

DESIGN CRITERIA

1. BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY IV FACILITY.
- H-18-8 SEISMIC DESIGN REQUIREMENTS. THE STRUCTURE IS CLASSIFIED AS A CRITICAL FACILITY.
2. DEAD AND LIVE LOADS:
- | LOCATION | UNIFORM LIVE LOAD | CONCENTRATED LIVE LOAD |
|-------------------------|-------------------|------------------------|
| ROOF (FUTURE 3RD FLOOR) | 80 PSF | ----- |
| FLOOR | 80 PSF | ----- |
| CORRIDORS | 100 PSF | ----- |
| STAIRS | 100 PSF | 300 LB |
| SLAB ON GRADE | 120 PSF | 2000 LB |
| LIGHT STORAGE | 125 PSF | 2000 LB |
- FLOOR LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED IN ACCORDANCE WITH THE BUILDING CODE. ROOF LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED.
3. SNOW LOADS:
- | | |
|-------------------------|--------|
| GROUND SNOW LOAD: | 20 PSF |
| FLAT ROOF SNOW LOAD: | 20 PSF |
| SNOW EXPOSURE FACTOR: | 1.0 |
| SNOW IMPORTANCE FACTOR: | 1.2 |
| THERMAL FACTOR: | 1.0 |
- DRIFTING OF SNOW AND UNBALANCED SNOW SHALL BE IN ACCORDANCE WITH CODE.
4. WIND:
- | | |
|-----------------------------|---|
| ULTIMATE DESIGN WIND SPEED: | 120 MPH (3 SECOND GUST AND LRFD METHOD) |
| NOMINAL DESIGN WIND SPEED: | 90 MPH (3 SECOND GUST AND ASD METHOD) |
| WIND EXPOSURE: | C |
| INTERNAL PRESSURE COEF: | ±0.18 |
- COMPONENTS AND CLADDING PRESSURE SHALL BE USED FOR DESIGN OF EXTERIOR WALLS, WINDOWS, DOORS, AND MISCELLANEOUS MATERIALS NOT SPECIFICALLY SHOWN ON THE PLANS.
5. SEISMIC:
- | | |
|----------------------------|--|
| SITE CLASS: | C |
| SEISMIC DESIGN CATEGORY: | C |
| SEISMIC IMPORTANCE FACTOR: | 1.5 |
| Ss: | 0.198 |
| S1: | 0.088 |
| Sds: | 0.158 |
| Sd1: | 0.100 |
| LATERAL SYSTEM (EXISTING): | INT. REINFORCED CONCRETE MOMENT FRAMES (R=5) |
| METHOD OF ANALYSIS: | EQUIVALENT LATERAL FORCE |
| Cs: | 0.048 |
| BASE SHEAR: | 0.048W KIPS |
6. BLAST/ANTI-TERRORISM/PROGRESSIVE COLLAPSE
- 6.A. THIS STRUCTURE IS NOT REQUIRED TO BE DESIGNED FOR RESISTANCE TO AN ACCIDENTAL OR TERRORIST BLAST.
7. VIBRATION
- 7.A. THIS STRUCTURE HAS NOT BEEN ANALYZED FOR VIBRATION CAUSED BY FOOTFALL, EQUIPMENT, ETC.

CONSTRUCTION DETAILS FOR STRUCTURAL MOVEMENT

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCOMMODATIONS IN GLAZING, ARCHITECTURAL FINISHES, PLUMBING, HVAC, AND ELECTRICAL ELEMENTS TO PREVENT DAMAGE DUE TO DEFLECTION OF ROOF, WALL AND FLOOR MEMBERS.
2. VERTICAL DEFLECTIONS DUE TO GRAVITY LOADS:
- | | LENGTH IN INCHES/240 |
|------------------------------------|----------------------|
| WIDE FLANGE ROOF BEAMS & GIRDERS | LENGTH IN INCHES/300 |
| WIDE FLANGE FLOOR GIRDERS* | LENGTH IN INCHES/360 |
| COMPOSITE FLOOR WIDE FLANGE BEAMS* | |
- *AFTER THE FLOOR CONCRETE IS POURED. DO NOT ATTACH ANY ELEMENT TO A FLOOR SYSTEM BEFORE THE FLOOR SLAB IS POURED AND SHORING IS REMOVED.
3. HORIZONTAL DEFLECTIONS DUE TO WIND (W) OR SEISMIC (E):
- | | |
|--|----------------------------------|
| CONVENTIONAL METAL STUDS | LENGTH IN INCHES/240(W), 200(E)* |
| CONVENTIONAL BUILDING (FLOOR TO ROOF) | HEIGHT IN INCHES/360(W), 200(E) |
| CONVENTIONAL BUILDING (FLOOR TO FLOOR) | HEIGHT IN INCHES/360(W), 200(E) |
- *LENGTH IN INCHES/600 FOR BRICK VENEER

DELEGATED ENGINEERING OF STRUCTURAL COMPONENTS & SYSTEMS

1. ALL STRUCTURAL COMPONENTS & SYSTEMS SPECIFIED TO BE DELEGATED SHALL BE DESIGNED AND SEALED BY A SPECIALTY STRUCTURAL ENGINEER (SSE) AND SHALL MEET THE GUIDELINES PUBLISHED BY THE COUNCIL OF AMERICAN STRUCTURAL ENGINEERS (CASE) FOR DELEGATED SPECIALTY STRUCTURAL ENGINEERING.
2. REFERENCE THE GENERAL NOTES & DRAWINGS FOR BUILDING CODE, SERVICE CRITERIA, AND DESIGN LOADS.
3. SUBMITTALS FOR DELEGATED COMPONENTS & SYSTEMS SHALL INCLUDE THE FOLLOWING:
- 3.A. A FULL DESIGN ANALYSIS, INCLUDING CALCULATIONS FOR GRAVITY AND LATERAL LOADS, WITH A SEALED COVER SHEET IDENTIFYING THE PROJECT NAME AND ADDRESS.
- 3.B. THE SSE THAT SEALED THE CALCULATIONS SHALL ALSO SEAL THE FABRICATION, PLACING, AND ERECTION PLANS. EACH PLAN SHALL IDENTIFY THE PROJECT NAME AND ADDRESS.
- 3.C. IF THE SSE THAT SEALED THE CALCULATIONS AND PLANS IS AN EMPLOYEE OF A COMPANY, THE COMPANY'S CERTIFICATE OF AUTHORIZATION NUMBER SHALL BE INCLUDED ON THE SUBMITTALS. BOTH THE SSE SEAL AND THE CERTIFICATE OF AUTHORIZATION SHALL BE ISSUED BY THE STATE IN WHICH THE PROJECT IS LOCATED, INCLUDING PROJECTS ON FEDERAL LAND.
- 3.D. THE COMPANY THAT EMPLOYS THE SSE SHALL PROVIDE AN INSURANCE CERTIFICATE FOR PROFESSIONAL LIABILITY INSURANCE WITH AN AGGREGATE AMOUNT OF NO LESS THAN TWO MILLION DOLLARS (\$2,000,000). CONTRACTS OR SUB-CONTRACTS FOR THIS PROJECT SHALL NOT INCLUDE A LIMIT OF LIABILITY CLAUSE.
- 3.E. THE SSE THAT SEALED THE PLANS SHALL INCORPORATE A WRITTEN STATEMENT THAT THE CONTRACT DOCUMENT'S CRITERIA HAVE BEEN INCORPORATED INTO THE DESIGN.

4. THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR QUANTITIES AND DIMENSIONS AND VERIFY THAT THE ABOVE INFORMATION HAS BEEN INCLUDED IN THE SUBMITTAL.
5. NO SUBMITTAL WILL BE REVIEWED UNLESS ALL OF THE ABOVE INFORMATION IS INCLUDED. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY INCOMPLETE SUBMITTALS.

COLD-FORMED STEEL FRAMING

1. REFERENCE DELEGATED ENGINEERING OF STRUCTURAL COMPONENTS AND SYSTEMS FOR SUBMITTAL REQUIREMENTS.
2. ALL COLD-FORMED STEEL STUDS, PURLINS, AND TRUSS SYSTEMS SHALL BE GALVANIZED PER AISI STANDARDS. APPLY ZINC-RICH PAINT TO ALL AREAS WHERE FINISH IS DAMAGED DUE TO WELDING.
3. THIS STRUCTURE IS DESIGNED AS CONVENTIONAL FIELD FRAMED CONSTRUCTION. SHOULD PANELIZED CONSTRUCTION BE USED, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL ENGINEERING, COORDINATION WITH ALL OTHER BUILDING SYSTEMS, AND REVIEW OF SHOP DRAWINGS. COORDINATION AND REVIEW OF PANELIZED CONSTRUCTION SHOP DRAWINGS ARE NOT INCLUDED IN THE ENGINEER OF RECORD'S SCOPE OF SERVICES FOR THIS PROJECT. REQUESTS FOR INFORMATION PERTAINING TO, OR DIRECTLY ASSOCIATED WITH, PANELIZED CONSTRUCTION WILL NOT BE REVIEWED.
4. PRODUCTS SHALL BE FORMED FROM STEEL MEETING THE REQUIREMENTS OF AISI, SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, UNLESS NOTED OTHERWISE.
5. STUD TRACK SECTIONS SHALL MEET OR EXCEED THICKNESS OF STUD MEMBERS, UNLESS NOTED OTHERWISE.
6. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS.
7. PROVIDE ALL ACCESSORIES INCLUDING, BUT NOT LIMITED TO, TRACKS, CLIPS, WEB STIFFENERS, FASTENERS, ANCHORAGE DEVICES, CONNECTION ANGLES, BRIDGING, AND MISCELLANEOUS HARDWARE REQUIRED TO COMPLETE ALL CONNECTIONS AND INSTALLATION.
8. FASTENING OF FRAMING COMPONENTS SHALL BE WITH SELF-TAPPING SCREWS OR WELDING OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WELDS SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AWS D1.3 CODE.
9. COLD-FORMED STEEL STUD PRODUCTS SHALL BE MANUFACTURED BY A CURRENT MEMBER OF THE STEEL STUD MANUFACTURER ASSOCIATION (SSMA) OR THE STEEL FRAMING INDUSTRY ASSOCIATION (SFIA).
- 9.A. THE PHYSICAL AND STRUCTURAL PROPERTIES SHALL BE EQUIVALENT TO THOSE LISTED BY THE SSMA "PRODUCT TECHNICAL INFORMATION" AND ICC-ES ESR-3064P FOR "S" AND "T" SECTIONS.
- 9.B. PROVIDE WALL STUD BRIDGING SPACES AT 4'-0" O.C., MAX. IN ALL EXTERIOR WALLS AND INTERIOR, LOAD BEARING WALLS.
- 9.C. PROVIDE DEFLECTION TRACK AT THE TOP OF ALL NON-LOAD BEARING STUD WALLS WHERE THE TOP OF WALL ABUTS THE BOTTOM OF THE STRUCTURE. DEFLECTION TRACK SHALL ACCOMMODATE A DEFLECTION DESCRIBED UNDER CONSTRUCTION DETAILS FOR STRUCTURAL MOVEMENT.
- 9.D. ATTACH STUDS TO TRACK WITH A MINIMUM OF ONE SCREW IN EACH STUD FLANGE, UNLESS NOTED OTHERWISE.

SOIL PREPARATION AND FOUNDATIONS

1. THE FOUNDATION SYSTEM IS DESIGNED AS RECOMMENDED IN THE GEOTECHNICAL INVESTIGATION PREPARED BY PEC FIELD SERVICES JOB NO. 74-15966-000-0147. A COPY IS IN THE SPECIFICATIONS OR IS AVAILABLE FOR INSPECTION AT THE ARCHITECT'S PLACE OF BUSINESS.
2. REMOVE TOP SOIL CONTAINING ORGANIC MATERIAL AND PREPARE THE BUILDING PAD IN ACCORDANCE WITH THE CIVIL ENGINEERING PLANS, SPECIFICATIONS, AND GEOTECHNICAL INVESTIGATION.
3. REMOVE SOIL AS REQUIRED TO ALLOW FOR A LOW VOLUME CHANGE ZONE UNDER THE FLOOR SLAB AND DRAINAGE MATERIAL AS OUTLINED IN GEOTECHNICAL REPORT. FILL TO SUBGRADE ELEVATION SHOWN ON THE DRAWINGS WITH NON-EXPANSIVE FILL OR STABILIZED SOIL PER SPECIFICATION.
4. AUGER CAST PIERS:
- 4.A. DESIGN FOUNDATION BEARING PRESSURE (NET) OF 21,900/25,900 PSF AND DESIGN FOUNDATION SIDE FRICTION OF 340/850 PSF BASED ON PILE DEPTH. FOUNDATIONS ARE TO PENETRATE 3' INTO LIMESTONE. BEARING MATERIALS SHALL BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER.
- 4.B. BID DEPTH FOR BOTTOM OF PIERS SHALL BE AT ELEVATION SHOWN ON PILE SCHEDULE. REF. SPECIFICATION FOR UNIT PRICE ADD/DEDUCT FORMS. BOTTOM OF PIER ELEVATION IS APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER'S REPRESENTATIVE AT THE TIME OF CONSTRUCTION.
- 4.C. AUGER CAST PILES MUST NOT HAVE ANY VOIDS IN THE LENGTH OF THE PIERS. THE CONTRACTOR SHALL HAVE A TESTING COMPANY VERIFY THE VOLUME OF GROUT USED BE 120% OF THE GROUT REQUIRED. ADDITIONALLY, THE GROUT PRESSURE SHALL NOT DROP BELOW 100 PSI DURING INSTALLATION. PIERS THAT DO NOT MEET THIS REQUIREMENT SHALL BE IMMEDIATELY RE-DRILLED.
- 4.D. REINFORCING FOR AUGER CAST PILES SHALL BE LOWERED INTO THE WET GROUT IMMEDIATELY AFTER GROUT INSTALLATION. PLACE 3" SPACERS ON THE REINFORCING CAGE AND TIE THE ENDS OF THE REINFORCING STEEL TOGETHER INTO A TIGHT BUNDLE.
- 4.E. ALL PIER CAPS AND GRADE BEAMS ARE DESIGNED WITH EARTH FORMED SIDES; THE TOP 7/8" SHALL BE FORMED TO THE DESIGN DIMENSION WHEN VISIBLE AFTER CONSTRUCTION IS COMPLETE. WHEN VOID FORMS ARE SPECIFIED UNDER GRADE BEAMS, THE SIDES SHALL BE FORMED. THE CONSTRUCTED FOUNDATION DIMENSION SHALL BE NO LESS THAN THE DESIGN DIMENSION, AND NO MORE THAN 3" GREATER THAN THE DESIGN DIMENSION.
5. DO NOT BACKFILL FOUNDATIONS/BASEMENT WALLS UNTIL THE RESTRAINING SLABS OR ADEQUATE BRACING ARE IN PLACE. ALL BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION.
6. EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

CONCRETE

1. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."
2. THE CONCRETE REQUIREMENTS ARE:
- 2.A. CEMENT SHALL BE TYPE I OR II CONFORMING TO ASTM C150. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.
- 2.B. FINE AGGREGATE FOR LIGHTWEIGHT AND NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.
- 2.C. COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.

- 2.D. ALL COARSE AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C330. COARSE AGGREGATE SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY VOLUME, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL. AGGREGATE SHALL BE DELIVERED "VACUUM SATURATED" OR STORED SUBMERGED IN WATER.

