECTION TO THE LESSER OF SPAN/360 AND 0.50" FOR THE APPLICABLE DESIGN WIND LOAD. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL CLEARLY SHOW THE LOAD PATH AND THE REACTIONS AS APPLIED TO THE MAIN BUILDING STRUCTURE.
- 2. TEMPORARY BRACING/SHORING OF EXISTING CONSTRUCTION. CONTRACTOR AND SPECIALTY ENGINEER SHALL DETERMINE THE NEED FOR AND EXTENT OF SHORING AND BRACING.

2.3 EXISTING CONDITIONS

EXISTING BUILDING INFORMATION SHOWN IS BASED ON EXISTING BUILDING DRAWINGS, FIELD OBSERVATIONS, OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING INFORMATION SHOWN (DIMENSIONS, ELEVATIONS, ETC.) AND NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

PART 3 - STRUCTURAL STEEL

- 3.1 CODES AND STANDARDS:
- A. "THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC., 2010.
- B. "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", AISC 303, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 2010.
- C. "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS", RESEARCH COUNCIL FOR
- STRUCTURAL CONNECTIONS. D. "STRUCTURAL WELDING CODE - STEEL", AWS D1.1, AMERICAN WELDING SOCIETY.
- 3.2 DESIGN GUIDES:
- A. "STEEL CONSTRUCTION MANUAL", FOURTEENTH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC., 2010.

ASTM A36

- 3.3 STRUCTURAL SHAPES: A. ANGLES, PLATES:
- 3.4 FASTENERS, CONNECTORS:
- A. HIGH STRENGTH BOLTS: ASTM A325-N (UNLESS DETAILED OTHERWISE) TENSION-CONTROL BOLTS ACCEPTABLE.
- B. SMOOTH OR THREADED ROD: ASTM A36
- C. WELDING ELECTRODES:

CONFORM TO AWS SPECIFICATIONS FOR ELECTRODES BASED ON WELDING PROCESS AND THE TYPE AND GRADE OF STEEL. E70XX ELECTRODES (MIN.) FOR FILLET WELDS.

3.5 FABRICATION:

- A. SHOP FABRICATE TO GREATEST EXTENT POSSIBLE. SUBMIT COMPLETE SHOP DRAWINGS FROM FIELD DIMENSIONS FOR THE ARCHITECT'S APPROVAL OF ALL STRUCTURAL STEEL PRIOR TO FABRICATION.
- 3.6 ERECTION:
- A. DO NOT FIELD CUT OR FIELD MODIFY ANY STRUCTURAL STEEL WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER FOR EACH SPECIFIC CASE.
- B. THE GENERAL CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS AND RECEIVE WRITTEN APPROVAL BEFORE ANY FIELD CORRECTIONS ARE MADE. GAS CUTTING TORCHES SHALL NOT BE USED TO CORRECT FABRICATION ERRORS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- C. PERMANENT FRAMING AND FINAL CONECTION DETAILS ARE SHOWN ON THE DRAWINGS. THE FABRICATOR AND ERECTOR ARE RESPONSIBLE FOR THE DESIGN OF TEMPORARY BRACING AND RECOMMEND ERETION
- 3.7 CONNECTIONS:
- A. ALL SHOP AND FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS OR WELDS. ALL HIGH STRENGTH BOLTS AND NUTS SHALL BE CLEARLY MARKED AS REQUIRED BY AISC SPECIFICATION. CONNECTIONS MADE WITH UNMARKED BOLTS AND NUTS WILL BE REJECTED
- B. PROVIDE ACCESS FOR INSPECTION OF ALL SHOP AND FIELD CONNECTIONS FOR PROPOER MATERIAL AND WORKMANSHIP.
- C. CONTRACTOR NOTE: ALTERNATE CONNECTION DESIGNS ARE NOT PERMITTED.
- D. UNLESS DETAILED OTHERWISE, ALL A325 BOLTS SHALL BE TIGHTENED TO THE 'SNUG TIGHT' CONDITION DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. THE SNUG TIGHT CONDITION MUST ENSURE THAT THE PLIES OF THE CONNECTED MATERIALS HAVE BEEN BROUGHT INTO SNUG CONTACT.
- E. WHEN INSTALLING POST-INSTALLED FASTENERS (ADHESIVE ANCHORS, EXPANSION ANCHORS, ETC.), THE CONTRACTOR SHALL TAKE MEASURES TO AVOID DRILLING OR CUTTING OF ANY EXISTING REINFORCING STEEL AND DESTRUCTION OF CONCRETE AND MASONRY. ALL FASTENERS SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND RELEVANT ICC-ES ESR.
- F. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC AND AWS SPECIFICATIONS. ANY STRUCTURAL DAMAGED IN WELDING IS TO BE REPLACED OR REINFORCED AS ACCEPTABLE TO THE STRUCTURAL ENGINEER.
- G. WELDERS SHALL HAVE CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS QUALIFICATION TESTS. THE ENGINEER MAY REQUEST SUCH EVIDENCE AT ANY TIME DURING THE PROJECT.

3.8 STEEL FINISH:

- A. ALL STRUCTURAL STEEL THAT IS LOCATED IN EXTERIOR UNHEATED SPACES AND WHICH IS EXPOSED FOR AESTHETICS, INCLUDING STEEL DIRECTLY EXPOSED TO WEATHER, SHALL BE POWER-TOOLED CLEANED AND PAINTED OR GALVANIZED ACCORDING TO DETAILS AND ARCHITECT'S SPECIFICATIONS.
- 3.9 INSPECTION AND TESTING:
- A. THE OWNER SHALL ENGAGE A TESTING AGENCY TO PROVIDE SERVICES AS INDICATED BELOW AND SUBMIT REPORTS.
- B. STRUCTURAL STEEL:
- 1. VISUALLY INSPECT ALL FILLET WELDS, BOLTED CONNECTIONS AND POST-INSTALLED FASTENERS. 2. TEST ANY WELD WHICH EXHIBITS UNUSUAL CONDITIONS OR POOR QUALITY DURING VISUAL
- EXAMINATION.

