GENERAL

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "THE 2015 INTERNATIONAL BUILDING CODE" AND "THE 2017 NEW YORK STATE UNIFORM CODE SUPPLEMENT."

WORK THESE DRAWING IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE COMMENCING WORK. ANY DISCREPANCY BETWEEN EXISTING CONDITIONS OR MEASUREMENTS AND THE INFORMATION SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER IMMEDIATELY. NO WORK SHALL CONTINUE UNTIL THE DISCREPANCY IS RESOLVED.

THE CONTRACTOR SHALL PROVIDE THE NECESSARY COORDINATION BETWEEN ALL TRADES WITH REGARD TO THE DRAWINGS. LOCATE BOLTS, SLEEVES, AND TRENCHES AS REQUIRED FOR MECHANICAL TRADES, AND PROVIDE AND INSTALL VARIOUS ITEMS NOT SHOWN ON THESE DRAWINGS BUT AS REQUIRED FOR VARIOUS TRADES.

DO NOT SCALE THE STRUCTURAL DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE STRUCTURAL ENGINEER.

THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDENT ON COMPLETED CONSTRUCTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL SUPPLY ANY TEMPORARY BRACING REQUIRED UNTIL BUILDING CONSTRUCTION IS COMPLETE.

DURING CONSTRUCTION THE CONTRACTOR SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOADS. CONSTRUCTION MATERIAL PLACED ON FRAMED FLOORS AND ROOFS SHALL BE SPREAD OUT AS REQUIRED.

THE CONTRACTOR IS RESPONSIBLE FOR SAFETY WITHIN THE JOB SITE AND FOR MEETING ALL APPLICABLE OSHA REQUIREMENTS DURING CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED EXCAVATION SHORING AND THE EVALUATION AND PROTECTION OF ADJACENT STRUCTURES.

FOUNDATIONS AND SLABS ON GRADE

ALL EXCAVATION, SUBGRADE PREPARATION, AND OTHER EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

ALL FOOTINGS ARE DESIGNED FOR A MINIMUM SOIL BEARING CAPACITY OF 4 KIPS PER SQUARE FOOT.

ALL FOOTINGS ARE TO BEAR ON UNDISTURBED VIRGIN SOIL OR CONTROLLED COMPACTED FILL.

THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL EXTEND 3'-6" MINIMUM BELOW FINISHED GRADE.

ALL EXCAVATIONS SHALL BE FREE OF WATER BEFORE POURING CONCRETE.

HAND TRIM SIDES AND BOTTOM OF EARTH FORMS AND REMOVE LOOSE DIRT.

NO SUBSEQUENT EXCAVATION SHALL BE NEARER THAN 2:1 (HORIZONTAL:VERTICAL) TO AN INSTALLED FOOTING OR FOUNDATION.

CONCRETE FOUNDATION WALLS SHALL BE PLACED IN ALTERNATE SECTIONS, NOT MORE THAN 60 FEET IN LENGTH. HORIZONTAL CONSTRUCTION JOINTS ARE NOT PERMITTED EXCEPT WHERE SHOWN.

PLACE SLABS ON GROUND PER THICKNESS SHOWN ON DRAWINGS WITH TOP OF SLAB SET TO ACCOMMODATE ARCHITECTURAL FINISHES.

PROVIDE SAW CUT CONTROL JOINTS AT AN OPTIMUM TIME AFTER FINISHING. CUT SLABS WITH A 3/16 INCH THICK BLADE TO 1 INCH DEPTH. LOCATE CONTROL JOINTS AT A MAXIMUM SPACING OF 36 TIMES THE SLAB DEPTH AND AT EACH CORNER, COLUMN AND PLAN IRREGULARITY.

THE CONTRACTOR SHALL SUBMIT POUR SEQUENCE AND JOINT LAYOUT TO THE ARCHITECT FOR APPROVAL PRIOR TO POURING CONCRETE SLABS.