2.E. MIX REQUIREMENTS ARE:

LOCATION	MINIMUM F'c (PSI)	MINIMUM CEM.(PCY)	MAX. W/C RATIO	AIR CONTENT	SLUMP INCHES§
EXTERIOR/FNDN. WALL	4000	470	0.45	5%±1%	2-5
FOUNDATIONS	4000	470	0.45	5%±1%	2-5
PIERS	3000	423	0.50	N/A	3-6
GRADE BEAMS	4000	470	0.45	5%±1%	2-5
INTERIOR SLAB	4000	564	0.42	3% MAX.	2-5
SLAB ON DECK*	4000	470	0.45	3% MAX.	3-6

*LIGHTWEIGHT CONCRETE WITH A DRY UNIT WEIGHT BETWEEN 110 AND 120 PCF.
§PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES, IF APPROVED BY ENGINEER, AFTER ADDITION THE SLUMP MAY NOT EXCEED 8".
F'C SPECIFIED IS BASED ON THE 28 DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH ACI 318 ACCEPTANCE CRITERIA.

3. ADMIXTURES, HARDENERS, & CURING COMPOUNDS

- 3.A. ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.
- 3.B. ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.
- 3.C. CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.
- 3.D. USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.
- 3.E. CONCRETE PENETRATING HARDENER SEALERS SHALL BE USED ON ALL EXPOSED CONCRETE FLOORS UNLESS OTHER COATINGS ARE REQUIRED BY THE ARCHITECT.
4. MISCELLANEOUS CONCRETE DETAILS:

- 4.A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.
- 4.B. SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS (SAWN JOINTS) TO DIVIDE THE SLAB INTO PANELS, NOT TO EXCEED 256 SQUARE FEET. THE LONG DIMENSION SHALL NOT EXCEED THE SHORT DIMENSION BY MORE THAN 20%. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS FOR APPROVAL.
- 4.C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING AND SHORING.
- 4.D. NO ALUMINUM SHALL BE EMBEDDED IN CONCRETE. CONDUITS AND PIPING EMBEDDED IN CONCRETE WALLS, SLABS, OR BEAMS SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS AND PLACED BETWEEN LAYERS OF REINFORCING.
- 4.E. NO CONDUIT MAY BE EMBEDDED IN SLABS ON METAL DECK OR TOPPING SLABS ON PRECAST CONCRETE UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE ON STRUCTURAL PLANS.
5. WHEN THE CONCRETE WILL HAVE MOISTURE SENSITIVE FLOOR COVERING, THE CONTRACTOR SHALL COORDINATE THE CURING TIME TO ALLOW THE MOISTURE VAPOR TRANSMISSION TO REDUCE THE LEVEL THAT THE ADHESIVE MANUFACTURER WILL GUARANTEE THE INSTALLATION. THE CONTRACTOR SHALL HAVE THE FLOOR COVERING INSTALLER TEST THE MOISTURE VAPOR TRANSMISSION OR USE AN ADHESIVE DESIGNED FOR THE RATE OF VAPOR TRANSMISSION OCCURRING AT THE TIME OF INSTALLATION.

CONCRETE REINFORCING

1. MATERIALS
- | | ASTM | GRADE |
|----------------------------|-------|-----------|
| PLATE & ANGLE: | A36 | ---- |
| REINFORCING STEEL: | A615 | 60 |
| WELDABLE REINFORCING STEEL | A706 | 60 |
| WELDED WIRE FABRIC (WWF): | A185 | 60 (MIN.) |
| HEADED STUDS: | A108 | ---- |
| DEFORMED BAR ANCHORS: | A706 | 60 |
| ANCHOR RODS (BOLTS): | F1554 | 36 |
2. DETAILS:
- 2.A. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE. WHEN WELDING IS APPROVED, WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4 "WELDING REINFORCING STEEL, ETC."
- 2.B. WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS.
- 2.C. SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.
- 2.D. WHEN MECHANICAL SPLICES ARE INDICATED ON THE PLANS, THE SPLICE SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE REINFORCING STEEL. REQUESTS BY THE CONTRACTOR FOR MECHANICAL SPLICES MUST BE SUBMITTED IN WRITING.
3. PLACEMENT:
- 3.A. ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS SHALL HAVE PLASTIC COATED FEET OR BE MADE OF STAINLESS STEEL. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.
- 3.B. MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.
- | | |
|---|------|
| CAST AGAINST EARTH (BOTTOM OR SIDES): | 3" |
| FORMED - EXPOSED TO SOIL, WEATHER OR LIQUIDS: | 2" |
| FORMED SLABS - INTERIOR: | 1" |
| FORMED MEMBERS - INTERIOR: | 1.5" |
| SLABS ON GRADE (FROM TOP OF SLAB): | 1.5" |
- 3.C. PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS ADJACENT REINFORCING.
- 3.D. OPENINGS IN WALLS OR SLABS SHALL BE REINFORCED PER DETAIL.
- 3.E. REINFORCING STEEL SHALL BE LAPPED PER TABLE A.
- 3.F. WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL SQUARE PLUS 2".

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE LATEST "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGE," AND HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND THE LATEST EDITION OF AISC "MANUAL OF STEEL CONSTRUCTION".
2. STRUCTURAL STEEL SHALL BE NEW AND MEET THE FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE ON THE DRAWINGS:
- | TYPE | ASTM | GRADE |
|----------------------------|------|----------------------------|
| W & WT SHAPES | A992 | ----- |
| PLATES, CHANNELS, & ANGLES | A36 | ----- |
| RECTANGULAR HSS SECTIONS | A500 | B (F _y =46 KSI) |
| STRUCTURAL BOLTS | A325 | ----- (ASTM F1852) |
| ERECTION BOLTS | A307 | ----- |
| HEADED ANCHOR STUDS | A108 | 1015/1025 |
3. ALL BOLTED CONNECTIONS SHALL BE STANDARD AISC BEARING TYPE FRAMING CONNECTIONS. BOLTS SHALL BE TENSION-INDICATING FOR INSPECTION PURPOSES.
4. ALL CONNECTIONS NOT DETAILED OR OTHERWISE NOTED SHALL BE PROVIDED BY THE FABRICATOR AND HIGHLIGHTED FOR THE ENGINEER OF RECORD'S REVIEW.
5. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE, SECTION D1.1. ALL WELD MATERIAL SHALL BE 70 KSI TENSILE STRENGTH.
6. STEEL FRAMING MEMBERS SHALL NOT BE SPLICED.
7. OPENINGS SHALL NOT BE FIELD-CUT IN THE FLANGE OR WEBS OF STEEL MEMBERS.
8. ALL STEEL BEAMS USED IN COMPOSITE SYSTEMS HAVE BEEN DESIGNED FOR UNSHORED CONSTRUCTION.
- 8.A. COMPOSITE SLAB SHEAR CONNECTORS SHALL BE OF SIZE AND QUANTITY INDICATED ON THE DRAWINGS AND SPACED EQUALLY ALONG THE CENTERLINE OF THE BEAM. WHERE SHEAR CONNECTORS ARE NOT CALLED FOR ON DRAWINGS, PROVIDE SHEAR CONNECTORS FOR ALL BEAMS SUPPORTING COMPOSITE SLABS AT 3'-0" O.C. MAX.
- 8.B. THE DESIGN IS BASED ON THE CONTRACTOR PLACING THE CONCRETE TO A UNIFORM THICKNESS OVER THE DECK BY HAVING THE SCREED FOLLOWING THE CAMBER OF THE BEAM. POURING THE CONCRETE TO A UNIFORM ELEVATION MAY CAUSE EXCESSIVE ACCUMULATION OF CONCRETE AT THE MID-SPAN OF THE BEAMS AND REDUCE DESIGN CAPACITY.

STEEL DECKING

1. DECK SHALL BE ATTACHED TO ALL SUPPORTING MEMBERS.
- 1.A. ATTACH METAL DECK TO STEEL MEMBERS WITH 5/8" DIA. PUDDLE WELDS. USE WELDING WASHERS FOR DECKS THINNER THAN 22 GAUGE. WELDS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AWS. REF. DECK ATTACHMENT DETAIL.
- 1.B. SIDE LAPS OF METAL DECK SHALL BE FASTENED TOGETHER WITH #10 TEK SCREWS WITH METAL IN FULL CONTACT. REF. DECK ATTACHMENT DETAIL.
2. COMPOSITE FLOOR DECK SHALL BE 2" DEEP, 20 GAUGE, COMPOSITE METAL DECK WITH THE FOLLOWING PROPERTIES:
- | | |
|--------------------------|-----------------------|
| MINIMUM F _y : | 50 KSI |
| MINIMUM F _t : | 0.409 in ⁴ |
| MINIMUM S _x : | 0.341 in ³ |
| MINIMUM I _x : | 0.406 in ⁴ |
| MINIMUM S _y : | 0.346 in ³ |
- COMPOSITE DECK SHALL RECEIVE GALVANIZED FINISH PER SPECIFICATION AND SHALL CONFORM TO ASTM A653, G50. DECK SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS. WHEN THE COMPOSITE DECKING EXCEEDS THE MAXIMUM SAFE CONSTRUCTION SPAN AS DEFINED BY SDI, THE CONTRACTOR SHALL SHORE THE DECKING. DECK SHORING SHALL CONSIST OF A SINGLE HORIZONTAL SHORE MIDWAY BETWEEN BEAMS SUPPORTED BY SHORES THAT SPAN FROM BEAM TO BEAM. THIS ALLOWS THE SHORES/DECKING TO DEFLECT WITH THE BEAMS. DO NOT SHORE DECK FROM GRADE OR FLOOR BELOW.
3. PROVIDE ANGLE FRAME TO SUPPORT METAL DECK AT ALL ROOF DRAINS AND OTHER OPENINGS GREATER THAN 8" X 8". OPENINGS SMALLER THAN 8" REQUIRE NO REINFORCEMENT.

		CONSULTANTS:		OFFEROR:		ARCHITECT/ENGINEERS:		Drawing Title GENERAL NOTES		Project Title EXPAND PHARMACY AND LOBBY		Project Number 589-334		Office of Construction and Facilities Management Department of Veterans Affairs	
										Building Number 1					
										Location COLUMBIA, MO		Drawing Number S-001			
										Date 4/3/18		Checked CGH			
Revisions:		Date						Approved: Project Director				Dwg. of --			

LEVEL C - QUALITY ASSURANCE				
MINIMUM TESTS				
Verification of f_{m} and f_{AAP} in accordance with Article 1.4 B prior to construction and for every 5,000 sq. ft (465 sq. m) during construction				
Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site				
Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5 B.1.b.3 for self-consolidating grout				
MINIMUM INSPECTION				
Inspection Task	FREQUENCY ^(a)		REFERENCE FOR CRITERIA	
	Continuous	Periodic	TMS 402/ACI 530/ASCE 5	TMS 602/ACI 530.1/ASCE 6
1. Verify compliance with the approved submittals		X		Art. 1.5
2. Verify that the following are in compliance: a. Proportions of site-mixed mortar, grout and prestressing grout for bonded tendons		X		Art. 2.1, 2.6 A, 2.6 B, 2.6 C, 2.4 G.1.b
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X	Sec. 6.1	Art. 2.4, 3.4
c. Placement of masonry units and construction of mortar joints		X		Art. 3.3 B
d. Placement of reinforcement, connectors, and prestressing tendons and anchorages	X		Sec. 6.1, 6.2.1, 6.2.6, 6.2.7	Art. 3.2 E, 3.4, 3.6 A
e. Grout space prior to grouting	X			Art. 3.2 D, 3.2 F
f. Placement of grout and prestressing grout for bonded tendons	X			Art. 3.5, 3.6 C
g. Size and location of structural elements		X		Art. 3.3 F
h. Type, size, and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction	X		Sec. 1.2.1(e), 6.1.5.3, 6.2.1	
i. Welding of reinforcement	X		Sec. 8.1.6.7.2, 9.3.3.4 (c), 11.3.3.4(b)	
j. Preparation, construction, and protection of masonry during cold weather (temperature below 40° F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))	X	X		Art. 1.8 C, 1.8 D
k. Application and measurement of prestressing force	X			Art. 3.6 B
l. Placement of AAC masonry units and construction of thin-bed mortar joints	X			Art. 3.3 B.9, 3.3 F.1.b
m. Properties of thin-bed mortar for AAC masonry	X			Art. 2.1 C.1
5. Observe preparation of grout specimens, mortar specimens, and/or prisms	X			Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

(a) Frequency refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.

REQUIRED VERIFICATION & INSPECTION OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS		
VERIFICATION AND INSPECTION		FREQUENCY
1. Inspect drilling operations and maintain complete and accurate records for each element.		Continuous
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.		Continuous
3. For concrete elements, perform tests and additional special inspections in accordance with Section 1705.3.		

REQUIRED VERIFICATION & INSPECTION OF STRUCTURAL STEEL FOR WELDING PROCESS		
Inspection Tasks Prior to Welding		
Inspection Tasks Prior to Welding	QUALITY CONTROL	QUALITY ASSURANCE
Welding procedure specifications (WPSs) available	P	P
Manufacturer certifications for welding consumables available	P	P
Material identification (type/grade)	O	O
Welder identification system ¹	O	O
Fit-up of groove welds (including joint geometry) <ul style="list-style-type: none">Joint preparationDimensions (alignment, root opening, root face, bevel)Cleanliness (condition of steel surfaces)Tacking (tack weld quality and location)Backing type and fit (if applicable)	O	O
Configuration and finish of access holes	O	O
Fit-up of fillet welds <ul style="list-style-type: none">Dimensions (alignment, gaps at root)Cleanliness (condition of steel surfaces)Tacking (tack weld quality and location)	O	O
Check welding equipment	O	-
Inspection Tasks During Welding		
Inspection Tasks During Welding	QUALITY CONTROL	QUALITY ASSURANCE
Use of qualified welders	O	O
Control and handling of welding consumables <ul style="list-style-type: none">PackagingExposure Control	O	O
No welding over cracked tack welds	O	O
Environmental conditions <ul style="list-style-type: none">Wind speed within limitsPrecipitation and temperature	O	O
WPS followed <ul style="list-style-type: none">Settings on welding equipmentTravel speedSelected welding materialsShielding gas type/flow ratePreheat appliedInterpass temperature maintained (min./max.)Proper position (F, V, H, OH)	O	O
Welding Techniques <ul style="list-style-type: none">Interpass and final cleaningEach pass within profile limitationsEach pass meets quality requirements	O	O
Inspection Tasks After Welding		
Inspection Tasks After Welding	QUALITY CONTROL	QUALITY ASSURANCE
Welds cleaned	O	O
Size, length and location of welds	P	P
Welds meet visual acceptance criteria <ul style="list-style-type: none">Crack prohibitionWeld/base-metal fusionCrater cross sectionWeld profilesWeld sizeUndercutPorosity	P	P
Arc strikes	P	P
k-area ²	P	P
Backing removed and weld tabs removed (if required)	P	P
Repair activities	P	P
Document acceptance or rejection of welded joint or member	P	P

Quality Control - Requirements on the part of the steel fabricator and erector
Quality Assurance - Requirements on the part of the project owner's representative
P - Perform these tasks for each weld joint or member.
O - Observe these items on a random basis. Operations need not be delayed pending these inspections.
- The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
- When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld.

