

ANCHORED VENEER

1. THE MASONRY DIMENSIONS ON THIS PROJECT ARE CONSIDERED AS NOMINAL DIMENSIONS. THE SHAPE AND ACTUAL SIZE OF THE MASONRY UNITS SHALL BE CONSIDERED IN THE BUILDING AND WALL LAYOUT PLAN.
2. ALL ANGLE LINTELS SUPPORTING MASONRY VENEERS SHALL BEAR A MINIMUM OF 6 INCHES.
3. ALL FILL ALL VOIDS BELOW EXTERIOR GRADE WITH 2600 PSI GROUT.
4. ALL LINTEL PLATES AND ANGLES SHALL BE GALVANIZED WITH A MINIMUM THICKNESS OF 3/8" THICK UNLESS OTHERWISE NOTED.
5. ALL MORTAR SHALL BE TYPE "M" OR "S".
6. THE CONTRACTOR SHALL TAKE ADDITIONAL PRECAUTIONS WHEN ANCHORED VENEERS ARE TO BE CONSTRUCTED DURING COLD WEATHER (AMBIENT TEMPERATURE BELOW 40 DEGREES FAHRENHEIT). DURING HOT CONDITIONS (ABOVE 90 DEGREES) PRECAUTIONS SHALL BE TAKEN TO MINIMIZE EXCESS HEAT IN THE VENEER UNITS, WATER AND MORTAR.
7. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CONTROL & EXPANSION JOINTS. ALL CONTROL JOINTS AND EXPANSION JOINTS SHALL BE INSTALLED IN ACCORDANCE TO THE STANDARDS SET FORTH BY THE NATIONAL CONCRETE MASONRY ASSOCIATION. IN NO CASE SHALL EXTERIOR WALL JOINTS BE SPACED GREATER THAN 25 FEET ON CENTER AND INTERIOR WALL JOINTS SHALL NOT EXCEED 30 FEET ON CENTER.

8. GALVANIZED SEISMIC METAL TIES SHALL BE USED IN THE WALL ASSEMBLY TO TIE THE VENEER BACK TO THE WALL SYSTEM. THESE TIES SHALL BE SPACED NO FURTHER THAN AT 16" ON CENTER VERTICALLY AND HORIZONTALLY. A CONTINUOUS SINGLE-WIRE JOINT REINFORCEMENT OF MINIMUM WIRE SIZE OF W#7 SHALL BE INSTALLED IN THE BED JOINTS AND ATTACHED TO THE BRICK TIES FOR OPENINGS. THE BRICK TIES MAY NOT BE SPACED FURTHER THAN 18 INCHES ON CENTER AND 12 INCHES FROM EDGE OF OPENING. FOR ARCHES AND LINTELS WITH MASONRY FORMING THE HEAD OF THE OPENING, THE CONTRACTOR SHALL INSTALL MASONRY TIES AT EACH BRICK JOINT TO ADEQUATELY SUSPEND/SUPPORT THE BRICK IN PLACE AS INTENDED IN THE ARCHITECTURAL DRAWINGS.

STRUCTURAL AND MISCELLANEOUS STEEL

1. SHOP DRAWING NOTE: THIS NOTE IS DIRECTED TO THE CONTRACTOR, STEEL SUPPLIERS AND DETAILERS FOR STRUCTURAL AND MISCELLANEOUS STEEL, DECKING, JOISTS AND JOIST GIRDERS.

THE DETAILERS/ SUPPLIERS SHALL BE PROVIDED A FULL SET OF CONSTRUCTION DOCUMENTS (INCLUDING ADDENDUMS AND SPECIFICATIONS) BY THE CONTRACTOR FOR THEIR USE IN ORDER TO PROPERLY DETAIL THE PROJECT. DECK EDGES, DIMENSIONS, TOP OF STEEL, SLOPES, ARE CONTROLLED BY THE ARCHITECTURAL DRAWINGS.

DESIGNATION

SIMILAR DESIGNATION

IT IS RECOMMENDED THAT THE DETAILER USE APPROPRIATE DESIGNATIONS FOR THE ARCHITECT, CIVIL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, ETC.

IT IS IMPORTANT FOR THE CONTRACTOR TO REVIEW THE SHOP DRAWINGS FROM HIS DETAILERS AND TO PROVIDE THE NECESSARY COORDINATION BETWEEN THE STEEL, JOISTS AND DECKING SHOP DRAWINGS PRIOR TO SUBMITTING TO THE DESIGN TEAM. SHOP DRAWINGS SUBMITTED TO THE DESIGN TEAM WITHOUT THE CONTRACTORS REVIEW ARE SUBJECT TO BE RESUBMITTED, REJECTED OR OTHER SIMILAR ACTION MAY BE TAKEN BY THE ARCHITECT AND/OR ENGINEER.