SEPARATE SLABS ON GRADE FROM VERTICAL SURFACES WITH JOINT FILLER. EXTEND JOINT FILLER FROM BOTTOM OF SLAB TO WITHIN ¼ INCH OF FINISHED SLAB SURFACE.

CONSTRUCT SLAB ON GRADE WITH OVERALL SPECIFIED FF30/FL20 IN ACCORDANCE WITH ACI 302.1. DETERMINATION OF FF/FL NUMBERS WILL BE IN ACCORDANCE WITH ASTM E 1155. THE CONTRACTOR WILL TAKE REMEDIAL MEASURES WHEN FLOOR SLABS DO NOT MEET SPECIFIED REQUIREMENTS.

WHERE COMPACTED FILL IS REQUIRED, WELL GRADED GRANULAR MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D-1557.

VERIFICATION OF BEARING CAPACITY AND INSPECTION OF COMPACTED FILL SHALL BE COMPLETED BY A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

ANY UNEXPECTED SUBGRADE CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER.

CONCRETE

ALL CONCRETE MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH ACI 318. EVALUATION AND ACCEPTANCE OF CONCRETE STRUCTURES SHALL BE IN ACCORDANCE WITH ACI 301.

SPECIFIED COMPRESSIVE STRENGTH F'C AT 28 DAYS:

FOUNDATIONS AND FOOTINGS: 4000 PSI.
WALLS, COLUMNS, ELEVATED SLABS, AND BEAMS: 4000 PSI.
FLOOR SLABS ON GRADE: 3000 PSI
CONCRETE FILL ON METAL DECK: 3000 PSI.
SITE WALLS AND SIDEWALKS: 5000 PSI.

SUBMIT PROPOSED MIX DESIGNS AND TEST DATA BEFORE CONCRETE OPERATIONS BEGIN. ESTABLISH THE REQUIRED AVERAGE STRENGTH OF EACH DESIGN MIX ON THE BASIS OF EITHER FIELD EXPERIENCE OR TRIAL MIXTURES AS SPECIFIED IN ACI 301, AND PROPORTION MIXES PER THE RECOMMENDATIONS OF ACI 211.1. EACH MIX SHALL BE IDENTIFIED AS IT WILL APPEAR ON BATCH TICKETS DELIVERED TO PROJECT SITE.

CONCRETE MIX DESIGN SHALL PROVIDE FOR A CONCRETE SLUMP APPROPRIATE FOR PROJECT CONDITIONS. THE CONCRETE SHALL BE SUFFICIENTLY FLUID TO ALLOW FOR EASE OF PLACEMENT AND SUFFICIENTLY STIFF TO PREVENT SEGREGATION.

AGGREGATE SHALL CONFORM TO ASTM C33.

WATER-TO-CEMENT RATIO SHALL NOT EXCEED 0.40 BY WEIGHT FOR EXTERIOR EXPOSED CONCRETE. WEIGHT OF WATER SHALL INCLUDE ALL FREE MOISTURE, INCLUDING LIQUID ADMIXTURES.

AIR-ENTRAINING ADMIXTURE SHALL BE ADDED TO ACHIEVE TOTAL AIR CONTENT OF 6 PERCENT FOR EXTERIOR EXPOSED CONCRETE AND 3 PERCENT FOR CONCRETE NOT EXPOSED TO EXTERIOR WITH A TOLERANCE OF 1 PERCENT.

PROVIDE WATER-REDUCING ADMIXTURES CONFORMING TO ASTM C494 AS REQUIRED FOR PLACEMENT AND WORKABILITY AT THE MAXIMUM WATER TO CEMENT RATIO SPECIFIED.

INDICATE TYPE AND QUANTITY OF ADMIXTURES PROPOSED OR REQUIRED. ADMIXTURES CONTAINING MORE THAN 0.1 PERCENT CHLORIDE IONS ARE NOT PERMITTED. WHERE MIX CONTAINS MORE THAN ONE ADMIXTURE, ALL ADMIXTURES SHALL BE SUPPLIED BY ONE MANUFACTURER. MANUFACTURER SHALL CERTIFY THAT ADMIXTURES ARE COMPATIBLE SUCH THAT DESIRABLE EFFECTS OF EACH ADMIXTURE WILL BE REALIZED. LIQUID ADMIXTURES SHALL BE CONSIDERED PART OF THE TOTAL WATER.