REQUIRED VERIFICATION & INSPECTION OF STRUCTURAL STEEL FOR WELDING PROCESS		
Inspection Tasks Prior to Bolting		
Inspection Tasks Prior to Bolting	QUALITY CONTROL	QUALITY ASSURANCE
Manufacturer's certifications available for fastener materials	O	P
Fasteners marked in accordance with ASTM requirements	O	O
Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	O	O
Proper bolting procedure selected for joint detail	O	O
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	O	O
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	P	O
Proper storage provided for bolts, nuts, washers and other fastener components	O	O
Inspection Tasks During Bolting		
Inspection Tasks During Bolting	QUALITY CONTROL	QUALITY ASSURANCE
Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required	O	O
Joint brought to the snug-tight condition prior to the pretensioning operation	O	O
Fastener component not turned by the wrench prevented from rotating	O	O
Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	O	O
Inspection Tasks After Bolting		
Inspection Tasks After Bolting	QUALITY CONTROL	QUALITY ASSURANCE
Document acceptance or rejection of bolted connections	P	P
Quality Control - Requirements on the part of the steel fabricator and erector Quality Assurance - Requirements on the part of the project owner's representative P - Perform these tasks for each weld joint or member. O - Observe these items on a random basis. Operations need not be delayed pending these inspections.		

Inspection of Steel Elements of Composite Construction Prior to Concrete Placement		
Inspection of Steel Elements of Composite Construction Prior to Concrete Placement	QUALITY CONTROL	QUALITY ASSURANCE
Placement and installation of steel deck	P	P
Placement and installation of steel headed stud anchors	P	P
Document acceptance or rejection of steel elements	P	P
Quality Control - Requirements on the part of the steel fabricator and erector Quality Assurance - Requirements on the part of the project owner's representative P - Perform these tasks for each weld joint or member. O - Observe these items on a random basis. Operations need not be delayed pending these inspections.		

Special Inspection Additional Requirements:

- Additional items that need special inspection, in the opinion of the building official, shall be inspected.
- Coordination of Special Inspections with construction of the inspected items shall be the responsibility of the contractor.
- If Special Inspection is waived by the Authority having Jurisdiction, the general contractor shall provide the designer of record with a copy of the written exemption for each item that has been waived.
- The building official may perform inspections in addition to and/or concurrently with the Special Inspection's outlined in the tables.
- The general contractor is responsible for implementing a quality control program. The quality control program is in addition to the Special Inspection requirements and must meet or exceed those responsibilities required as part of the contract drawings and specifications.

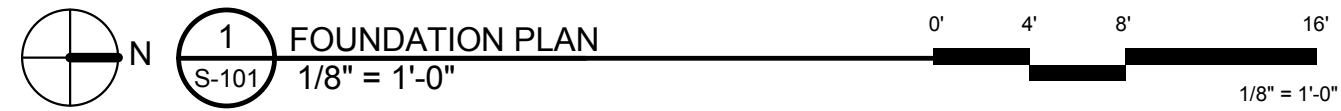
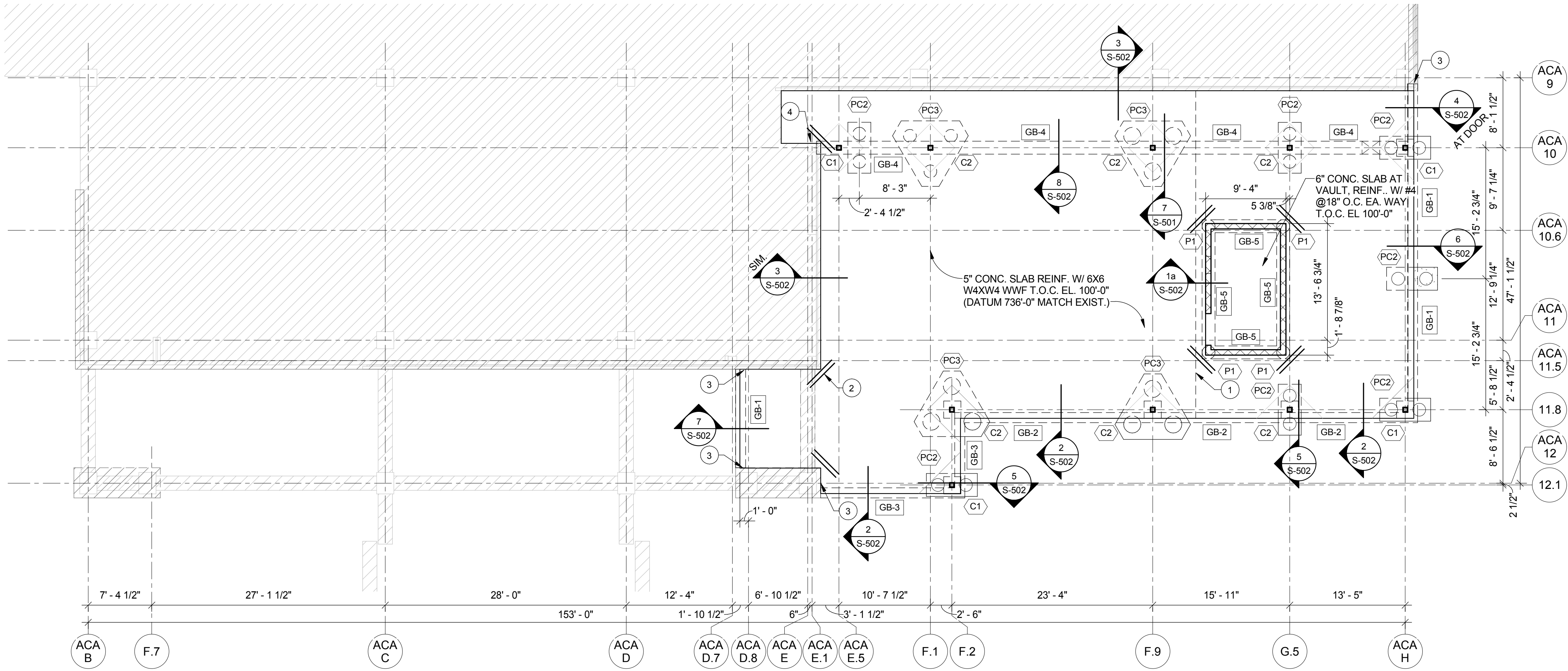
REQUIRED VERIFICATION & INSPECTION OF SOILS	
VERIFICATION AND INSPECTION	FREQUENCY
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic
3. Perform classification and testing of compacted fill materials.	Periodic
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Periodic

REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION			
VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	Periodic	ACI 318 Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A 706 b. Inspect single-pass fillet welds, maximum 5/16" c. Inspect all other welds.	Periodic Continuous	AWS D1.4 ACI 318: 26.5.4	
3. Inspect anchors cast in concrete.	Periodic	ACI 318: 17.8.2	
4. Inspection of anchors post installed in hardened concrete members. a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	Continuous Periodic	ACI 318: 17.8.2.4 ACI 318: 17.8.2	
5. Verifying use of required mix design.	Periodic	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Continuous	ASTM C172, ASTM C31, ACI 318: 26.4.5, 26.12	1908.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	Periodic	ACI 318: 26.4.7-26.4.9	1908.9
9. Inspection of prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	Continuous Continuous	ACI 318: 26.9.2.1 ACI 318: 26.9.2.3	
10. Inspect erection of precast concrete members.	Periodic	ACI 318: Ch. 26.8	
11. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Periodic	ACI 318: 26.10.2	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Periodic	ACI 318: 26.10.1(b)	

REQUIRED VERIFICATION & INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL		
VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. Material verification of cold-formed steel deck: a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Periodic	Applicable ASTM material standards
b. Manufacturer's certified test reports.	Periodic	
2. Inspection of welding: a. Cold-formed steel deck: 1) Floor and roof deck welds.	Periodic	AWS D1.3

		CONSULTANTS:		OFFEROR:	ARCHITECT/ENGINEERS:	Drawing Title IBC INSPECTION TABLES	Project Title EXPAND PHARMACY AND LOBBY	Project Number 589-334	Office of Construction and Facilities Management Department of Veterans Affairs	
						Approved: Project Director	Building Number 1			
							Location COLUMBIA, MO	Drawing Number S-003		
Revisions:		Date					Date 4/3/18	Checked CGH		Drawn JTR

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

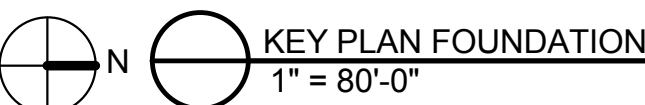
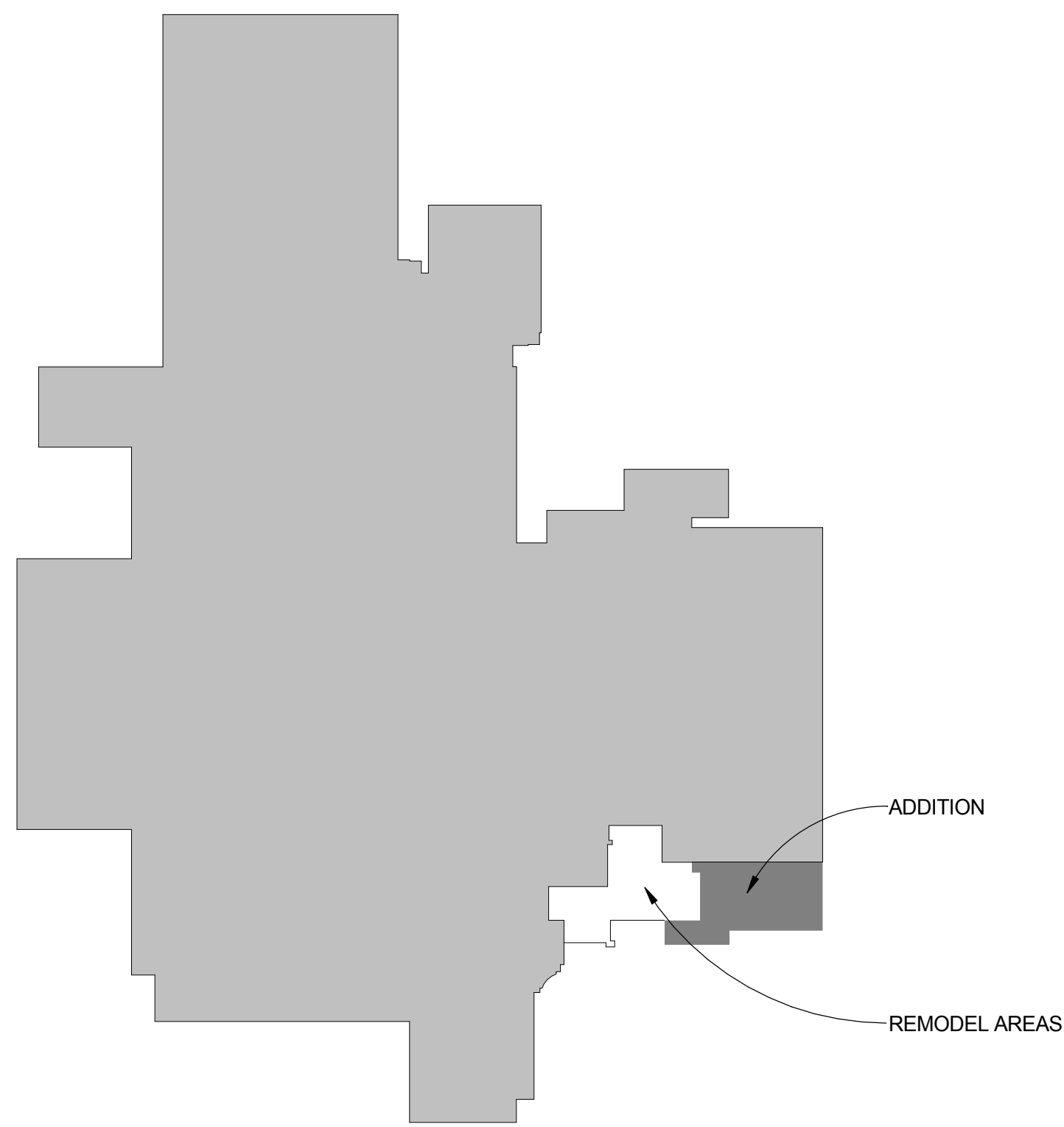


FOUNDATION PLAN NOTES:

- SEE SHEETS S-001, S-002 AND S-003 FOR GENERAL STRUCTURAL NOTES AND SPECIAL INSPECTION REQUIREMENTS.
- REFERENCE SHEET S-602 FOR AUGER CAST PILE DETAILS.
- CENTER ALL PILE CAPS ON COLUMN GRID OR WALL INTERSECTIONS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS AND ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
- CONTRACTOR SHALL SUBMIT JOINT LAYOUT FOR SLAB ON GRADE. REF. GENERAL NOTES. PROVIDE (2) #4 X 4'-0" IN SLAB AT ALL RE-ENTRANT CORNERS, DISCONTINUOUS SAWN JOINTS AND DISCONTINUOUS ISOLATION JOINTS AT COLUMNS.

PLAN MARKS

- AUGER CAST PILE. MINIMUM LOCATIONS SHOWN UNLESS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. REF. S-602
- ⬢# DENOTES AUGER CAST PILE. REF. SHEET S-602
- ⬢# DENOTES PILE CAP. REF. SHEET S-602
- ⬢# DENOTES GRADE BEAM. REF. GRADE BEAM SCHEDULE S-601
- ⬢# DENOTES COLUMN MARKS. REF. COLUMN SCHEDULE S-601
- ① G.C. TO COORDINATE 10" STORM SEWER WITH FOUNDATION PLACEMENT
- ② (2) #4 X 4'-0", TYP.
- ③ PROVIDE ADHESIVE DOWELS TO MATCH HORIZ. GRADE BEAM REINF. DRILL AND ADHERE TO EXIST. CONC. (6" MIN. EMBED)
- ④ PROVIDE 1/2" MINIMUM EXPANSION JOINT BETWEEN NEW GRADE BEAM AND EXISTING CONCRETE WALL.