2. UNLESS NOTED OTHERWISE, STRUCTURAL STEEL GRADES FOR ALL STEEL SHALL BE AS INDICATED BELOW.

- A. ANCHOR BOLTS A307
- B. CONNECTION BOLTS A325 OR A490
- C. PLATES AND FLAT BARS A36
- D. STEEL PIPE A53, TYPE E OR S, GRADE B, Fy=36ksi
- E. STRUCTURAL TUBING A500, GRADE B, Fy=46 KSI
- F. WIDE FLANGE SHAPES A992, GRADE 50
- G. OTHER ROLLED SHAPES A36
- H. MISCELLANEOUS SHAPES A36

3. WASHERS SHALL CONFORM TO ASTM AND INSTALLED AS FOLLOWS.

A. A HARDENED WASHER SHALL BE INSTALLED UNDER THE TURNED ELEMENT FOR IN CONNECTIONS WHERE BOTH OUTER PLIES HAVE ROUND HOLES.

B. A HARDENED WASHER SHALL BE PLACED AT LOCATIONS WHERE AN OVERSIZED HOLE OR SHORT SLOTTED HOLE IS USED.

C. IN ADDITION, A 5/16" THICK PLATE WASHER SHALL BE PLACED OVER LONG SLOTTED HOLES.

4. THE CONTRACTOR SHALL SUBMIT DETAILED STRUCTURAL STEEL SHOP DRAWINGS TO INCLUDE (BUT NOT LIMITED TO) COLUMNS, BEAMS, JOISTS, BRIDGING, DECKING, STAIRS, STAIR LANDINGS AND ALL CONNECTIONS. AS PART OF THE SHOP DRAWINGS, THE CONTRACTOR SHALL SUPPLY EMBEDDED STEEL PLATE AND BRACKET LOCATION DRAWINGS. IN NO CIRCUMSTANCES SHALL THE STRUCTURAL DRAWINGS BE REPRODUCED FOR SHOP DRAWINGS (SECTION SHEETS, ERECTION PLANS, ETC.). THE CONTRACTOR SHALL SUBMIT AN AMPLIFIED NUMBER OF SETS OF SHOP DRAWINGS TO ALLOW FOR EACH DESIGN PROFESSIONAL TO RETAIN A SET FOR HIS/HER FILES. SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR FOR (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, AND ERECTION PROCEDURES PRIOR TO ARCHITECT & STRUCTURAL ENGINEERS REVIEW. AMPLE TIME, AS REQUIRED AND DETERMINED BY THE STRUCTURAL ENGINEER, SHALL BE ALLOTTED TO PERFORM HIS REVIEW. SHOP DRAWINGS, THE CONTRACTOR IS ADVISED TO PROVIDE THE REQUIRED SHOP DRAWINGS AS SOON AS REASONABLY POSSIBLE TO ALLOW ADEQUATE TIME FOR FABRICATION, SHIPPING ETC. THE MEMBERS OF THE DESIGN TEAM SHALL RECEIVE A FINAL SET OF SHOP DRAWINGS STAMPED BY A REGISTERED ENGINEER REGISTERED IN THE PROJECT STATE. THIS SET OF SHOP DRAWINGS SHALL ALSO BE THE SAME INFORMATION AS THE STRUCTURAL ENGINEER RECEIVES THE FINAL DRAWINGS CARRYING THIS NOTE. THIS SET OF SHOP DRAWINGS IS TO ALLOW THE ENGINEER OF RECORD TO HAVE A FINAL SET FOR HIS USE PRIOR TO ERECTION. DUE TO UNIFORM CONDITIONS, THE CONTRACTOR MAY CHOOSE TO PROCEED (AT HIS OWN RISK) TO FABRICATE AND ERECT STEEL PRIOR TO RECEIVING THE FINAL SET OF SHOP DRAWINGS.

5. SPECIAL STAIRRAIL NOTE: STRUCTURAL STAIRRAILS AND STAIRS SHALL BE DESIGNED BY A REGISTERED ENGINEER, LICENSED IN THE PROJECT STATE. THE DESIGN DRAWINGS (SHOP DRAWINGS) MUST BE SEALED BY THE DESIGN ENGINEER RETAINED BY THE CONTRACTOR/ SUBCONTRACTOR IN ORDER TO COMPLETE THE SHOP DRAWING PROCESS. SHOP DRAWINGS WITHOUT ENGINEERING SEALS ARE CONSIDERED UNAPPROVED.

6. TO LESSEN THE RISK OF ERROR (AND STEEL OMISSIONS), ENGINEERS AND DETAILERS OF THE STRUCTURAL SYSTEMS AND COMPONENTS FOR THIS PROJECT SHALL PROVIDE COMPLETE SHOP CONSTRUCTION DRAWINGS AND SPECIFICATIONS BY THE CONTRACTOR. THIS IS DONE TO ALLOW THE STEEL DETAILER TO IDENTIFY STEEL AND MECHANICAL LOADS INCLUDING DUCTS, HOODS, MECHANICAL, HANGING PARTITIONS AND OTHER SYSTEMS. ELEMENTS TO BE SUPPORTED BY STEEL. THE CONTRACTOR SHALL COORDINATE THE STEEL SUBCONTRACTORS AND DETAILERS TO INSURE THAT THE NECESSARY STEEL IS PROVIDED TO SUPPORT AND/OR ACCOMMODATE THESE ADDITIONAL LOADS AND SYSTEMS.