WATER SHALL BE CLEAN, POTABLE AND FREE FROM DELETERIOUS MATERIAL.

PROVIDE DATA FOR PROPRIETARY MATERIALS, INCLUDING ADMIXTURES, CURING MATERIALS, AND FINISH MATERIALS.

SUBMIT MATERIAL CERTIFICATIONS FOR CEMENTITIOUS MATERIALS, AGGREGATES AND ADMIXTURES.

PROVIDE DEFORMED REINFORCING BARS COMPLYING WITH ASTM A615, GRADE 60, EXCEPT WHERE OTHERWISE INDICATED. ALL DETAILING OF REINFORCING SHALL BE IN ACCORDANCE WITH ACI STANDARD 315.

WELDED WIRE FABRIC SHALL BE ASTM A1064, COLD-DRAWN STEEL, PLAIN.

SUBMIT BAR PLACEMENT SHOP DRAWINGS SHOWING THE LOCATION OF REINFORCING AND CONSTRUCTION JOINTS. DELIVER REINFORCEMENT TO PROJECT SITE BUNDLED AND TAGGED INDICATING BAR SIZES, LENGTHS, AND OTHER DATA CORRESPONDING TO INFORMATION SHOWN ON PLACEMENT DRAWINGS.

PLACE REINFORCEMENT TO ACHIEVE NOT LESS THAN MINIMUM CONCRETE COVERAGE AS REQUIRED FOR PROTECTION. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT TO PREVENT DISPLACEMENT.

CONCRETE PROTECTION FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

ELEVATED SLABS: 3/4"
BEAMS AND COLUMNS (PEDESTALS): 1 1/2"
INSIDE FACE OF WALLS: 1"
CONCRETE POURED ON GROUND: 3"
EXTERIOR FACE OF WALLS (AGAINST EARTH): 2"

FIBROUS REINFORCEMENT FOR SLABS SHALL BE FIBRILLATED POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE COMPLYING WITH ASTM C 1116 TYPE III, 1/2" TO 1 1/2". UNIFORMLY DISPERSE FIBERS IN THE CONCRETE MIX AT THE MANUFACTURER'S RECOMMENDED RATE BUT NOT LESS THAN 1.5 POUNDS PER CUBIC YARD.

PROVIDE CLASS B TENSION LAP SPLICES COMPLYING WITH ACI 318 UNLESS OTHERWISE INDICATED.

INSTALLATION TOLERANCES FOR ANCHOR BOLTS FOR STRUCTURAL STEEL COLUMNS SHALL COMPLY WITH THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

GROUT SHALL CONFORM TO ASTM C1107, GRADE B NON-SHRINK, NON-METALLIC, PREPACKAGED GROUT WITH A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.

THE CONTRACTOR IS RESPONSIBLE FOR DESIGN, ENGINEERING, AND CONSTRUCTION OF FORMWORK, CAPABLE OF SUPPORTING ALL APPLIED LOADS UNTIL THE CONCRETE IS ADEQUATELY CURED, WITHIN ALLOWABLE TOLERANCES AND DEFLECTION LIMITS.

LOCATE AND INSTALL CONSTRUCTION JOINTS AS INDICATED ON DRAWINGS. IF CONSTRUCTION JOINTS ARE NOT INDICATED, LOCATE IN A MANNER WHICH WILL NOT IMPAIR STRENGTH AND WILL HAVE LEAST IMPACT ON APPEARANCE.

PROVIDE WATERSTOPS AT CONSTRUCTION JOINTS AND AS OTHERWISE INDICATED, SIZED AND CONFIGURED TO SUIT JOINTS. INSTALL TO FORM CONTINUOUS, WATERTIGHT DAM, WITH FIELD JOINTS FABRICATED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PREPARE PREVIOUSLY PLACED CONCRETE BY CLEANING AND APPLYING BONDING AGENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.

