

GENERAL CONDITIONS

1. ALL WORK SHALL COMPLY WITH FLORIDA BUILDING CODE (FBC) 2017, AISC MANUAL OF STEEL CONSTRUCTION, ACI BUILDING CODE, AWS CODE, ASTM STANDARDS AND ANY OTHER APPLICABLE CODES, RULES AND REGULATIONS BY AGENCIES HAVING JURISDICTIONS. WHERE CODES OVERLAP, COMPLY WITH THE MORE STRINGENT REQUIREMENTS.
2. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS APPROVED IN WRITING BY THE ARCHITECT/ENGINEER.
3. CONTRACTOR IS TO DISPOSE OF ALL DEMOLITION MATERIALS AND LEAVE THE WORK IN A READY TO USE CONDITION.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS, LABOR PROCEDURES AND SAFETY PRECAUTIONS FOR COMPLETING THE WORK.
5. CONTRACTOR IS RESPONSIBLE FOR ALL WORK DURING CONSTRUCTION UNTIL FINAL APPROVAL BY ARCHITECT, OWNER AND LOCAL OFFICIALS.
6. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ANY EXISTING UTILITIES ON OR ADJACENT TO PROPERTY.
7. WHERE SPECIFIC MANUFACTURER'S PRODUCT IS CALLED OUT, ALL MATERIALS AND WORK MUST COMPLY WITH THE MANUFACTURER'S STRICT RECOMMENDATIONS FOR INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN INSTRUCTIONS AND TO THEN FOLLOW THEM.
8. WHERE A NAME BRAND IS NOT CALLED OUT, THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS AND/OR PRODUCT INFORMATION FOR ARCHITECT/ENGINEER REVIEW AND APPROVAL. MINOR ITEMS IN THE WORK ARE NOT SPECIFIED. CONTRACTOR IS TO USE QUALITY AND QUANTITY THAT IS STANDARD TO THE TRADE.
9. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ANCHORED, SUPPORTED AND EMBEDDED ITEMS WHICH AFFECT THE STRUCTURAL WORK. VERIFY DETAILS AND DIMENSIONS WITH EQUIPMENT PURCHASED.
10. COORDINATE SIZES AND LOCATIONS OF OPENINGS IN FLOORS, WALLS AND ROOF WITH, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS.
11. NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD.
12. COMPONENTS AND SYSTEMS DELEGATED TO A SPECIALTY ENGINEER SHALL CONFORM TO THE DESIGNER OF RECORD'S DESIGN INTENT AND SHALL NOT DEVIATE IN REQUIREMENTS WITHOUT PRIOR WRITTEN ACCEPTANCE FROM THE DESIGNER OF RECORD.

DESIGN CRITERIA

1. FLORIDA BUILDING CODE 2017.
2. DESIGN LOADS:

DEAD LOAD (ROOF): 20 PSF

LIVE LOAD (ROOF): 20 PSF
3. STRUCTURAL STEEL IS DESIGNED PER THE ALLOWABLE STRESS DESIGN (ASD) METHOD.
4. REINFORCED CONCRETE IS DESIGNED PER THE STRENGTH DESIGN METHOD.
5. REINFORCED CONCRETE MASONRY IS DESIGNED PER THE WORKING STRESS METHOD.
6. STRUCTURAL LUMBER IS DESIGNED PER THE ALLOWABLE STRESS DESIGN (ASD) METHOD.
7. BUILDING IS NOT DESIGNED FOR ADDITIONAL HORIZONTAL OR VERTICAL EXTENSIONS.
8. SEISMIC DESIGN CRITERIA:

IMPORTANCE FACTOR = 1.0

SS = 8.6%

SI = 5.1%

SITE CLASS = D (ASSUMED)

SDS = 9.2%

SDI = 8.2%

SEISMIC DESIGN CATEGORY = B

WIND LOADS

ULTIMATE DESIGN WIND SPEED:	120 MPH
RISK CATEGORY	II
WIND EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT:	ENCLOSED (TYPICAL) PARTIALLY ENCLOSED (LOBBY) OPEN (PAVILIONS)
±0.18 ±0.55 0.00	

SEE WIND LOAD TABLES ON S-302 FOR ADDITIONAL INFORMATION.

SHOP DRAWING SUBMITTALS

1. SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ALL STRUCTURAL FRAMING, ELEMENTS, COMPONENTS, AND SYSTEMS INDICATED ON THE STRUCTURAL DRAWINGS. SHOP DRAWING SUBMITTALS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

A. CONCRETE MIX DESIGNS

B. CONCRETE FOUNDATION REINFORCING SUBMITTALS

C. CONCRETE AND MASONRY REINFORCEMENT SUBMITTALS W/ ELEVATION DRAWINGS CLEARLY INDICATING REINFORCING, SPLICING, AND LOCATION OF ALL CONCRETE AND MASONRY REINFORCEMENT

D. STRUCTURAL STEEL SUBMITTALS

E. STEEL DECK SUBMITTALS

F. LIGHT GAGE STEEL ROOF TRUSSES (\*)

G. TIMBER ROOF TRUSSES (\*)

H. PRE-FABRICATED CANOPY AND AWNING STRUCTURES, DECORATIVE BRACKETS, AND OTHER ARCHITECTURAL COMPONENTS (\*)
- ITEMS MARKED (\*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. SHOP DRAWINGS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER FOR COMPLIANCE WITH DESIGN INTENT AND FOR GENERAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING AND CORRELATING QUANTITIES, DIMENSIONS, ELEVATIONS, AND LENGTHS, FOR SELECTING FABRICATION PROCESSES, FOR SELECTING METHODS OF CONSTRUCTION, FOR COORDINATING SUB TRADES AND FOR PERFORMING WORK IN A SAFE MANNER.
3. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTING THE DRAWINGS TO THE ARCHITECT ENGINEER FOR REVIEW. SHOP DRAWINGS SHALL BE MARKED WITH A REVIEW STAMP FROM THE CONTRACTOR INDICATING REVIEW DISPOSITION AND SHALL BE DATED AND INITIALED. SHOP DRAWINGS THAT HAVE NOT BEEN REVIEWED, STAMPED, DATED AND INITIALED WILL BE CONSIDERED NOT REVIEWED BY THE CONTRACTOR AND SHALL BE RETURNED NOT REVIEWED AND UNCHECKED BY THE STRUCTURAL ENGINEER.
4. STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR DELAYS CAUSED DUE TO THE REJECTION OF INCOMPLETE SUBMITTALS, SUBMITTALS RETURNED DUE TO THE CONTRACTOR'S FAILURE TO REVIEW DOCUMENTS PRIOR TO RECEIPT BY THE STRUCTURAL ENGINEER, AND FOR THE ADDITIONAL TIME REQUIRED BY THE CONTRACTOR'S SUB TRADES TO REVISE AND RE-SUBMIT THE DRAWINGS AND FOR THE STRUCTURAL ENGINEER TO PERFORM ADDITIONAL REVIEWS OF NON-CONFORMING SUBMITTALS.
5. UPON RECEIPT OF SHOP DRAWING SUBMITTALS FROM THE CONTRACTOR THAT HAVE BEEN REVIEWED, STAMPED, DATED, AND INITIALED BY THE CONTRACTOR, THE ENGINEER SHALL BEGIN REVIEW OF THE RECEIVED SUBMITTALS. THE CONTRACTOR SHALL ALLOW FOURTEEN (14) WORKING DAYS FOR SUBMITTAL REVIEW BY THE STRUCTURAL ENGINEER FROM RECEIPT OF SHOP DRAWINGS. THE CONTRACTOR SHALL FURTHER ALLOW TEN (10) WORKING DAYS FROM RECEIPT OF SHOP DRAWING RE-SUBMITTALS FOR REVIEW BY THE STRUCTURAL ENGINEER.
6. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE PRIOR REVIEW AND APPROVAL OF THE SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONSTRUCTION CONTRACT AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.
7. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR MATERIALS THAT ARE FABRICATED, DELIVERED, AND INSTALLED AT THE SITE WITHOUT A SET OF SHOP SUBMITTALS THAT HAVE BEEN REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER. COSTS ASSOCIATED WITH THE REMOVAL OF UNAPPROVED MATERIALS AND THE DELAYS ASSOCIATED WITH THE REPAIR, RECONFIGURATION, AND/OR REMOVAL OF SUCH MATERIALS SHALL NOT BE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER.
8. SHOP DRAWINGS REVIEWED BY THE STRUCTURAL ENGINEER AND RETURNED WITH A MARK OF 'REJECTED' OR 'REVISE AND RESUBMIT' SHALL BE RE-SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER. REVISIONS MADE TO SHOP DRAWINGS SHALL BE CLEARLY MARKED AND THE PURPOSE FOR THE RE-SUBMISSION SHALL BE CLEARLY NOTED ON THE SHOP DRAWING TRANSMITTAL. REVISIONS SHALL BE ASSIGNED A SEQUENTIAL REVISION NUMBER.
9. THE CONTRACT DOCUMENTS SHALL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

STRUCTURAL ENGINEERING ABBREVIATIONS

A.B	ANCHOR BOLT	INT.	INTERIOR
ABV.	ABOVE	JST.	JOIST
ADD'L	ADDITIONAL	JT.	JOINT
ADJ.	ADJACENT	K	KIPS
ALT.	ALTERNATE	KLF	KIPS PER LINEAR FOOT
APPROX.	APPROXIMATE	KSI	KIPS PER SQUARE INCH
ARCH.	ARCHITECT /-URAL	KSF	KIPS PER SQUARE FOOT
B/- BOT.	BOTTOM	LB.	POUND
BLDG.	BUILDING	L.E.	LEFT END
BLW.	BELOW	LL	LIVE LOAD
BM	BEAM	LLBB	LONG LEG BACK TO BACK
B.P.	BASE PLATE	LLH	LONG LEG HORIZONTAL
BRG.	BEARING	LLV	LONG LEG VERTICAL
BRIDG.	BRIDGING	L.P.	LOW POINT
BTWN	BETWEEN	L.W.	LONG WAY /LIGHT WEIGHT
CANT.	CANTILEVER	MATL.	MATERIAL
CAP.	CAPACITY	MAX.	MAXIMUM
C.I.F.	CAST IN PLACE	M.B.S.	METAL BUILDING SYSTEM
C.J.	CONTROL /CONSTRUCTION JOINT	MECH.	MECHANICAL
CLG.	CEILING	MEZZ.	MEZZANINE
CLR.	CLEAR	MFR.	MANUFACTURER
CMU	CONCRETE MASONRY UNIT	MIN.	MINIMUM
COL.	COLUMN	MISC.	MISCELLANEOUS
COMP.	COMPOSITE	N.F.	NEAR FACE
CONC.	CONCRETE	N.I.C.	NOT IN CONTRACT
CONN.	CONNECT -ED/-ION	NO.	NUMBER
CONST.	CONSTRUCT -ION	N.T.S	NOT TO SCALE
CONT.	CONTINUE /-OUS /-ATION	O.C.	ON CENTER
CONTR.	CONTRACTOR	O.D.	OUTSIDE DIAMETER
COORD.	COORDINATE	O.F.	OUTSIDE FACE
CTR.	CENTER	OPNG.	OPENING
DBL	DOUBLE	OPP.	OPPOSITE
DEP.	DEPRESSION	PAR.	PARALLEL
DIA.	DIAMETER	PERP.	PERPENDICULAR
DIAG.	DIAGONAL	PL	PLATE
DIM.	DIMENSION	PLF	POUNDS PER LINEAR FOOT
DN.	DOWN	PSF	POUNDS PER SQUARE FOOT
DL	DEAD LOAD	PSI	POUNDS PER SQUARE INCH
D.P.	DRILLED PIER	R.E.	RIGHT END
DWG	DRAWING	REINF.	REINFORCE /-ED/-ING/-MENT
DTL.	DETAIL	REM.	REMAINDER
DWL.	DOWEL	REQ'D	REQUIRED
EA.	EACH	RET.	RETAINING
E.E.	EACH END	REV.	REVERSE
E.F.	EACH FACE	SCHED.	SCHEDULE
E.J.	EXPANSION JOINT	SECT.	SECTION
EL.	ELEVATION	SF	SQUARE FOOT
ELEC.	ELECTRICAL	SIM.	SIMILAR
ELEV.	ELEVATION /ELEVATOR	SP.	SPACES
EMBED.	EMBEDMENT	SPEC.	SPECIFICATIONS
ENGR.	ENGINEER	SQ.	SQUARE
E.O.D.	EDGE OF DECK	STD.	STANDARD
E.O.S.	EDGE OF SLAB	STIFF.	STIFFENERS
EQ.	EQUAL	STIR.	STIRRUPS
EQUIP.	EQUIPMENT	STL.	STEEL
E.W.	EACH WAY	STRUCT.	STRUCTURAL
EXIST.	EXISTING	S.W.	SHORT WAY
EXP.	EXPANSION	SYM.	SYMMETRICAL
FDN.	FOUNDATION	T/ -T	TOP OF - TOP
FIN.	FINISH	TE	TURNED DOWN SLAB EDGE
F.F.	FAR FACE	TEMP.	TEMPERATURE
FLR.	FLOOR	T.O.S.	TOP OF SLAB
F.O.M.	FACE OF MASONRY	TYP.	TYPICAL
FRMG.	FRAMING	T&B	TOP AND BOTTOM
FT.	FEET	U.N.O.	UNLESS NOTED OTHERWISE
FTG.	FOOTING	VERT.	VERTICAL
G.A.	GAGE	V.I.F.	VERIFY IN FIELD
GALV.	GALVANIZED	W.F.	WIDE FLANGE
GB	GRADE BEAM	W.P.	WORK POINT
H.P.	HIGH POINT	WT.	WEIGHT
HORIZ.	HORIZONTAL	W.W.R.	WELDED WIRE REINFORCEMENT
H.S.	HIGH STRENGTH	W/	WITH
I.D.	INSIDE DIAMETER	W/O	WITHOUT
I.F.	INSIDE FACE	&	AND
IN.	INCHES	@	AT
		#	NUMBER

PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	STRUCTURAL GENERAL NOTES	S-001
							SR 8	COLUMBIA	438609-1-52-01		1 OF 26

REQUIRED STRUCTURAL INSPECTIONS

1. INSPECTIONS TO BE PERFORMED BY THE BUILDING OFFICIAL.

A. FOUNDATION INSPECTION AFTER EXCAVATION AND SOIL PREPARATION, BUT PRIOR TO PLACING REINFORCEMENT. AGAIN, AFTER REINFORCEMENT IS PLACED AND PRIOR TO CONCRETE PLACEMENT.

B. CONCRETE SLAB-ON-GRADE/UNDERFLOOR INSPECTION SHALL BE MADE AFTER ALL UNDERFLOOR EQUIPMENT IS IN PLACE BUT PRIOR TO CONCRETE PLACEMENT.

C. FRAMING INSPECTION SHALL BE MADE AFTER ALL ROUGH MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT IS IN PLACE, BUT PRIOR TO FIREPROOFING OR WALL COVERING IS INSTALLED.

D. FINAL INSPECTION SHALL BE MADE WHEN THE CONTRACTOR HAD COMPLETED THE BUILDING AND IT IS READY FOR OCCUPANCY.
2. THE OWNER WILL PROVIDE QUALIFIED PERSONNEL TO PERFORM THE REQUIRED SPECIAL INSPECTIONS. THIS DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE DESIGN DRAWINGS. THE ACCEPTANCE OF MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS FOR SPECIAL INSPECTION AND FOR QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC), CHAPTER 17 OF THE FLORIDA BUILDING CODE (FBC), AND LOCAL ENFORCEMENT AGENCY. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR 24 IN ADVANCE OF ALL INSPECTIONS AND ALL CONTRACTORS ARE REQUIRED TO ACCOMMODATE AND COOPERATE WITH TESTING AND INSPECTION PERSONNEL.
3. THE SPECIAL INSPECTION PROGRAM WILL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS. REPORTS OF THE FINDINGS SHALL BE PROVIDED TO THE ENGINEER.

A. EXCAVATIONS, GRADING, AND EARTH FILL SHALL BE INSPECTED IN ACCORDANCE WITH THE CODE.

B. FOUNDATION INSPECTION DURING THE PLACEMENT OF FOUNDATIONS AND SLABS-ON-GRADE. ALL EMBEDDED BOLTS SHALL BE INSPECTED.

C. ALL CONCRETE AND MASONRY REINFORCING STEEL SHALL BE INSPECTED PRIOR TO CONCRETE/GROUT PLACEMENT.

D. VERIFY USE OF REQUIRED CONCRETE DESIGN MIXES.

E. FABRICATE CONCRETE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF CONCRETE PRIOR TO PLACEMENT.

F. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES.

G. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBERS BEING FORMED.

H. FRAMING INSPECTIONS DURING THE ERECTION OF ALL STEEL FRAMING MEMBERS, INSPECTION OF ALL DECKING PLACEMENT, AND ATTACHMENTS.

I. HIGH STRENGTH BOLTS SHALL BE INSPECTED DURING INSTALLATION AND TIGHTENED IN ACCORDANCE WITH THE CODE.

J. SPRAY-APPLIED FIRE PROOFING INSPECTIONS SHALL BE MADE IN ACCORDANCE WITH THE CODE.

K. ALL EPOXY CONNECTION HOLES SHALL BE INSPECTED AND BE DUST FREE.

L. ALL WELDS SHALL BE INSPECTED BY A CERTIFIED WELD INSPECTOR AT THE OWNER'S EXPENSE.

M. PREFABRICATED WOOD STRUCTURAL ELEMENTS AND FASTENING OF WOOD DIAPHRAGMS SHALL BE INSPECTED IN ACCORDANCE WITH THE CODE.

N. COLD-FORMED STEEL TRUSS FRAMING, BRACING, CONNECTIONS, ANCHORING TO SHEAR WALLS, AND FASTENING OF METAL DECK DIAPHRAGMS SHALL BE INSPECTED IN ACCORDANCE WITH THE CODE.

SOIL PREPARATION AND FOUNDATIONS

1. THE FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE PHASE II GEOTECHNICAL REPORT PREPARED BY ENVIRONMENTAL AND GEOTECHNICAL SPECIALISTS, INC, DATED JANUARY 2019. THE PRESUMPTIVE ALLOWABLE BEARING PRESSURES ARE 2000 PSF (BUILDINGS) AND 1300 PSF (PAVILIONS).
2. SOIL, DEWATERING, AND SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE AFOREMENTIONED REPORT.
3. SOIL SUPPORTED FOUNDATIONS:

A. THE ALLOWABLE BEARING PRESSURE FOR FOUNDATIONS BEARING ON UNDISTURBED SOIL OR APPROVED ENGINEERED FILL MATERIAL SHALL BE VERIFIED BY A LICENSED SOIL ENGINEER.

B. ALL FOUNDATIONS ARE DESIGNED WITH FORMED SIDES. IF EARTH FORMED SIDES ARE APPROVED BY THE ENGINEER, THE TOP 7 1/4" SHALL BE FORMED TO THE DESIGN DIMENSION AND ONE INCH SHALL BE ADDED TO EACH SIDE OF THE EARTH FORMED AREA TO PROVIDE ADEQUATE COVER OVER THE REINFORCING AT THE CONTRACTOR'S EXPENSE.

C. REINFORCING SHALL BE SUPPORTED FROM ABOVE OR WITH 3" SBP (WITH BOTTOM PLATE) AT 4'-0" O.C. MAXIMUM FOR ALL FOUNDATION REINFORCING.
5. REMOVE FREE WATER FROM EXCAVATIONS BEFORE PLACING CONCRETE.
6. ALL FOOTING EXCAVATIONS ARE TO BE FINISHED BY HAND.
7. REMOVE EXISTING TOP SOIL, FILL, PAVEMENT OR FOUNDATIONS FROM THE BUILDING AREA.
8. BACKFILL BELOW STRUCTURAL ELEMENTS TO BE A GRANULAR MATERIAL HAVING MAXIMUM SIZE OF 3" AND LESS THAN 12% PASSING THE #200 SIEVE SIZE. FILL TO BE PLACED IN LIFTS OF ONE-FOOT OR LESS COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM:D1557).
9. DO NOT BACKFILL FOUNDATION WALLS UNTIL THE RESTRAINING SLABS OR ADEQUATE BRACING ARE IN PLACE. ALL BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION.
10. EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.
11. SLABS-ON-GRADE TO BE PLACED ON COMPACTED SOIL TO 95% OF MODIFIED PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT.
12. PROVIDE SOIL POISONING UNDER BUILDINGS FOR TERMITE PROTECTION.

SPECIALITY ENGINEER REQUIREMENTS AND SUBMITTALS

1. THE TERM "DELEGATE ENGINEER" SHALL REFER TO A REGISTERED PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR TO PROVIDE DESIGN AND FABRICATION SUBMITTALS AND CALCULATIONS FOR THE COMPONENTS DELEGATED BY THE STRUCTURAL ENGINEER OF RECORD HEREIN.
2. WHERE NOTED ON THIS SET OF CONSTRUCTION DOCUMENTS AND AS INDICATED BELOW, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A DELEGATED ENGINEER TO PROVIDE SPECIALTY ENGINEERING SERVICES FOR STRUCTURAL BUILDING COMPONENTS THESE COMPONENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

A. LIGHT GAGE STEEL ROOF TRUSSES

B. TIMBER ROOF TRUSSES (\*)

C. PRE-FABRICATED CANOPY AND AWNING STRUCTURES, DECORATIVE BRACKETS, AND OTHER ARCHITECTURAL COMPONENTS
3. THE DELEGATE ENGINEER FOR EACH COMPONENT SHALL BE A REGISTERED PROFESSIONAL ENGINEER CURRENT AND IN GOOD STANDING WITH THE STATE OF FLORIDA WITH A MINIMUM OF FIVE (5) YEARS OF EXPERIENCE IN DESIGN FOR EACH SPECIFIC COMPONENT.
4. THE DELEGATE ENGINEER SHALL BE THE ENGINEER OF RECORD FOR THE AFOREMENTIONED COMPONENTS AND SHALL SUBMIT SIGNED AND SEALED CALCULATIONS AND DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER.
5. THE DELEGATE ENGINEER SHALL COMPLY WITH THE RESPONSIBILITIES OUTLINED IN THE FLORIDA ADMINISTRATIVE CODE SECTION 61G15-30.006.
6. CALCULATIONS AND DRAWINGS SUBMITTED BY THE DELEGATE ENGINEER FOR REVIEW BY THE ENGINEER SHALL INCLUDE CLEARLY DEFINED DESIGN CRITERIA, DESIGN PROCEDURES, STRUCTURAL LOADS, CODE COMPLIANCE, REQUIRED DETAILS, AND LAYOUTS. DOCUMENTS SHALL BE IN CONFORMANCE WITH PARAGRAPH 5 OF THIS SECTION.
7. THE DELEGATE ENGINEER SHALL ALSO BE RESPONSIBLE FOR GENERATING ERECTION DRAWINGS AND FABRICATION PROCEDURES FOR THE SPECIALTY ENGINEERED COMPONENTS.
8. REVIEW OF CALCULATIONS AND DRAWINGS SUBMITTED BY THE DELEGATE ENGINEER TO THE STRUCTURAL ENGINEER SHALL BE LIMITED TO THE VERIFICATION THAT THE DELEGATE ENGINEER HAS UTILIZED THE DESIGN CRITERIA SPECIFIED AND HAS UNDERSTOOD THE INTENT OF THE DESIGN. THE STRUCTURAL ENGINEER WILL NOT MAKE A DETAILED CHECK OF THE CALCULATIONS AND DESIGN PROCESSES UTILIZED BY THE DELEGATE ENGINEER. THE DELEGATE ENGINEER SHALL BE RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE SPECIALTY COMPONENTS.