7. ALL SHOP FIELD WELDING SHALL BE PERFORMED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH A W.S. SPECIFICATIONS LATEST EDITION. BOTH SHOP AND FIELD WELDER CERTIFICATIONS SHALL BE CURRENT THROUGH THE DURATION OF THE STEEL WORK. THE CONTRACTOR SHALL PROVIDE WELDER CERTIFICATIONS (SHOP AND FIELD) AND SHALL BE MADE AVAILABLE UPON REQUEST OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER.

8. IN ORDER TO PREVENT FIELD FIT-UP AND PLACEMENT ISSUES THE STRUCTURAL STEEL SHOP DRAWINGS SHALL BE CAREFULLY COORDINATED WITH ANY OTHER COMPONENT DRAWINGS INCLUDING BARJOIST AND DECKING SHOP DRAWINGS. THIS DETAILED COORDINATION IS TO BE DERIVED BY THE STRUCTURAL STEEL SHOP DRAWING PROVIDER. THE PROVIDERS OF BARJOIST AND DECKING SHOP DRAWINGS (AND OTHER PROVIDERS) SHALL CHECK THE STRUCTURAL STEEL SHOP DRAWINGS AS A SECONDARY VERIFICATION. THE GENERAL CONTRACTOR SHALL PROVIDE HIS OWN CHECK PRIOR TO COMPLETION OF THE SHOP DRAWING PROCESS.

9. ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF A.I.S.C. SPECIFICATIONS.

10. ALL BEAM CONNECTIONS SHALL BE TWO SIDE WEB ANGLE CONNECTIONS PER A.I.S.C. SPECIFICATION (LATEST EDITION) UNLESS OTHERWISE DETAILED IN THESE DRAWINGS.

11. FIELD SPLICES SHALL BE DESIGNED AND CONSTRUCTED TO DEVELOP THE FULL CAPACITY OF THE MEMBER IN BENDING, SHEAR AND AXIAL LOADS.

12. CANTILEVERED BEAMS SHALL BE THE SAME SIZE AS THE BACK-SPAN UNLESS NOTED OTHERWISE.

13. IN THE ABSENCE OF SPECIFIC CAMBER REQUIREMENTS, THE STEEL SHALL BE FABRICATED AND ERECTED WITH MILL CAMBER UP.

14. ALL FRAMING AND MISCELLANEOUS STEEL SHALL BE FILLET WELDED ALL AROUND UNLESS OTHERWISE NOTED. WELD SIZE SHALL BE THE MAXIMUM AS ALLOWED BY THE LATEST EDITION OF THE "MANUAL OF STEEL CONSTRUCTION" BASED ON THE MATERIAL THICKNESS. ALL WELDING SHALL BE DONE WITH E-70 ELECTRODES.

15. STRUCTURAL STEEL SUBCONTRACTOR/DETAILER/SUPPLIER SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATION WITH THE TOP OF BEAM ELEVATION(S). IN CASE OF CONFLICT, THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID.

16. THE STRUCTURAL STEEL CONTRACTOR SHALL LOCATE, DESIGN AND PROVIDE WEB REINFORCEMENT AT ALL OPENINGS IN STEEL MEMBERS INCLUDING BEAMS, JOISTS AND GIRDERS. STEEL BEAMS, GIRDERS, BAR JOISTS AND MISCELLANEOUS STEEL MEMBERS SHALL BE FABRICATED TO INCLUDE ATTACHMENT HOLES (AND BOLTS) AS NECESSARY FOR ATTACHMENT OF OTHER FRAMING AND SECONDARY MEMBERS INCLUDING WOOD NAILERS, ANGLE BRACING, ETC., WHETHER OR NOT SPECIFICALLY DETAILED IN THE DRAWINGS.

17. ALL CAP PLATES FOR STEEL COLUMNS SHALL HAVE A MINIMUM THICKNESS OF 3/4" THICK UNLESS OTHERWISE NOTED IN THE DETAILS.

18. SHOP AND FIELD CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS MAY BE WELDED OR BOLTED. ALL WELDING SHALL BE DONE WITH E-70 ELECTRODES. CUTS, HOLES, COPING, ETC. REQUIRED FOR WORK OF OTHER TRADES, ROOF LINES OR BUILDING GEOMETRY SHALL BE SHOWN ON THE STRUCTURAL STEEL SHOP DRAWINGS AND FABRICATED IN THE SHOP. FIELD CUTTING AND/OR BURNING IS NOT PERMITTED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD FOR THE PROJECT OR A STRUCTURAL ENGINEER REGISTERED IN THE PROJECT STATE.