3. WELDING INSPECTION AND TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH THE AWS D1.1.

- PART 4 STRUCTURAL COLD FORMED STEEL FRAMING
- A. "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS". AMERICAN IRON AND STEEL INSTITUTE
- B. "STANDARD FOR COLD-FORMED STEEL FRAMING GENERAL PROVISIONS", AMERICAN IRON AND STEEL
- 4.2 MATERIALS:
- A. STEEL SHEET: ASTM A 1003, STRUCTURAL GRADE, TYPE H, METALLIC COATED, ST33H GRADE MINIMUM, AND G90 COATING WEIGHT
- B. STEEL SHEET FOR CLIPS AND ACCESSORIES: ASTM A 653, STRUCTURAL STEEL, G90 ZINC COATED, GRADE 50 CLASS 1 OR 2.
- 4.3 ANCHORS, CLIPS, AND FASTENERS
- A. STEEL SHAPES AND CLIPS: ASTM A 36, HOT-DIP GALVANIZED ACCORDING TO ASTM A123.
- B. MECHANICAL FASTENERS: ASTM C1513, CORROSION-RESISTANT-COATED, SELF-DRILLING, SELF-TAPPING STEEL DRILL SCREWS.
- 1. HEAD TYPE: LOW-PROFILE HEAD BENEATH SHEATHING, MANUFACTURERE'S STANDARD ELSEWHERE. C. WELDING ELECTRODES: COMPLY WITH AWS STANDARDS.
- 4.4 FRAMING SIZES:
- A. FRAMING MEMBERS SHALL BE OF THE TYPE AND GAUGE CALLED FOR ON THE DRAWINGS AND IN THE
- 4.5 GENERAL
- A. SUBMIT SHOP DRAWINGS FOR ALL COLD-FORMED STEEL FRAMING SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. MEMBER DESIGNATIONS AND PROPERTIES ARE BASED ON STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA) STANDARDS.. FRAMING SUPPLIED TO THE PROJECT SHALL EQUAL OF EXCEED THE PROPERTIES INDICATED BY SSMA FOR A PARTICULAR MEMBER DESIGNATION, SUBJECT TO APPROVAL BY THE ARCHITECT AND STRUCTRUAL ENGINEER
- C. CONTENTS OF THESE STRUCTURAL DOCUMENTS SHOW THE INTENDED APPLICATION OF COLD-FORMED FRAMING COMPONENTS.
- D. ALL DIMENSIONS SHOWN ON THE STRUCTURAL DOCUMENTS SHALL BE VERIFIED WITH THE
- ARCHITECTURAL DOCUMENTS PRIOR TO CONSTRUCTION OR FABRICATION. E. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE POSTIVELY HELD IN PLACE UNTIL PROPERLY FASTENED.
- F. ALL FIELD CUTTING OF COLD FORMED STEEL MUST BE DONE BY SAWING OR SHEARING. TORCH CUTTING IS NOT PERMITTED.
- G. SPLICES IN STUDS, JOISTS, OR OTHER STRUCTURAL MEMBERS ARE NOT PERMITTED.
- H. ALL STRUCTURAL COLD-FORMED STEEL FRAMING MEMBERS (EXCLUDING STUDS) SHALL BE UN-PUNCHED UNLESS SPECIFICALLY NOTED OTHERWISE
- I. CONNECTIONS SHALL BE BY WELDING, SCREWING, OR OTHER APPROVED FASTENING DEVICES OR METHODS PROVIDING POSITIVE ATTACHMENT AND RESISTANCE TO LOOSENING. FASTENERS SHALL BE OF COMPATIBLE MATERIAL. WHENEVER POSSIBLE, CONNECTIONS SHALL FOLLOW THE RECOMMENDATIONS MADE BY THE METAL LATH AND STEEL FRAMING ASSOCIATION. THE CONTRACTOR SHALL COFIRM THAT THE FASTENERS THEY INTEND TO USE MEETS OR EXCEEDS THE DESIGN VALUES SHOWN IN THE SUBMITTED CALCULATIONS.
- J. TOUCH-UP ALL WELDS (IF USED) WITH ZINC RICH PAINT.

ENGINEER'S SEAL AND SIGNATURE. REFER TO SECTION 2.2.E.

- K. FOR FASTENERS PROVIDE THE MINIMUM CLEARANCES, FASTENER SPACING, AND EDGE DISTANCE AS NOTED BELOW, UNLESS OTHERWISE NOTED OR DETAILED:
- EDGE DISTANCE FASTENER TYPE 1/2 IN. ½ IN. 1/3 IN. 1/2 IN. 2. POWDER DRIVEN FASTENERS (STEEL) POWDER DRIVEN FASTENERS (CONCRETE) 3 IN. 4 IN.
- L. ALTERNATE CONNECTION DESIGNS ARE NOT PERMITTED. M. DESIGN OF TEMPORARY BRACING SHALL BE BY THE FABRICATOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED BEARING THE