IN LOCATIONS WHERE NEW CONCRETE IS DOWELED TO EXISTING WORK, DRILL HOLES IN EXISTING CONCRETE, INSERT STEEL DOWELS AND PACK SOLID WITH EPOXY GROUT.

FOUNDATION SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED MUST BE FREE FROM STANDING WATER, MUD AND DEBRIS. SURFACES SHALL BE CLEAN AND FREE FROM OIL, OBJECTIONABLE COATINGS, AND LOOSE OR UNSOUND MATERIAL.

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER, UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS.

CONSOLIDATE CONCRETE BY MEANS OF MECHANICAL VIBRATORS TO ACHIEVE CONSISTENT CONSOLIDATION WITHOUT SEGREGATION OF COARSE AGGREGATES.

REPAIR SURFACE DEFECTS, INCLUDING TIE HOLES, IMMEDIATELY AFTER REMOVING FORMWORK.

PROTECT CONCRETE FROM SUN AND RAIN. DO NOT PERMIT CONCRETE TO BECOME DRY DURING CURING PERIOD. CONCRETE SHALL NOT BE SUBJECTED TO ANY LOADS UNTIL CONCRETE IS COMPLETELY CURED, AND UNTIL CONCRETE HAS ATTAINED ITS 28 DAY STRENGTH AND 14 DAYS MINIMUM.

UPON COMPLETION OF FINISHING OPERATION, THE SURFACE OF SLABS SHALL BE SEALED AGAINST MOISTURE LOSS FOR 7 DAYS BY THE APPLICATION OF A CURING MEMBRANE OR BLANKET.

CONCRETE IN FORMS SHALL BE KEPT MOIST UNTIL REMOVAL. IMMEDIATELY UPON REMOVAL OF FORMS, AN APPROVED SPRAYED-ON CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE SURFACES IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CURING SHALL BE MAINTAINED FOR 7 DAYS.

FORMED SURFACES SHALL COMPLY WITH MINIMUM TOLERANCES ESTABLISHED IN ACI 117, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED ON THE DRAWINGS.

FINISH EXPOSED CONCRETE TO OFFER SMOOTH, STAIN-FREE FINAL APPEARANCE AND MINIMUM NUMBER OF JOINTS. PROVIDE FORMING MATERIALS WITH SUFFICIENT STRENGTH TO RESIST HYDROSTATIC HEAD WITHOUT BOW OR DEFLECTION IN EXCESS OF ALLOWABLE TOLERANCES.

PROVIDE CONCRETE FILL FOR STEEL PAN STAIR TREADS, LANDINGS, AND ASSOCIATED ITEMS. SCREED, TAMP, AND FINISH CONCRETE SURFACES AS SCHEDULED.

COMPLY FULLY WITH RECOMMENDATIONS OF ACI 306 WHEN AIR TEMPERATURES ARE EXPECTED TO DROP BELOW 40°F EITHER DURING CONCRETE PLACEMENT OPERATIONS OR BEFORE CONCRETE HAS CURED. PROTECTIVE MEASURES INCLUDE BUT ARE NOT LIMITED TO HEATING OF MATERIALS, HEATED ENCLOSURES, AND INSULATING BLANKETS.

COMPLY FULLY WITH RECOMMENDATIONS OF ACI 305 WHEN AMBIENT TEMPERATURE BEFORE, DURING, OR AFTER CONCRETE PLACEMENT IS EXPECTED TO EXCEED 90°F OR WHEN COMBINATIONS OF HIGH AIR TEMPERATURE, LOW RELATIVE HUMIDITY, AND WIND SPEED ARE SUCH THAT THE RATE OF EVAPORATION FROM FRESHLY POURED CONCRETE WOULD OTHERWISE EXCEED 0.2 POUNDS PER SQUARE FOOT PER HOUR. PROTECTIVE MEASURES INCLUDE BUT ARE NOT LIMITED TO COOLING OF MATERIALS BEFORE OR DURING MIXING, PLACEMENT DURING EVENING TO DAWN HOURS, FOGGING DURING FINISHING AND CURING, SHADING, AND WINDBREAKS

SAMPLE CONCRETE AND MAKE SPECIMENS FOR TESTING PER ASTM C172 AND ASTM C31. TAKE SAMPLES AT POINT OF DISCHARGE AND REPORT RESULTS OF ALL TESTS.