19. STEEL BEAM CONNECTIONS - ALL END REACTION CONNECTIONS FOR UNIFORMLY LOADED STEEL BEAMS AND GIRDERS SHALL BE DESIGNED BASED ON THE END REACTION OF THE UNIFORMLY LOADED MEMBER FOR ITS SPAN (PER AISC MANUAL OF STEEL CONSTRUCTION- LATEST EDITION). NON-UNIFORM LOADED STEEL BEAMS (TRANSFER BEAMS) SHALL HAVE END REACTION CONNECTIONS BASED ON THE MAXIMUM SHEAR CAPACITY OF THE BEAM. REGARDLESS OF THE SPAN, ALL CONNECTIONS SHALL BE BOLTED USING 3/4" DIAMETER A-325 BOLTS (AS A MINIMUM). ALL CONNECTIONS, INCLUDING SPLICES, SHALL BE DESIGNED BY A REGISTERED ENGINEER LICENSED IN THE PROJECT STATE.

20. CONTRACTOR TO PROVIDE WEB STIFFENER PLATES AT THE END OF STEEL BEAM CANTILEVERS AND IN THE BENDS OF ALL CRIPPLED BEAMS (DIAGONALLY). THE STIFFENER PLATE THICKNESS SHALL EQUAL OR EXCEED THE FLANGE THICKNESS OF THE BEAM. ALL WELDING SHALL BE DONE WITH E-70 ELECTRODES.

21. STRUCTURAL STEEL MEMBERS SHALL BE CAMBERED AS REQUIRED DEPENDING ON THE DEAD LOADS AND MEMBER LENGTH. BEAMS AND ROLLED SHAPES SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UPWARD.

22. WHETHER OR NOT SHOWN IN THE STRUCTURAL DETAILS, FULL HEIGHT WEB STIFFENER PLATES SHALL BE INSTALLED ON BOTH SIDES OF ALL STEEL BEAMS AT BEAM SUPPORTS AND LOCATIONS OF POINT LOADS FROM BEAMS AND COLUMNS, ETC. IN SOME CASES THESE STIFFENER PLATES MAY NOT BE SHOWN FOR CLARITY.

23. POSITIVE DRAINAGE IS NECESSARY FOR ALL APPLICATIONS WHERE BRICK SHELF ANGLES ARE USED. THE CONTRACTOR SHALL PROVIDE A MEANS TO PREVENT THE SHELF ANGLE AND/OR FLASHING FROM HOLDING OR PONDING WATER. ALL BRICK SUPPORT ANGLES SHALL BE GALVANIZED.

24. A SUITABLE NON-SHRINK GROUT (7000 PSI) SHALL BE USED UNDER BASE PLATES REQUIRING GROUT. GROUT SHALL BE PLACED UNDER THE BASE PLATE ONCE THE STEEL COLUMN IS IN PLACE & PLUMB. THOUGH THE DETAILS AND DRAWINGS MAY (OR MAY NOT) INDICATE, THE CONTRACTOR MAY OPT TO USE LEVELING PLATES AND LEVELING NUTS BELOW THE BASE PLATES TO PLUMB THE STEEL COLUMNS. THE CONTRACTOR SHALL ADJUST THE FOOTING ELEVATION(S) AND CONSIDER THE FLOOR ELEVATION FOR COLUMNS SUBJECT TO GROUT, LEVELING NUTS, ETC.

25. ALL WELDS IN EXPOSED STEEL SHALL BE FIELD COATED W/ ZINC-RICH PAINT.

26. STEEL DETAILERS TO VERIFY/DETERMINE JOIST AND BEAM BEARING ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS TO INSURE PROPER ROOF SLOPES FOR DRAINAGE AND CORRECT FLOOR ELEVATIONS. SEE ARCHITECTURAL DRAWINGS FOR FLASHING AND ROOF RELATED DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

27. ALL STEEL REQUIRING PAINT SHALL BE PROPERLY CLEANED AND PREPARED TO ACCEPT THE APPROPRIATE PAINT FOR THE PROJECT. REQUIREMENTS FOR COLOR, ETC. DECISIONS INVOLVING PAINT, COLOR AND SO ON SHALL BE PER OWNER.

28. THE ENDS OF ALL STEEL BEAMS AND JOIST GIRDERS SHALL BEAR FULLY ON BEARING PLATES.

29. MECHANICAL CURBS SHALL BE CONTINUOUSLY SUPPORTED BY THE MECHANICAL STEEL SYSTEM. THE CONTRACTOR SHALL INCLUDE THE NECESSARY STEEL SECTIONS (ANGLES, TUBES, SPACERS, ETC.) AS REQUIRED TO ACHIEVE THE NECESSARY SUPPORT FOR ALL CURBS, HANGERS, DECKING, ETC.