Revisions:	Date

CONSULTANTS:

OFFEROR:

ARCHITECT/ENGINEERS:

Drawing Title
FOUNDATION PLAN

Project Title
EXPAND PHARMACY AND LOBBY

Project Number
589-334

Building Number
1

Location
COLUMBIA, MO

Date
4/3/18

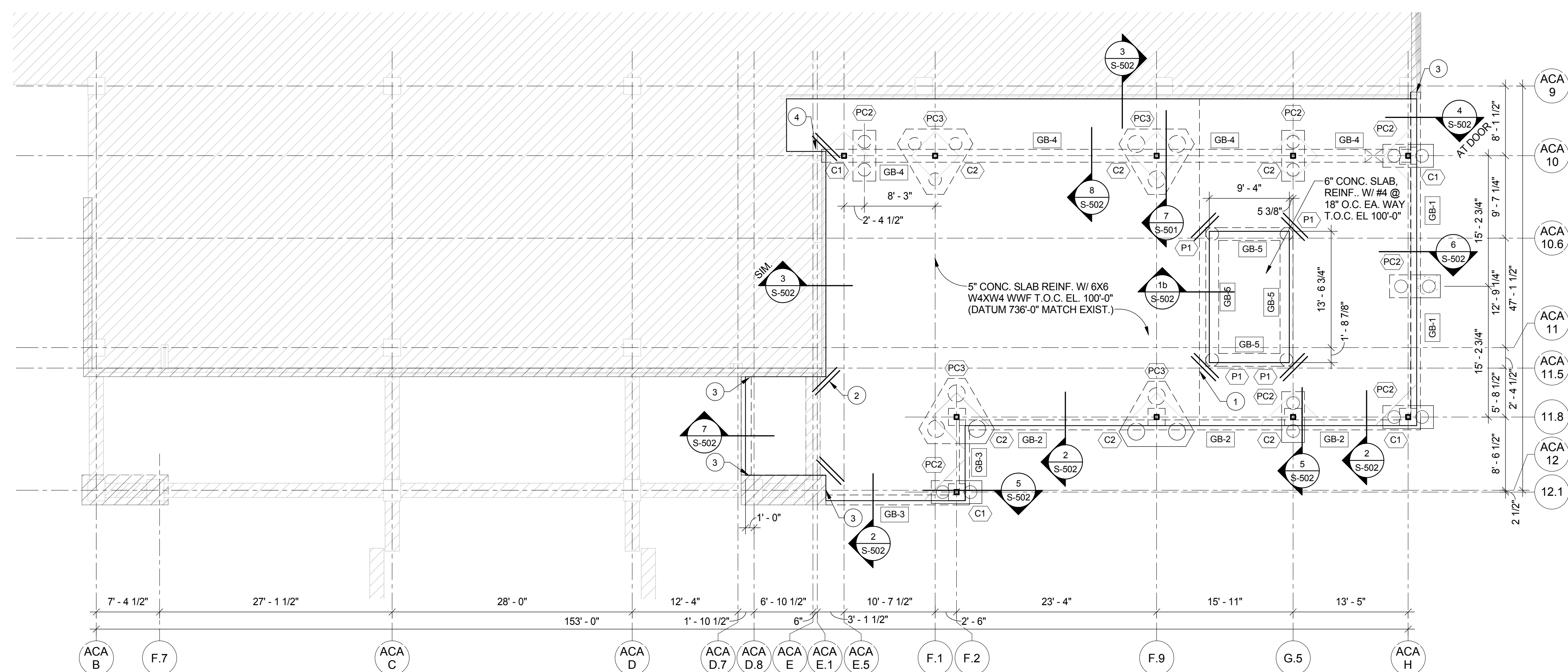
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Office of Construction and Facilities Management

Department of Veterans Affairs

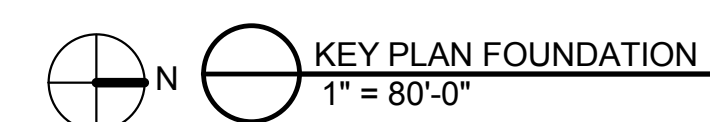
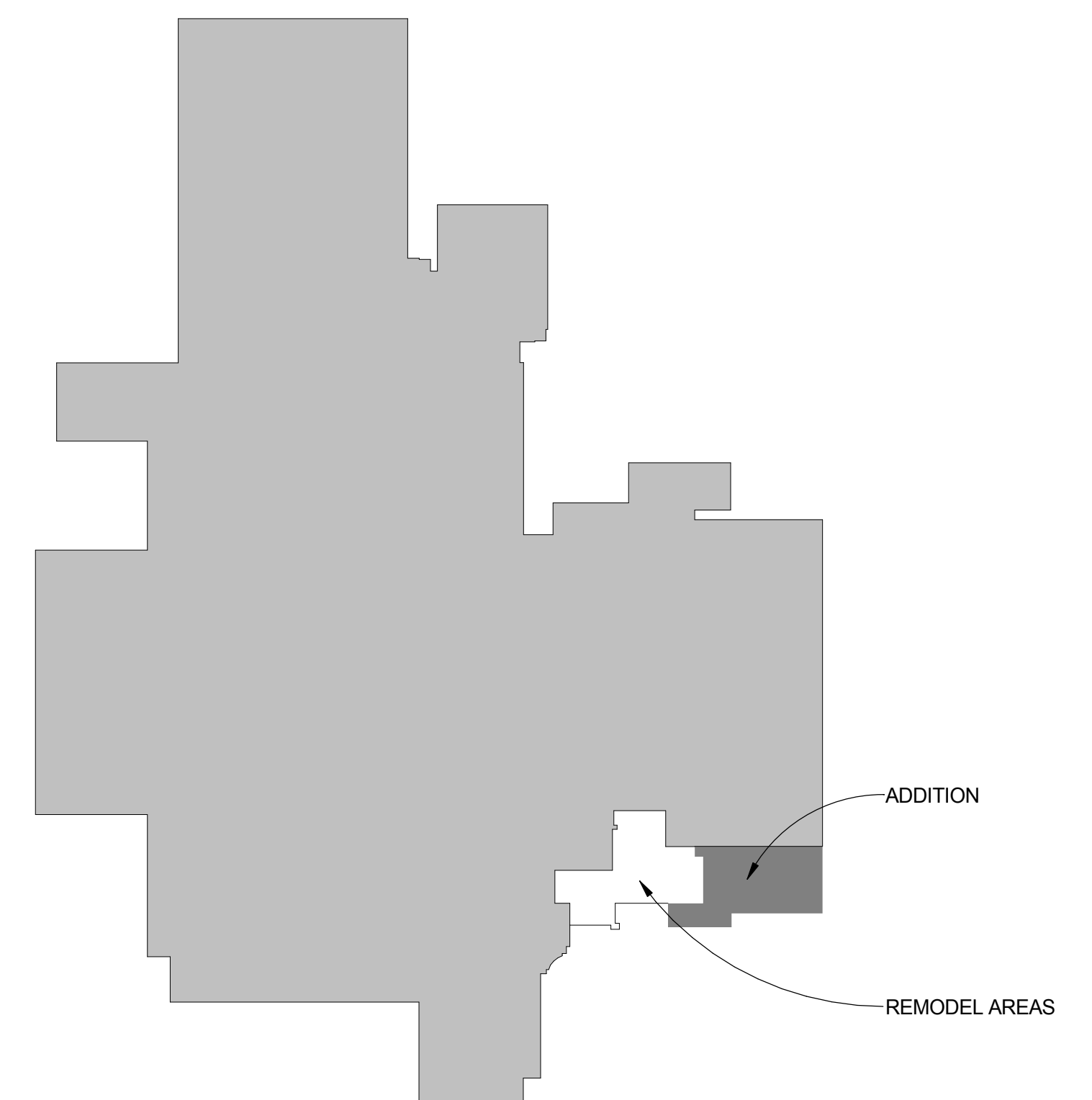


FOUNDATION PLAN NOTES:

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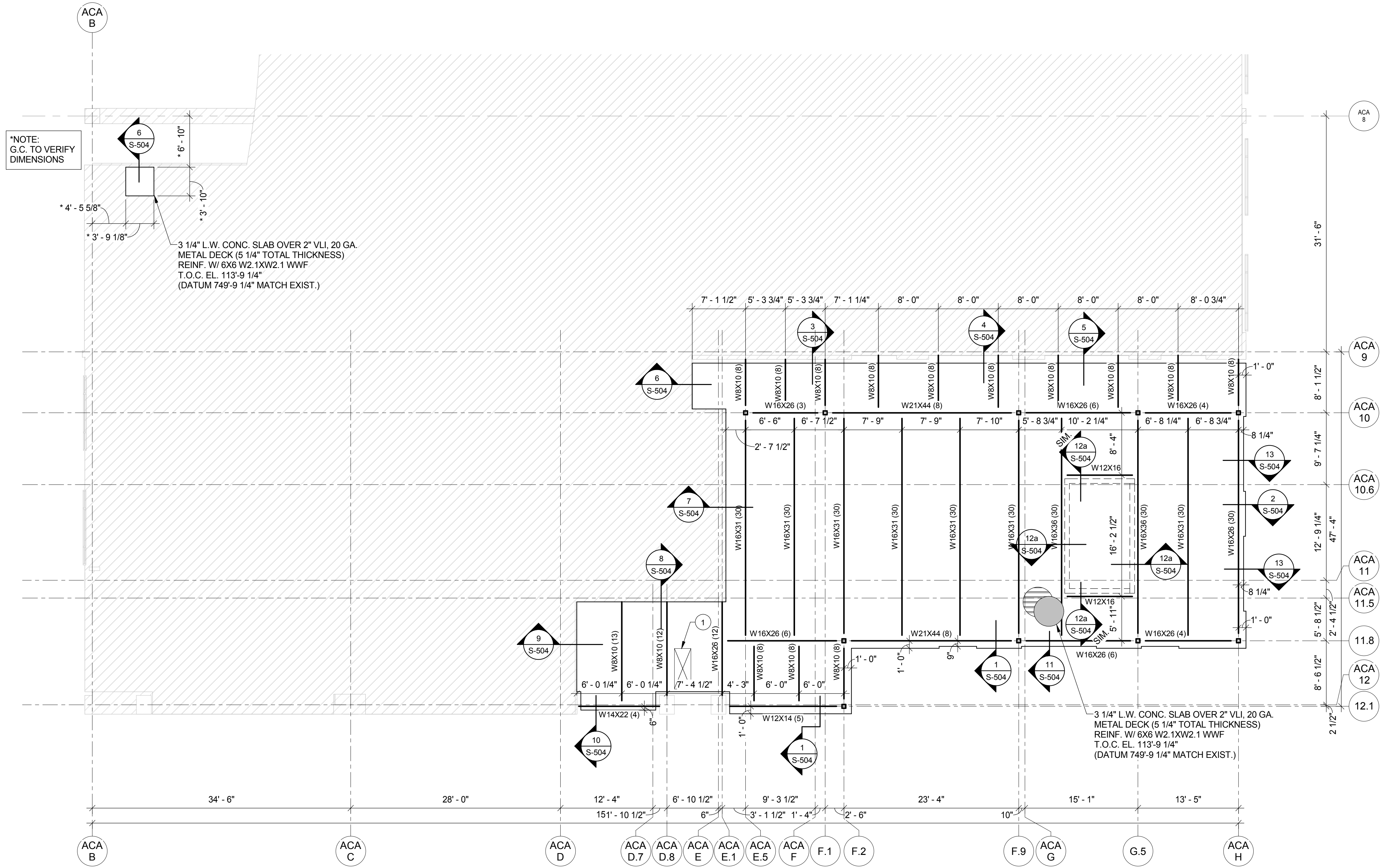
PLAN MARKS

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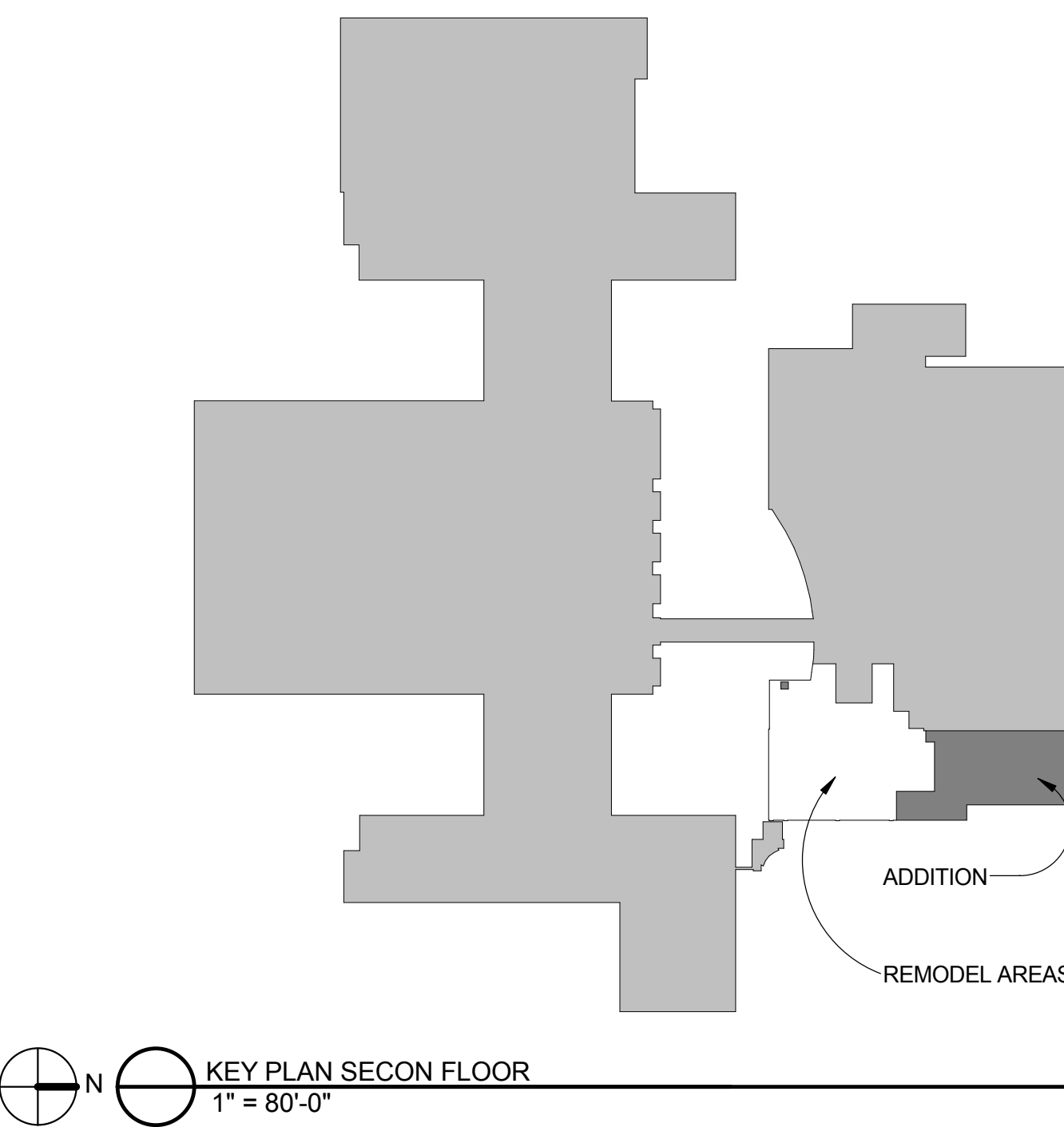
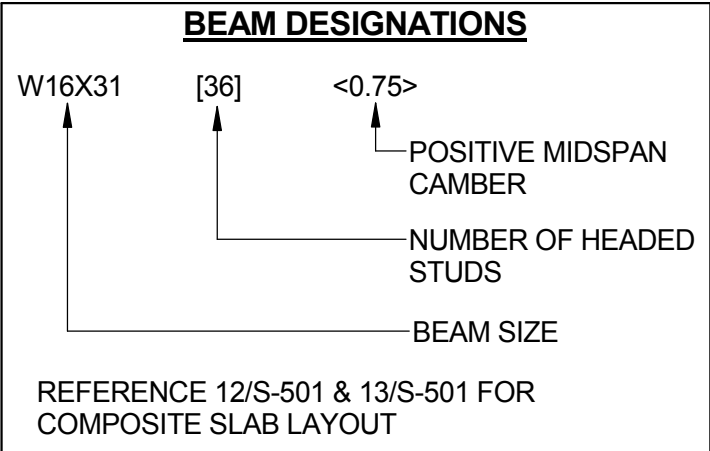
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					Approved: Project Director	Location COLUMBIA, MO	Building Number 1		
Revisions:	Date					Date 4/3/18	Checked CGH	Drawn JTR	Drawing Number S-101.2
							Dwg. of --		 Department of Veterans Affairs

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one eighth inch = one foot



- FRAMING PLAN NOTES:**
- SEE SHEETS S-001, S-002 AND S-003 FOR GENERAL STRUCTURAL NOTES AND SPECIAL INSPECTION REQUIREMENTS.
 - SEE DETAIL 1/S-503 FOR TYPICAL FLOOR/ROOF OPENINGS. SEE MECHANICAL, ELECTRICAL AND ARCHITECTURAL FOR SIZE AND LOCATION OF OPENINGS NOT NOTED ON FRAMING PLANS. ROOF DRAINS SHALL BE CONSIDERED A ROOF OPENING.
 - SEE DETAIL 2/S-503 FOR TYPICAL SPLICE CONNECTION DETAIL AT ALL CONTINUOUS EDGE ANGLES AND BENT PLATES.
 - SEE DETAIL 3/S-503 FOR TYPICAL BEAM CONNECTION DETAIL. FRAME STEEL BEAMS INTO STEEL COLUMNS PER DETAIL 7/S-503.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS AND ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
 - SEE DETAIL 8/S-503 FOR COMPOSITE DECK ATTACHMENT DETAIL.