MISCELLANEOUS

1. CONTRACTOR SHALL SUPPLY ALL ITEMS FOR ATTACHING MECHANICAL AND ELECTRICAL EQUIPMENT TO THE BUILDING STRUCTURE TO RESIST ALL LOADS INCLUDING WIND FORCES. ATTACHMENT SHALL BE MADE SO AS NOT TO OVERSTRESS STRUCTURAL MEMBERS. COORDINATE THE ATTACHMENTS AND LOCATIONS OF THE EQUIPMENT WITH THE STRUCTURAL SHOP DRAWINGS. REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. SUBSTITUTION OF EXPANSION ANCHORS FOR ADHESIVE ANCHORS OR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE STRUCTURAL ENGINEER IN ADVANCE.
3. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES AS PART OF THE CONSTRUCTION SCOPE OF WORK:

A. PROVIDE TEMPORARY BRACING AND SHORING TO PREVENT EXCESSIVE DEFLECTIONS AND DAMAGE DURING CONSTRUCTION. DESIGN OF TEMPORARY BRACING AND SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS INDICATED IN SECTION 010100.

B. SUPPORT OF CEILING SYSTEMS, FOLDING PARTITIONS, TOILET PARTITIONS, COUNTERS, MISCELLANEOUS EQUIPMENT, AND WINDOW SYSTEMS AS DEFINED IN THE ARCHITECTURAL PLANS.



PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-002
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO.
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MASONRY

- CONFORM TO ACI BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI 530/ASCE 5 AND TO ACI SPECIFICATIONS FOR MASONRY ACI 530.1/ ASCE 6. LATEST EDITION REFERENCED IN BUILDING CODE.
2. CONCRETE MASONRY UNITS (CMU) MATERIALS SHALL BE:
- A. ALL CONCRETE MASONRY UNITS (CMU) SHALL BE TWO CELL LIGHTWEIGHT AGGREGATE UNITS WITH A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON NET AREA AT 28 DAYS CONFORMING TO ASTM C90. CMU LOCATED BELOW GRADE, SHALL BE NORMAL WEIGHT AGGREGATE UNITS.
- B. ALL MORTAR SHALL BE TYPE "S" OR "M" WITH A MINIMUM MORTAR COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS CONFORMING TO ASTM C270. THE MINIMUM COMPRESSIVE STRENGTH (f'm) OF A PRISM ASSEMBLED OF CMU AND MORTAR SHALL BE 1500 PSI AT 28 DAYS ON THE NET AREA.
- C. CMU GROUT SHALL CONFORM TO ASTM C476 WITH 3/8" AGGREGATE WITH THE FOLLOWING REQUIREMENTS: MIN F'C=3000 PSI, MIN CEMENT=611 PCY, MAX W/C RATIO=0.65 AND SHALL HAVE A SLUMP OF BETWEEN 8" AND 10". PROVIDE CLEAN OUTS AS SHOWN ON DWGS. PUMP 4'-0" MAXIMUM GROUT LIFTS WITH 60 MINUTE DELAY BETWEEN LIFTS.
- D. REINF STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615, GR 60.
- E. JOINT REINF STEEL SHALL MEET THE REQUIREMENTS OF ASTM A82 WIRE WITH A MINIMUM YIELD GREATER THAN 70 KSI. LONGITUDINAL WIRES SHALL BE 9 GA (0.1483" DIA) WITH LADDER TYPE WIRES CONNECTED AT 16" CENTERS. REINF SHALL BE MILL GALVANIZED PER ASTM A641, CLASS 3.
- F. WHERE CONCRETE BEAMS ARE INSTALLED IN CONCRETE BLOCK WALL, SUPPORT CONCRETE WITH 6" WIDE CONTINUOUS STRIPS OF 1/8 SQUARE MESH SOFFIT SCREENING OF PUR-O-STOP OR EQUAL CENTERED OVER BLOCK WORK. USE OF ROOFING FELT STRIPS WILL NOT BE PERMITTED.
3. HORIZONTAL WALL REINFORCEMENT
- A. PROVIDE BOND BEAM COURSES IN ALL WALLS AT THE TOP OF WALL OR PARAPET AND AT BEARING LOCATIONS. BOND BEAMS SHALL BE REINFORCED AS SHOWN IN PLANS AND DETAILS. ALL INTERIOR STRUCTURAL WALLS (SHEAR AND/OR BEARING) SHALL HAVE INTERMEDIATE BOND BEAMS LOCATED AT THE SAME LEVELS AS EXTERIOR BOND BEAMS.
- B. B. PROVIDE BOND BEAMS AT INTERMEDIATE LOCATIONS IN EVERY SIXTH COURSE (IE: 4'-0" OC).
4. VERTICAL WALL REINFORCEMENT
- A. PROVIDE VERTICAL REINFORCEMENT (NORMAL REINF) IN GROUT FILLED CELLS IN ALL WALLS AS SHOWN ON PLANS AND SCHEDULES.
- B. PROVIDE AN ADDITIONAL VERTICAL REINFORCEMENT BAR WITH DOWELS INTO SUPPORTING MEMBERS, WITH SAME SIZE AND LENGTH AS THE NORMAL REINF BAR, AT THE FOLLOWING LOCATIONS UNO:
1. ON EACH SIDE OF A CONTROL OR ISOLATION JOINT
2. AT INTERSECTION OF WALLS
3. EACH SIDE OF A WALL OPENINGS PER MASONRY DETAILS
4. AT EACH END OF WALL
5. AT EACH BEAM BEARING
- C. VERTICAL REINFORCEMENT SHALL EXTEND CONTINUOUSLY FROM THE TOP OF THE SUPPORTING MEMBER TO EMBED AT LEAST 6" INTO THE TOP BOND BEAM. THERE SHALL BE A DOWEL, CAST INTEGRAL WITH THE SUPPORTING MEMBER, FOR EACH VERTICAL REINFORCEMENT BAR EXCEPT AS NOTED.
5. REINFORCEMENT SHALL MEET THE FOLLOWING LAP, SPLICE AND EMBEDMENT REQUIREMENTS:
- | REINF BAR SIZE | LAP OR SPLICE LENGTH IN WALL | FOUNDATION EMBEDMENT WITH HOOK INTO FOUND. | DOWELS STRAIGHT EMBEDMENT INTO FOUND. |
|----------------|------------------------------|--|---------------------------------------|
| JOINT          | 16"                          | N/A  | N/A                                   |
| 4              | 24"                          | 8"   | 15"                                   |
| 5              | 30"                          | 10"  | 19"                                   |
| 6              | 36"                          | 12"  | 23"                                   |
| 7              | 42"                          | 14"  | 27"                                   |
| 8              | 48"                          | 16"  | 30"                                   |
- HOOKS IF USED SHALL BE ACI STANDARD HOOKS.
6. CELLS WHICH CONTAIN REINF STEEL (VERT CELLS, BOND BEAMS, LINTELS AND PILASTERS) SHALL BE FILLED SOLIDLY WITH GROUT AND UNITS SHALL BE LAID WITH FULL BED JOINTS AROUND CELLS.
7. VERT CELLS TO BE FILLED SHALL HAVE VERT ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED CONTINUOUS VERT CELL.
8. BOND BEAM AND JOINT REINF FOR INTERIOR AND EXTERIOR WALLS SHALL BE CONTINUOUS THROUGHOUT, EXCEPT AT CONTROL AND ISOLATION JOINTS. IT SHALL BE AS FOLLOWS:
- A. INTERMEDIATE (LADDER) REINF SHALL BE DISCONTINUOUS AT CONTROL JOINTS. REINFORCEMENT IN BOND BEAMS AT FLOOR AND ROOF DIAPHRAGM LEVELS SHALL BE CONTINUOUS.
- B. AT ISOLATION JOINTS, ALL REINF SHALL BE DISCONTINUOUS.
9. BARS AROUND PERIMETER OF OPNGS SHALL EXTEND NOT LESS THAN 40 BAR DIA OR 24", WHICHEVER IS LARGER, BEYOND THE CORNER OF THE OPNG VERT JAMB BARS SHALL BE THE SAME SIZE AND NUMBER AS THE NORMAL VERT REINF.
10. SEE PLANS AND SCHED FOR LINTELS OVER OPNGS.

11. LOCATION AND DETAILS OF CONTROL JOINTS AND ISOLATION JOINTS IN REINFORCED MASONRY SHALL BE AS SHOWN ON THE ARCH DWGS. THE MAXIMUM SPACING OF CONTROL JOINTS SHALL BE 25'-4" AND ISOLATION JOINTS SHALL BE AT A LENGTH TO HEIGHT RATIO OF 4:1 OR 100'-0" OC, WHICHEVER IS LESS. CONTRACTOR SHALL SUBMIT A JOINT LAYOUT PLAN FOR APPROVAL PRIOR TO CONSTRUCTION.
12. ALL MASONRY IN CONTACT WITH SOIL SHALL BE NORMAL WEIGHT UNITS AND HAVE ALL VOIDS FILLED WITH GROUT.
13. MASONRY WALL TO INTERLOCK (50% MASONRY BOND) AT ALL INTERSECTING WALLS.
14. PROVIDE ADEQUATE TEMPORARY BRACING DURING CONSTRUCTION FOR ALL MASONRY WALLS AS REQUIRED TO WITHSTAND ALL LATERAL LOADS AND THE PRESSURES OF FLUID GROUT. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT SUPPORT SYSTEMS ARE INSTALLED AND HAVE BECOME FULLY EFFECTIVE.
15. SPECIAL INSPECTION IN ALL CMU WORK IS REQUIRED BY A QUALIFIED INSPECTOR AT CONTRACTOR'S EXPENSE.

14. CONCRETE TICKETS FOR CONCRETE MIXES DELIVERED TO THE SITE SHALL IDENTIFY THE EXACT TIME THAT THE MIX IS BATCHED. CONCRETE PLACEMENT SHALL OCCUR WITHIN ONE AND A HALF HOURS FROM THE TIME THE PROPORTIONED MIXING WATER IS ADDED TO THE MIX FOR PLACEMENT. MIXES SHALL BE DISCARDED IF THIS TIMEFRAME IS EXCEED. IT SHALL BE THE RESPONSIBILITY OF THE INDEPENDENT TESTING LAB TO ASSURE COMPLIANCE WITH PLACING TIME AND TO NOTIFY THE CONTRACTOR AND OWNER OF NON-COMPLIANCE.
15. CONCRETE FORMS SHALL NOT BE STRIPPED UNTIL CONCRETE HAS ATTAINED A MINIMUM 70% OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH AS INDICATED BY TESTING SAMPLES.
16. LAP SPlice LENGTHS SHALL BE A MINIMUM OF 48 BAR DIA UNO.
17. CONCRETE CLEAR COVER OVER REINF SHALL BE IN ACCORDANCE WITH ACI 318 AS LISTED BELOW, UNLESS NOTED OTHERWISE.

<u>LOCATION</u>	<u>CLEAR COVER</u>
CAST AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER #6 AND LARGER	2"
EXPOSED TO EARTH OR WEATHER #5 AND SMALLER	1 1/2"
SLABS AND WALLS NOT EXPOSED TO WEATHER	3/4"
BEAMS AND COLUMNS NOT EXPOSED TO WEATHER	1 1/2"
SLABS ON GRADE (COVER FROM TOP OF SLAB)	1 1/2"

18. VERT AND HORIZ REINF INDICATED ON THE DWGS SHALL BE DOWELED OUT OF THE FOUNDATION OR THE ELEMENT WHERE THE REINF ORIGINATES, (SLAB BEAM, THE BEAM, WALL, ETC.) UTILIZING AN ACI STANDARD HOOK EMBEDDED TO DEVELOP THE FULL ULTIMATE TENSILE STRENGTH OF THE BAR.
19. FORMWORK REMOVAL IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REMOVE FORMS IN SUCH A MANNER AS TO INSURE JOB SAFETY AND TO PREVENT DAMAGE TO, AND CREEP DEFLECTION OF THE STRUCTURE.
20. IMMEDIATELY AFTER REMOVAL OF FORMS, REPAIR HONEYCOMBED OR DEFECTIVE AREAS WITH HIGH STRENGTH CEMENT GROUT. GROUT SHALL BE APPROVED BY THE STRUCT ENGINEER. WHEN REINF IS VISIBLE IN DEFECTIVE AREA, CONTACT THE STRUCT ENGINEER IMMEDIATELY.
21. PLACE CONCRETE FOR SLABS-ON-GRADE IN ACCORDANCE WITH JOINT PATTERNS INDICATED ON PLAN. PLACE IN LINEAR STRIPS NOT TO EXCEED 30 FEET. PLACEMENTS AREA SHALL NOT EXCEED "FORMED JOINTS" AS INDICATED ON PLAN WITHOUT PRIOR ACCEPTANCE BY THE ENGINEER. BEGIN SAWCUTTING OF THE SLAB AS SOON AS THE SAW DOES NOT CAUSE THE SURFACE TO BE TORN OR DAMAGED, BUT IN NO CASE MORE THAN 12 HOURS AFTER SLAB FINISHING OPERATIONS.
22. MINIMUM ELAPSED TIME BETWEEN ADJACENT CONCRETE PLACEMENTS SHALL BE 48 HOURS.
23. WIRE BRUSH CLEAN AND MOISTEN ALL CONSTRUCTION JOINTS IMMEDIATELY PRIOR TO PLACING NEW CONCRETE.

CONCRETE MIX REQUIREMENTS				
COMPONENT	28-DAY STRENGTH	W/C RATIO	AIR CONTENT	SLUMP
SLAB-ON-GRADE	4,000 PSI	0.50	UP TO 2%	4 TO 6 IN
FOOTINGS	4,000 PSI	0.50	UP TO 2%	4 TO 6 IN
CONCRETE CAST ABOVE GRADE	4,000 PSI	0.45	5%	4 TO 6 IN

PHASE 2 - 90% SUBMITTAL

REVISIONS						<div>GAI CONSULTANTS, INC.</div> <div>600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066</div>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	S-003	SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01	STRUCTURAL GENERAL NOTES	3 OF 26

STRUCTURAL STEEL FRAMING

1. A QUALITY CONTROL PROGRAM OF SHOP AND FIELD TESTING AND INSPECTION WILL BE PERFORMED ON ALL STRUCTURAL STEEL FABRICATION, ERECTION AND CONNECTIONS IN ACCORDANCE WITH THE SPECIFICATIONS.
2. STRUCTURAL STEEL SHALL MEET THE FOLLOWING REQUIREMENTS UNO ON THE DRAWINGS:

TYPE	ASTM	GRADE
WIDE-FLANGE TYPE SHAPES (W, S & M)	A992	50
ANGLES, CHANNELS AND PLATES	A36	-----
PIPE	A53	B
STRUCT TUBING	A500	B
ANCHOR BOLTS	ASTM F1554	-----
STRUCT BOLTS	A325N	-----
ERECTION BOLTS	A307	-----

3. DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH THE AISC SPECIFICATIONS AND CODES, LATEST EDITIONS.
4. PERFORM ALL WELDING USING QUALIFIED WELDERS AND IN ACCORDANCE WITH THE AWS "STRUCTURAL WELDING CODE - STEEL", LATEST EDITION. COMPLY WITH AISC SPECIFICATION SECTION 1.17 FOR MINIMUM FILLET WELD SIZE, BUT DO NOT USE LESS THAN ¼ INCH UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. ALL WELDING SHALL USE E70XX ELECTRODES. ALL WELD SHALL BE TOUCHED UP WITH ZINC-RICH PROTECTIVE PAINT FOR CORROSION RESISTANCE.
5. PROVIDE 3/4" MINIMUM DIAMETER HIGH STRENGTH BOLTS WHICH CONFORM TO THE REQUIREMENTS OF ASTM A325N FOR ALL BOLTED CONNECTIONS WITH DIRECT TENSION INDICATOR (DTI) WASHERS TO INSURE PROPER TENSIONING.
6. SUBMIT CHECKED SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. SHOW SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION DIAGRAMs FOR ALL STRUCTURAL STEEL.
7. ANCHOR BOLTS AND BEARING PLATES SHALL BE LOCATED AND BUILT INTO CONNECTING WORK, PRE-SET BY TEMPLATES OR SIMILAR METHODS. ALL PLATES SHALL BE SET IN FULL BEDS OF NON-SHRINK GROUT.
8. TEMPORARY ERECTION BRACING SHALL BE PROVIDED AS REQUIRED FOR THE SAFETY, STABILITY AND ALIGNMENT OF THE STRUCTURE. IT SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED. THE BUILDING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS MAY BE FINALLY BOLTED OR WELDED.
9. DO NOT FIELD CUT ANY STRUCTURAL STEEL WITHOUT THE REVIEW AND ACCEPTANCE OF THE ARCHITECT/ENGINEER.

STEEL DECKING

1. METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTE (SDI) SPECIFICATIONS, PER EDITION REFERENCED IN BUILDING CODE, AND BE DETAILED, FABRICATED AND ERECTED ACCORDING TO THE SAME. SUBMIT SHOP DRAWINGS AND SIGNED AND SEALED CALCULATIONS BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF FLORIDA FOR APPROVAL BY THE ENGINEER OF RECORD SHOWING COMPLIANCE WITH DIAPHRAGM AND NET UPLIFT LOADS REQUIREMENTS AS INDICATED ON THE DRAWINGS.
2. STEEL ROOF DECK SHALL BE TYPE1.5B OR APPROVED EQUAL, 1 1/2" DEEP, 20 GA. WIDE RIB METAL DECKING.
3. FABRICATE METAL DECKING FROM STEEL WHICH CONFORMS TO ASTM A446, GRADE A, HAVING A MINIMUM YIELD STRENGTH OF 33,000 PSI. HOT DIP GALVANIZE ROOF DECK TO G90 REQUIREMENTS AND ALL OTHER METAL DECK TO G60 REQUIREMENTS.
4. DECKING SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SUPPORTS. USE SINGLE SPANS ONLY WHERE REQUIRED BY FRAMING GEOMETRY AND IDENTIFY LOCATIONS ON METAL DECK SHOP DRAWINGS.
5. EACH DECK UNIT SHALL BE ATTACHED TO SUPPORTING MEMBERS AND ADJACENT PANELS PER DIAPHRAGM ATTACHMENT REQUIREMENTS SPECIFIED ON DRAWINGS.
6. SUBMIT CHECKED SHOP DRAWINGS TO THE ENGINEER FOR REVIEW INDICATING LOCATION, GAGE AND SIZE OF EACH PIECE OF DECKING. SHOW FASTENING DETAILS TO FRAMING AND SIDE LAP CONNECTION DETAILS.
7. DO NOT HANG LOADS EXCEEDING 50 LBS. FROM ANY METAL DECKING. HANG ALL DUCTWORK, PIPING, ETC. DIRECTLY FROM FRAMING MEMBERS OR SUPPLEMENTARY MEMBERS.

LUMBER FRAMING

1. ALL LUMBER SHALL BE SOUTHERN PINE NO. 2 WITH AN ALLOWABLE MINIMUM EXTREME FIBER IN BENDING (FB) OF 1250 PSI FOR SINGLE MEMBER USE.
2. LUMBER SHALL COMPLY WITH PS20 "AMERICAN SOFTWOOD LUMBER STANDARD" WITH APPLICABLE GRADING RULES.
3. ALL PLYWOOD SHEATHING SHALL BE APA RATED, 5/8" PANELS. SEE DETAILS FOR LIMITS & LOCATIONS OF PLYWOOD DECKING.
4. PLYWOOD SHALL CONFORM TO REQUIREMENTS OF PS 1 "U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" AND AMERICAN PLYWOOD ASSOCIATION (APA) "PERFORMANCE STANDARD AND QUALIFICATION POLICY FOR STRUCTURAL USE PANELS", FORM NO. PRP-108.
5. FACTORY MARK EACH CONSTRUCTION PANEL WITH APA TRADEMARK INDICATING COMPLIANCE WITH GRADE REQUIREMENTS. ROOF SHEATHING: EXPOSURE DURABILITY CLASSIFICATION - EXTERIOR EXPOSURE 1.
6. PROVIDE FASTENERS AND ANCHORAGE AS INDICATED AND AS RECOMMENDED BY APPLICABLE STANDARDS, COMPLYING WITH FEDERAL STANDARDS FOR NAILS, STAPLES, SCREWS, BOLTS, NUTS, WASHERS AND ANCHORING DEVICES.
7. WHERE ROUGH CARPENTRY WORK IS EXPOSED TO GROUND OR WEATHER, USE FASTENERS WITH A HOT-DIP ZINC COATING (ASTM A153).
8. PRESSURE TREATED LUMBER WITH WATER BORNE PRESERVATIVES TO COMPLY WITH AWPB LP-2 FOR ALL LUMBER EXPOSED TO MOISTURE INCLUDING BUT NOT LIMITED TO WOOD CANTS, NAILERS, BLOCKING, STRIPPING, MEMBERS IN CONNECTION WITH ROOFING, FLASHING, VAPOR BARRIERS AND WATERPROOFING, SILLS, SLEEPERS, MEMBERS IN CONTACT WITH MASONRY OR CONCRETE, AND MEMBERS LESS THAN 18" ABOVE GRADE.