SUPPORTING CAST CONCRETE OR MASONRY (UNLESS THE CONTRACTOR SHOWS WELDED #6 REBAR BY 4 FEET LONG TO EACH DOUBLE STACKED STEEL STUD. IN NO CASE SHALL STUDS CONTAINING STEEL STUDS AND/OR REBAR WITH CONCRETE MASONRY BLOCK WALLS SHALL BE USED). STUDS SHALL BE SUPPORTED BY EITHER THE STEEL BEAM OR 1/2" THICK (MINIMUM) GALVANIZED STEEL PLATE ATTACHED TO THE BEAM ALONG THE TOP OR BOTTOM EDGE. REBAR SHALL BE REQUIRED IF THE FLANGE WIDTH OF THE BEAM IS SUFFICIENT TO PROVIDE ADEQUATE STRENGTH FOR THE STUDS. ALL STUDS (IF APPLICABLE) SHALL BE INSTALLED TO THE STEEL BEAMS SUPPORTING MASONRY PRIOR TO LOADING OR ERECTION. REBAR SHALL BE AN OPTION TO THE STEEL STUDS, THE CONTRACTOR MAY WELD THE WALL REBAR DIRECTLY TO THE TOP FLANGE OF THE SUPPORTING STEEL BEAM OR PLATE - LAP AS REQUIRED.

31. THE FIREPROOFING ASSOCIATED WITH STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL REFER TO THE ARCHITECTURAL DRAWINGS AND APPLICABLE BUILDING CODE FOR FIRE RATING INCLUDING MATERIALS AND METHODS.

32. THE CONTRACTOR SHALL INSTALL BENT PLATES AS NECESSARY AT RIDGE, HIP, EAVE AND VALLEY LOCATIONS ON THE ROOF TO ADEQUATELY SUPPORT THE EDGE OF ROOF PANELS.

ALL EXPOSED METALS (MOISTURE AND CORROSIVE ENVIRONMENT) INCLUDING MECHANICAL UNIT CURBS, TIE DOWN STRAPS, EXPOSED FRAMING, ASSOCIATED HARDWARE, ETC. SHALL BE GALVANIZED. THIS INCLUDE METALS EXPOSED TO UNDERGROUND/GROUND CONTACT.

STEEL JOISTS AND GIRDERS

1. SHOP DRAWING NOTE: THIS NOTE IS DIRECTED TO THE CONTRACTOR, STEEL SUPPLIERS AND DETAILERS FOR STRUCTURAL AND MISCELLANEOUS STEEL, DECKING, JOISTS AND JOIST GIRDERS.

THE DETAILERS/ SUPPLIERS SHALL BE PROVIDED A FULL SET OF CONSTRUCTION DOCUMENTS (INCLUDING ADDENDUMS AND SPECIFICATIONS) BY THE CONTRACTOR FOR THEIR USE IN ORDER TO PROPERLY DETAIL THE PROJECT. DECK EDGES, DIMENSIONS, TOP OF STEEL, SLOPES, ARE CONTROLLED BY THE ARCHITECTURAL DRAWINGS.

DESIGNATION

IT IS RECOMMENDED THAT THE DETAILER USE APPROPRIATE DESIGNATIONS FOR THE ARCHITECT, CIVIL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, ETC.

IT IS IMPORTANT FOR THE CONTRACTOR TO REVIEW THE SHOP DRAWINGS FROM HIS DETAILERS AND TO PROVIDE THE NECESSARY COORDINATION BETWEEN THE STEEL, JOISTS AND DECKING SHOP DRAWINGS PRIOR TO SUBMITTING TO THE DESIGN TEAM. SHOP DRAWINGS SUBMITTED TO THE DESIGN TEAM WITHOUT THE CONTRACTORS REVIEW ARE SUBJECT TO BE RESUBMITTED, REJECTED OR OTHER SIMILAR ACTION MAY BE TAKEN BY THE ARCHITECT AND/OR ENGINEER.

2. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING BEAMS, JOISTS, BRIDGING, DECKING AND ALL CONNECTIONS INCLUDING SPLICES. THESE SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE PROJECT STATE TO CERTIFY COMPLIANCE WITH THE CODE REQUIRED LOADS OR AS SPECIFIED IN THE DRAWINGS (WHICH EVER IS HIGHER). THE SPECIFIC DESIGN OF THE BAR JOISTS AND GIRDERS SHALL TAKE INTO CONSIDERATION ALL ASPECTS OF DESIGN INCLUDING VIBRATION. AS PART OF SHOP DRAWINGS, STEEL FABRICATOR SHALL SUPPLY EMBEDDED STEEL PLATE AND BRACKET LOCATION DRAWINGS. THE STRUCTURAL DRAWINGS ARE NOT TO BE REPRODUCED FOR SHOP DRAWINGS, SECTION SHEETS OR ERECTION PLANS. THE STRUCTURAL DRAWINGS ARE NOT TO BE REPRODUCED FOR SHOP DRAWINGS, SECTION SHEETS OR ERECTION PLANS. SUBMIT AN AMPLIFIED NUMBER OF SETS OF SHOP DRAWINGS TO ALLOW FOR EACH DESIGN PROFESSIONAL TO RETAIN A SET FOR THE FILE. SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR FOR (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, AND ERECTION PROCEDURES PRIOR TO ARCHITECT & STRUCTURAL ENGINEERS REVIEW. AMPLE TIME, AS DETERMINED BY THE STRUCTURAL ENGINEER, SHALL BE ALLOTTED FOR HIS REVIEW OF SHOP DRAWINGS. THE CONTRACTOR MAY ISSUE SHOP DRAWINGS EARLY TO ALLOW FOR ADDITIONAL FABRICATION TIME. THE MEMBERS OF THE DESIGN TEAM SHALL RECEIVE A FINAL SET OF SHOP DRAWINGS EARLY TO ALLOW FOR ADDITIONAL FABRICATION TIME. THE MEMBERS OF THE DESIGN TEAM SHALL RECEIVE A FINAL SET OF SHOP