PART 5 - WOOD FRAMING

- 5.1 CODES:
- A. "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" WITH SUPPLEMENT, 2005, AMERICAN FOREST AND PAPER ASSOCIATION.
- B. "PERFORMANCE STANDARD AND POLICIES FOR STRUCTURAL USE PANELS", PRP-108, AMERICAN PLYWOOD ASSOCIATION.
- 5.2 MATERIALS:
- A. SAWN LUMBER: ALL SAWM LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT AND SHALL BE #2 GRADE SOUTHERN PINE MINIMUM.
- B. TONGUE AND GROOVE WOOD DECKING: MATCH SIZE, SPECIES (DOUGLAS FIR LARCH PER EXISTING DRAWINGS) AND APPEARANCE GRADE OF EXISTING. FACE-NAIL EA. END OF EA. COURSE TO SUPPORT WITH 60d NAIL AND TOE-NAIL W/ 40d. SPIKE COURSES TOGETHER AT 18" MAX.
- C. APA PERFORMANCE RATED PLYWOOD PANELS: 1. PLYWOOD ROOF SHEATHING - 19/32 IN. THICK, EXPOSURE 1, SPAN RATING 40/20
- 5.3 SAWN LUMBER:
- A. MEMBERS SHALL BE SET WITH CROWN SIDE UP AND HAVE A MINIMUM 3 IN. BEARING.
- B. ALL BOLTS AND LAG SCREWS SHALL BE FITTED WITH GALVANIZED, MALLEABLE IRON OR STEEL PLATE
- 5.4 PLYWOOD PANELS:
- A. FACTORY-MARK EACH CONSTRUCTION PANEL WITH APA TRADEMARK INDICATING COMPLIANCE WITH GRADE REQUIREMENTS.
- B. INSTALL PANELS WITH FACE GRAIN PERPENDICULAR TO THE SUPPORTING MEMBERS, UNLESS DETAILED OTHERWISE.
- 5.5 WOOD PRESERVE TREATMENT:
- A. WHERE LUMBER OR PLYWOOD IS INDICATED AT 'TREATED', COMPLY WITH APPLICABLE REQUIREMENTS OR AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS U1 AND T1. MARK EACH TREATED ITEM WITH THE AWPA QUALITY MARK REQUIREMENTS.
- B. PRESSURE TREAT ABOVE-GROUND ITEMS WITH WATERBORNE PRESERVATIVES FOR USE CATEGORY UC3B. AFTER TREATMENT, KILN-DRY LUMBER TO A MAXIMUM MOSITURE CONTENT OF 10 PERCENT.
- C. TREAT INDICATED ITEMS AND WOOD SILLS, LEDGERS, BLOCKING, AND SIMILAR MEMBERS IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO THE ATMOSPHERE.
- 5.6 FASTENERS:
- A. NAILS: COMMON WIRE, GALVANIZED.
- B. BOLTS: ASTM A307 FOR ALL WOOD-TO-WOOD AND COLD-FORMED STEEL-TO-WOOD CONNECTIONS.
- C. SCREWS: ASME B18.6.1 FOR ALL WOOD-TO-WOOD AND WOOD-TO-STEEL CONNECTIONS.
- D. CONNECTORS: SIMPSON STRONG-TIE OR APPROVED EQUIVALENT WITH ZMAX (ASTM A653 G185) COATING.

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 43766 Exp Date: 3/16/17

SIMPSON GUMPERTZ & HEGER

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Los Angele

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703.560.2200

S 8

Bid Set (County Response Set) Pricing/Permit Set 11/20/15 100% Design Development 08/28/15 No. Date Description