PREFABRICATED WOOD TRUSSES

1. SUBMIT ENGINEERED AND CHECKED TRUSS SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. SHOW SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION PLANS FOR ALL PREFABRICATED WOOD TRUSSES.
2. SUBMIT TRUSS MEMBER, BRACING, AND CONNECTION DESIGN CALCULATIONS, PREPARED AND SEALED BY A QUALIFIED STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA, TO THE ENGINEER FOR REVIEW.
3. DESIGN ALL TRUSS MEMBERS AND CONNECTIONS IN ACCORDANCE WITH THE LATEST EDITIONS OF TP1 "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES" AND AND NFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" TO SUPPORT ALL LOAD CONFIGURATIONS INDICATED.
4. ALL TIMBER SHALL BE NEW TIMBER WITH THE FOLLOWING MINIMUM MATERIAL PROPERTIES:
- |                               |               |
|-------------------------------|---------------|
| EXTREME FIBER BENDING STRESS  | 1450 PSI      |
| HORIZONTAL SHEAR STRESS       | 95 PSI        |
| COMPRESSION PARALLEL TO GRAIN | 1000 PSI      |
| MODULES OF ELASTICITY         | 1,700,000 PSI |
5. TRUSS CONNECTOR PLATES SHALL BE FORMED FROM NEW SHEET STEEL, 20 GAGE MINIMUM, CONFORMING TO ASTM A446 WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI. CONNECTOR PLATES SHALL BE HOT-DIPPED GALVANIZED, COATING DESIGNATION G60.
6. PROVIDE TRUSSES WITH AN UPWARD CAMBER WHICH OFFSETS TRUSS DEFLECTIONS CAUSED BY MEMBER SELF-WEIGHT, ROOF SHEATHING, HUNG CEILING AND MECHANICAL UNITS.
7. THE TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE ALL TEMPORARY TRUSS BRACING, BRIDGING AND SHORING AS REQUIRED FOR THE SAFETY, STABILITY AND ALIGNMENT OF THE ROOF AND/OR FLOOR TRUSS SYSTEM. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL THE PERMANENT LATERAL LOAD RESISTING SYSTEM IS FULLY OPERATIONAL.
8. HANDLE AND ERECT ALL TRUSSES IN SUCH A MANNER AS TO AVOID PERMANENT STRUCTURAL DAMAGE TO TRUSS MEMBERS OR CONNECTIONS. HOIST TRUSSES INTO POSITION ONLY AT POINTS SPECIFICALLY DESIGNED AND DESIGNATED BY THE TRUSS MANUFACTURER.
9. DO NOT FIELD CUT OR MODIFY TRUSS MEMBERS OR CONNECTIONS WITHOUT THE PRIOR REVIEW OR ACCEPTANCE OF THE ENGINEER OR TRUSS MANUFACTURER.

COLD-FORMED METAL TRUSSES

1. DESIGN, FABRICATE AND ERECT LIGHT GAGE TRUSSES IN ACCORDANCE WITH AISI SG-971 - SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCT MEMBERS; 1996, WITH 2000 SUPPLEMENT. ERECTION PLANS, TRUSS AND CONNECTION CALCULATIONS, DESIGNED BY THE CONTRACTOR, SHALL BE SUBMITTED FOR THE FILES OF THE STRUCT ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
2. TRUSS MANUFACTURER SHALL DESIGN FOR THE SUPERIMPOSED DEAD AND LIVE LOADS INDICATED ON DRAWING S-301.
3. DESIGN ROOF TRUSSES TO RESIST A WIND UPLIFT PRESSURE APPLIED NORMAL TO THE ROOF PLANE - SEE NET UPLIFT PLAN.
4. IN ADDITION TO THE ABOVE LOADS, LIGHT GAGE TRUSSES SHALL BE DESIGNED FOR CONCENTRATED LOADS HUNG FROM OR SUPPORTED ON TRUSSES. SEE STRUCTURAL ROOF FRAMING PLAN AS WELL AS MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR LOADING INFORMATION AND LOCATION. LOADING AS REQUIRED BY OTHER SUBCONTRACTORS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR.
5. INDICATE ALL LIGHT GAGE TRUSS CONNECTIONS AND BRACING, TEMPORARY AND PERMANENT, ON THE SHOP DRAWINGS. CONNECTORS AND BRACING MEMBERS SHALL BE FURNISHED BY THE TRUSS MANUFACTURER AND INSTALLED BY THE CONTRACTOR. SHOP DRAWINGS THAT DO NOT INCLUDE THESE DETAILS WILL RESULT IN SHOP DRAWINGS BEING RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.
6. TEMPORARY BRACING SHALL NOT IMPOSE ANY FORCE ON THE SUPPORTING STRUCTURE. PERMANENT BRACING FORCES SHALL BE TRANSFERRED TO THE ROOF DIAPHRAGM BY THE BRACING DESIGN PROVIDED BY THE TRUSS MANUFACTURER.
7. COMPLY WITH AWS D1.1 AND AWS D1.3, AS APPLICABLE, FOR WELDING BASE METALS LESS THAN 1/8 INCH THICK. QUALIFY WELDING PROCESSES AND WELDING OPERATORS IN ACCORDANCE WITH AWS B2.1.
8. VERTICAL LIVE LOAD DEFLECTION ON ROOF TRUSSES SHALL BE LESS THAN OR EQUAL TO 1/240 OF SPAN.
9. DESIGN FRAMING SYSTEMS TO PROVIDE FOR MOVEMENT OF FRAMING MEMBERS WITHOUT DAMAGE OR OVER STRESSING, SHEATHING FAILURE, CONNECTION FAILURE, UNDUE STRAIN ON FASTENERS AND ANCHORS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO MAXIMUM AMBIENT TEMPERATURE RANGE OF 120 DEGREES F (67 DEGREES C).
10. STORE TRUSSES ON BLOCKING, PALLETS, PLATFORMS OR OTHER SUPPORTS OFF THE GROUND AND IN AN UPRIGHT POSITION SUFFICIENTLY BRACED TO AVOID DAMAGE FROM EXCESSIVE BENDING.
11. PROTECT TRUSSES AND ACCESSORIES FROM CORROSION, DEFORMATION, DAMAGE AND DETERIORATION WHEN STORED AT JOB SITE. KEEP TRUSSES FREE OF DIRT AND OTHER FOREIGN MATTER.
12. DURING CONSTRUCTION, ADEQUATELY DISTRIBUTE ALL LOADS APPLIED TO TRUSSES SO AS NOT TO EXCEED THE CARRYING CAPACITY OF ANY ONE JOIST, TRUSS OR OTHER COMPONENT.
13. PROVIDE MANUFACTURER'S STANDARD STEEL TRUSS MEMBERS, BRACING, BRIDGING, BLOCKING, REINFORCEMENTS, FASTENERS AND ACCESSORIES WITH EACH TYPE OF STEEL FRAMING REQUIRED, AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE LIGHT GAUGE COLD-FORMED STEEL TRUSS SYSTEM.
14. PROVIDE HOT-DIPPED GALVANIZED COATING FINISH, MINIMUM G90/Z275.
15. BRACING, BRIDGING AND BLOCKING MEMBERS: FABRICATE COMPONENTS OF ASTM A 653/A 653M CS TYPE B STEEL SHEET WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
16. FASTENERS: MANUFACTURER RECOMMENDED SELF-DRILLING, SELF TAPPING SCREWS WITH CORROSION-RESISTANT PLATED FINISH OF SUFFICIENT SIZE AND NUMBER TO ENSURE THE STRENGTH OF THE CONNECTION.
17. TRUSSES SHALL BE FASTENED TO CONCRETE BEAMS AND MASONRY BOND BEAMS USING CLIPS AND FASTENERS INDICATED ON PLANS

PHASE 2 - 90% SUBMITTAL

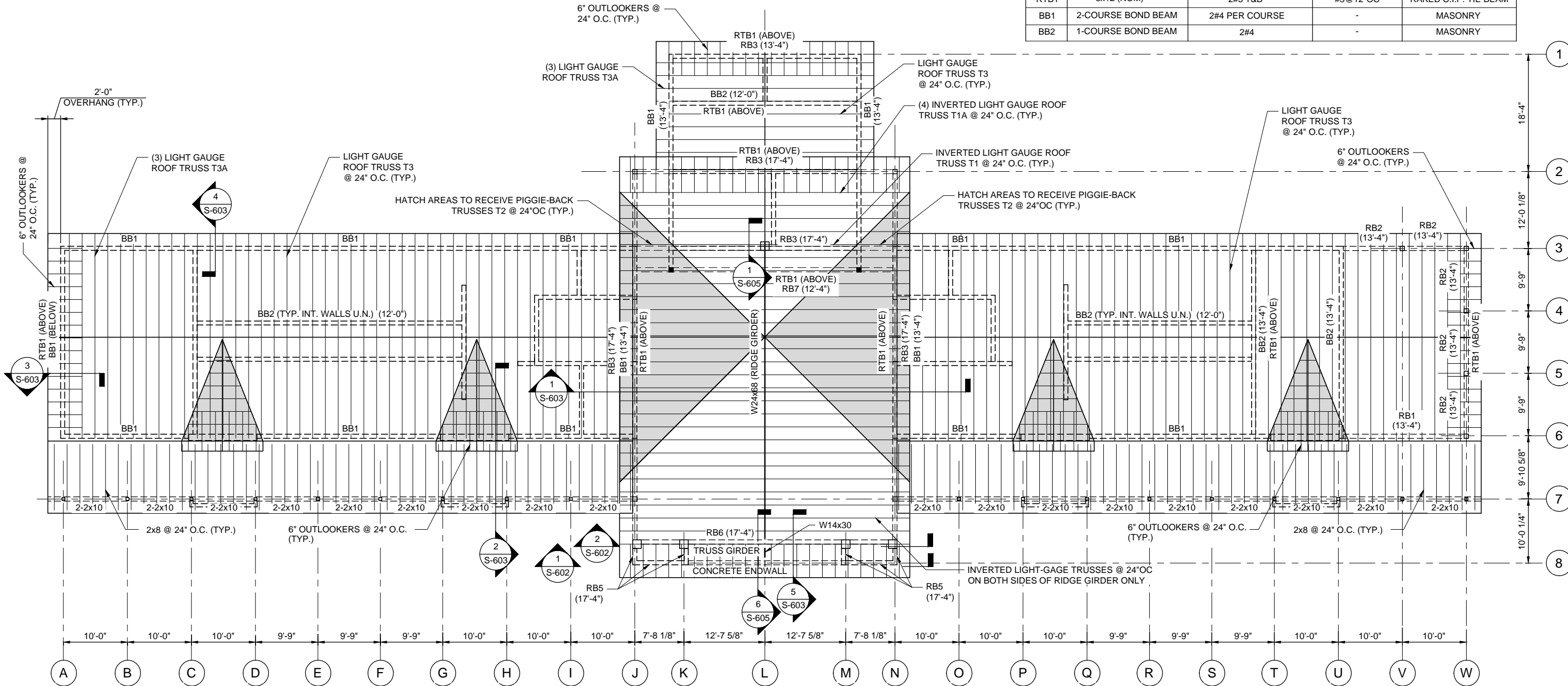
REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	STRUCTURAL GENERAL NOTES	S-004
											SHEET NO.
											SR 8







TYPE	SIZE	REINFORCEMENT		COMMENTS
		LONGITUDINAL	TIES	
RB1	8x24	2#6 T&B	#3@8"OC	C.I.P.
RB2	8x16	2#6 T&B	5#3@6"OC EE B/L@12"OC	C.I.P.
RB3	8x16	2#6 T&B	#3@6"OC	C.I.P.
RB5	8x16	2#6 T&B	#3@6"OC	C.I.P.
RB6	8x40	2#6 TOP AND BOTTOM 6#4 MIDDLE EACH SIDE	#3@6"OC	C.I.P.
RB7	8x24	2#6 TOP AND MIDDLE 2#9 BOTTOM	#3@10"OC	C.I.P.
RTB1	8x12 (NOM)	2#5 T&B	#3@12"OC	RAKED C.I.P. TIE BEAM
BB1	2-COURSE BOND BEAM	2#4 PER COURSE	-	MASONRY
BB2	1-COURSE BOND BEAM	2#4	-	MASONRY



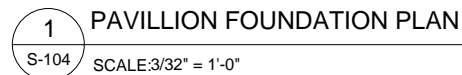
- NOTES:
- TOP OF CONCRETE BEAM AND MASONRY BOND BEAM ELEVATION IS (+13'-4") UNO FROM REFERENCE DATUM ELEVATION OF (TOP OF SLAB EL. 123.0').
  - TOP OF WOOD BEAM ELEVATION IS (+11'-1 1/4") UNO FROM REFERENCE DATUM ELEVATION.
  - TOP OF STEEL BEAM ELEVATION IS (+30'-2") UNO FROM REFERENCE DATUM ELEVATION.
  - PROVIDE SINGLE COURSE BOND BEAM WITH (2) #4 CONT AT WINDOW AND MANDOR OPENINGS.
  - TYPICAL ROOF DECK SHALL BE 1 1/2" TYPE B, 20 GA (GALVANIZED)
  - SPANNING PERPENDICULAR TO LIGHT GAGE ROOF TRUSSES. ROOF DECK ABOVE WOOD JOISTS SHALL BE 2x6 TONGUE AND GROOVE DECK.
  - ROOF TRUSSES SHALL BE DESIGNED FOR LOADS SHOWN ON THE TRUSS LOADING DIAGRAMS ON DRAWING S-301. TRUSS MANUFACTURER IS RESPONSIBLE FOR ALL LOAD COMBINATIONS TO PRODUCE THE MAXIMUM LOAD EFFECT FOR EACH TRUSS MEMBER.
  - TRUSS MANUFACTURER SHALL DESIGN PERMANENT TRUSS BRACING TO DISTRIBUTE LATERAL LOADS TO THE SHEAR WALLS AND CONCRETE MOMENT FRAME IDENTIFIED ON DRAWING S-101.
  - CONTRACTOR IS RESPONSIBLE FOR TEMPORARY ERECTION BRACING.

1 ROOF FRAMING PLAN  
S-102 SCALE: 1/16" = 1'-0"

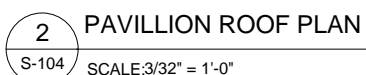
PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01		7 OF 26

REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	STORAGE ROOM	S-103
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											8 OF 26

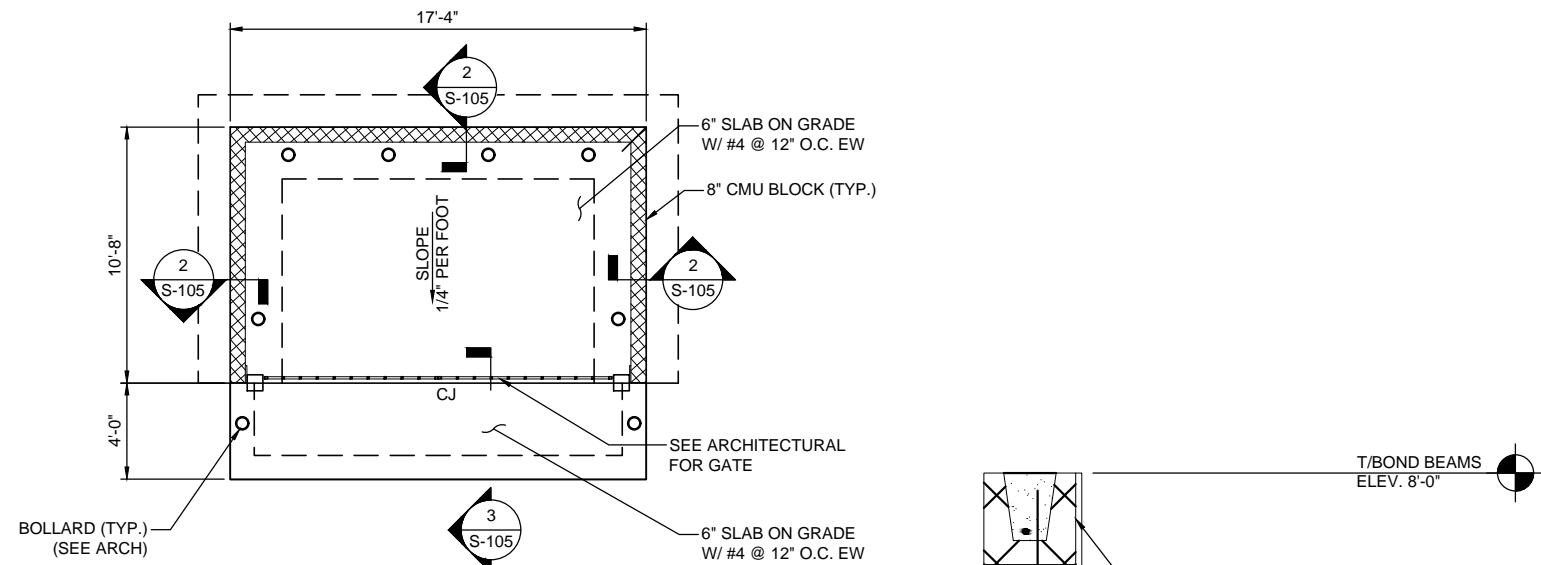


1. TOP OF SLAB ELEVATION IS (+0'-0") FROM DATUM ELEVATION (VARIES - SEE CIVIL).
2. CONTROL JOINTS NOTED AS SJ, SEE TYPICAL DETAIL.



PHASE 2 - 90% SUBMITTAL

REVISIONS						<div>GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066</div>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-104
							SR 8	COLUMBIA	438609-1-52-01	PICNIC PAVILLION	SHEET NO.
											9 OF 26

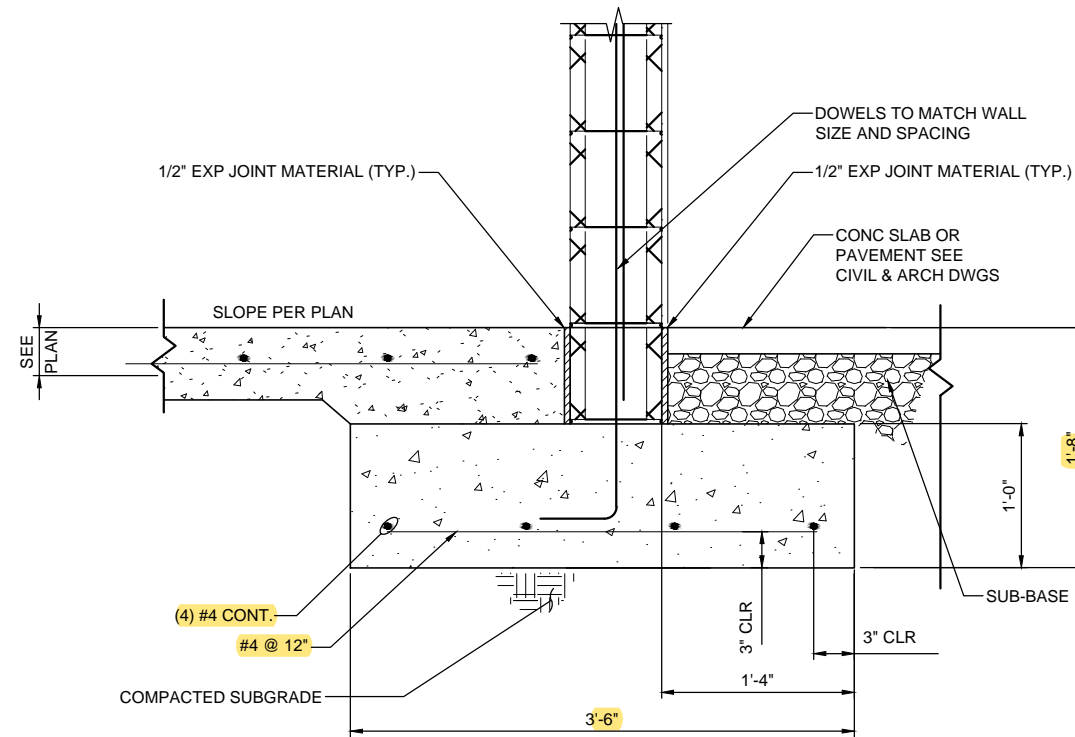
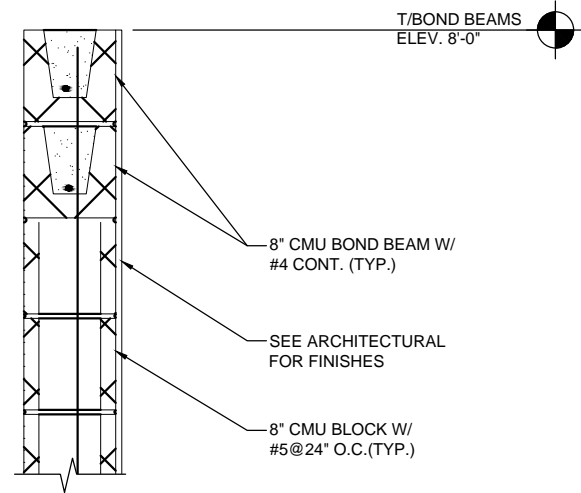


**1 DUMPSTER FOUNDATION PLAN**

S-105 SCALE: 1/8" = 1'-0"

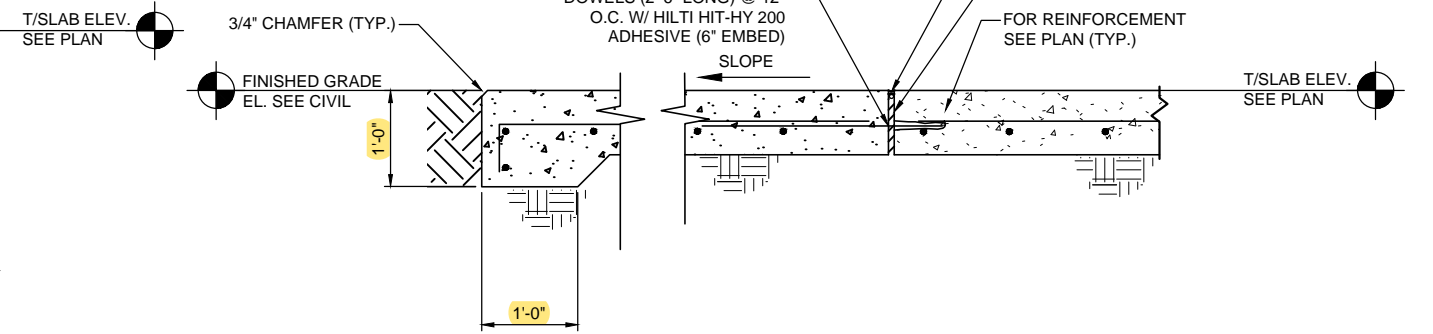
**NOTES:**

1. TOP OF SLAB ELEVATION (SEE CIVIL).
2. PROVIDE PREMOLDED JOINT FILLER, BACKER ROD, AND JOINT SEALANT AT INTERFACE.
3. CONTROL JOINTS NOTED AS CJ, SEE TYPICAL DETAIL.