- PLAN MARKS**
- 1 FLOOR OPENING AT MECH. CHASE, REF. 1/S-503 FOR TYPICAL FLOOR OPENING DETAIL. REF. ARCH/MECH. FOR SIZE AND LOCATION.



<div>Revisions:</div> <table><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>								

CONSULTANTS:

OFFEROR:

STATE OF MISSISSIPPI

DENNIS R. COOK

NUMBER

PE-2015007430

04/04/2018

PROFESSIONAL ENGINEER

ARCHITECT/ENGINEERS:

HFG

HEALTH FACILITIES GROUP

architecture

PEC

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

Drawing Title

SECOND FLOOR FRAMING PLAN

Approved: Project Director

Project Title

EXPAND PHARMACY AND LOBBY

Location

COLUMBIA, MO

Date

4/3/18

Checked

CGH

Drawn

JTR

Project Number

589-334

Building Number

1

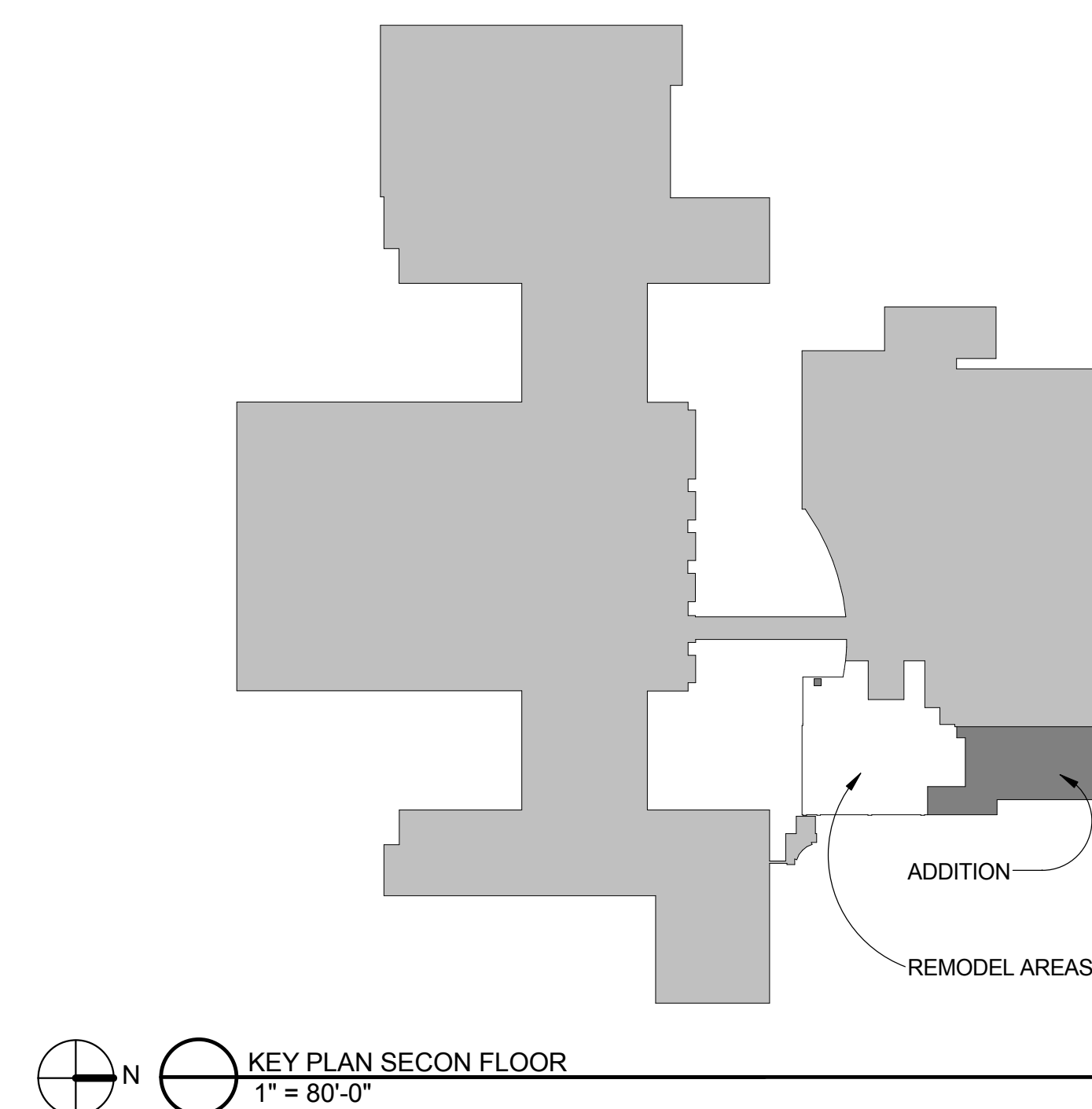
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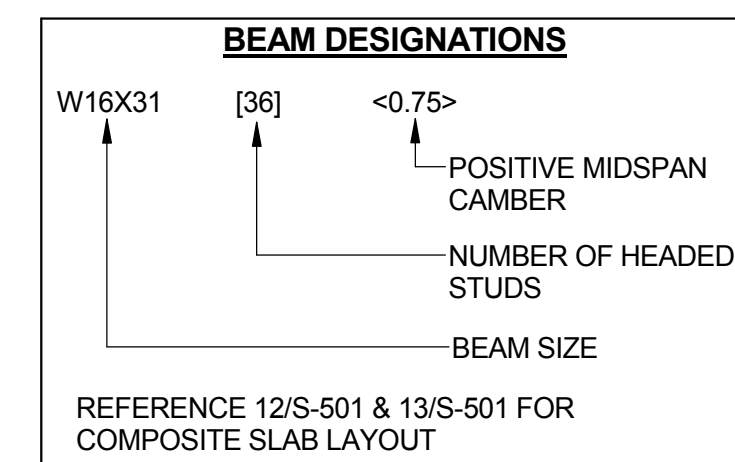
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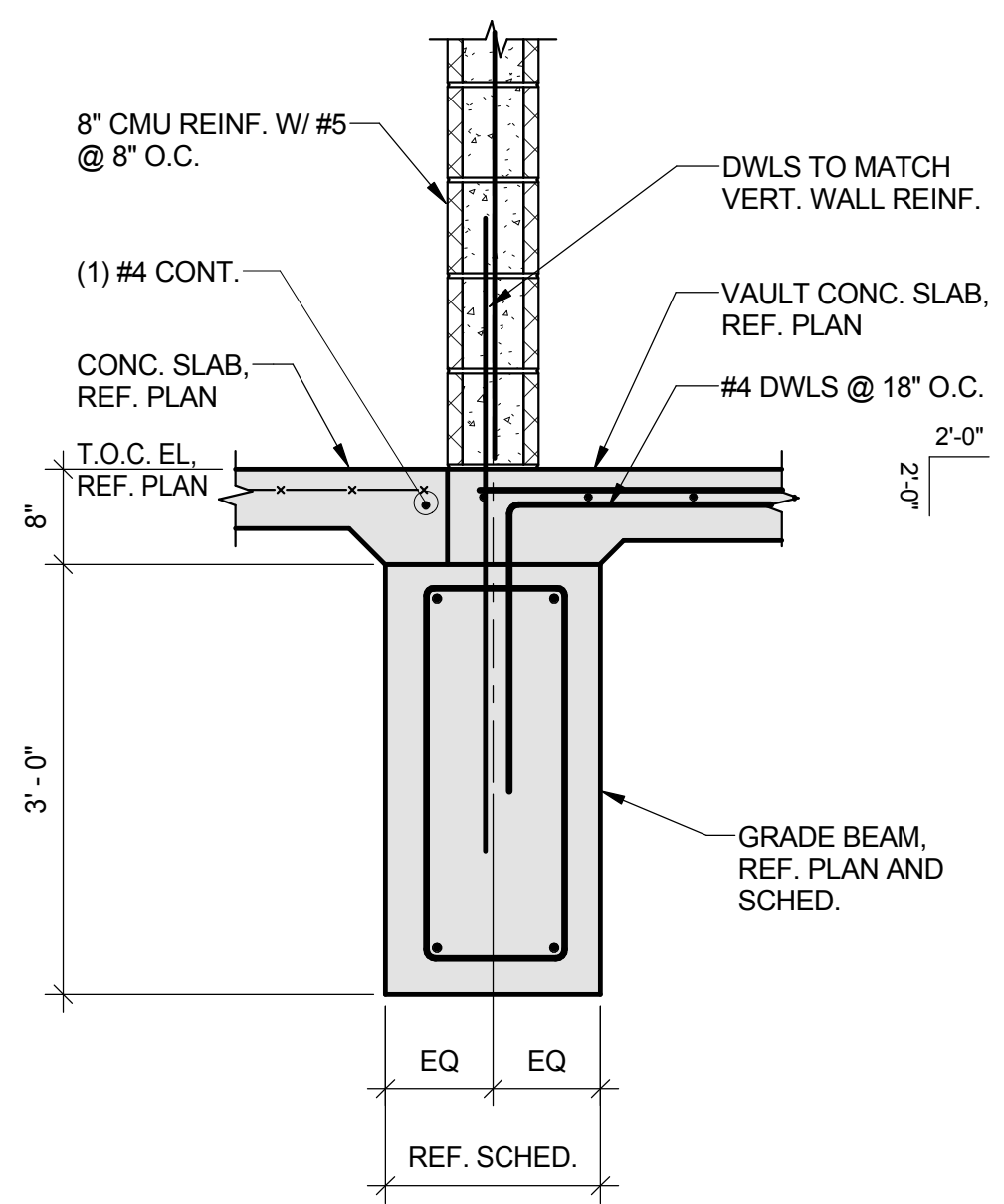
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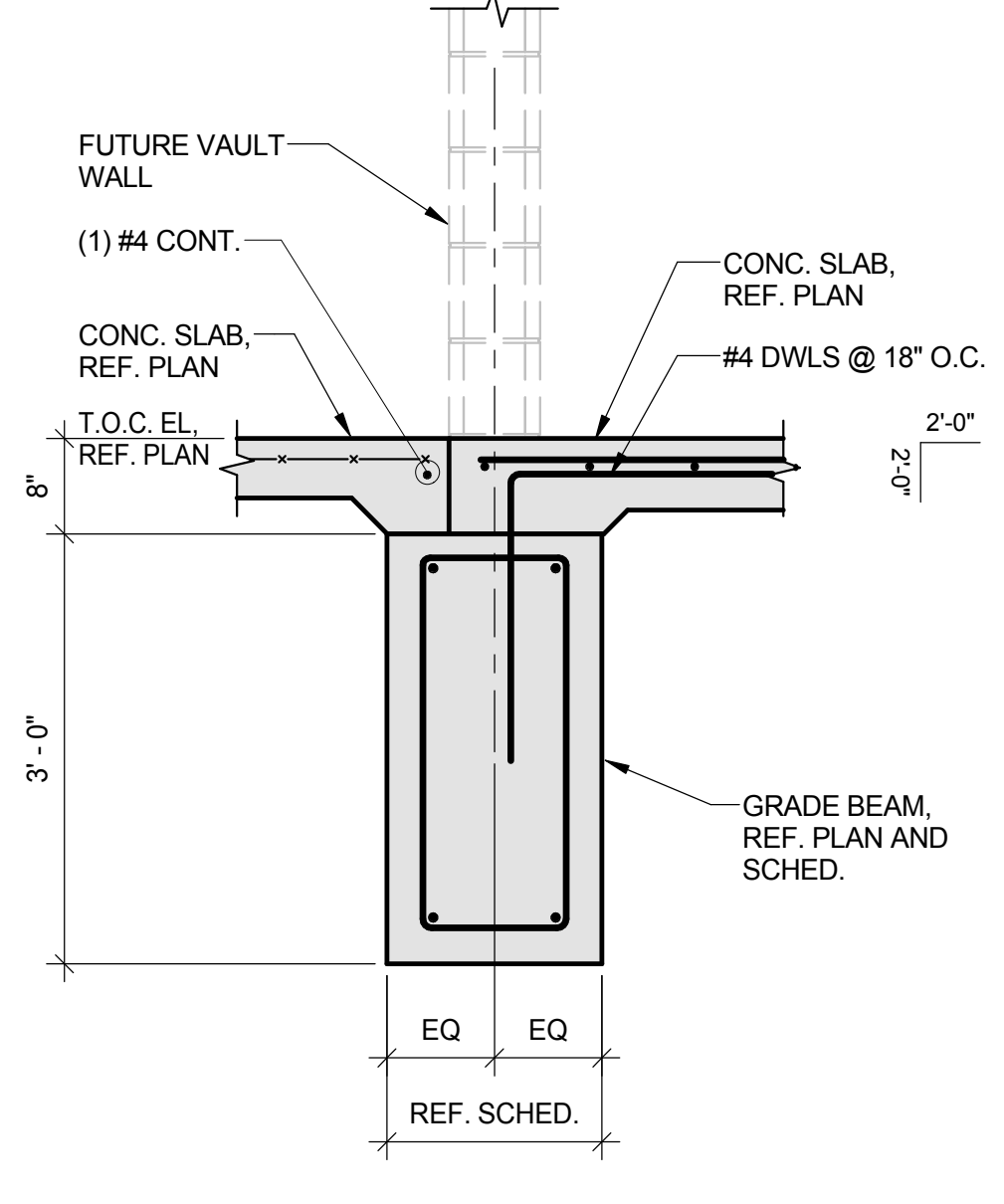
Department of Veterans Affairs