PHYSICAL EDUCATION BLDG EXTERIOR RENOVATION MONTGOMERY COLLEGE GERMANTOWN CAMPUS

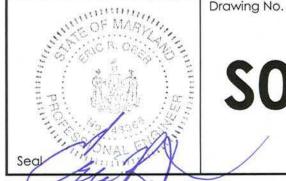
20200 OBSERVATION DRIVE

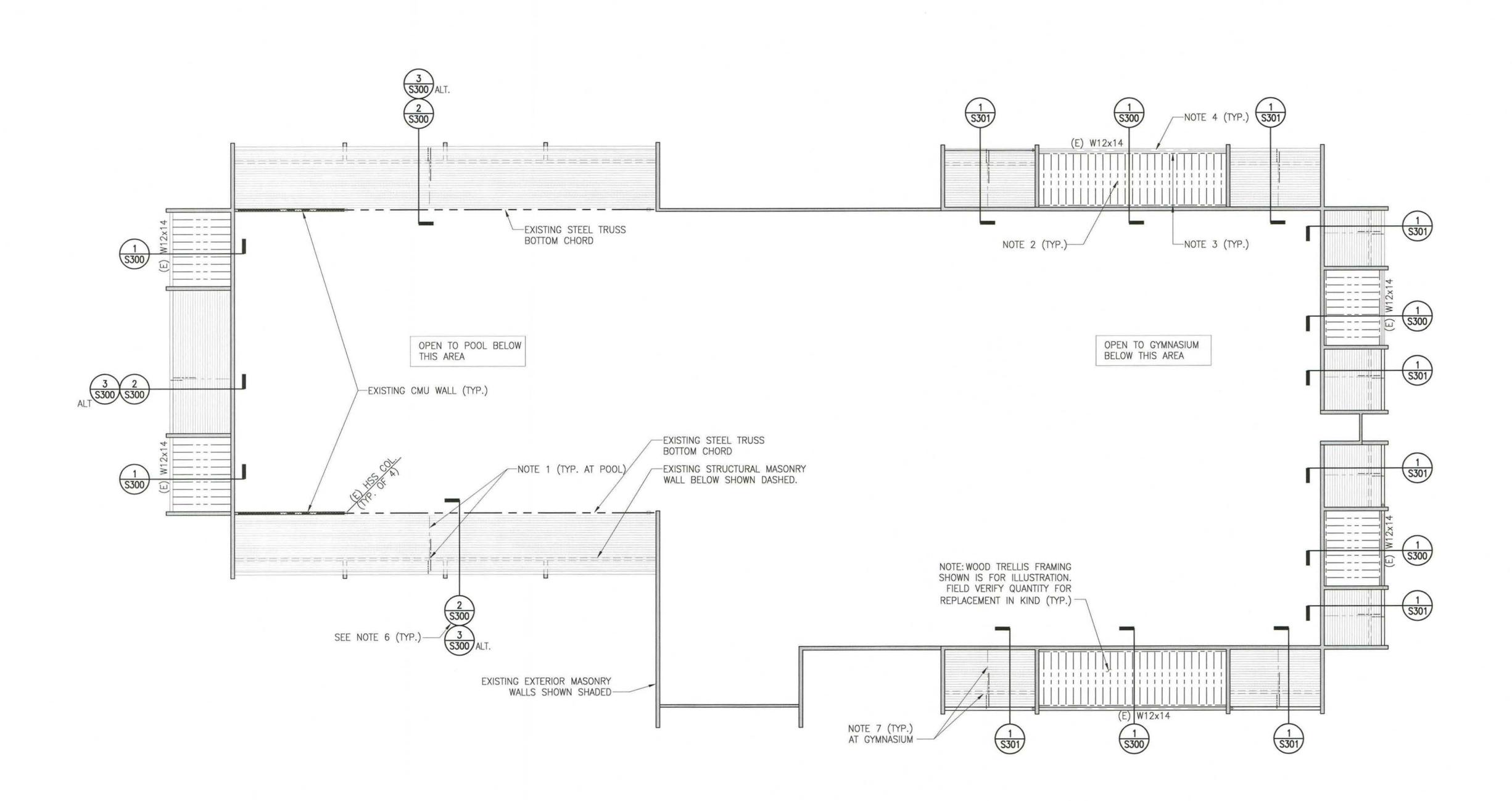
GERMANTOWN, MD 20876

GENERAL NOTES

Drawing Title

Checked 150049.01 ERO 01/22/16 Approved GRS Scale





EXISTING LOW ROOF FRAMING PLAN - NEW WORK

PLAN NOTES:

- 1. EXISTING 8" DEEP CFS JOISTS AT 24"± OC. PARTIALLY DEMOLISH AS INDICATED. SISTER NEW 800S200-54 DEEP CFS JOIST TO EACH EXISTING AND INSTALL 400S200-54 DEEP CFS OUTRIGGER (LOW). SEE 2/S300.
- 2. AT TRELLIS: NEW TREATED 3x12 WOOD RAFTERS AT 18"OC. MATCH PROFILE OF EXISTING WOOD FRAMING. SEE 1/S300.
- 3. AT TRELLIS: NEW TREATED 4x12 WOOD HEADER EACH END OF RAFTERS. SEE 1/S300.
- 4. AT TRELLIS: EXISTING STEEL BEAM AT 'LOW' END OF FRAMING TO REMAIN. CLEAN AND PAINT. SEE 1/S300.
- 5. SEE S001 FOR GENERAL NOTES.
- 6. AT COLD-FORMED STEEL REPAIRS, DETAIL 2/S300, DAMAGE TO EXISTING FRAMING IS ASSUMED TO BE LIMITED TO PORTIONS OUTSIDE OF THE BUILDING BASED ON LIMITED OBSERVATION. FOR BIDDING/PRICING, PROVIDE A LUMP SUM ALLOWANCE, AND ASSOCIATED UNIT PRICES, ASSUMING 20% OF CFS FRAMING REQUIRES COMPLETE REPLACEMENT. INCLUDE ALL COSTS FOR ADDITIONAL DEMOLITION (ROOF, CEILING, ETC.) AND NEW CONSTRUCTION SEE 3/S300.
- 7. EXISTING CFS ROOF FRAMING AT GYMNASIUM ASSUMED TO REMAIN. EXAMINE DURING DEMOLITION OF ADJACENT CONSTRUCTION AND NOTIFY ENGINEER IF DETERIORATION IS PRESENT.

SIMPSON GUMPERTZ & HEGER

Engineering of Structures and Building Enclosures

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703.560.2200

Consultant

Security Consultant

BIL

\triangle	01/22/16	Bid Set County Response Set	
	11/20/15	Pricing/Permit Set	
	08/28/15	100% Design Development	
No.	Date	Description	

PHYSICAL EDUCATION BLDG **EXTERIOR RENOVATION** MONTGOMERY COLLEGE GERMANTOWN CAMPUS

20200 OBSERVATION DRIVE **GERMANTOWN, MD 20876**

Professional Certification.

KEY PLAN

1///////

1/16" = 1'-0"