**2 SECTION**

S-105 SCALE: 3/4" = 1'-0"



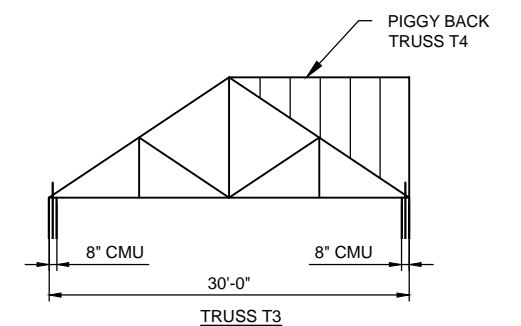
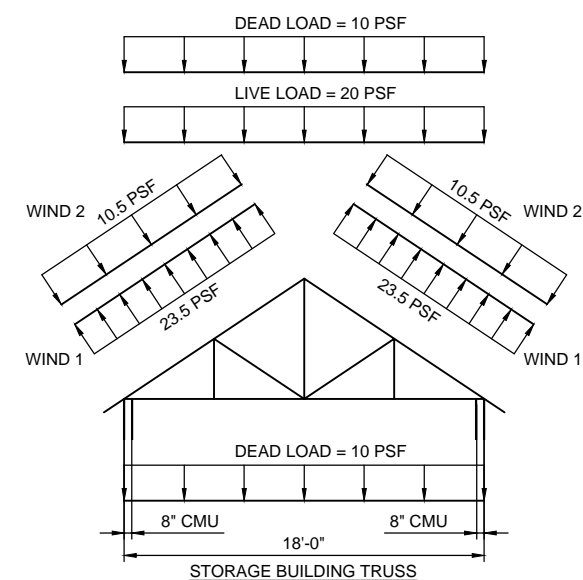
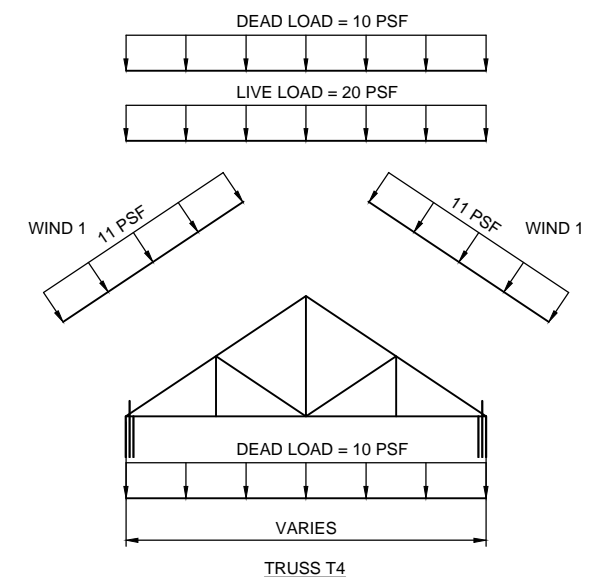
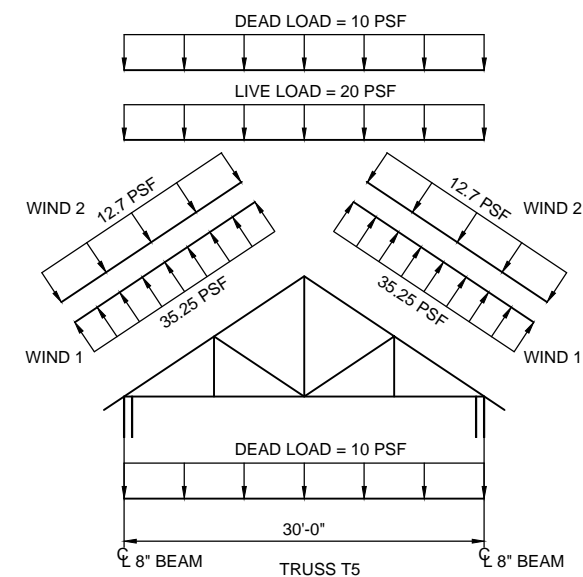
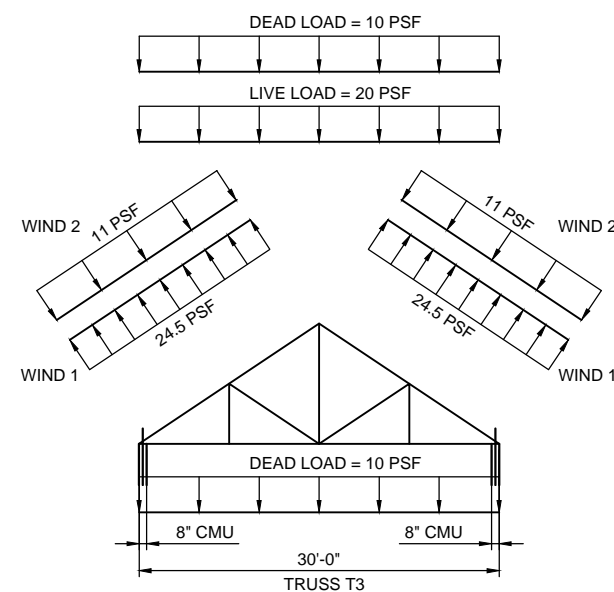
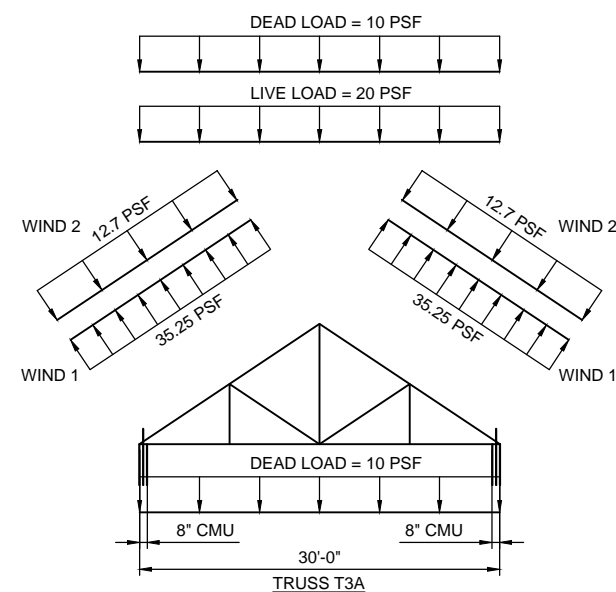
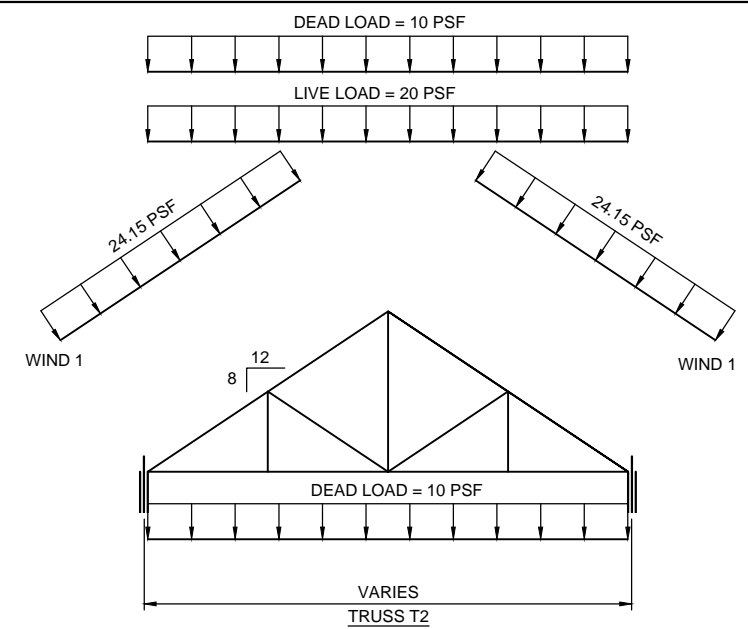
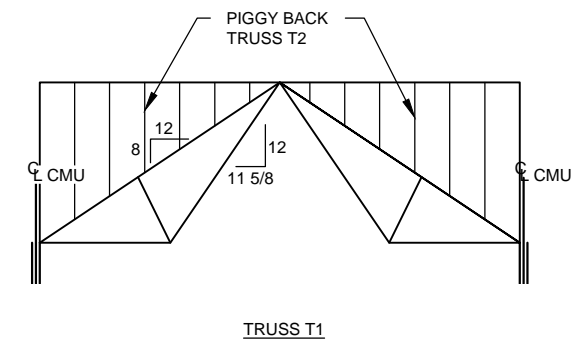
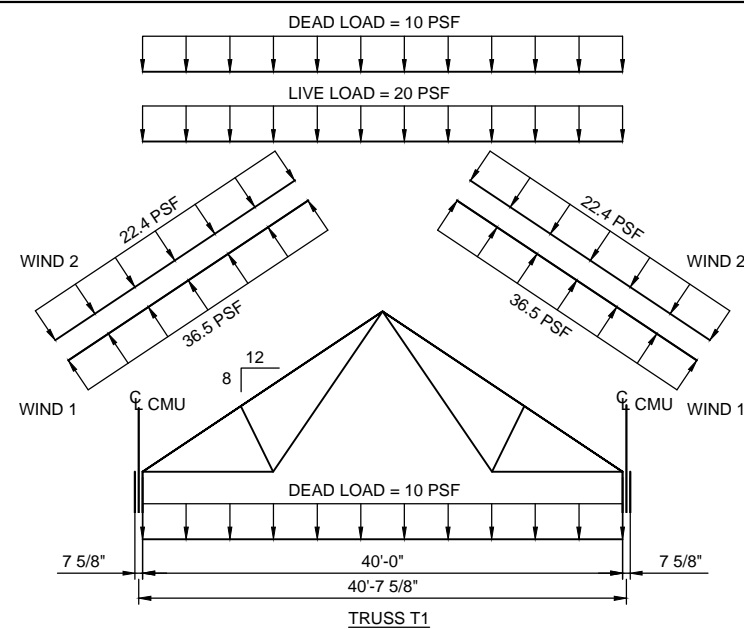
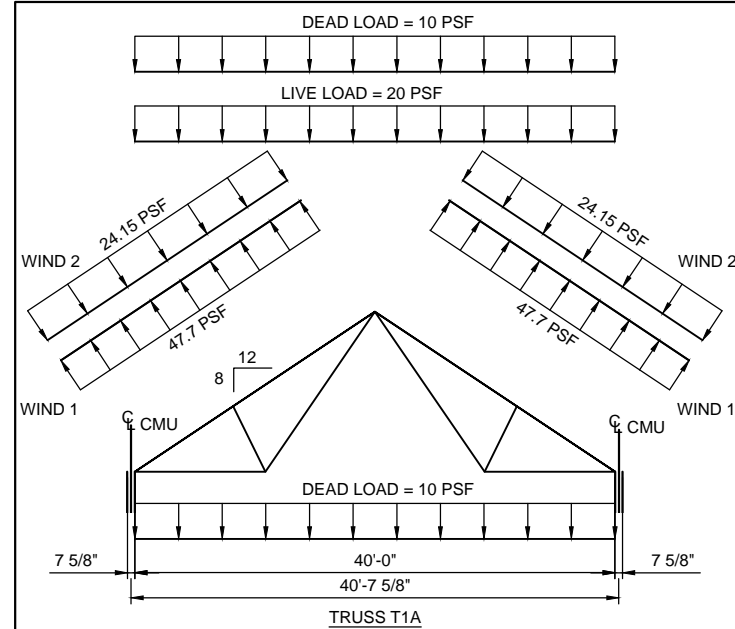
**3 SECTION**

S-103 SCALE: 1/2" = 1'-0"

PHASE 2 - 90% SUBMITTAL

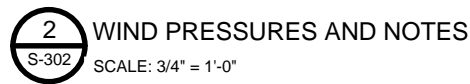
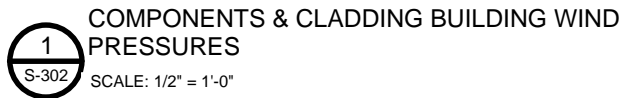
REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01		10 OF 26

PICNIC PAVILLION



PHASE 2 - 90% SUBMITTAL

REVISIONS						<div><div><b>GAI CONSULTANTS, INC.</b></div><div>600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066</div></div>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				S-301		
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SHEET NO.	
							SR 8	COLUMBIA	438609-1-52-01	11 OF 26	
							TRUSS LOAD DIAGRAMS				



REVISIONS						<div>GAI CONSULTANTS, INC.</div> <div>600 CRANBERRY WOODS DRIVE, SUITE 400,</div> <div>CRANBERRY TOWNSHIP, PA 16066</div>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					S-302		
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SCHEDULES		SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01			12 OF 26

MASONRY LAP SPLICE SCHEDULE	
BAR SIZE	MINIMUM LAP LENGTH
#4	24"
#5	30"
#6	36"
#7	48"
#8	60"

NOTE:  
STAGGER LAPS BETWEEN ADJACENT BARS  
MINIMUM 3'-0" FOR ALL HORIZ REINF

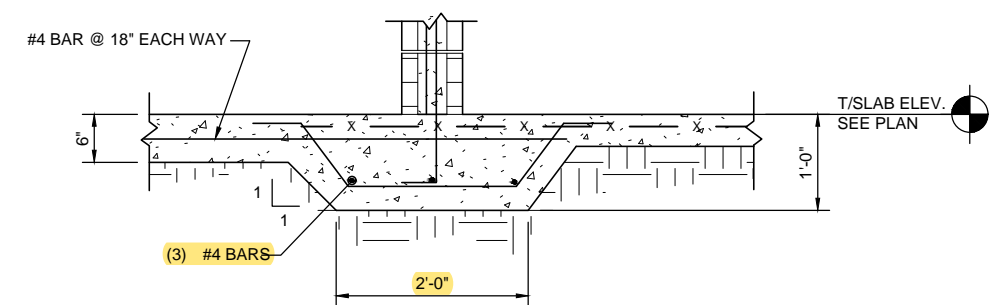
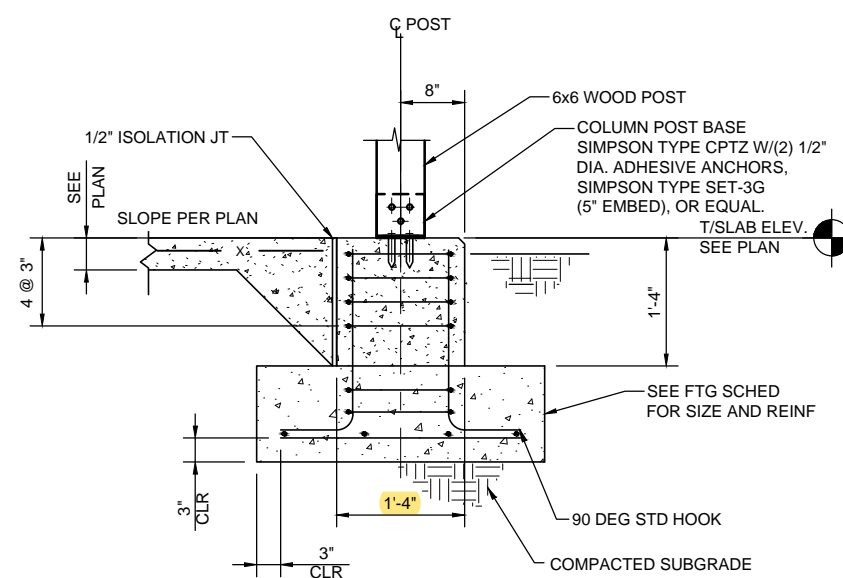
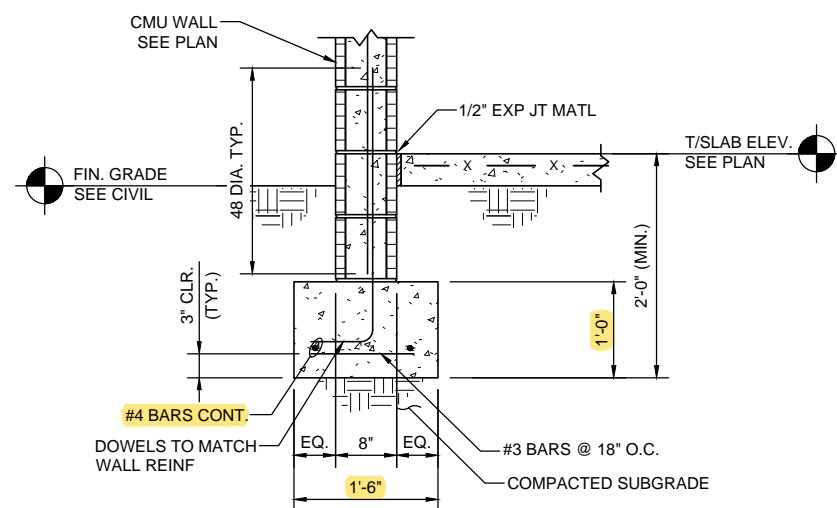
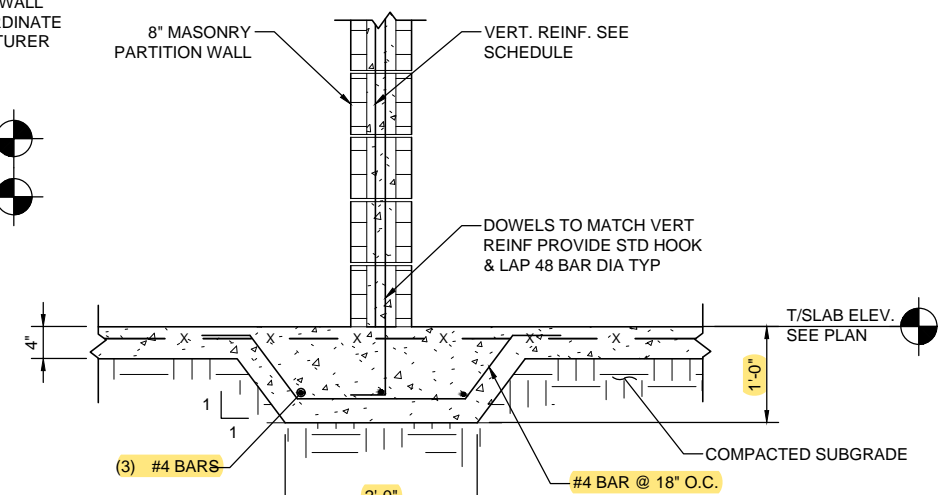
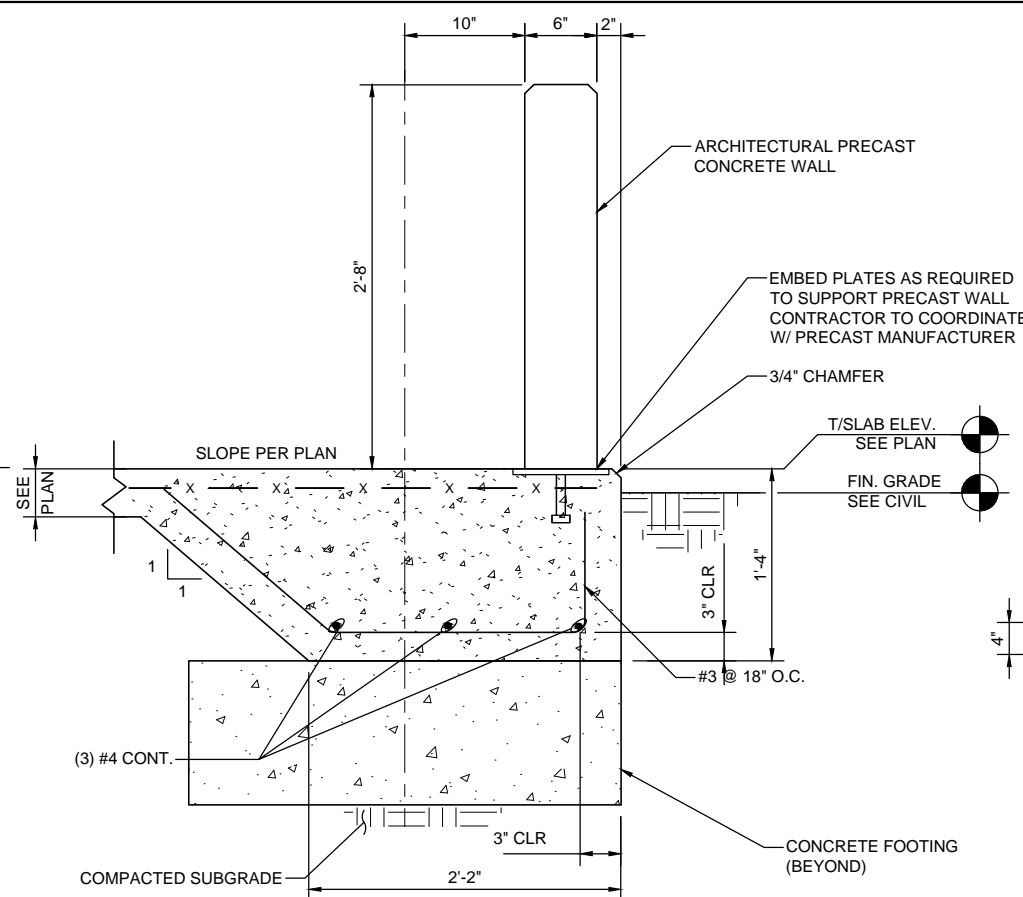
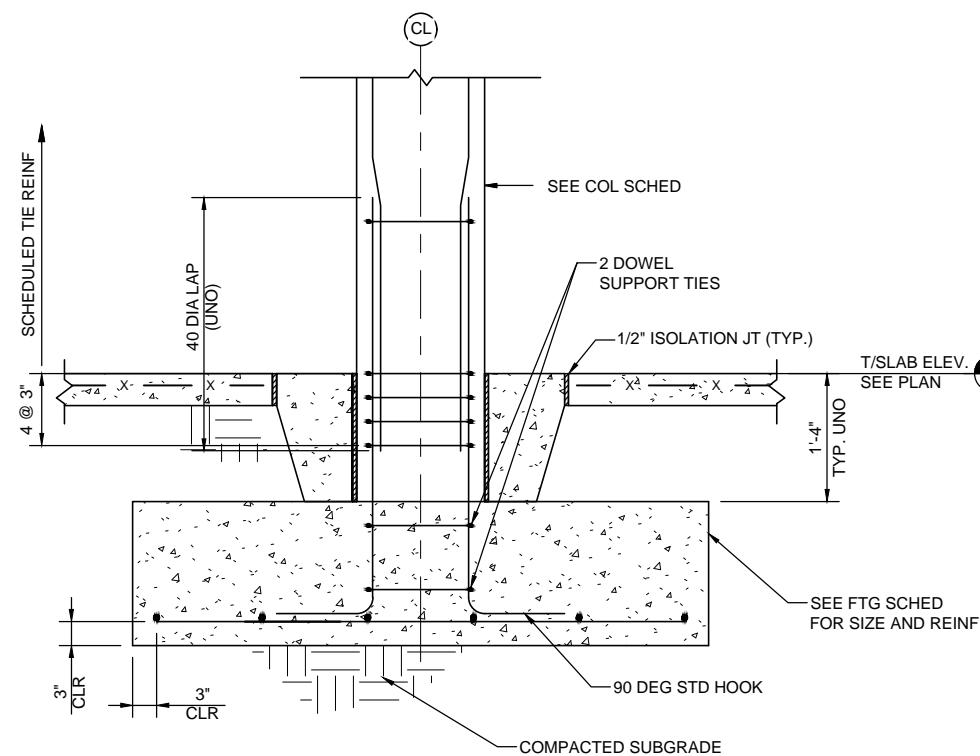
REINF BAR DEVELOPMENT LENGTH(Ld) AND LAP SPLICE SCHED.					
BAR SIZE	LAP SPLICE	WALLS AND SLABS MIN CONC COVER = 3/4"		BEAMS, COLS, WALLS, SLABS MIN CONC COVER = 1-1/2"	
		TOP (IN)	OTHER (IN)	TOP (IN)	OTHER (IN)
#3	A	13	12	12	12
	B	16	13	15	12
#4	A	22	17	15	12
	B	29	22	20	15
#5	A	35	27	19	15
	B	45	35	24	19
#6	A	50	38	27	21
	B	65	50	35	27
#7	A	85	65	46	35
	B	110	85	59	46
#8	A	110	85	60	46
	B	143	110	77	60
#9	A	140	108	76	58
	B	182	140	98	76
#10	A	178	137	96	74
	B	231	178	125	96