SHALL BE STAMPED BY A REGISTERED ENGINEER REGISTERED IN THE PROJECT STATE.

3. JOISTS AND JOIST GIRDERS TO BE MANUFACTURED AND INSTALLED ACCORDING TO THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE STEEL JOIST INSTITUTE. JOIST DESIGNER/SUPPLIER SHALL DETERMINE AND/OR VERIFY THE LOCATIONS AND WEIGHTS OF ALL MECHANICAL EQUIPMENT PRIOR TO SHOP DRAWING SUBMITTAL AND JOIST FABRICATION. IN MANY CASES THE CONTRACTOR, ARCHITECT AND/OR OWNER MAY SUBSTITUTE A MECHANICAL SYSTEM IN THE BID PROCESS-THEREBY CHANGING THE LOCATIONS AND WEIGHTS OF THE MECHANICAL UNITS. THE CONTRACTOR SHALL OBTAIN AND KEEP ON FILE THE JOIST CALCULATIONS RELATING TO THE DESIGN OF STEEL JOIST AND GIRDERS INCLUDING "SPECIAL JOISTS". IN SOME INSTANCES MULTIPLE JOISTS MAY BE SHOWN ON THE STRUCTURAL DRAWINGS AT MECHANICAL UNIT LOCATIONS TO THE LOADS.

4. ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF A.I.S.C. SPECIFICATIONS.

5. DECKING CONTRACTOR TO COORDINATE OPENING SIZES AND LOCATIONS FROM ARCHITECTURAL AND MECHANICAL DRAWINGS. METAL DECK SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD.

6. STRUCTURAL STEEL MEMBERS SHALL BE CAMBERED AS REQUIRED DEPENDING ON THE DEAD LOADS AND MEMBER LENGTH.

7. DESIGNERS AND DETAILERS OF THE STRUCTURAL SYSTEMS AND COMPONENTS FOR THIS PROJECT SHALL BE PROVIDED COMPLETE SETS OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS. THIS DONE TO ALLOW THE STEEL DETAILER TO IDENTIFY OTHER ADDITIONAL LOADS INCLUDING OPENINGS, DUCTS, HOODS, MECHANICAL AND OTHER SYSTEMS TO BE SUPPORTED BY STEEL. THE CONTRACTOR SHALL COORDINATE WITH STEEL SUBCONTRACTORS AND DETAILERS TO INSURE THAT THE NECESSARY STEEL IS PROVIDED TO SUPPORT AND/OR ACCOMMODATE THESE ADDITIONAL LOADS AND SYSTEMS.

8. ALL BOTTOM CHORDS OF JOISTS AND JOIST GIRDERS LOCATED AT COLUMNS SHALL HAVE BOTTOM CHORD EXTENSIONS FASTENED AFTER APPLICATIONS OF ALL ROOF DEAD LOADS. STEEL JOIST SHALL HAVE BOTTOM CHORD EXTENSIONS AND SUPPORT BEELINGS AS REQUIRED BY THE ARCHITECT OR CEILING SUPPLIER.

9. ALL STEEL JOISTS SUPPORTING ROOF DECK SHALL BE DESIGNED TO RESIST POINT LOADS AND TO WIND, PER THE LATEST EDITION OF THE APPLICABLE BUILDING CODE. UP/LIFT BRIDGING SHALL BE DESIGNED PER BAR JOIST SUPPLIER ENGINEER AND INDICATED IN THE SHOP DRAWINGS. NO LOADS SHALL BE APPLIED TO THE JOISTS UNTIL ALL BRIDGING IS INSTALLED AND ALL BEARING ENDS HAVE BEEN SECURED. BRIDGING TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE STANDARD.

10. JOIST DESIGNATIONS SHOWN ARE FROM "VULGARIZED STEEL JOIST AND JOIST GIRDERS" MANUAL "STANDARD LOAD TABLES FOR OPEN WEB STEEL JOISTS" ADOPTED BY THE STEEL JOIST INSTITUTE. LATEST EDITION. THE STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.