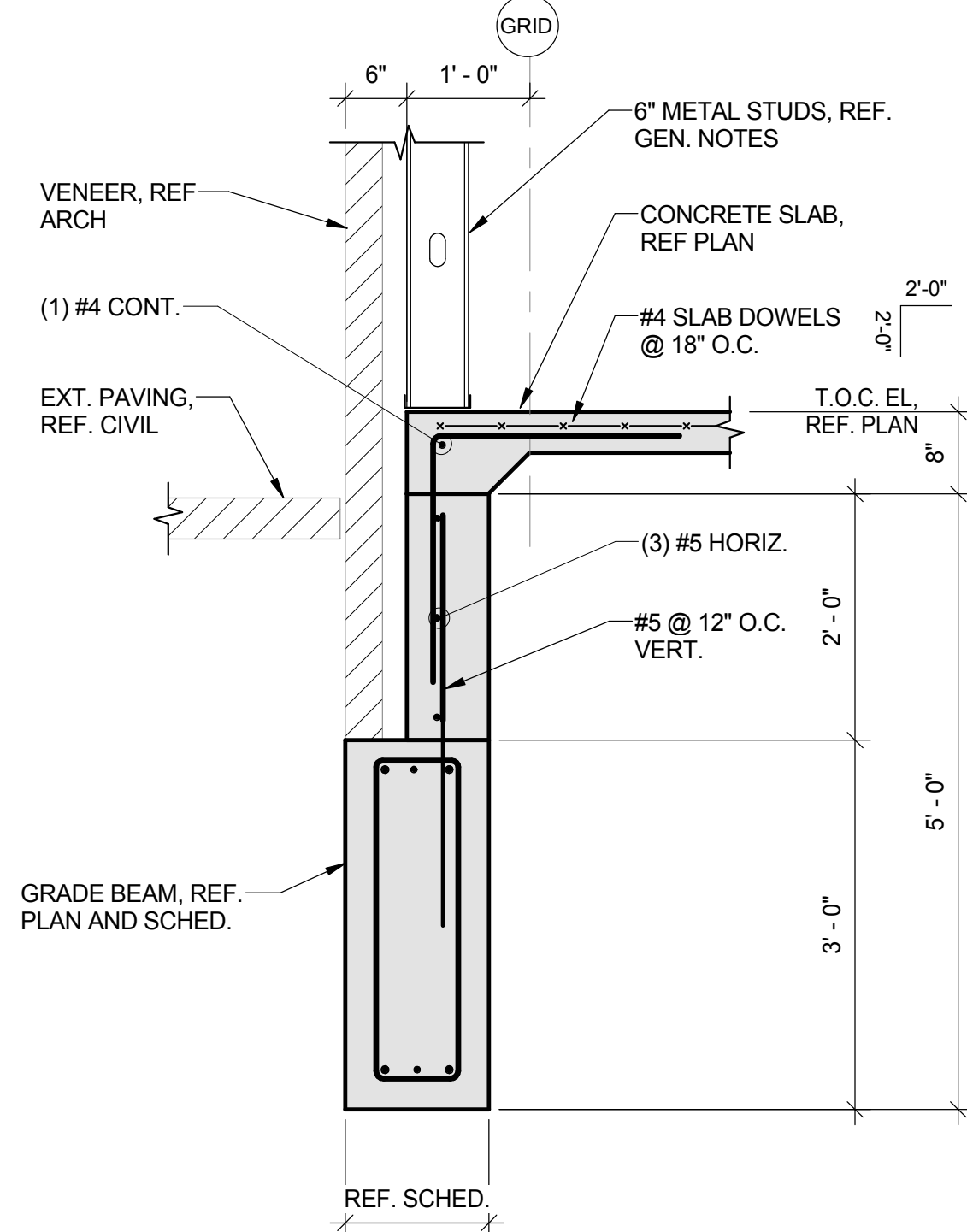




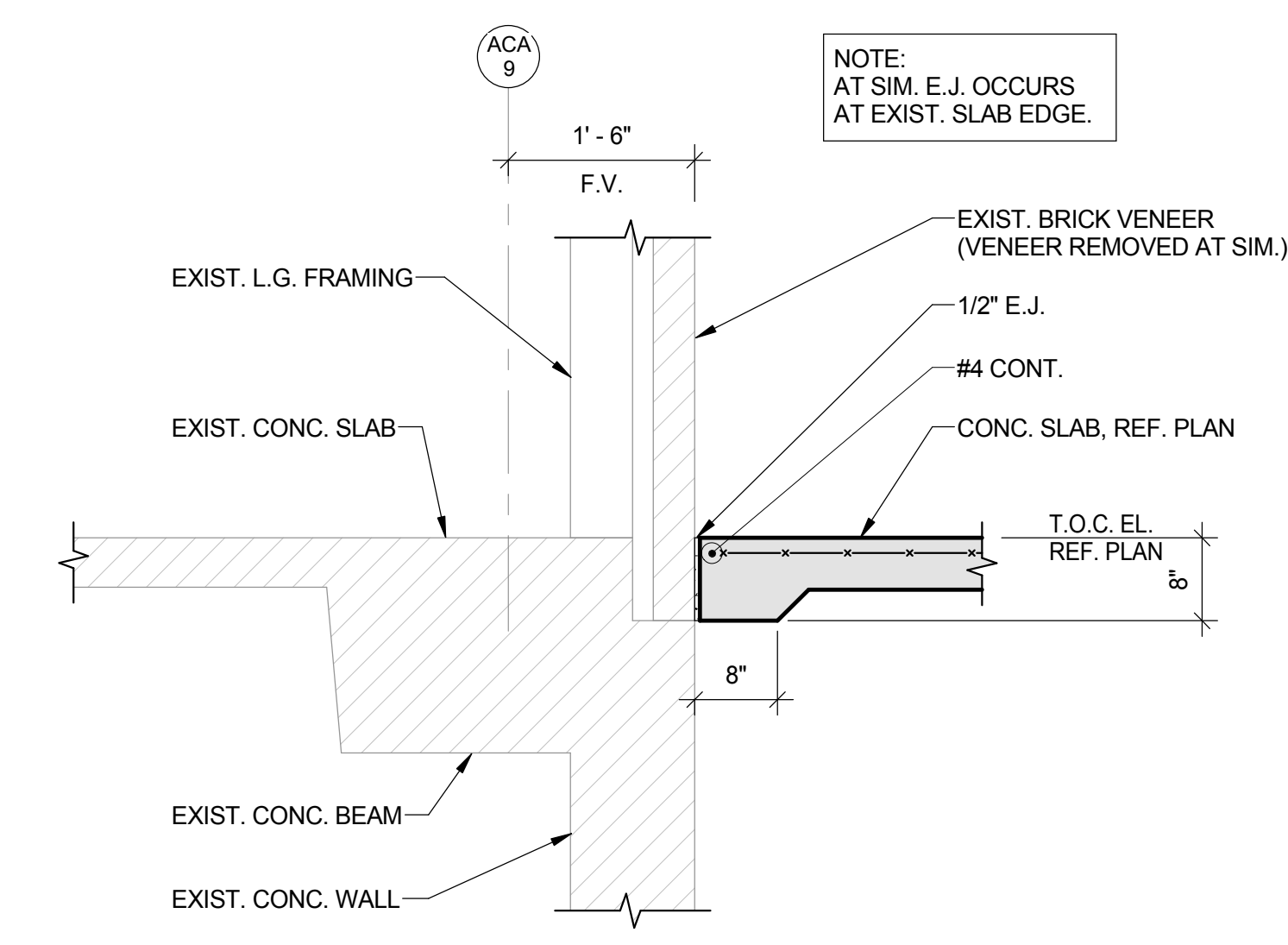
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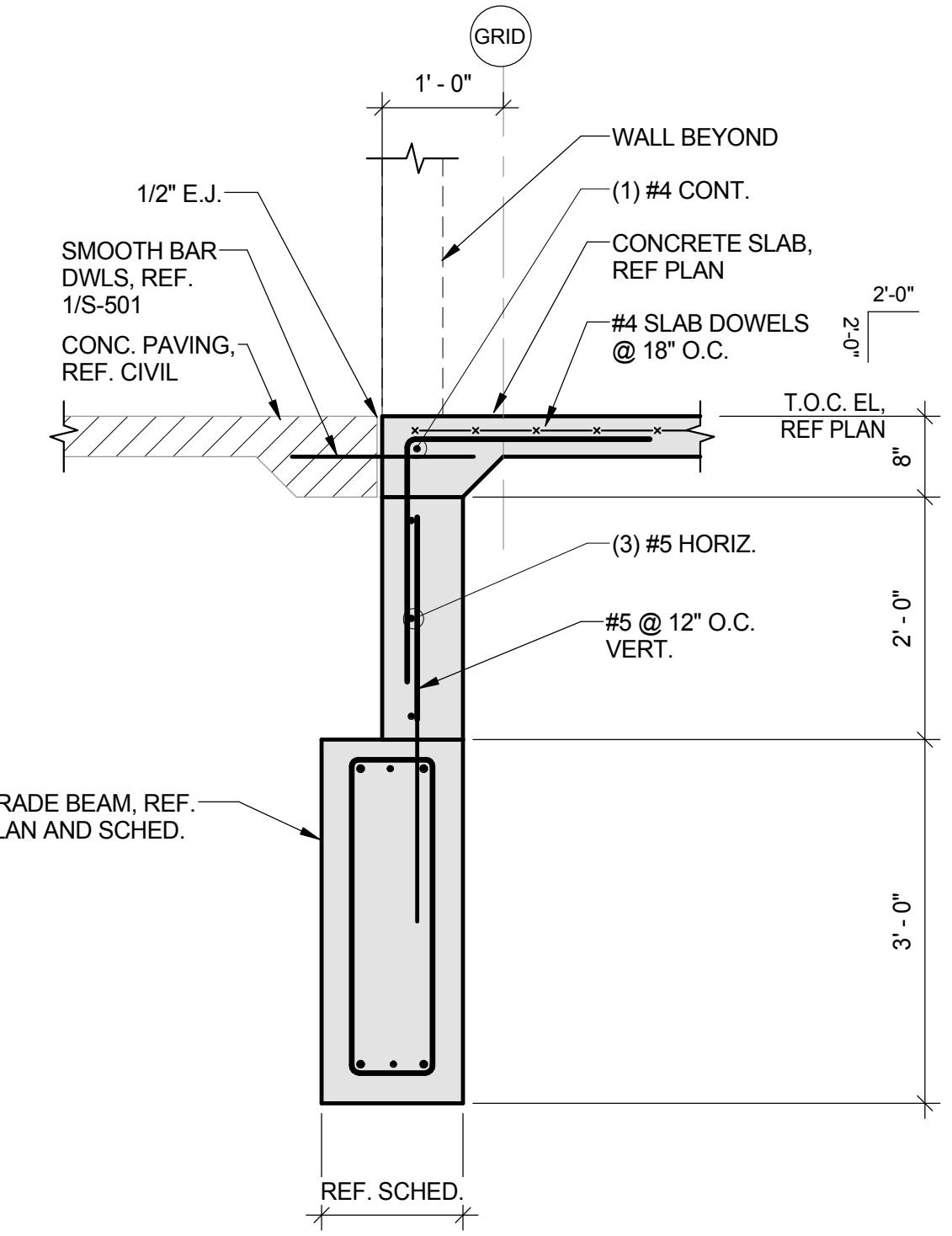
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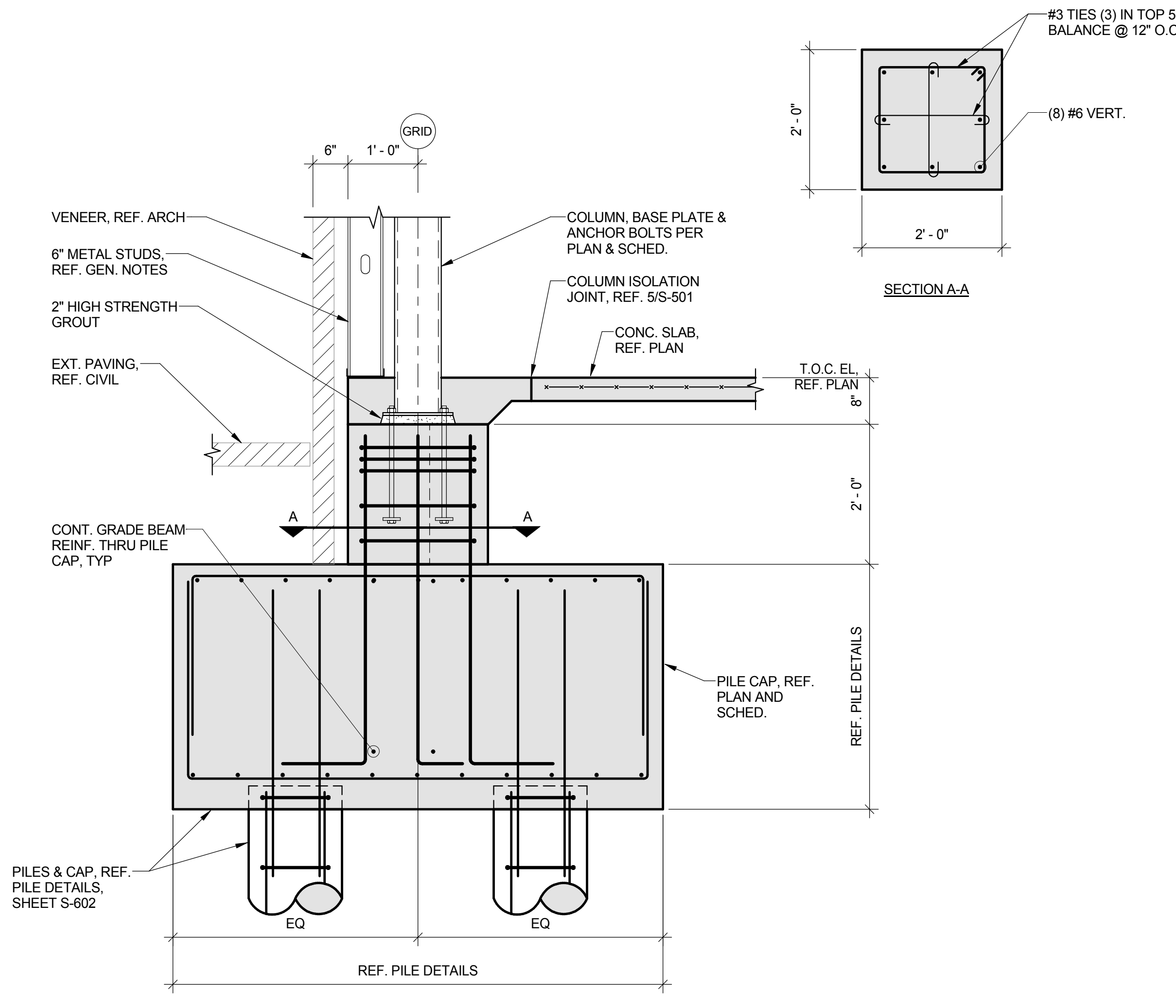
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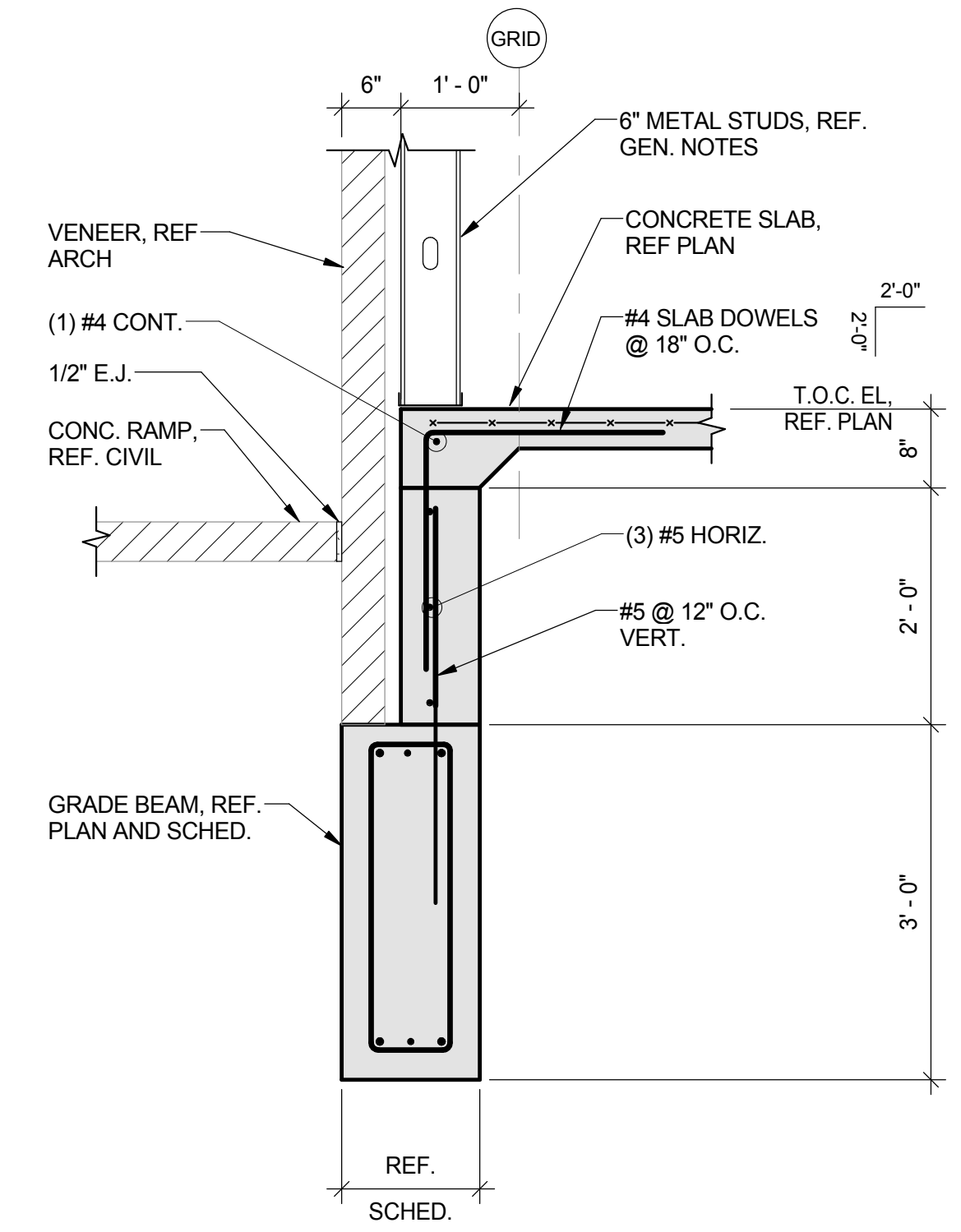
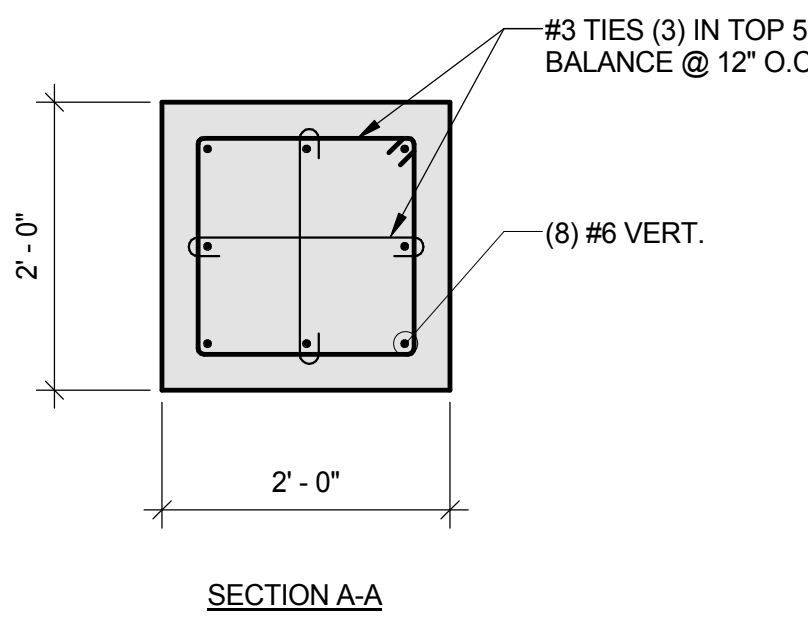
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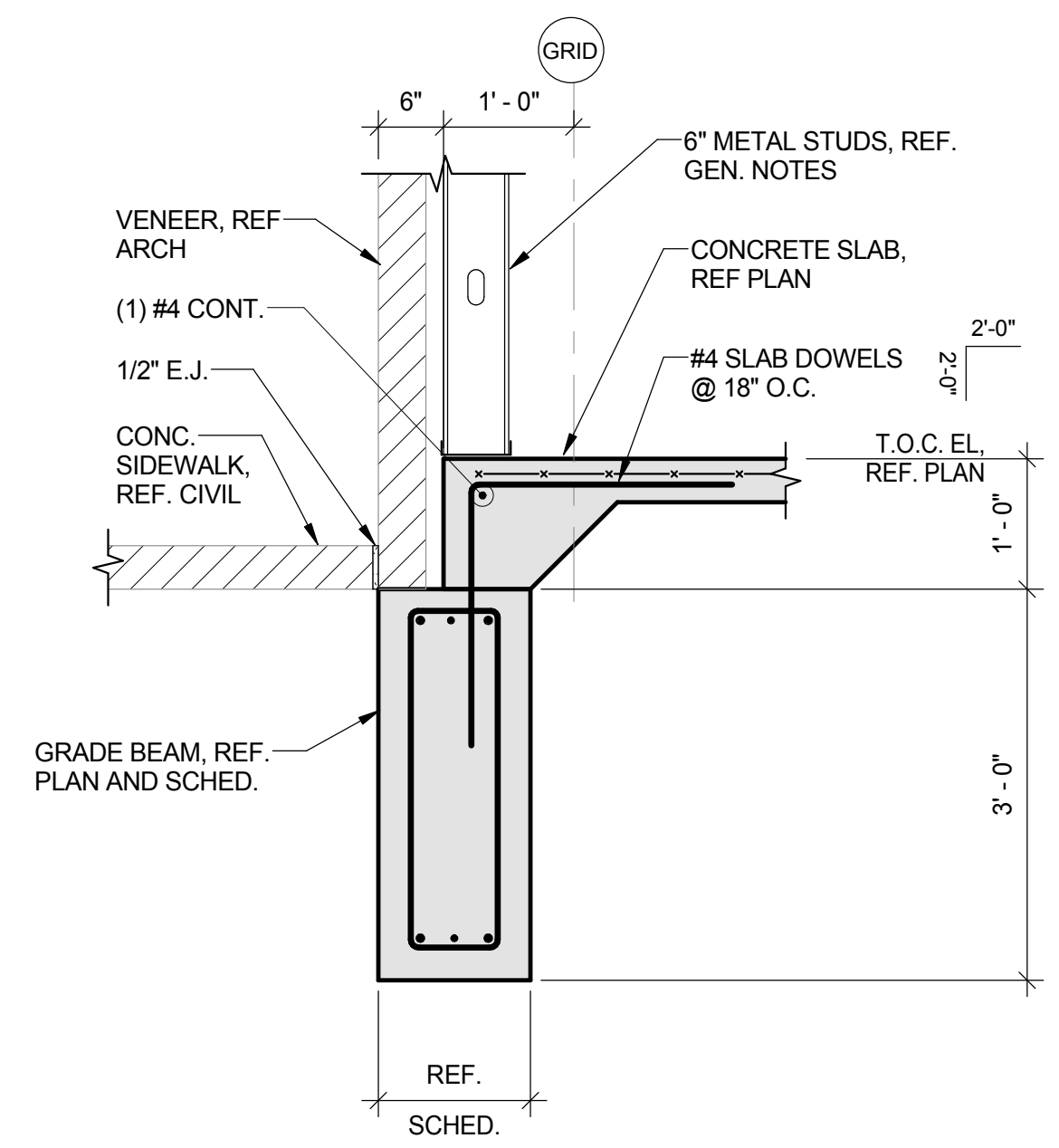
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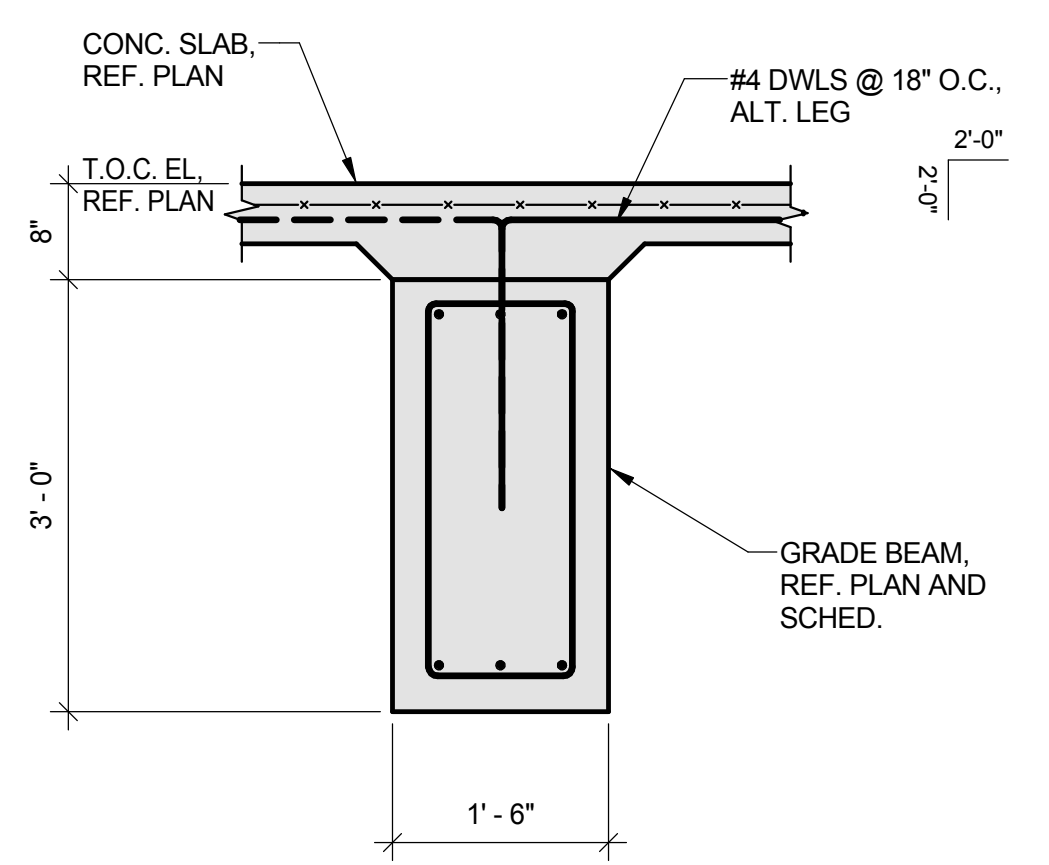
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6 FOUNDATION SECTION
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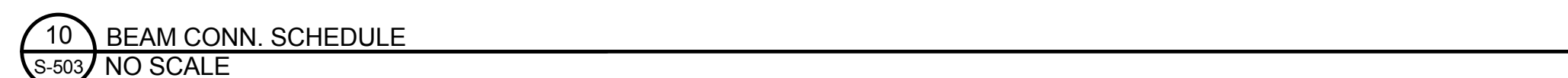
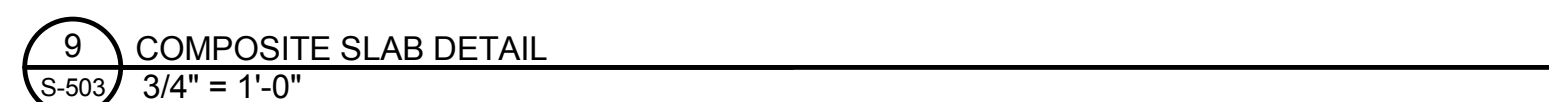