NOTES

1. TABULATED VALUES ARE BASED ON 4000 PSI NORMAL WEIGHT CONCRETE. FOR LIGHTWEIGHT CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3. FOR CONCRETE STRENGTHS OTHER THAN F<sub>c</sub> = 4000 PSI, MULTIPLY VALUES BY 63.25 DIVIDED BY THE SQ. ROOT F<sub>c</sub>.
2. TOP BARS ARE HORIZ BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
3. THIS SCHED IS VALID ONLY FOR BARS WITH SPECIFIED COVER AND SPACED GREATER THAN TWO TIMES (2X) THE INDICATED COVER DIMENSIONS PLUS ONE BAR DIA.
4. FOR EPOXY COATED BARS, MULTIPLY THE TABULATED VALUES BY 1.5
5. USE CLASS "B" LAP SPLICE UNO.
6. DEVELOPMENT LENGTH L<sub>d</sub> EQUALS THE "A" CLASS LAP DIMENSION.

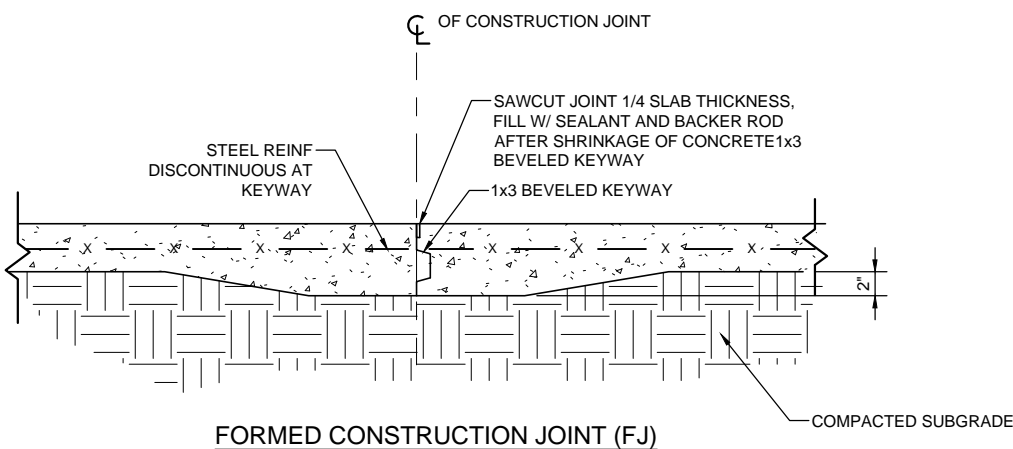
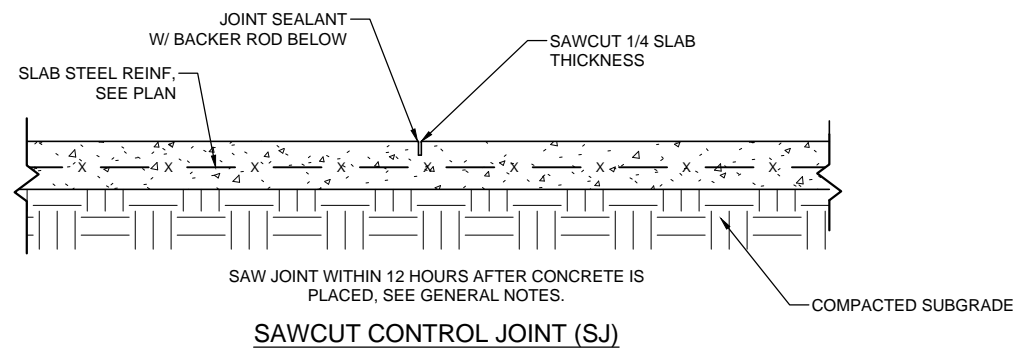
PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SCHEDULES	SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01		13 OF 26

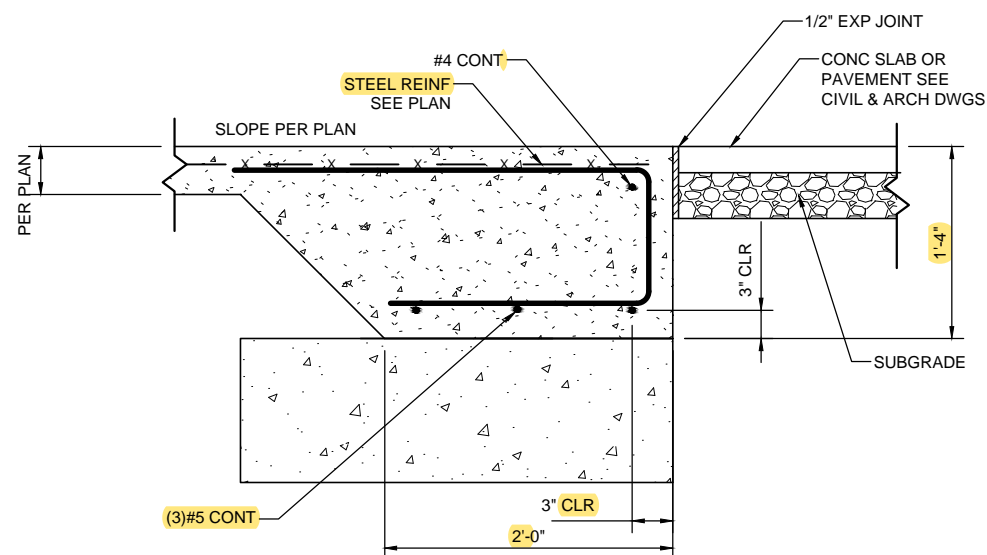


PHASE 2 - 90% SUBMITTAL

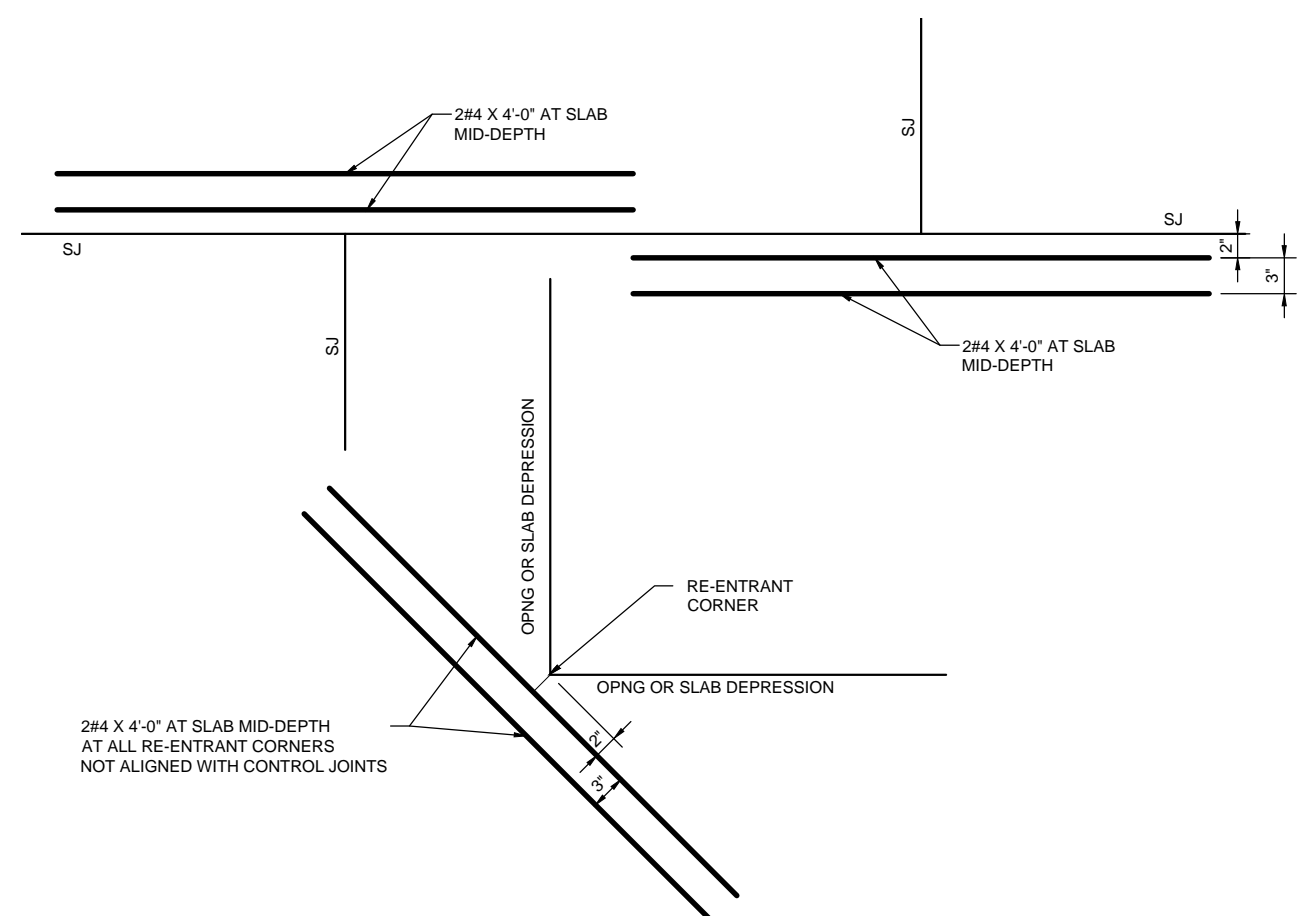
REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	<b>STATE OF FLORIDA</b> <b>DEPARTMENT OF TRANSPORTATION</b>			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS		DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION							S-401
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID	<b>FOUNDATION DETAILS</b>		SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01			14 OF 26



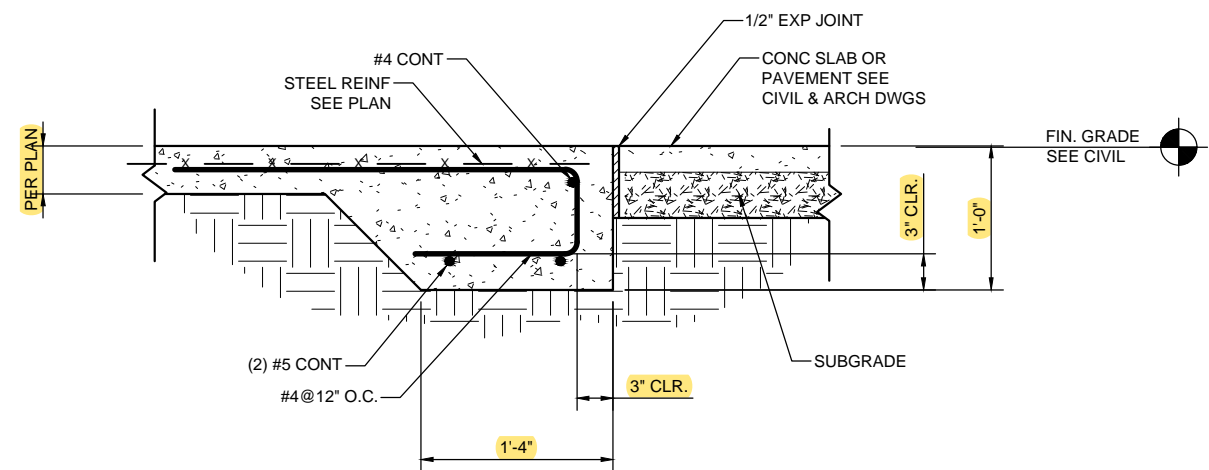
**1** SLAB CONTROL AND CONSTRUCTION JOINT DETAILS  
S-402 SCALE: 3/4" = 1'-0"



**3** SLAB EDGE AT DOOR-OPENING DETAIL  
S-402 SCALE: 3/4" = 1'-0"



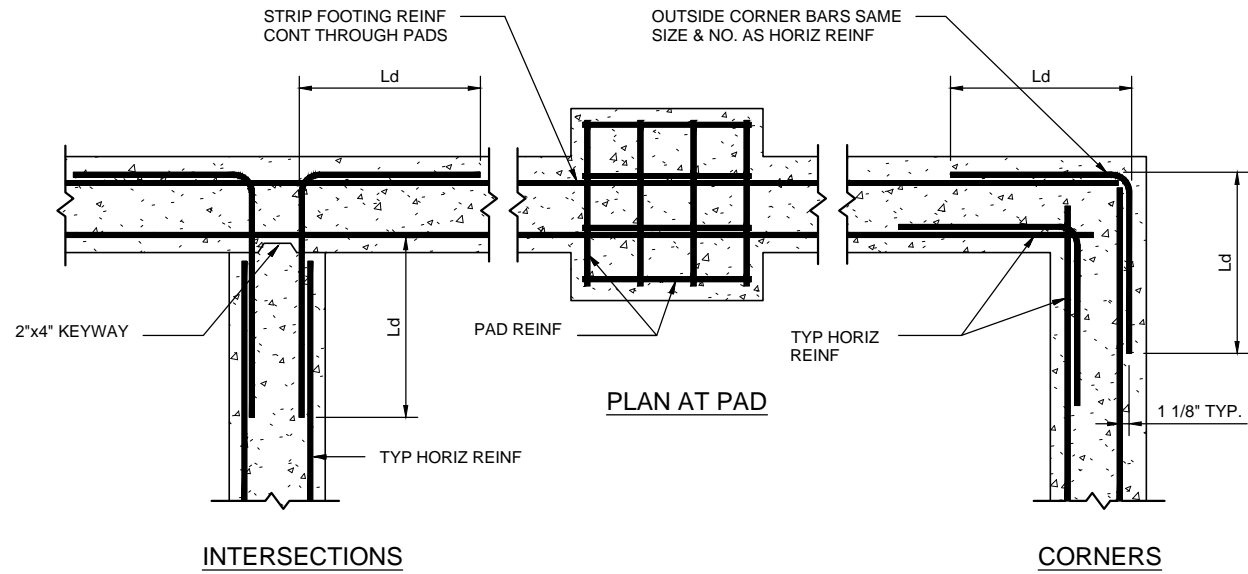
**2** RE-ENTRANT CORNER DETAIL  
S-402 SCALE: 3/4" = 1'-0"



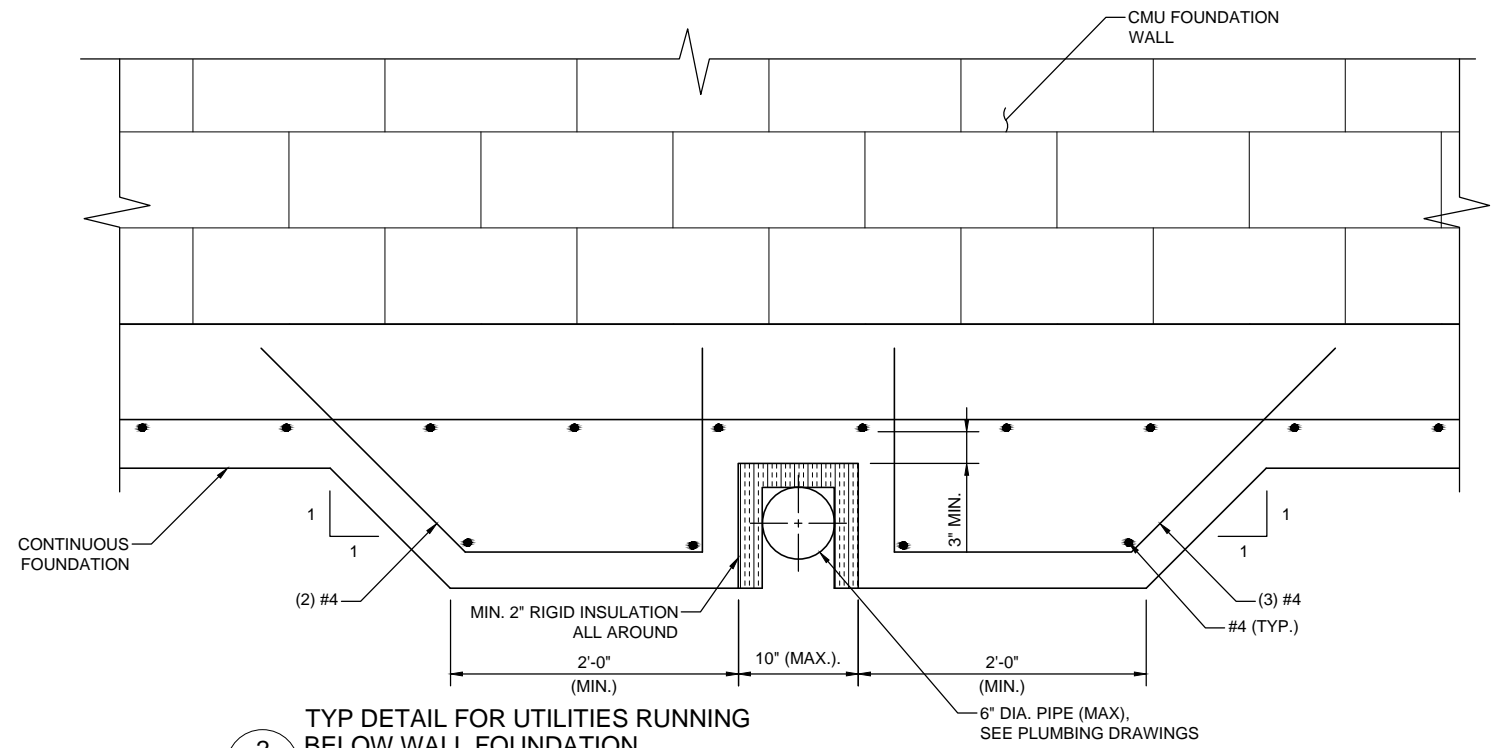
**4** SLAB EDGE DETAIL  
S-402 SCALE: 3/4" = 1'-0"

PHASE 2 - 90% SUBMITTAL

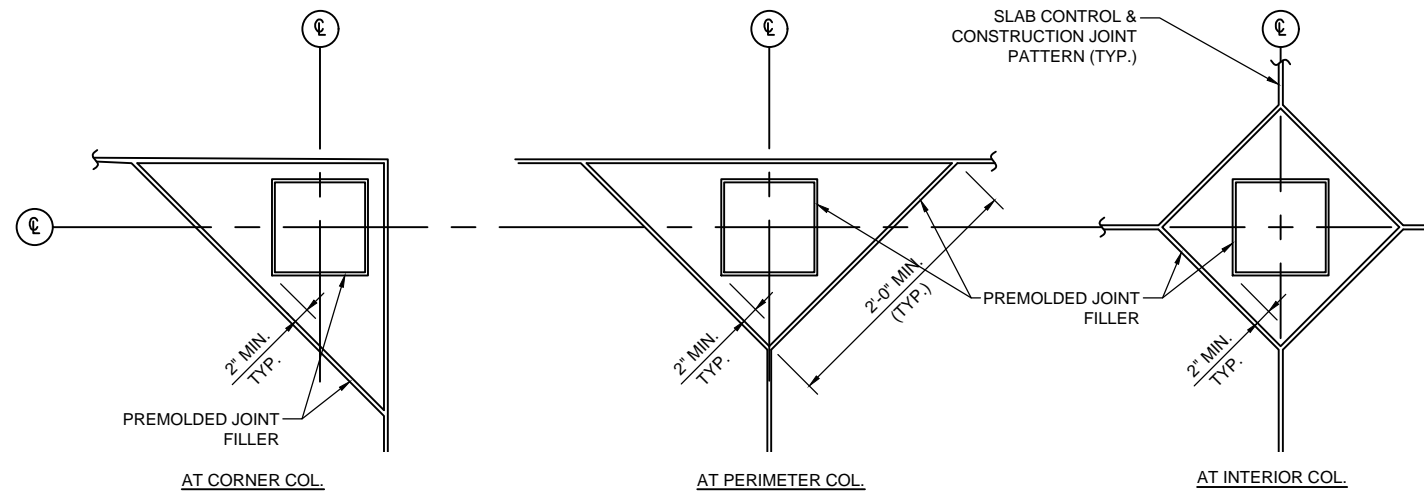
REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-402
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO.
										FOUNDATION DETAILS	15 OF 26



**1** TYP HORIZ. REINF. - CONC FOUNDATIONS  
S-403 SCALE: 1/2" = 1'-0"



**2** TYP DETAIL FOR UTILITIES RUNNING BELOW WALL FOUNDATION  
S-403 SCALE: 3/4" = 1'-0"



**4** COLUMN/SLAB-ON-GRADE ISOLATION JOINT DETAILS  
S-403 SCALE: N.T.S.

- NOTES:
1. PROVIDE MINIMUM 2" CONCRETE COVER BEYOND COLUMN BASE.
  2. SEE SLAB-ON-GRADE JOINT DETAILS FOR ADDITIONAL INFORMATION.