TEST SLUMP OF THE FIRST 2 LOADS OF CONCRETE DELIVERED FOR EACH POUR AND ONCE PER STRENGTH TEST PERFORMED PER ASTM C143 WITH ADDITIONAL TESTS IF CONCRETE CONSISTENCY CHANGES.

TEST AIR CONTENT OF THE FIRST 2 LOADS OF CONCRETE DELIVERED FOR EACH POUR AND ONCE FOR EACH STRENGTH TEST PERFORMED PER ASTM C173 OR ASTM C231.

TEST CONCRETE TEMPERATURE FOR EACH STRENGTH TEST PERFORMED AND HOURLY WHEN AIR TEMPERATURE IS BELOW 40°F OR ABOVE 90°F.

PROVIDE ONE COMPRESSIVE STRENGTH TEST PER ASTM C39 FOR EVERY 50 CUBIC YARDS OR FRACTION THEREOF FOR EACH DAY'S POUR OF EACH CONCRETE CLASS.

MOLD AND CURE ONE SET OF 4 STANDARD CYLINDERS FOR EACH COMPRESSIVE STRENGTH TEST REQUIRED. TEST ONE SPECIMEN PER SET AT 7 DAYS FOR INFORMATION AND TEST 2 SPECIMENS PER SET FOR ACCEPTANCE OF STRENGTH POTENTIAL AT 28 DAYS. RETAIN ONE SPECIMEN FROM EACH SET FOR LATER TESTING, IF REQUIRED.

EVALUATE CONSTRUCTION AND CURING PROCEDURES AND IMPLEMENT CORRECTIVE ACTION WHEN STRENGTH RESULTS FOR FIELD-CURED SPECIMENS ARE LESS THAN 85 PERCENT OF TEST VALUES FOR COMPANION LABORATORY-CURED SPECIMENS.

COST OF ADDITIONAL TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WHEN UNACCEPTABLE CONCRETE HAS BEEN VERIFIED.

MASONRY

ALL MASONRY CONSTRUCTION, REINFORCED AND UNREINFORCED, SHALL COMPLY WITH THE REQUIREMENTS OF THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," ACI 530 AND THE "SPECIFICATION FOR MASONRY STRUCTURES," ACI 530.1.

PROVIDE MATERIALS TO ACHIEVE THE NET COMPRESSIVE STRENGTH OF CONCRETE UNIT MASONRY EQUAL TO OR GREATER THAN 2000 PSI F'M

MATERIAL SPECIFICATIONS:

CONCRETE MASONRY UNITS: ASTM C-90, MEDIUM WEIGHT, TYPE I
REINFORCING BARS: ASTM A615, GRADE 60.
SHEET-METAL ANCHORS AND TIES: ASTM A1008
WIRE TIES AND ANCHORS: ASTM A82
JOINT REINFORCEMENT: ASTM A951
SIDE ROD DIAMETER: 0.1875 INCH
CROSS ROD DIAMETER: 0.1483 INCH
MORTAR: ASTM C270, TYPE M OR S
GROUT: ASTM C476, 2500 PSI @ 28 DAYS.
MINIMUM SLUMP: 8 INCHES.

PROVIDE MORTAR FOR UNIT MASONRY PER ASTM C 270 PROPORTION SPECIFICATION. PROVIDE TYPE M MORTAR FOR MASONRY BELOW GRADE AND TYPE S MORTAR FOR MASONRY ABOVE GRADE.