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of

the State of Maryland.
License No. 433 66 Exp Date: 3/16/17

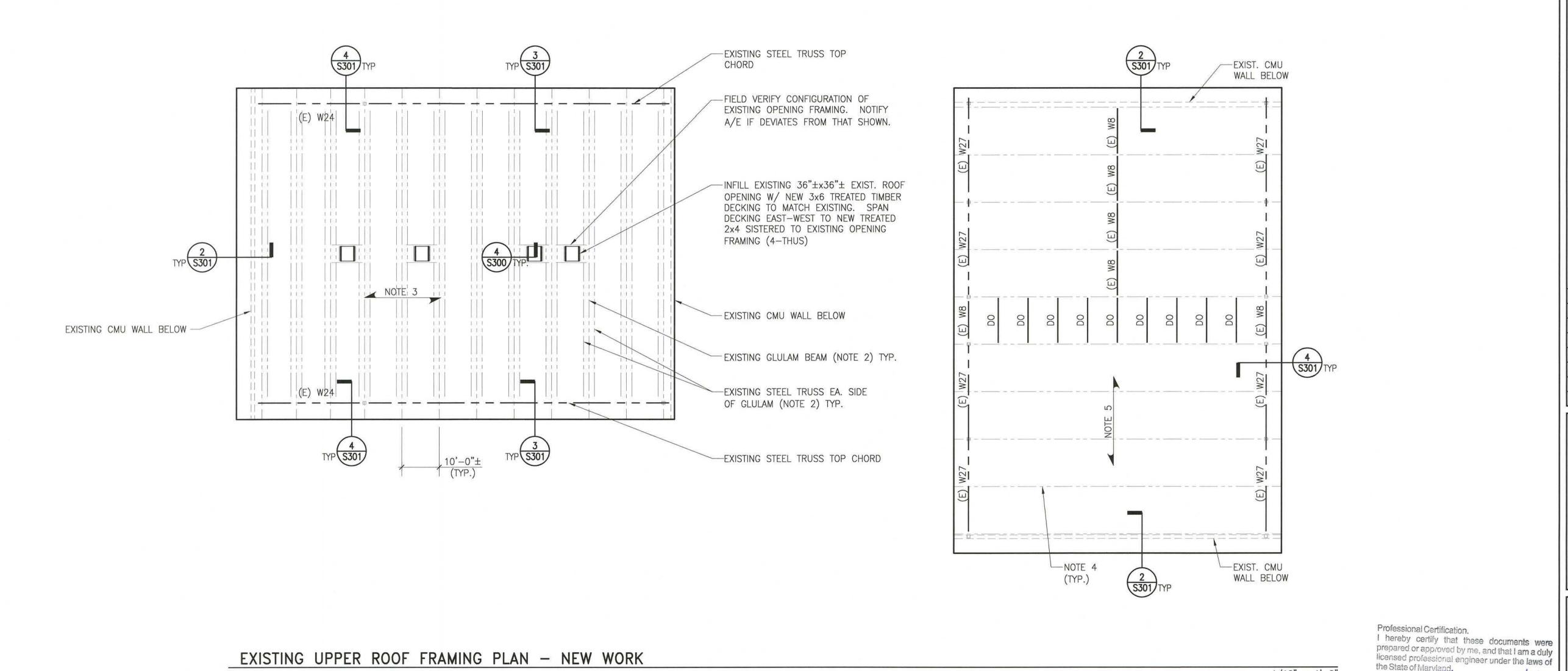
EXISTING LOW ROOF FRAMING PLAN - NEW WORK

Drawing Title

Project No. 150049.01	Checked ER0	Date 01/22/16	
Drawn DMS	Approved ERO	Scale 1/16"=0'-	C
11111111	11177	Drawing No.	_



S110



SIMPSON GUMPERTZ & HEGER

| Engineering of Structures and Building Enclosures

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Consultant

Security Consultant

BID

Bid Set County Response Set

Pricing/Permit Set 11/20/15 08/28/15 100% Design Development No. Date Description

PHYSICAL EDUCATION BLDG **EXTERIOR RENOVATION** MONTGOMERY COLLEGE GERMANTOWN CAMPUS 20200 OBSERVATION DRIVE GERMANTOWN, MD 20876

the State of Maryland, License No. 43366

KEY PLAN

1/16" = 1'-0"

EXISTING UPPER ROOF FRAMING PLAN - NEW WORK

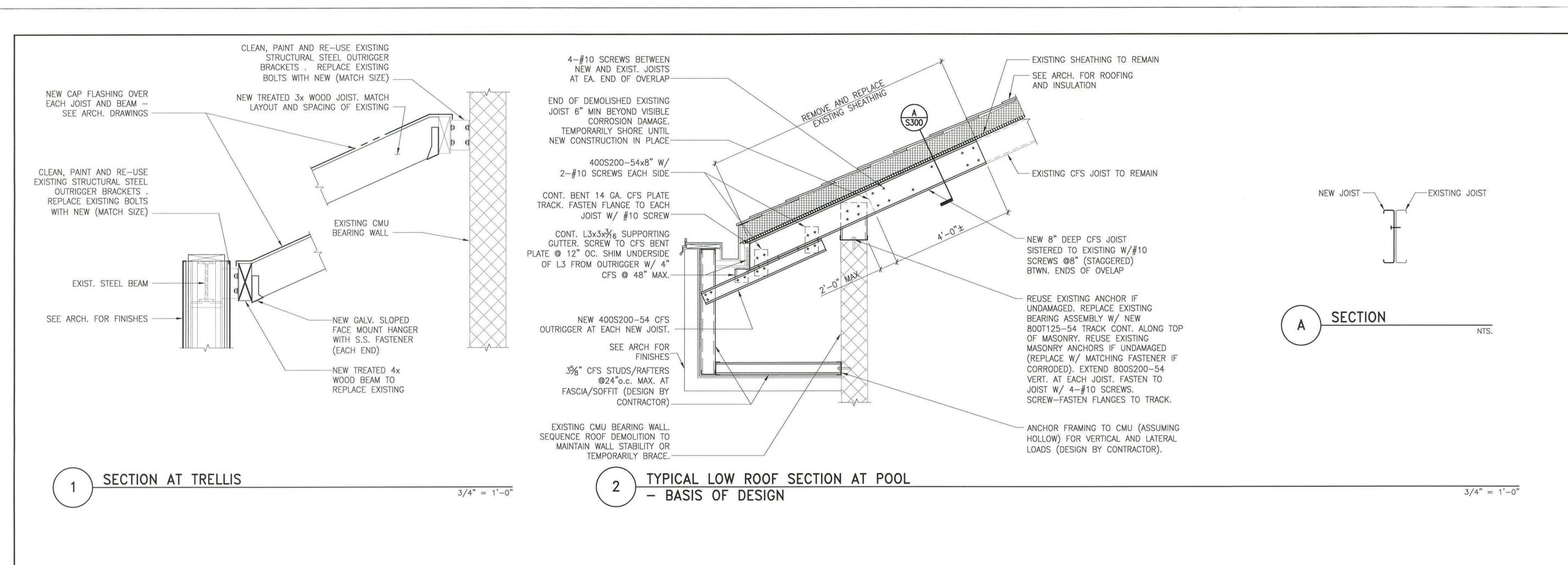
Project No. 150049.01	Checked ERO	Date 01/22/16	
Drawn DMS	Approved ERO	Scale 1/16"=0'-	
JUNE OF	MAR)	ving No.	