PHASE 2 - 90% SUBMITTAL

REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-403
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO.
										<b>FOUNDATION DETAILS</b>	16 OF 26



SEE MECH OR ELEC PLANS & SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, PAD SIZE, ACCESSORIES, AND LOCATIONS.

COORD. W/MECHANICAL DRAWINGS

COORD. SIZE AND LOCATION W/MECHANICAL DRAWINGS

6x6-W2.9xW2.9

SLAB-ON-GRADE, SEE PLAN FOR REINFORCEMENT

#4 @ 12" O.C. - 4 SIDES

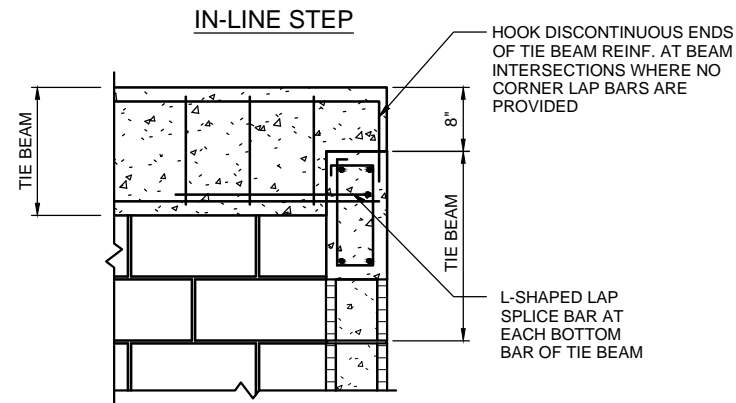
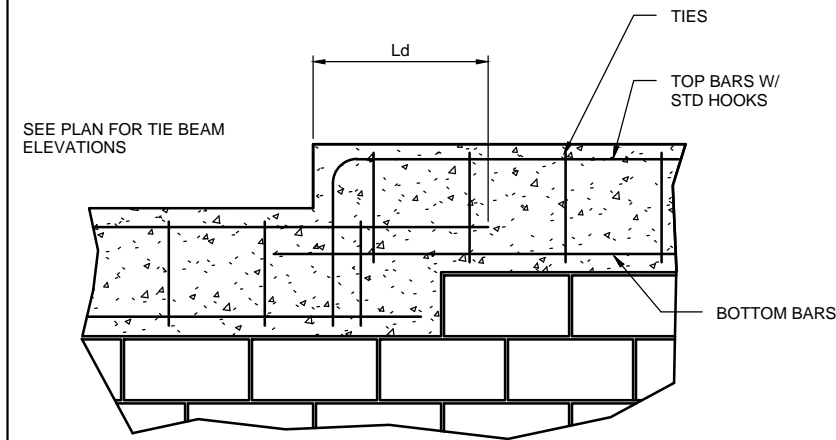
ROUGHEN SURFACE TO 1/4" AMPLITUDE AND APPLY BONDING AGENT

SEE MECH OR ELEC PLANS & SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, PAD SIZE, ACCESSORIES, AND LOCATIONS.

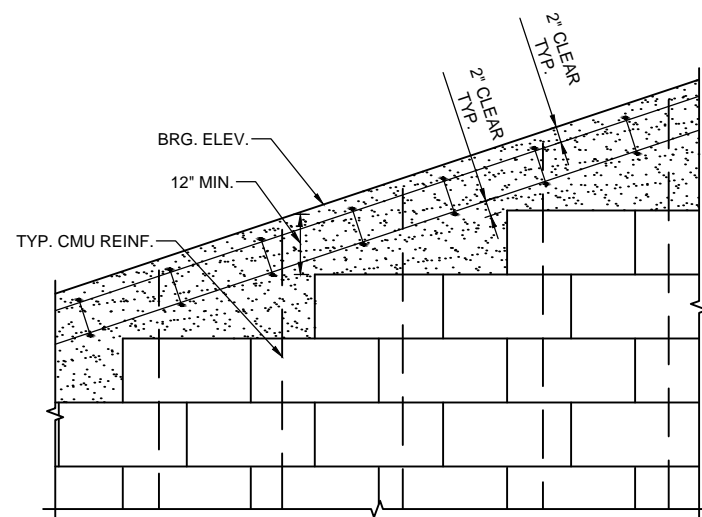
2 TYP HOUSEKEEPING PAD - INTERIOR  
S-404 SCALE: 1/2" = 1'-0"

PHASE 2 - 90% SUBMITTAL

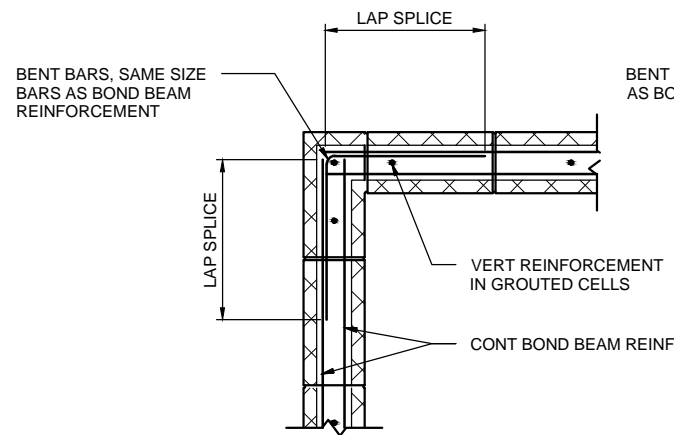
REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	<b>STATE OF FLORIDA</b> <b>DEPARTMENT OF TRANSPORTATION</b>			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						S-404
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID	<b>FOUNDATION DETAILS</b>	SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01		17 OF 26



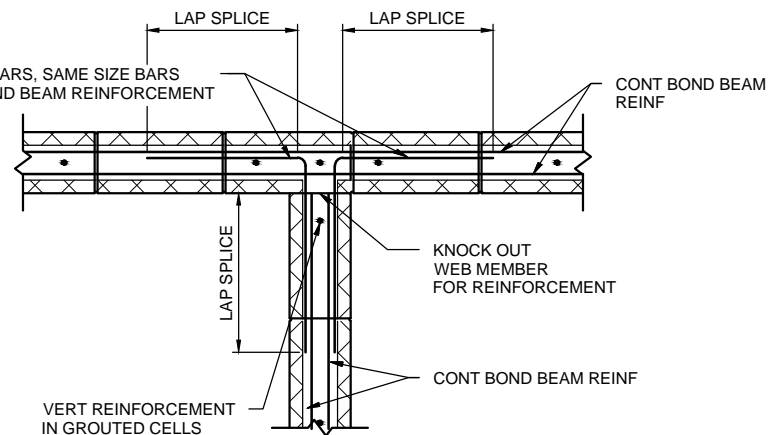
**1 TYP STEPPED TIE BEAM DETAIL**  
S-501 SCALE: 1/2" = 1'-0"



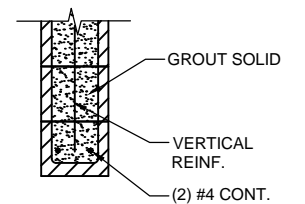
**4 TYP. SLOPED CAST-IN-PLACE BEAM**  
S-501 SCALE: 1/2" = 1'-0"



**CORNER OF CMU BOND BEAM BLOCKS**

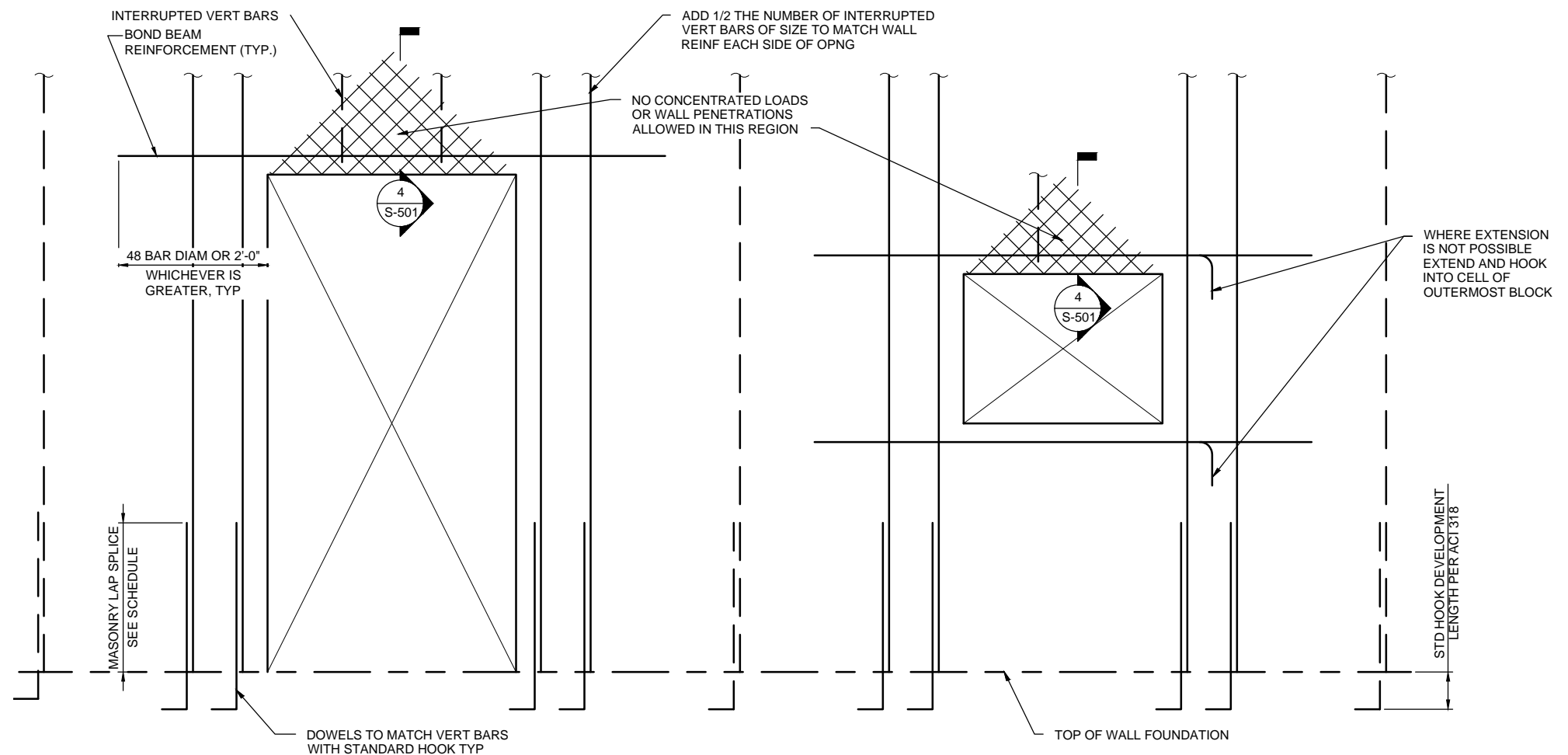


**INTERSECTION OF CMU BOND BEAM BLOCKS**



**4 TYPICAL CMU LINTEL**  
S-501 SCALE: N.T.S.

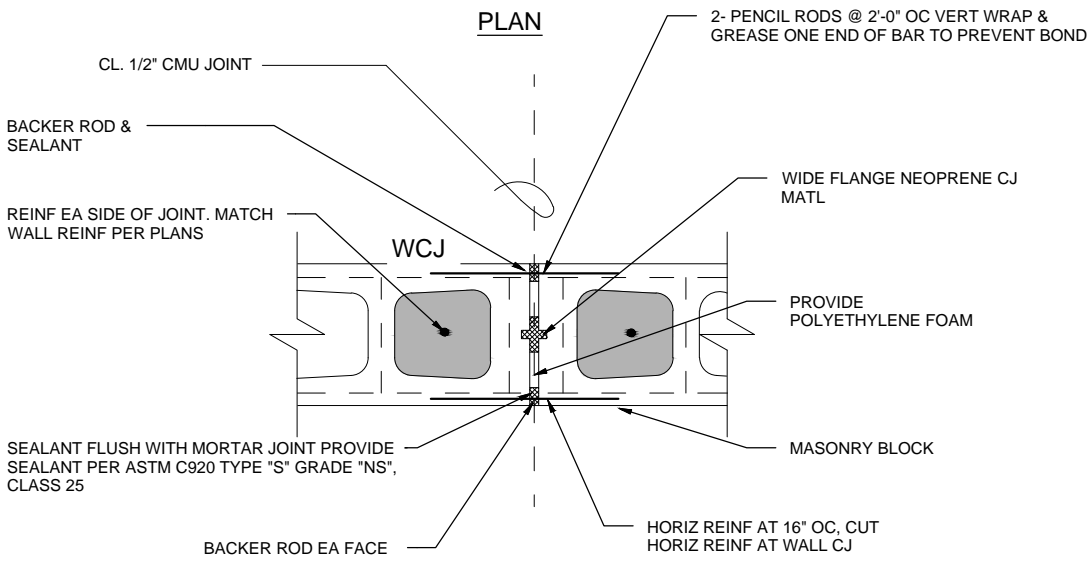
**2 BAR BENDS AT BOND BEAMS**  
S-501 SCALE: 1/2" = 1'-0"



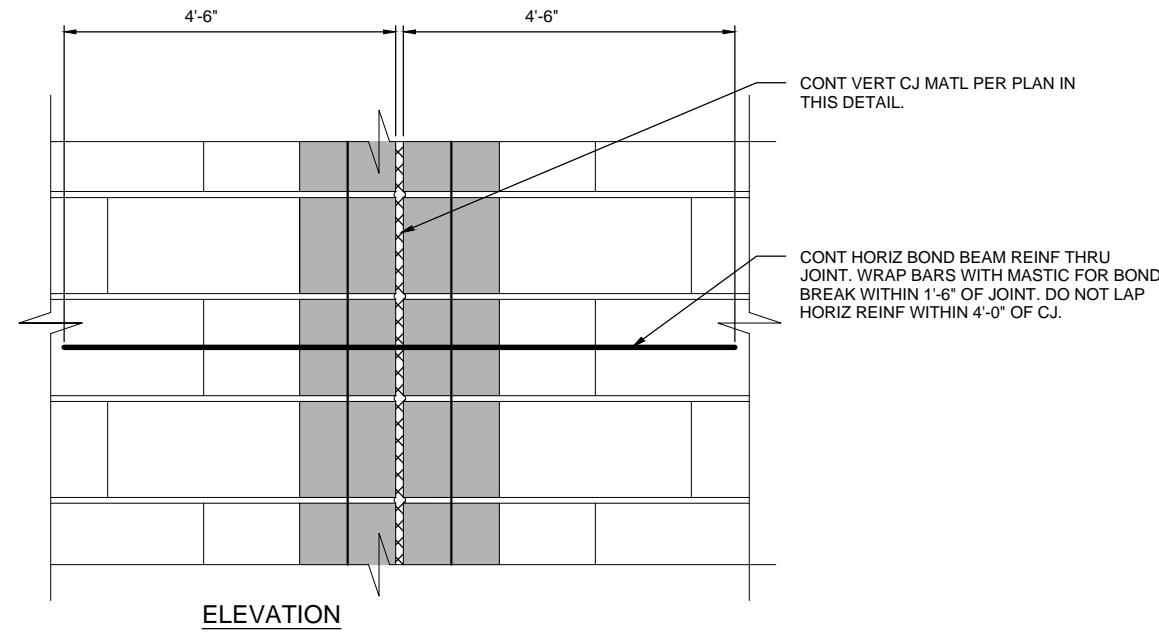
**3 CMU OPENING REINFORCING DETAIL**  
S-501 SCALE: 1/2" = 1'-0"

PHASE 2 - 90% SUBMITTAL

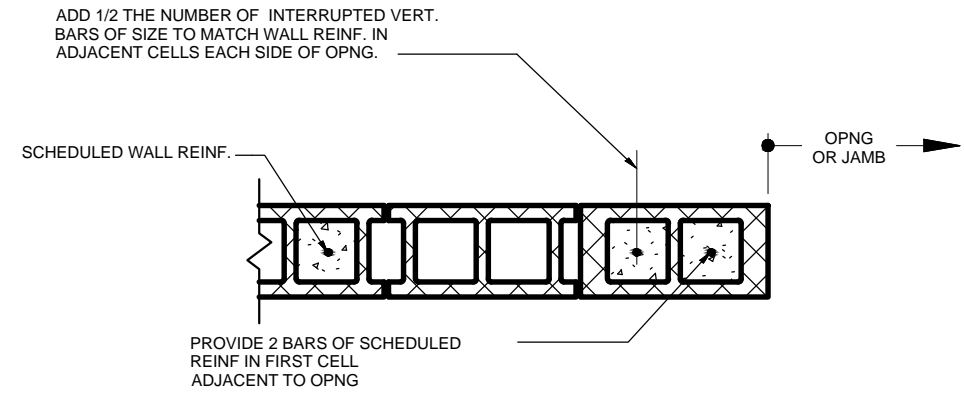
REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	MASONRY DETAILS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID			SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01			18 OF 26



- NOTES:
- MASONRY CONTROL JOINTS TO BE COORDINATED WITH ARCH ELEVATIONS, PLANS AND SPECIFICATIONS.
  - WALL CONTROL JOINTS SHOULD MATCH LOCATION OF SLAB CONTROL JOINTS. ONLY AS NOTED IN PLAN.
  - CONTROL JOINTS @ MASONRY WALLS SHOULD BE PLACED @ SPACING NOT EXCEEDING 25'-4" OR 3 TIMES THE WALL HEIGHT WHICHEVER IS LESS. MORE SPECIFICALLY WHEN SELECTING A LOCATION IT SHOULD INCLUDE
    - CHANGES IN WALL HT. OR THICKNESS.
    - OVER OPNGS @ ONE SIDE PAST THE LINTEL.
    - AT INTERSECTING WALL.
    - AT CONSTRUCTION JOINTS IN SLAB.
    - NOT LESS THAN 2'-0" FROM A BEARING PLATE.
  - G. C. TO PROVIDE SHOP DWG. W/ LOCATIONS OF CONTROL JOINTS & ALL VERT REINF FOR REVIEW BY A/E.



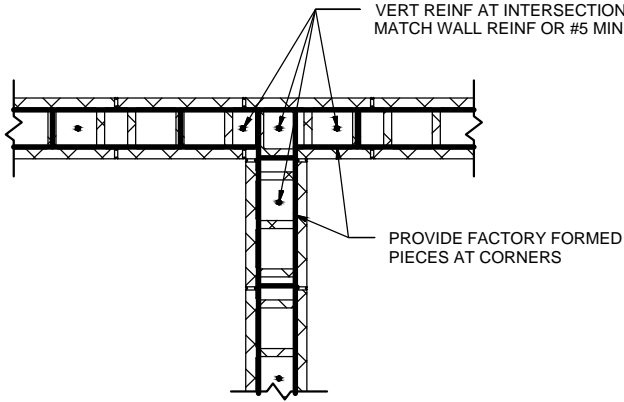
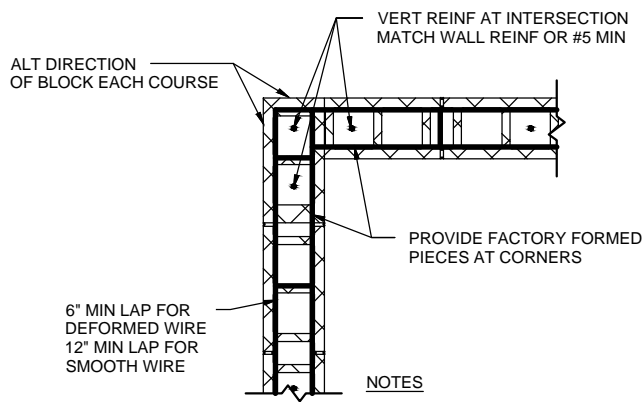
**1** MASONRY CONTROL JOINT (MCJ)  
S-502 SCALE: 3/4" = 1'-0"



**2** DETAIL AT JAMB OR OPENING  
S-502 SCALE: 3/4" = 1'-0"

PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-502
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO. 19 OF 26



NOTES

- HORIZ JOINT REINFORCEMENT SPACED AT 16" OC UNO.  
1. TERMINATE JOINT REINFORCEMENT AT EACH SIDE OF WALL CJ.