11. ALL JOIST MEMBERS ARE TO BE FRAMED IN AT LEAST TWO DIRECTIONS WITH STEEL MEMBERS. STEEL JOISTS SHALL HAVE A BOTTOM CHORD EXTENSIONS SHALL BE FIELD WELDED TO THE BOTTOM TO THE JOISTS TO PROVIDE ADDITIONAL LATERAL STABILITY.

12. PROVIDE 4 X 4 ANGLE BRACING UNLESS ALL METAL DECK PENETRATIONS UNLESS OTHERWISE NOTED.

ALL WELDS IN EXPOSED STEEL SHALL BE FIELD COATED W/ ZINC-RICH PAINT.

14. ALL STEEL JOIST SHALL BEAR A MINIMUM OF 2-1/2" ON STEEL BEAMS. STEEL JOISTS BEARING ON BOTH SIDES OF STEEL BEAMS WITH

15. ALL STEEL JOIST SUPPORTED BY MASONRY WALLS SHALL BEAR FULLY ON BEARING PLATES 1/8" PLATE 4" X 0-8" WITH TWO 3/8" X 4" LONG STEEL STUDS AS A MINIMUM UNLESS OTHERWISE SPECIFIED IN THE STRUCTURAL DRAWINGS. DEPENDING ON THE WIDTH OF JOIST SEAT, THE SUPPORTING BEARING PLATES MAY NEED TO BE WIDER TO ALLOW FOR PROPER JOIST BEARING AND WELDS. THE CONTRACTOR SHALL COORDINATE THE LENGTH OF THE BEARING PLATES WITH THE BARJOIST SEAT WIDTH PROVIDED BY THE JOIST MANUFACTURER/SUPPLIER. IT IS RECOMMENDED THAT THE BEARING PLATE SIZE BE 2 INCHES WIDER (BOTH SIDES) THAN THE JOIST TO ALLOW FOR WELD ATTACHMENT. LONG SPAN STEEL JOISTS

16. THE ENDS OF ALL STEEL BEAMS AND JOIST GIRDERS SHALL BEAR FULLY ON BEARING PLATES.

17. STEEL JOIST DETAILERS TO VERIFY JOIST AND BEAM BEARING ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS TO INSURE PROPER ROOF SLOPES FOR DRAINAGE AND CORRECT FLOOR ELEVATIONS. SEE ARCHITECTURAL DRAWINGS FOR FLASHING AND ROOF RELATED DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

18. SPECIAL ATTENTION SHALL BE GIVEN TO THE DETAILING AND FABRICATION OF STEEL JOISTS AND SEATS AS THEY RELATE TO ROOF SLOPES AND BEAM BEARING ELEVATIONS AND CONDITIONS. SOME JOISTS REQUIRE SPECIAL SEATS AS NEEDED DUE TO SLOPED SUPPORT MEMBERS SUCH AS HIP AND VALLEY CONDITIONS FOR ROOF SYSTEMS. THE STEEL SUPPLIER(S) SHALL TAKE INTO CONSIDERATION THESE FABRICATION AND ERECTION CONDITIONS TO ASSURE THE PROPER ELEVATIONS AND SLOPE OF STEEL MEMBERS AND STEEL SHALL BE SUPPLIED TO ADEQUATELY SUPPORT ALL EDGES OF METAL DECK.

19. THE FIREPROOFING ASSOCIATED WITH STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL REFER TO THE ARCHITECTURAL DRAWINGS AND APPLICABLE BUILDING CODE FOR FIRE RATING INCLUDING MATERIALS AND METHODS.

20. THE CONTRACTOR SHALL INSTALL 1/4" THICK BENT PLATE(S) AS NECESSARY AT ALL RIDGE, HIP, EAVE AND VALLEY LOCATIONS TO ADEQUATELY SUPPORT THE EDGE OF METAL ROOF DECK PANELS. THE PLATE(S) SHALL BE CONFIGURED (IN THE SHAPE OF AN EQUAL LEGGED CHANNEL OR TUBE) TO PROVIDE A MINIMUM BEARING AND SUPPORT WIDTH OF 2 INCHES. IN FLOOR SYSTEMS, A FABRICATED SQUARE TUBE (FROM 1/4" THICK STEEL PLATES) OR A 1/4" THICK TUBE OF THE PROPER DIMENSION SHALL BE USED AT ALL UNSUPPORTED EDGES OF FLOOR DECKING.