EXISTING UPPER ROOF FRAMING PLAN - NEW WORK

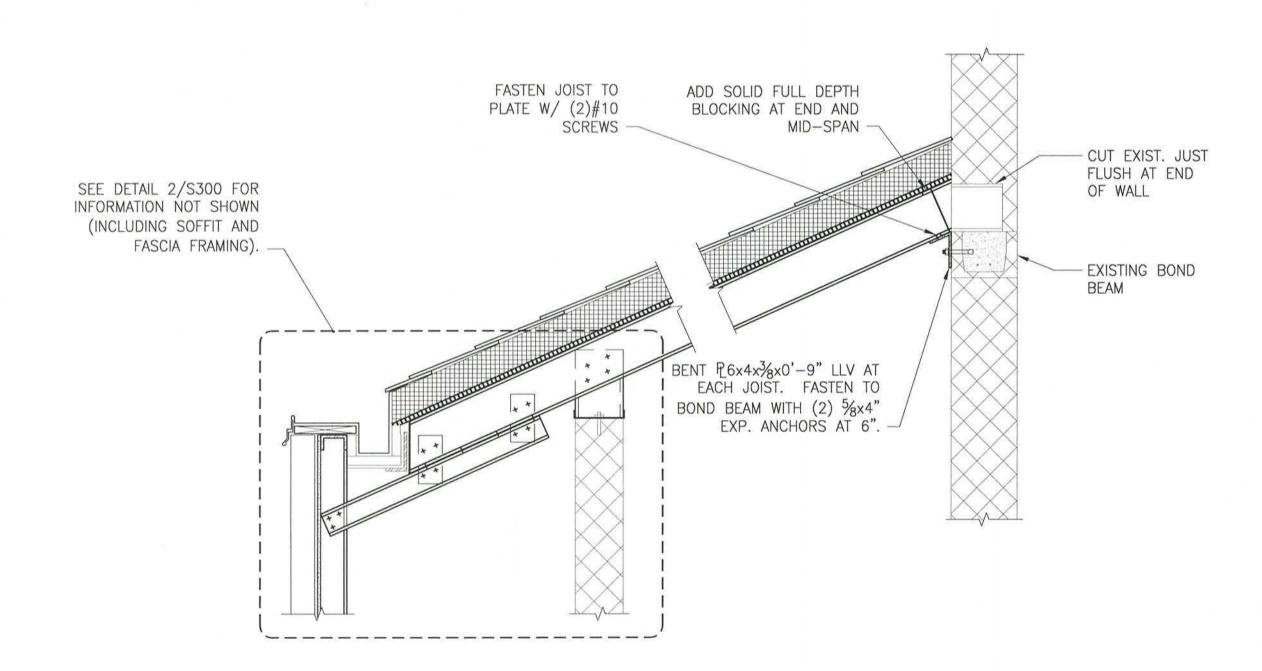
PLAN NOTES:

- 1. TOP GLULAM ELEV.= VIF.
- 2. EXISTING GLULAM BEAMS AT POOL ROOF SPACED 10'-0"± O.C. AND ARE SUPPORTED BY STEEL TRUSSES, INSTALLED DURING PRIOR RENOVATION.
- 3. EXISTING POOL ROOF DECK CONSISTS OF 3x WOOD DECKING.
- 4. EXISTING GLULAM BEAMS AT GYM. ROOF SPACED UP TO 13'-0"± O.C.

EXIST. GYM. ROOF DECK CONSISTS OF 4x WOOD DECKING.
 SEE S001 FOR GENERAL NOTES



3/4" = 1'-0



NOTE: THIS DETAIL ONLY APPLIES WHERE DEMOLITION OF EXISTING JOIST EXCEEDS LIMITATION IN 2/S300.

LOW ROOF SECTION AT POOL - ALTERNATE TO REPLACE EXISTING JOIST

SECTION AT POOL ROOF INFILL

EXISTING T&G

WOOD DECKING -

EXISTING OPENING

TRIMMER FRAMING

(V.I.F.) -

-NEW T&G WOOD DECKING

NEW 2x4 FACE-NAILED TO

EXISTING WITH 16d NAILS

AT 6" (STAGGERED T&B)

TO MATCH EXISTING

 $1 \ 1/2" = 1'-0"$

Professional Certification.

SIMPSON GUMPERTZ & HEGER

| Engineering of Structures and Building Enclosures

Simpson Gumpertz & Heger Inc. 1828 L Street NW, Suite 950 Washington, DC 20036 main: 202.239.4199 fax: 202.239.4198 www.sgh.com

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Erbschloe Consulting Services, Inc. Door Hardware 7820 Carters Run Drive Consultant

Marshall, VA 20115 540.351.0553

GHD, Inc. 14585 Avion Parkway, Suite 150

Chantilly, VA 20151 571.325.5000

Forella Group, LLC. Cost Estimating

9495 Silver King Ct., Suite A Fairfax, VA 22031 703.560.2200

Consultant

Security

Consultant

Consultant

SE 뭂

Bid Set County Response Set Pricing/Permit Set 100% Design Development Description

PHYSICAL EDUCATION BLDG **EXTERIOR RENOVATION** MONTGOMERY COLLEGE GERMANTOWN CAMPUS 20200 OBSERVATION DRIVE GERMANTOWN, MD 20876