CORNER OF MASONRY WALLS

INTERSECTION OF MASONRY WALLS

1

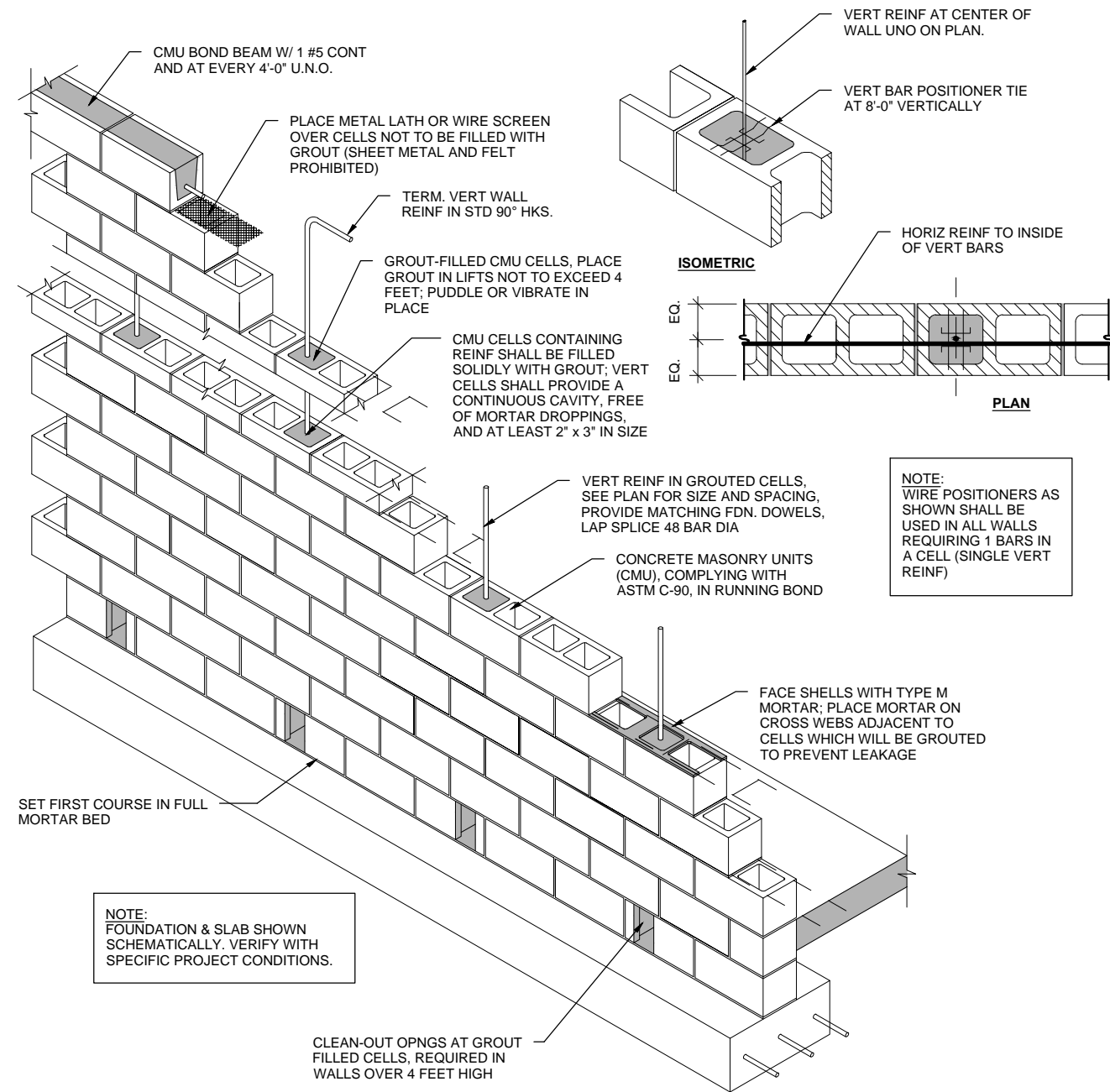
S-503

HORIZONTAL JOINT REINFORCEMENT  
DETAIL

SCALE: 1/2" = 1'-0"

PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	MASONRY DETAILS	S-503
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO.
										20 OF 26	



**TYP REINF MASONRY WALL  
CONSTRUCTION**

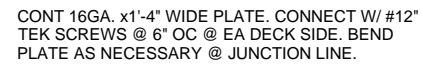
1  
S-504

SCALE: 1/2" = 1'-0"

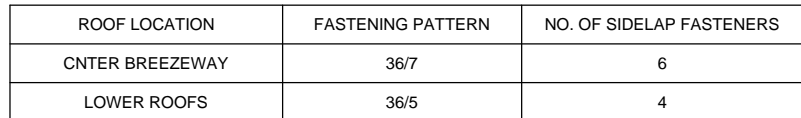
NOTE:  
SEE ARCH FOR MASONRY WALL INSULATION.

PHASE 2 - 90% SUBMITTAL

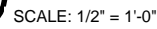
REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO. <b>S-504</b>
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR 8	COLUMBIA	438609-1-52-01		SHEET NO. 21 OF 26



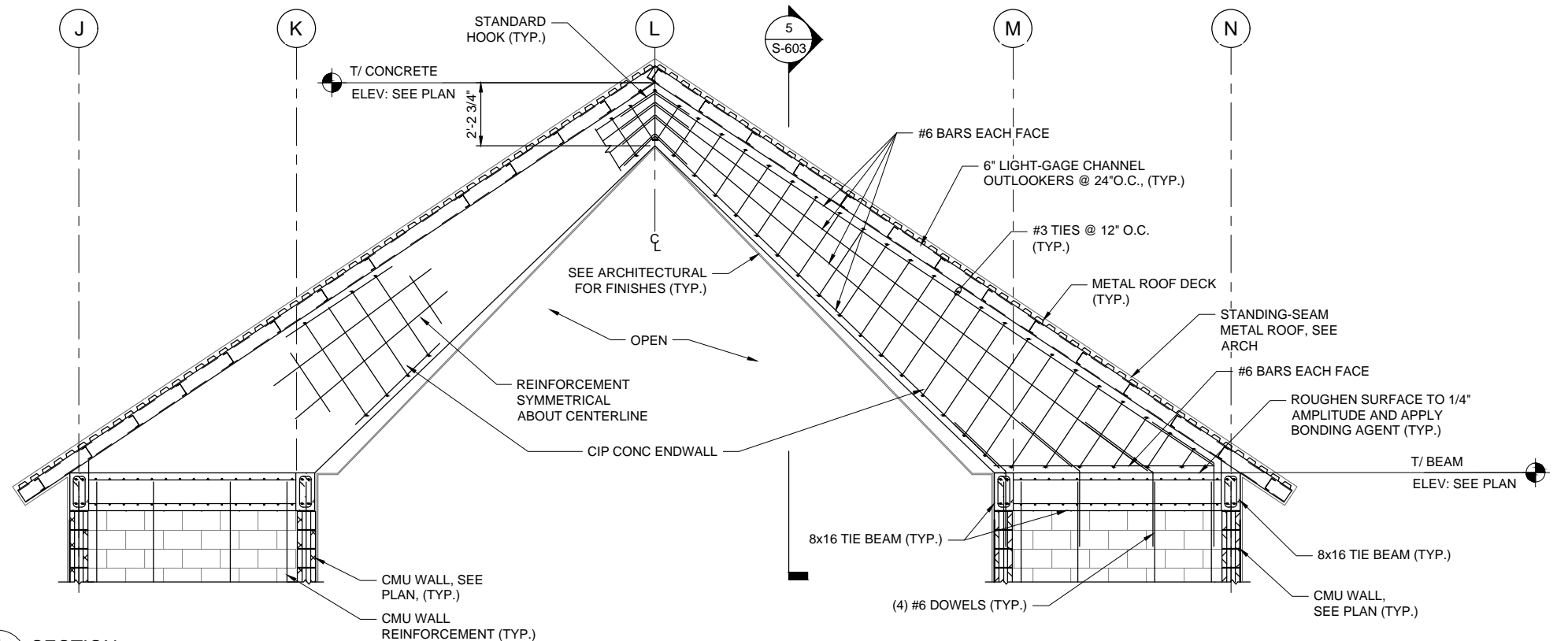
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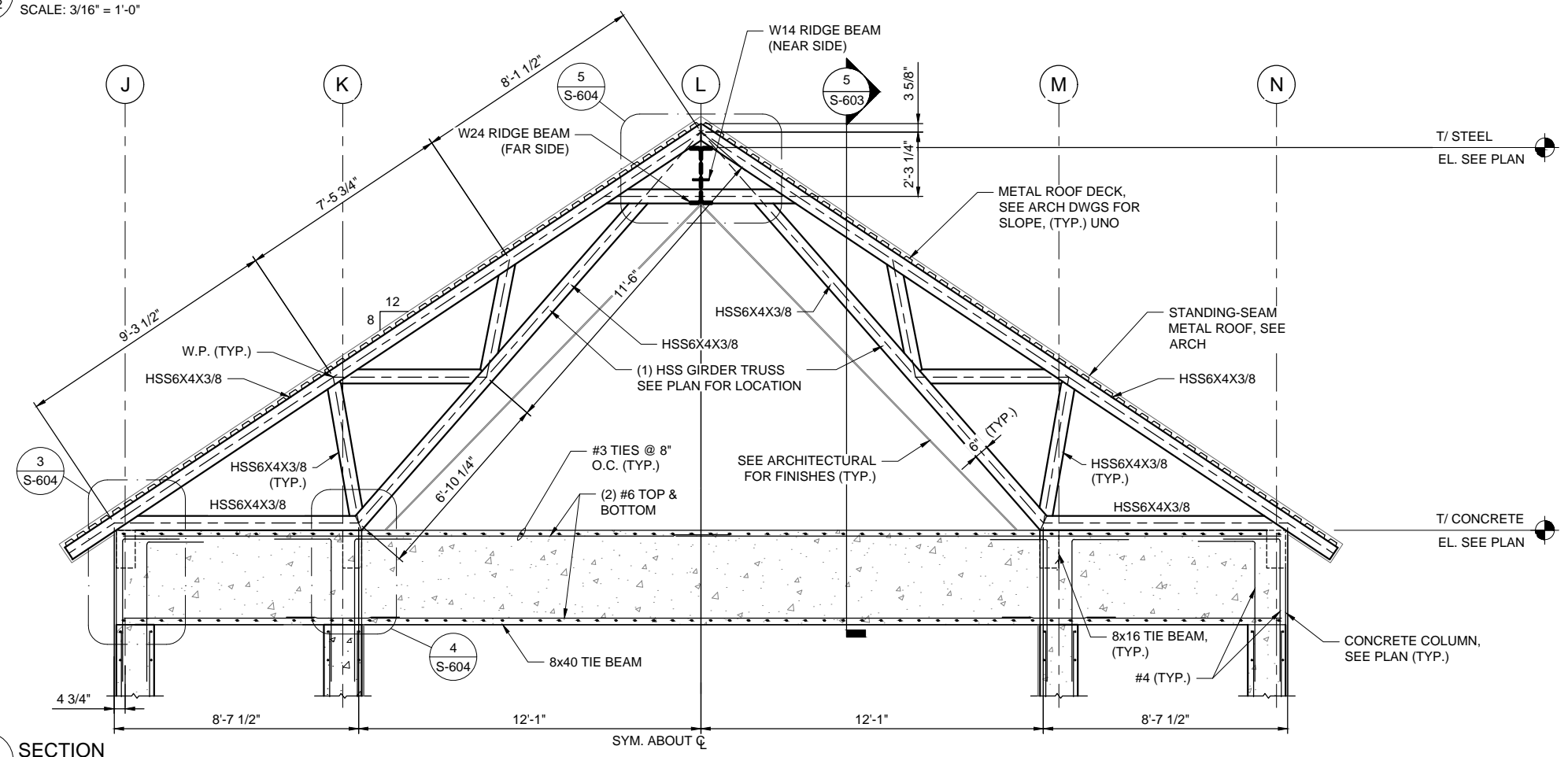
SCALE: 1/2" = 1'-0"



REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	<b>STATE OF FLORIDA</b> <b>DEPARTMENT OF TRANSPORTATION</b>			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS		DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION							S-601
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							SR 8	COLUMBIA	438609-1-52-01			22 OF 26



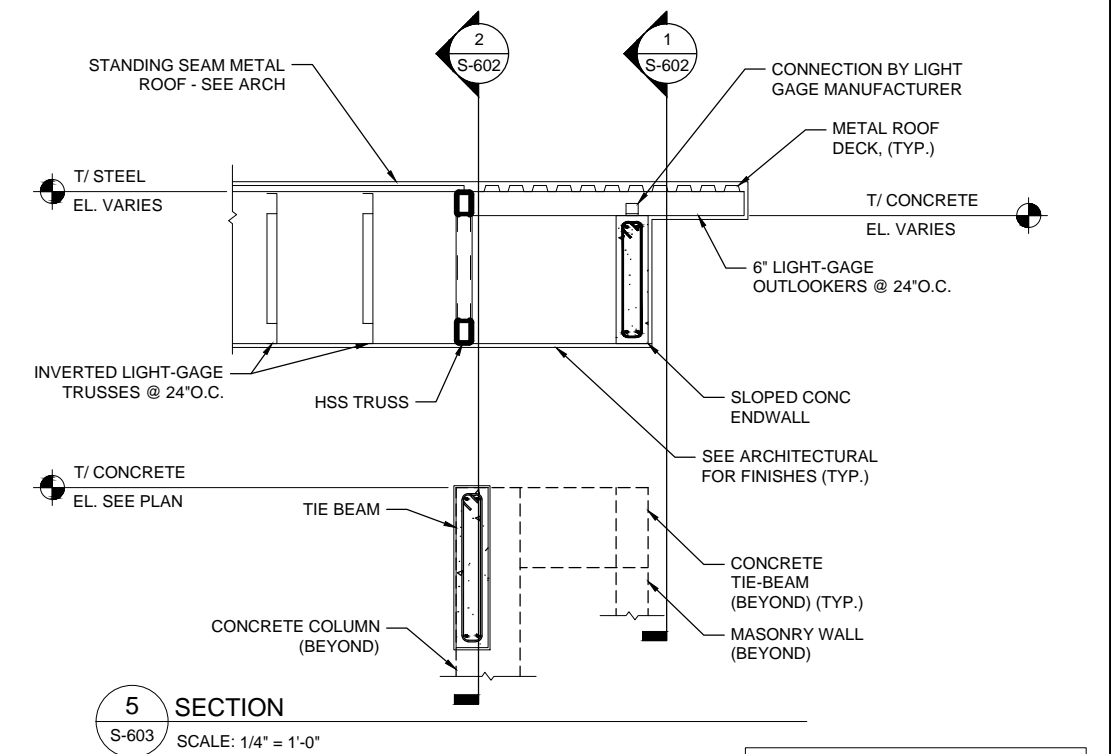
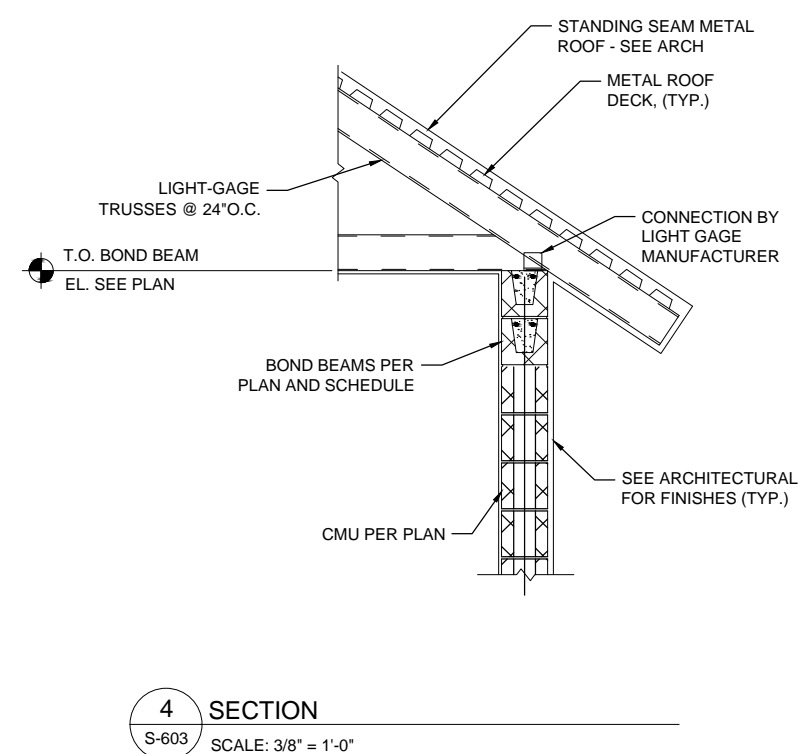
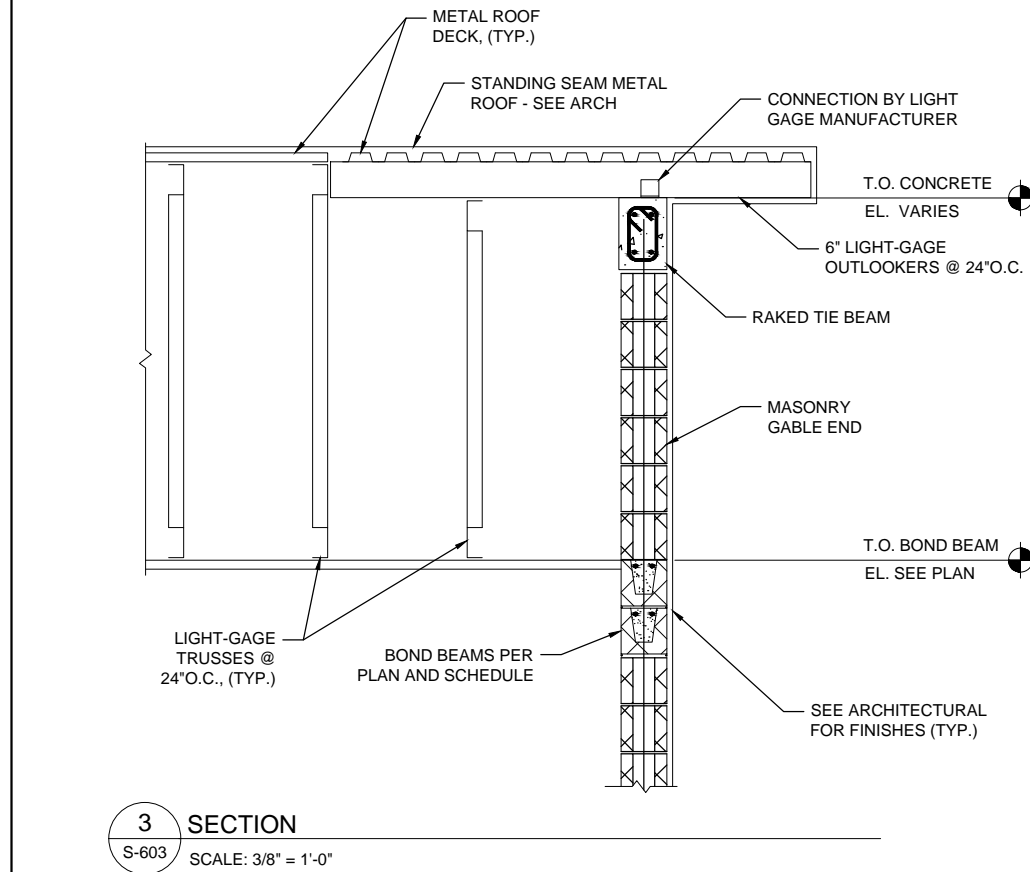
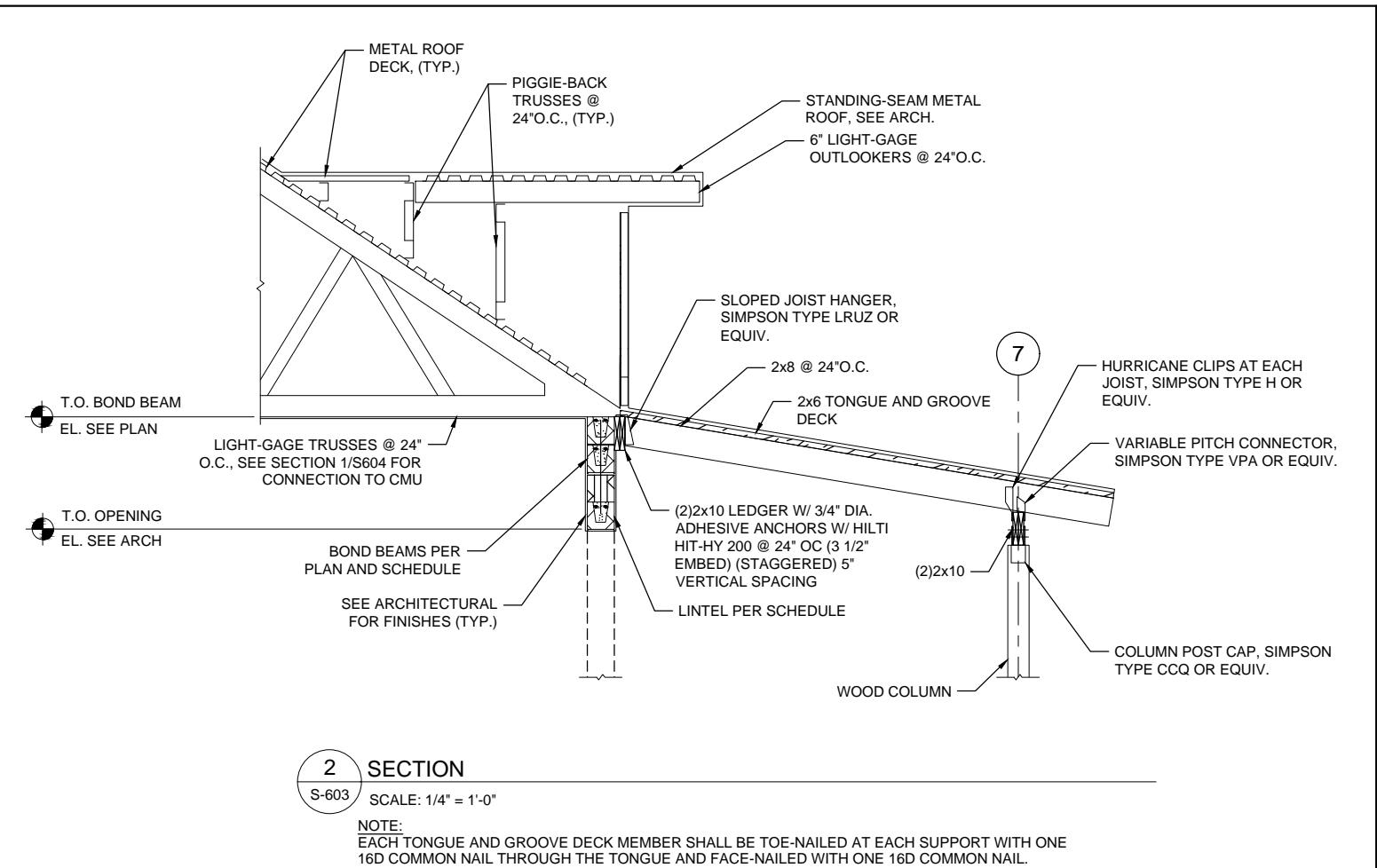
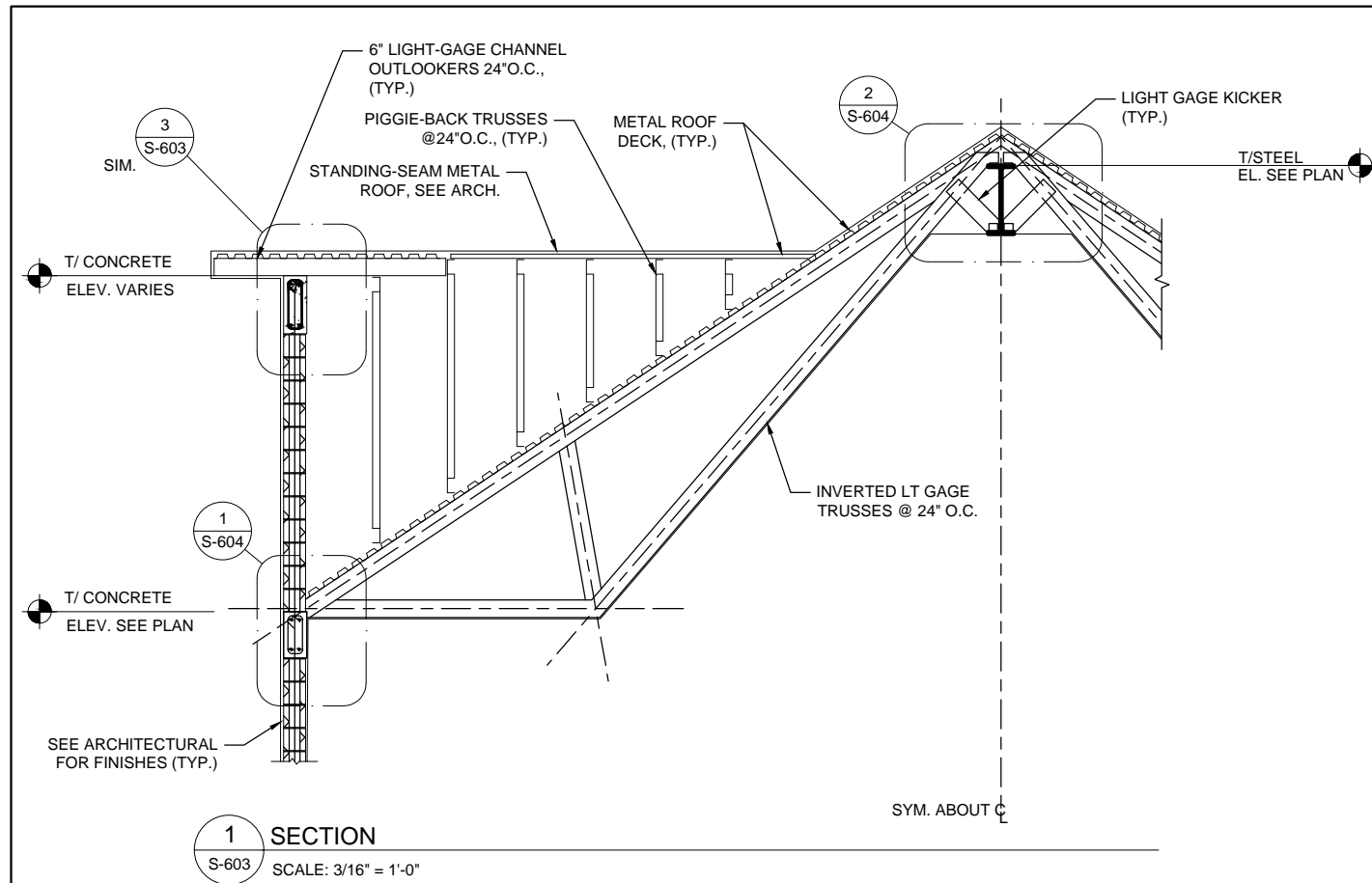
**1 SECTION**  
S-602 SCALE: 3/16" = 1'-0"