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<div>Revisions:</div> <div>Date</div>		CONSULTANTS:	OFFEROR: <div><div>STATE OF MISSOURI</div><div>DENNIS R. COOK</div><div>NUMBER</div><div>PE-2015047430</div><div>04/04/2018</div><div>PROFESSIONAL ENGINEER</div></div>	ARCHITECT/ENGINEERS: <div><div>HFG</div><div>HEALTH FACILITIES GROUP</div><div>architecture</div><div>PEC</div><div>PROFESSIONAL ENGINEERING CONSULTANTS, P.A.</div></div>	Drawing Title <div>FOUNDATION DETAILS</div> <div>Approved: Project Director</div>	Project Title <div>EXPAND PHARMACY AND LOBBY</div> <div>Location</div> <div>COLUMBIA, MO</div> <div>Date</div> <div>4/3/18</div> <div>Checked</div> <div>CGH</div> <div>Drawn</div> <div>JTR</div>	Project Number <div>589-334</div> <div>Building Number</div> <div>1</div> <div>Drawing Number</div> <div>S-502</div> <div>Dwg. of</div> <div>--</div>	Office of Construction and Facilities Management <div>Department of Veterans Affairs</div>
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NOTE:
AT CONTRACTORS OPTION, BOLTED
CONNECTIONS TO BEAM WEBS MAY
BE USED FOR CONSTRUCTABILITY.