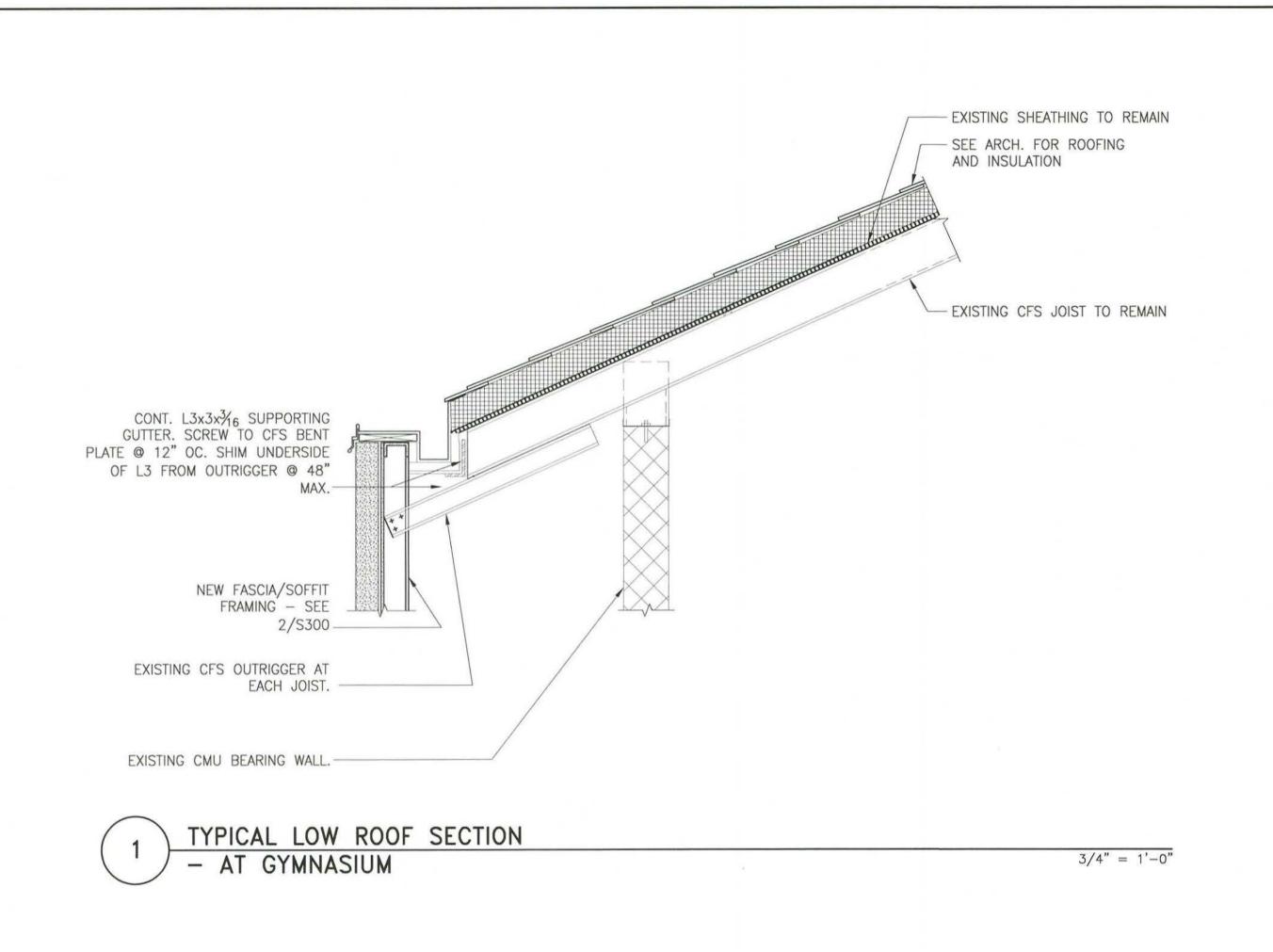
DETAILS

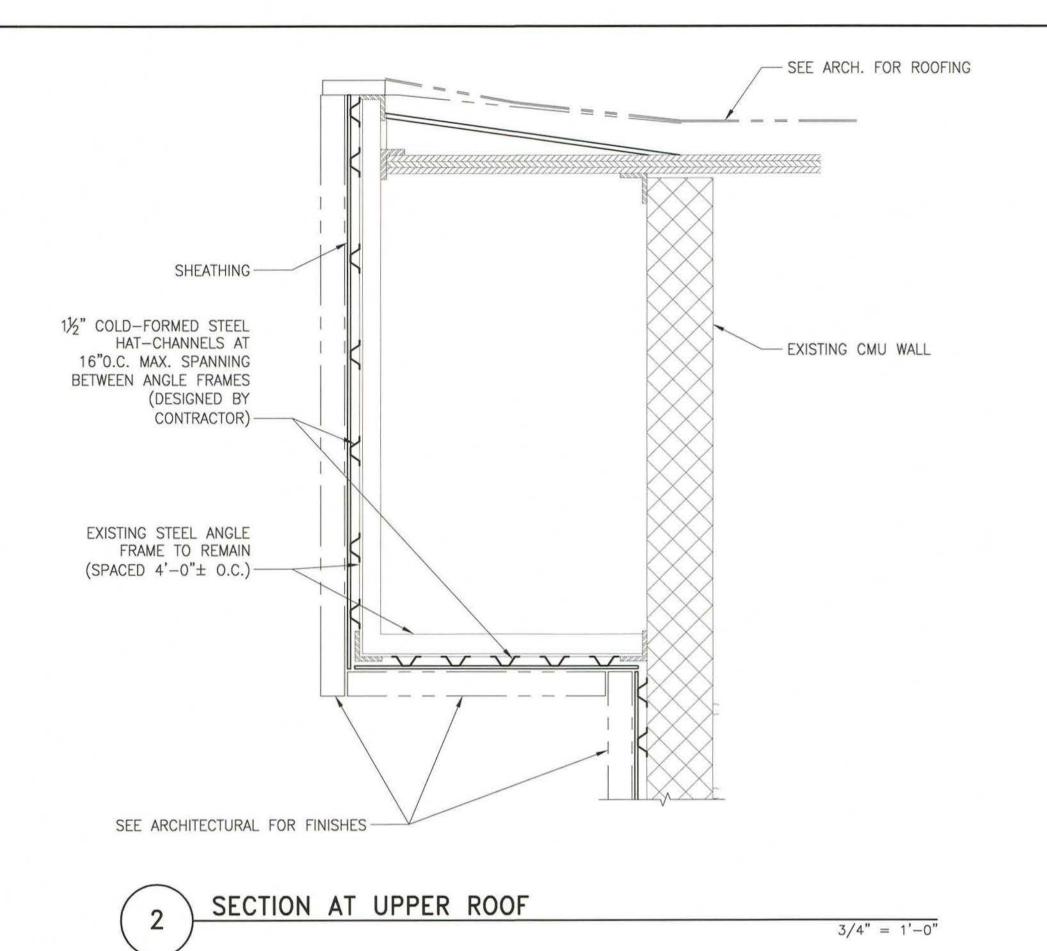
Drawing Title

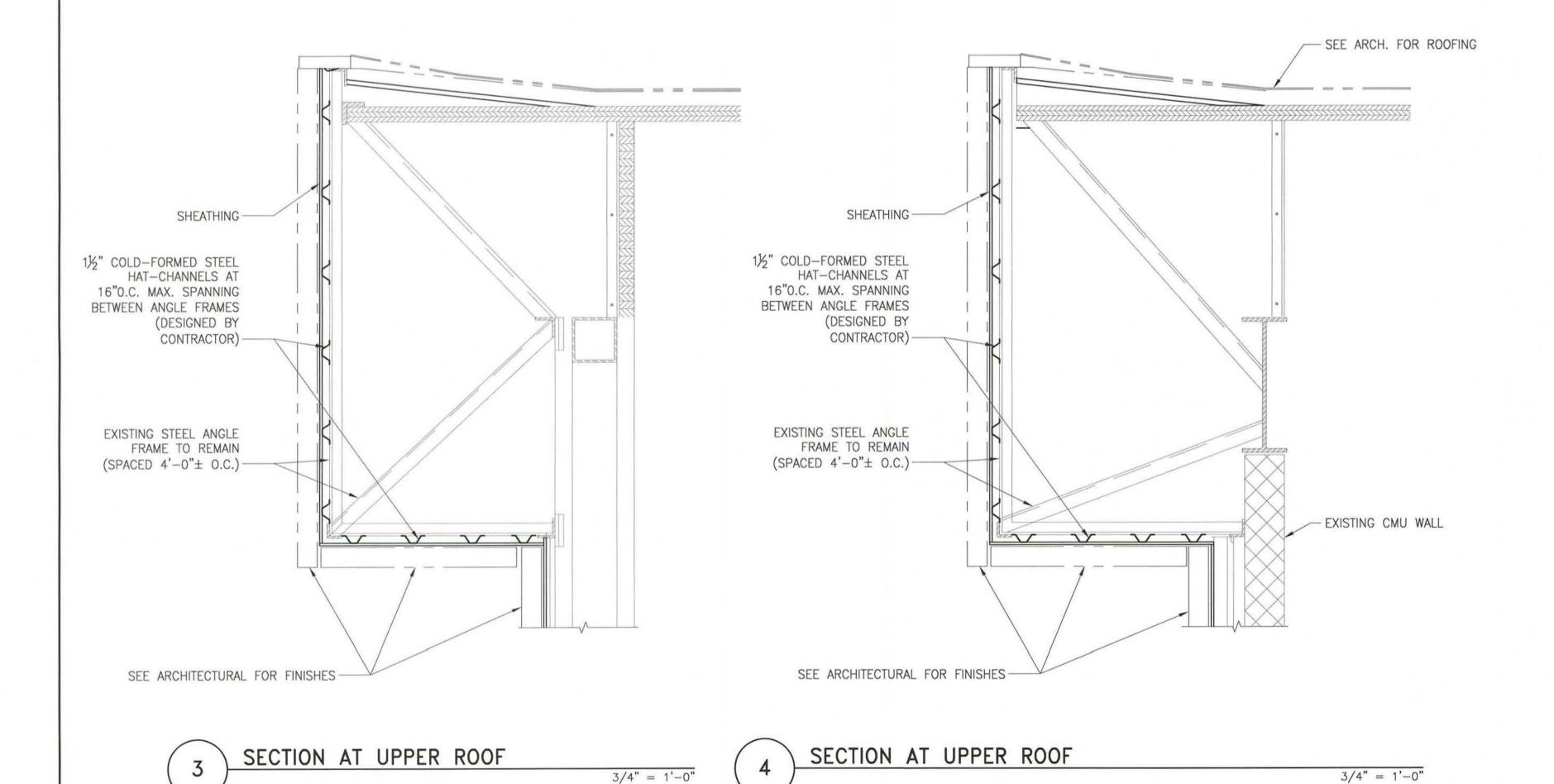
Project No. 150049.01 ERO 01/22/16 Scale 0/0"=0'-0" Drawing No.



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 43566 Exp Date: 3/16/17







Professional Certification.

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 43366 Exp Date: 3/16/17

SIMPSON GUMPERTZ & HEGER

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703.560.2200

Consultant

Consultant

Consultant

BID SET

01/22/16 Bid Set County Response Set

11/20/15 Pricing/Permit Set

08/28/15 100% Design Development

No. Date Description By

PHYSICAL EDUCATION BLDG
EXTERIOR RENOVATION
MONTGOMERY COLLEGE
GERMANTOWN CAMPUS
20200 OBSERVATION DRIVE
GERMANTOWN, MD 20876

Project

DETAILS

Drawing Title

 Project No.
 Checked
 Date

 150049.01
 ERO
 01/22/16

 Drawn
 Approved
 Scale

 DMS
 ERO
 0/0"=0'-0"

S NALE WALLEN