**2 SECTION**  
S-602 SCALE: 3/16" = 1'-0"

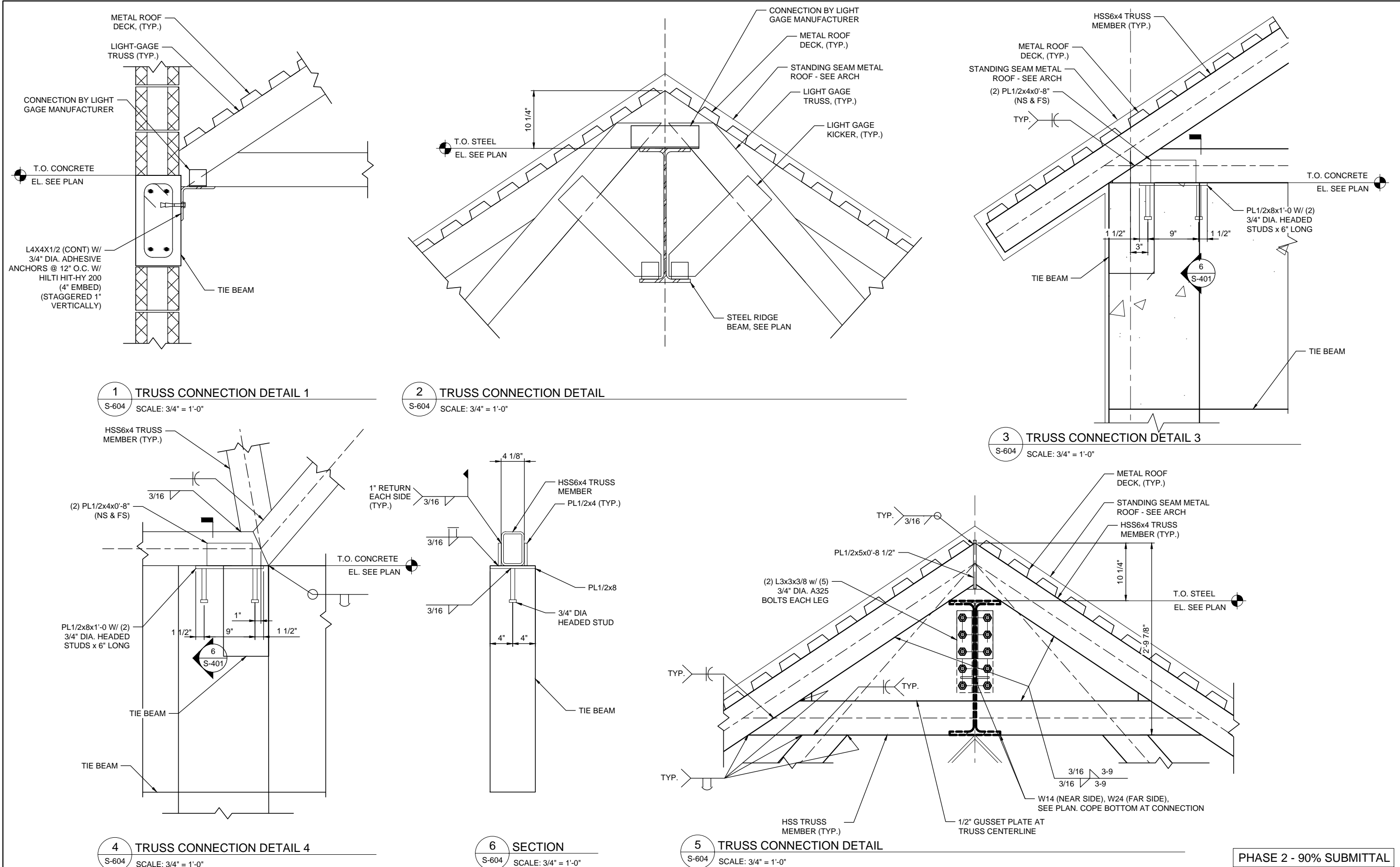
PHASE 2 - 90% SUBMITTAL

REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS  <b>ROOF SECTIONS</b>	DRAWING NO. <b>S-602</b>  SHEET NO. 23 OF 26
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR 8	COLUMBIA	438609-1-52-01		



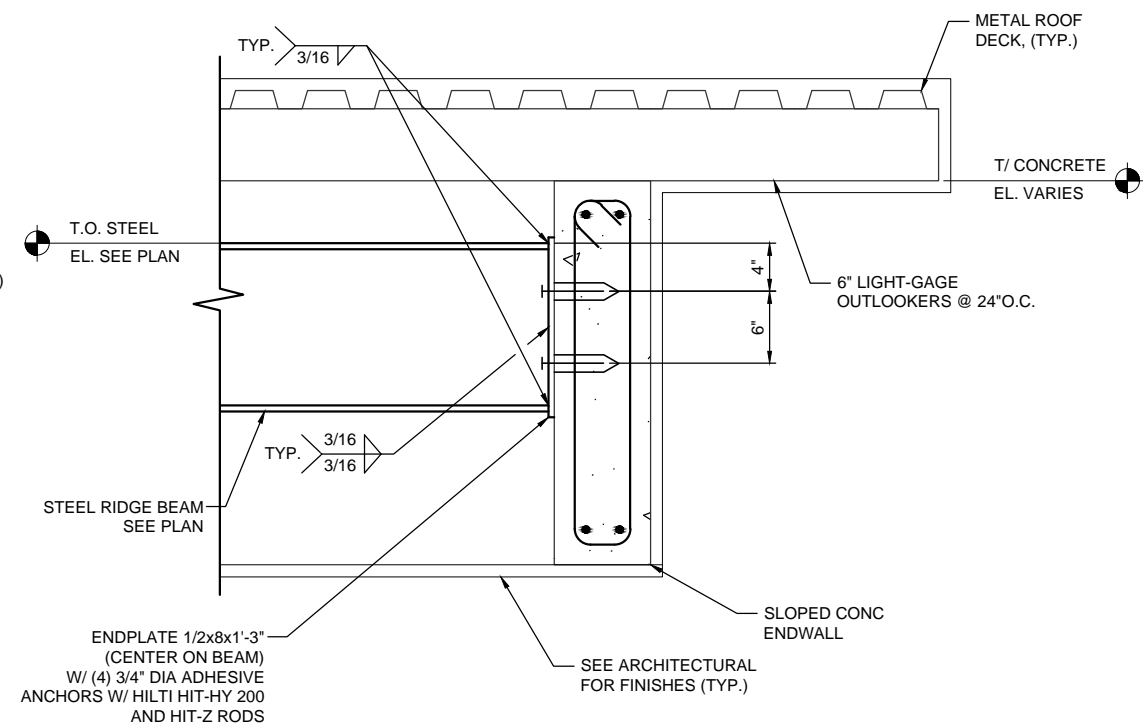
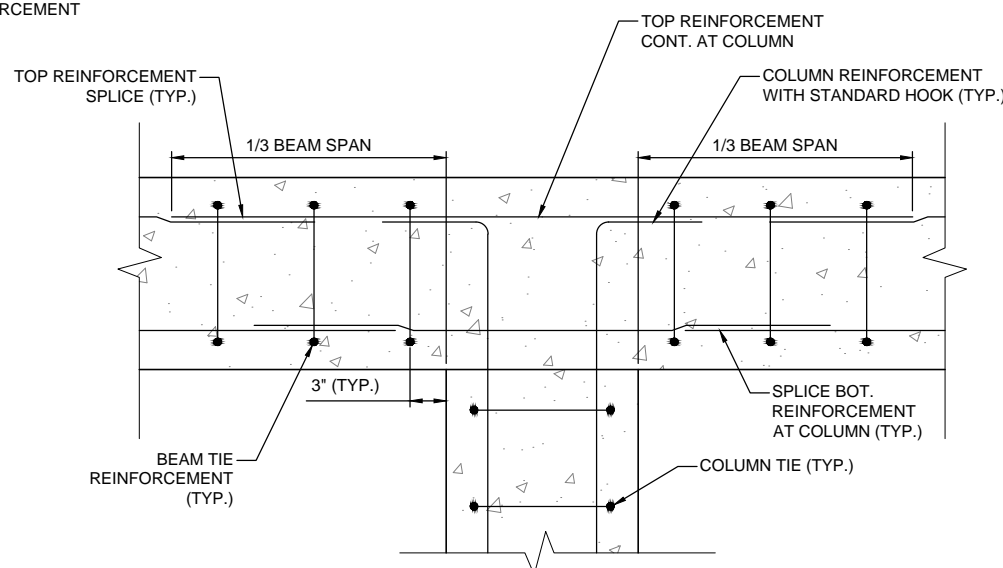
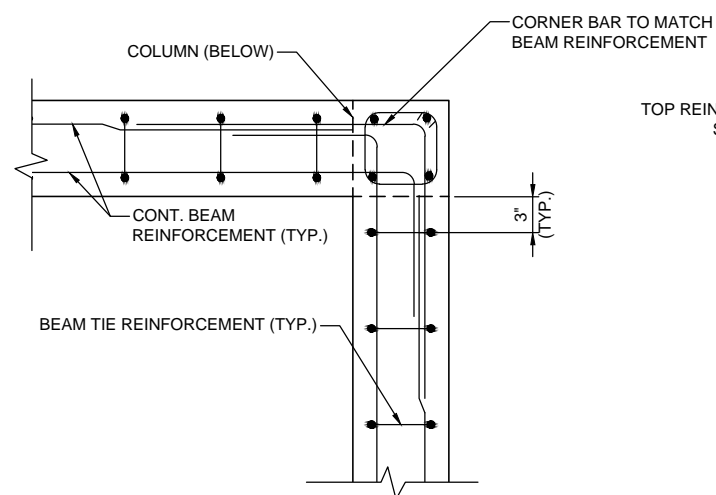
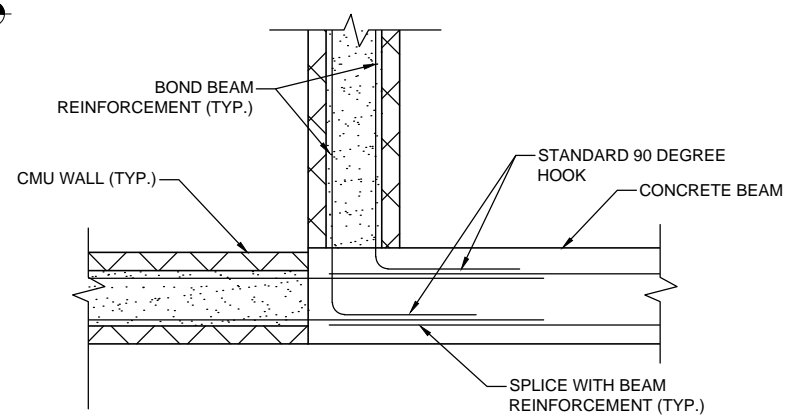
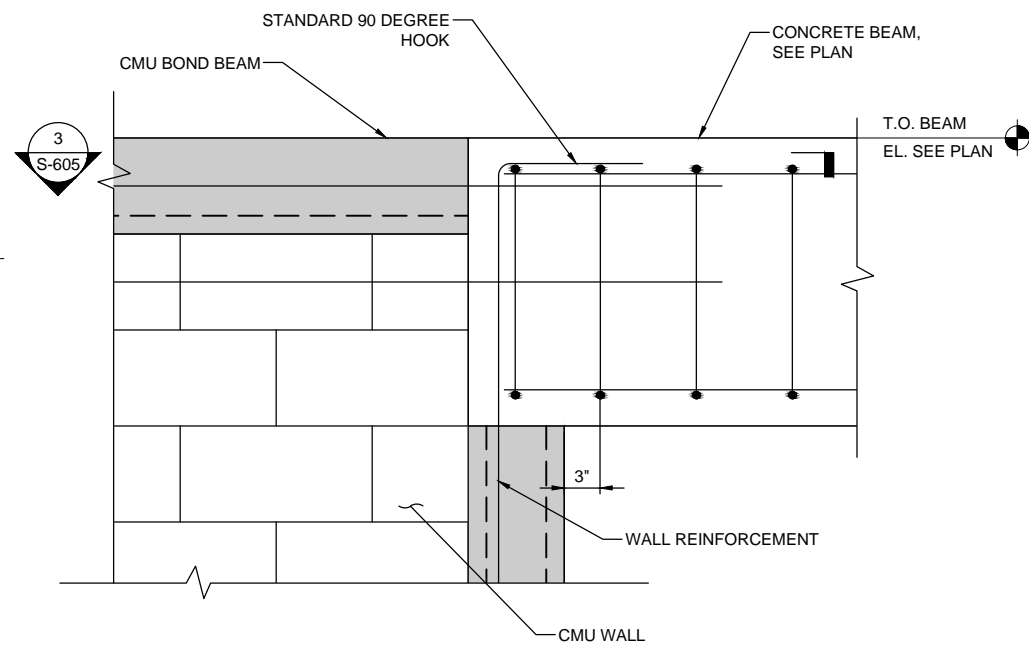
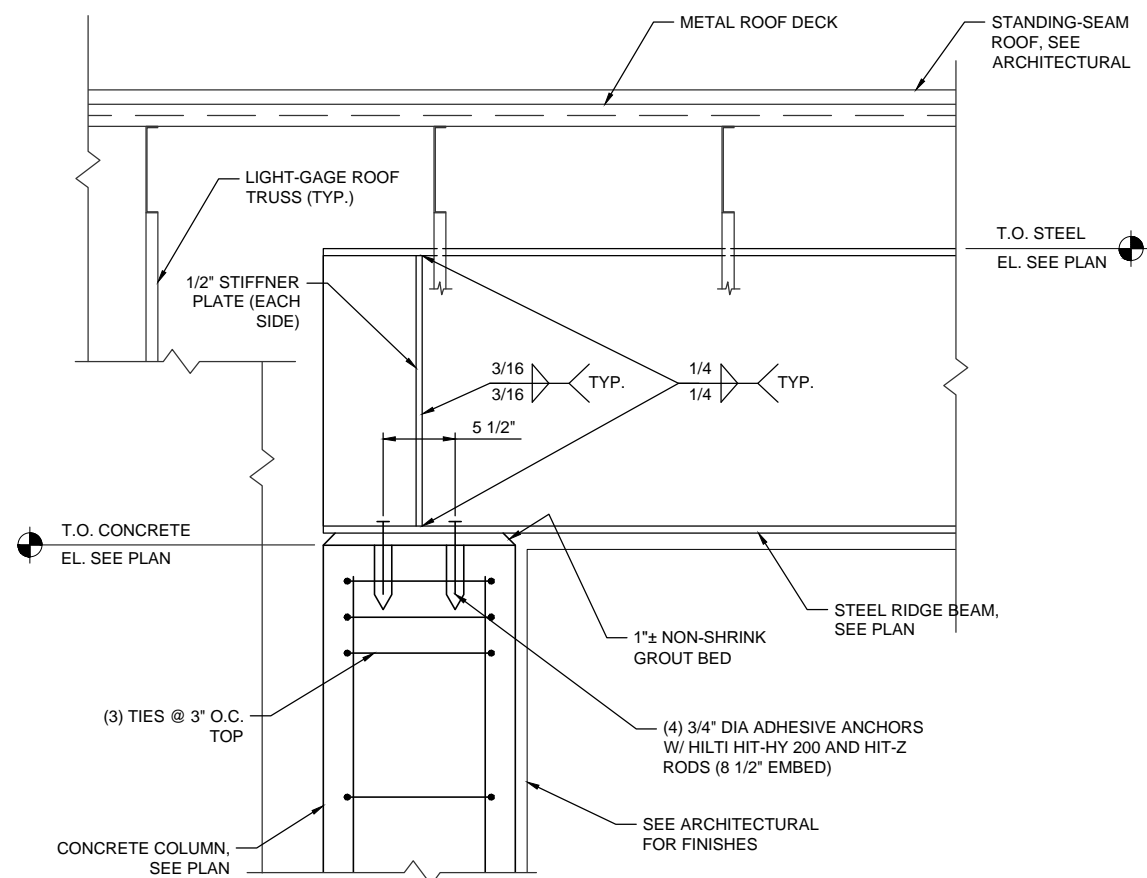
PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS		DRAWING NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	ROOF SECTIONS		SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01			24 OF 26



PHASE 2 - 90% SUBMITTAL

REVISIONS						<b>GAI CONSULTANTS, INC.</b> 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS  <b>ROOF SECTIONS</b>	DRAWING NO. <b>S-604</b>  SHEET NO. 25 OF 26
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR 8	COLUMBIA	438609-1-52-01		



PHASE 2 - 90% SUBMITTAL

REVISIONS						GAI CONSULTANTS, INC. 600 CRANBERRY WOODS DRIVE, SUITE 400, CRANBERRY TOWNSHIP, PA 16066	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR-8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREAS	DRAWING NO. S-605
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	ROOF SECTIONS	SHEET NO.
							SR 8	COLUMBIA	438609-1-52-01		26 OF 26