21. TYPICALLY, SCISSOR AND OTHER IRREGULAR TRUSSES (THOSE WITHOUT A HORIZONTAL BOTTOM CHORD FROM END TO END) MAY IMPART A LATERAL THRUST AT THE END SUPPORT(S) AS THE TRUSS OR GIRDER IS LOADED. THE STRUCTURAL SYSTEM SUPPORTING THE SCISSOR TRUSS SHALL BE DESIGNED TO ALLOW THE END CONDITIONS OF THE TRUSSES TO SLIDE AS THE DEAD LOADS ARE APPLIED. WITH THE DEAD LOADS APPLIED AND THE TRUSS (OR GIRDER) IN A DEFLECTED POSITION-THE END CONDITIONS MAY BE RIGIDLY FASTENED TO THE GRAVITY SUPPORT. THE TRUSS/GIRDER DESIGNER SHALL TAKE INTO ACCOUNT THIS CONDITION IN DESIGNING THE TRUSSES AND/OR GIRDERS(S). ANY SPECIAL MODIFICATION OR HARDWARE SHALL BE PART OF THE CONTRACT WITH THE TRUSS AND/OR GIRDER DESIGNER.

22. TYPICAL COLUMN CAP PLATE FOR JOIST GIRDER BEARING SHALL BE A MINIMUM OF 3/4" PL. 8" X 0'-10" (UNO).

23. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL USE DUE CARE IN ATTACHING STRUCTURAL COMPONENTS TO FIRE WALLS. MANY OF FIREWALL TYPE. ANY QUESTIONS PERTAINING TO THESE TYPE OF CONSTRUCTION SHALL BE DIRECTED TO THE LEAD DESIGNER OR STRUCTURAL

24. ALL STEEL REQUIRING PAINT SHALL BE PROPERLY CLEANED AND PREPARED TO ACCEPT THE APPROPRIATE PAINT FOR THE PROJECT.

REQUIREMENTS FOR COLOR, ETC. DECISIONS INVOLVING PAINT, COLOR AND SO ON SHALL BE PER OWNER.

25. STEEL BEAMS, GIRDERS, BAR JOISTS AND MISCELLANEOUS STEEL MEMBERS SHALL BE FABRICATED TO INCLUDE ATTACHMENT HOLES (AND BOLTS) AS NECESSARY FOR ATTACHMENT OF OTHER FRAMING AND SECONDARY MEMBERS INCLUDING WOOD NAILERS, ANGLE BRACING, ETC., WHETHER OR NOT SPECIFICALLY DETAILED IN THE DRAWINGS.

26. TOP CHORD EXTENSIONS SHALL BE PROVIDED AS DEPICTED IN THE CONSTRUCTION DOCUMENTS (ARCHITECTURAL INCLUDED). AS A MINIMUM, THE TOP CHORD EXTENSIONS SHALL BE DESIGNED TO CARRY THE JOIST UNIFORM LOAD AS SPECIFIED IN THE JOIST TABLES ALONG WITH AN ADDITIONAL 30 PLF ALONG THE EDGE CONDITION ACTING AS A POINT LOAD AT THE END OF THE TOP CHORD EXTENSION. TOP CHORDS SHALL BE FULL

27. OUTRIGGERS SHALL BE PROVIDED AS DEPICTED IN THE CONSTRUCTION DOCUMENTS (ARCHITECTURAL INCLUDED). THE OUTRIGGERS SHALL BE DESIGNED TO CARRY THE SAME UNIFORM LOADS AS THE SUPPORTING JOISTS WITH AN ADDITIONAL 30 PLF ALONG THE EDGE CONDITION ACTING AS A POINT LOAD ON THE END OF THE OUTRIGGER.

28. MECHANICAL CURBS SHALL BE CONTINUOUSLY SUPPORTED BY THE STRUCTURAL STEEL SYSTEM. THE CONTRACTOR SHALL INCLUDE THE NECESSARY STEEL SECTIONS (ANGLES, TUBES, SPACERS, ETC.) AS REQUIRED TO ACHIEVE THE NECESSARY SUPPORT FOR ALL CURBS, HANGERS, DECKING, ETC.

29. ALL EXPOSED METALS (MOISTURE AND CORROSIVE ENVIRONMENT) INCLUDING MECHANICAL UNIT CURBS, TIE DOWN STRAPS, EXPOSED FRAMING, ASSOCIATED HARDWARE, ETC. SHALL BE GALVANIZED. THIS INCLUDE METALS EXPOSED TO UNDERGROUND/GROUND CONTACT.

Georgetown County Regional Parks Andrews Recreation Center

Owner: Georgetown County 716 Prince Street Georgetown, SC 29442

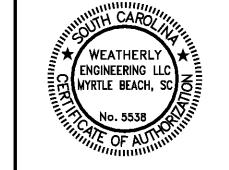
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Civil Consultant: ETS ENGINEERING AND TECHNICAL SERVICES INC. 38 Centermarket Lane P.O. Box 2000, Beaufort, NC 28520 Phone: 843.237-3000 Fax: 843.237-2889

MEP Consultant: Charleston Engineering 1035 E. Wagon Wheel Dr. Charleston, SC 29412 843.762.4242 Michael, Fleming & Heston

Structural Consultant: Weatherly Engineering LLC 14444 Shalston Blvd, Myrtle Beach, SC 29577 Phone: 843.671.4242

Irrigation Consultant:



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Notes: BIDDING DOCUMENTS

Revisions:

General Notes

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