CONSULTANTS:



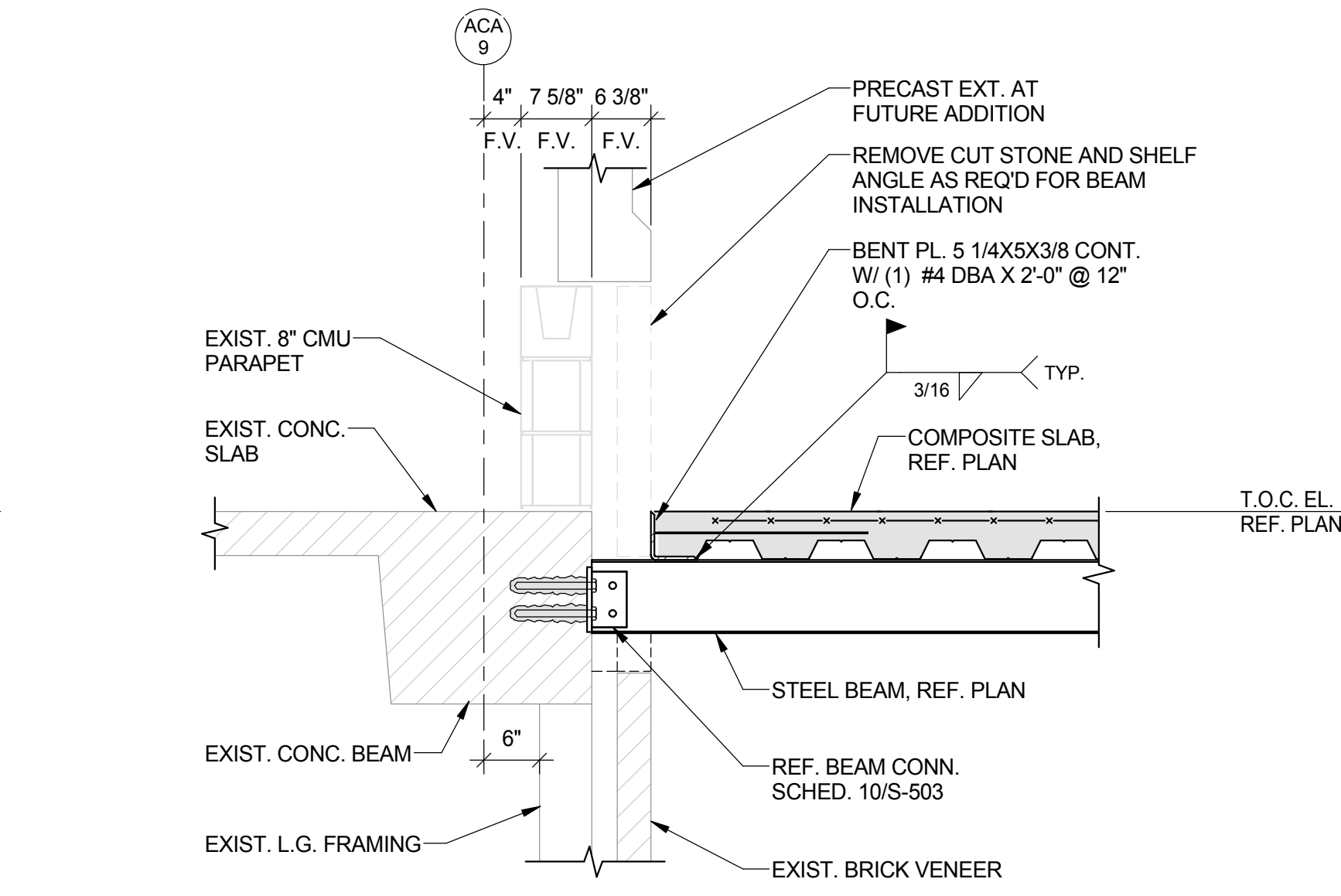
HFG | HEALTH
FACILITIES
GROUP
architecture

Drawing Title	
TYPICAL FRAMING DETAILS	
Approved: Project Director	

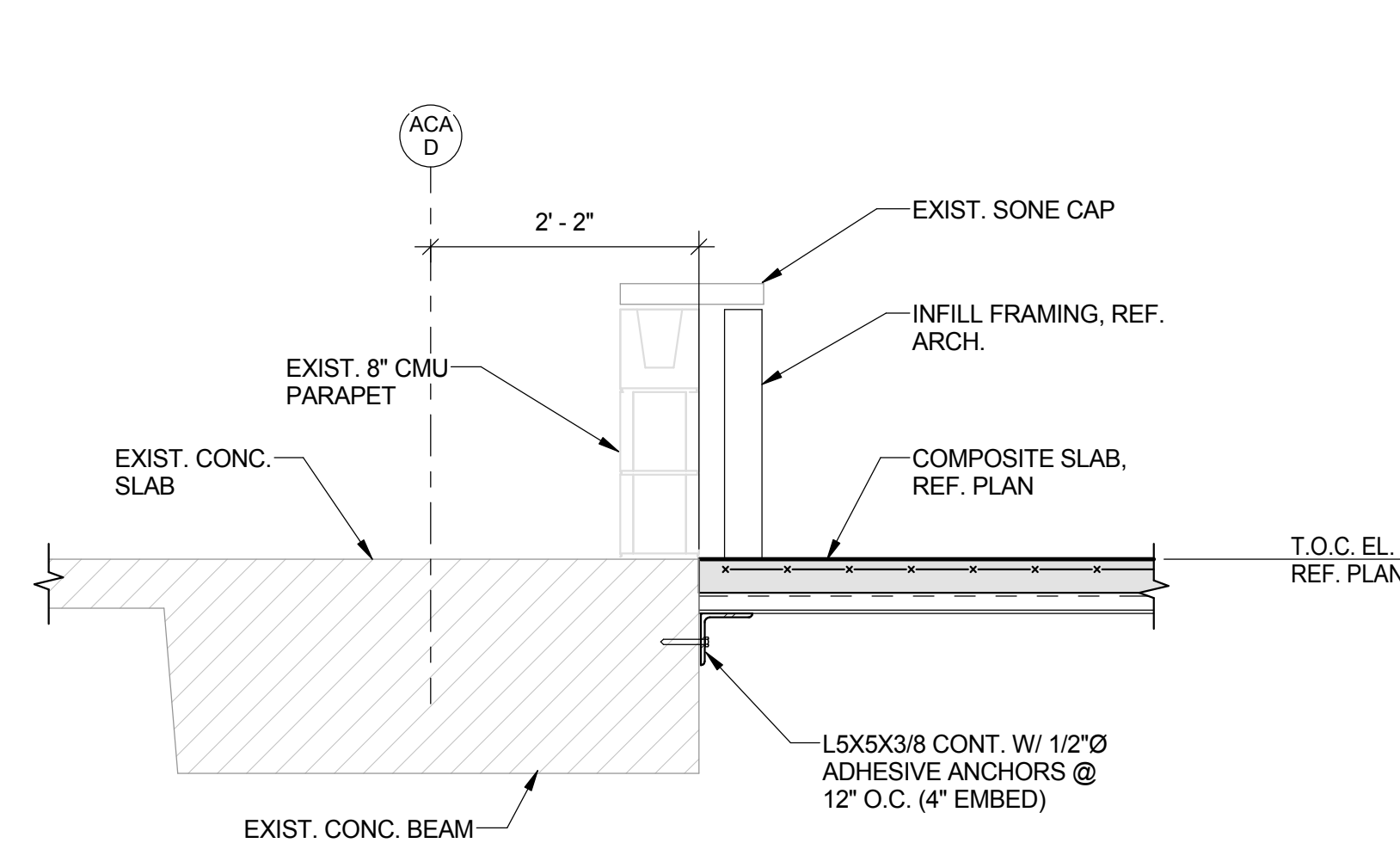
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Office of
Construction
and Facilities
Management

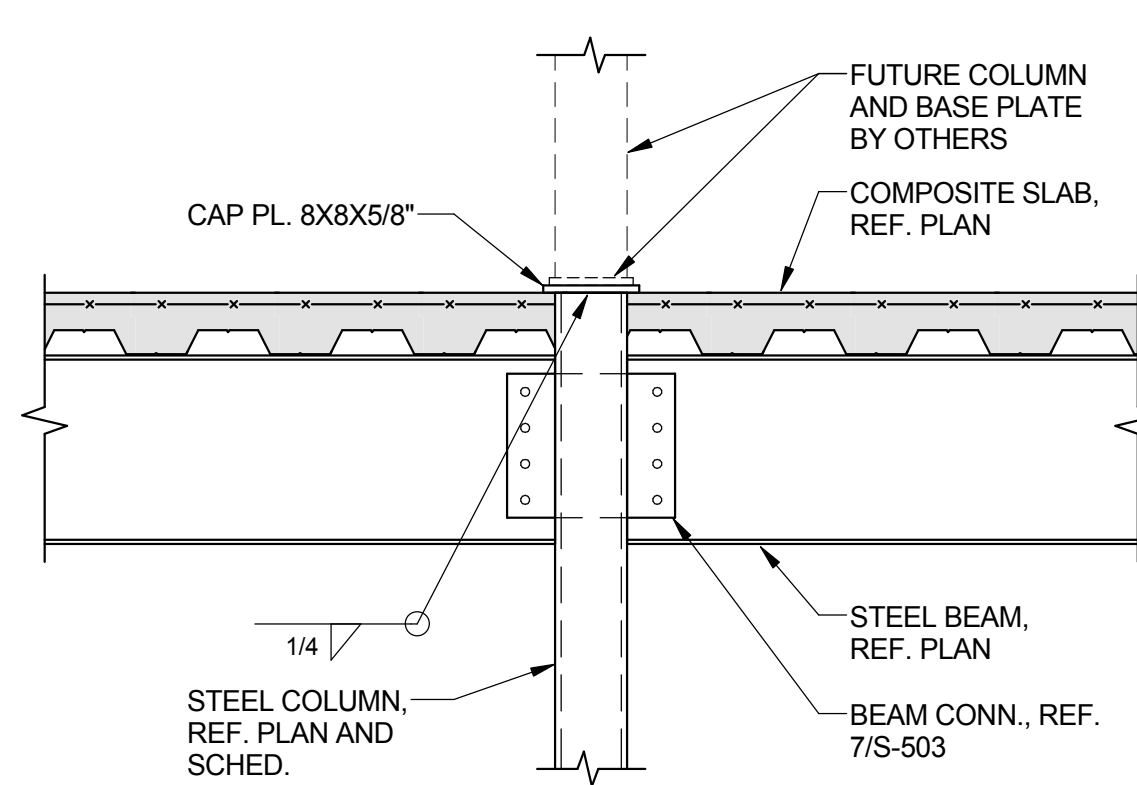
 Department of
Veterans Affairs



5 FRAMING SECTION
S-505 3/4" = 1'-0"



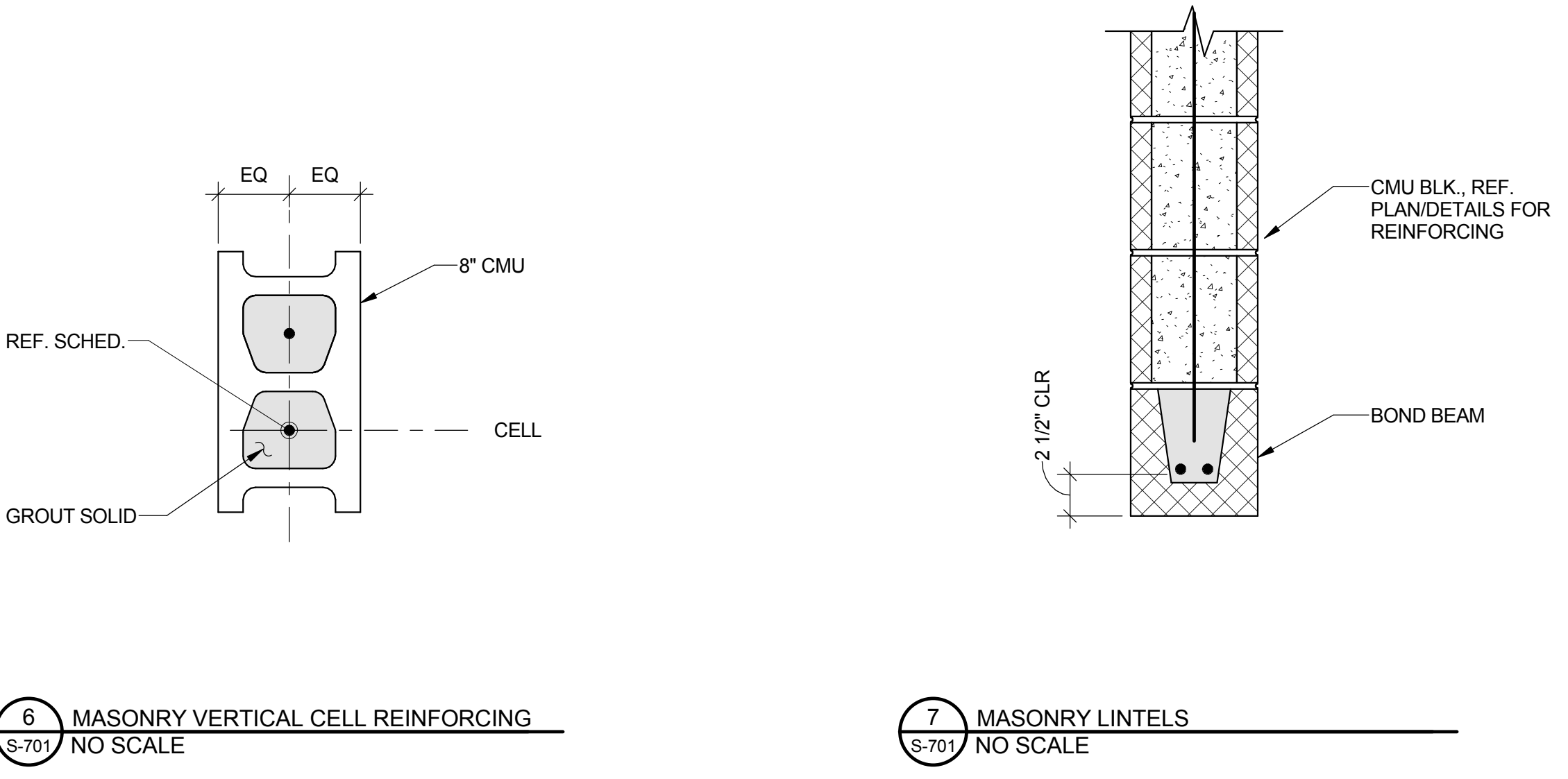
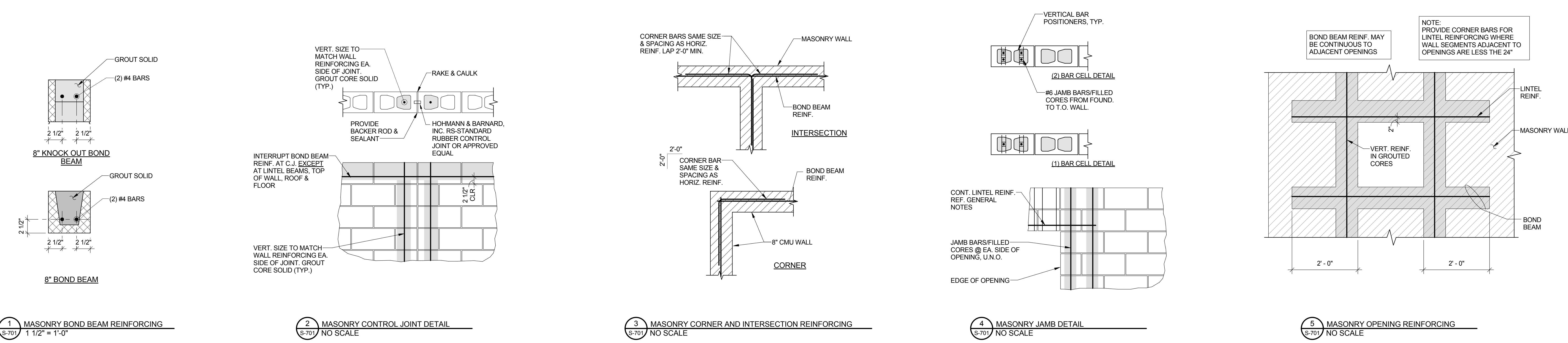
9 FRAMING SECTION
S-505 3/4" = 1'-0"



11 FRAMING SECTION
S-505 3/4" = 1'-0"

CONSULTANTS:

 Department of
Veterans Affairs



8" MASONRY LAP SCHEDULE		
JOINT REINFORCING	8" CMU W/ (1) BAR PER CELL	8" CMU W/ (2) BARS PER CELL
#3	18"	18"
#4	24"	24"
#5	30"	36"
#6	43"	70"
#7	60"	96"
#8	92"	151"
#9	118"	198"

NOTES:
1. Fm = 1500psi ON THE GROSS AREA AND Fy = 60,000psi
2. FOR CMU WITH (2) BARS PER CELL, d' ASSUMED AS 2 1/2"

8 MASONRY REINFORCING LAP TABLE
NO SCALE

Revisions:

Date

CONSULTANTS:

OFFEROR:

ARCHITECT/ENGINEERS:

Drawing Title

MASONRY DETAILS

Approved: Project Director

Project Title

EXPAND PHARMACY AND LOBBY

Location
COLUMBIA, MO

Date
4/3/18

Checked
CGH

Drawn
JTR

Project Number

589-334

Building Number

1

Drawing Number

S-701

Dwg. of --

Office of Construction and Facilities Management

Department of Veterans Affairs