PROVIDE GROUT CONSISTENCY REQUIRED AT TIME OF PLACEMENT TO FILL COMPLETELY ALL SPACES INDICATED TO BE GROUTED. GROUT SHALL BE EITHER FINE OR COARSE DEPENDING ON SPACE TO BE GROUTED. MINIMUM GROUT STRENGTH SHALL BE 2500 PSI AT 28 DAYS AS MEASURED BY ASTM C1019.

SUBMIT PUBLISHED DATA FROM MANUFACTURERS OF PRODUCTS AND ACCESSORIES SPECIFIED, INDICATING COMPLIANCE WITH REQUIREMENTS.

PROVIDE MIX DESIGN AND TEST REPORTS FOR PRE-BLENDED MORTAR AND CONVENTIONAL GROUT INDICATING TYPES AND PROPORTIONS OF MATERIALS.

PROVIDE STANDARD UNITS WITH NOMINAL FACE DIMENSIONS OF 16 INCHES LONG AND 8 INCHES HIGH (15-5/8 BY 7-5/8 ACTUAL), WITH NOMINAL THICKNESSES AS INDICATED ON DRAWINGS.

PROVIDE SPECIAL BLOCK TYPES WHERE REQUIRED FOR CORNERS, CONTROL JOINTS, HEADERS, LINTELS, AND OTHER SPECIAL CONDITIONS, WHETHER OR NOT SPECIFICALLY INDICATED ON THE DRAWINGS.

ALL MASONRY WALLS SHALL BE CONSTRUCTED WITH TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT AT 16 INCHES ON CENTER. PROVIDE WELDED WIRE UNITS PREFABRICATED INTO STRAIGHT LENGTHS OF NOT LESS THAN 10 FEET, WITH DEFORMED CONTINUOUS SIDE RODS AND PLAIN CROSS RODS. SIZE REINFORCEMENT APPROXIMATELY TWO INCHES LESS THAN NOMINAL WALL WIDTH, PROVIDING NOT LESS THAN 5/8 INCH MORTAR COVERAGE ON EXTERIOR EXPOSURES AND 1/2 INCH ELSEWHERE.

REINFORCEMENT SHALL BE PLACED ACCURATELY AND SECURED AT INTERVALS NOT TO EXCEED 72 INCHES. MINIMUM SPACING BETWEEN BARS OR MASONRY SURFACES SHALL BE ONE BAR DIAMETER. LAPPED SPLICES SHALL BE A MINIMUM OF 48 BAR DIAMETERS. PROVIDE LAP-JOINT TIE FOR EACH SPLICE.

PROTECT CARBON STEEL JOINT REINFORCEMENT, TIES, AND ANCHORS FROM CORROSION BY GALVANIZING, UNLESS OTHERWISE REQUIRED.

DELIVER, HANDLE, AND STORE MASONRY UNITS, MATERIALS, AND ACCESSORIES BY MEANS WHICH WILL PREVENT MECHANICAL DAMAGE AND DETERIORATION DUE TO MOISTURE, TEMPERATURE AND CONTAMINATION.

PRIOR TO LAYING MASONRY, REMOVE LAITANCE, LOOSE AGGREGATE, AND ANY OTHER MATERIAL THAT WOULD PREVENT MORTAR FROM BONDING TO FOUNDATION.

ALL MASONRY SHALL BE LAID TRUE, LEVEL, PLUMB, AND IN ACCORDANCE WITH THE DRAWINGS. ENSURE ALL VERTICAL CELLS TO BE GROUTED ARE ALIGNED AND UNOBSTRUCTED.

PLACE MASONRY UNITS ON FULL MORTAR BED IN ALL COURSES OF BEARING WALLS, PIERS, FOUNDATION WALLS, COLUMNS, AND PILASTERS.

VERTICAL REINFORCING SHALL EXTEND THROUGH BOND BEAMS WHERE SHOWN. CUT BOTTOM OF MASONRY UNIT TO ACCOMMODATE VERTICAL BAR. GROUT CAVITIES BELOW BOND BEAM PRIOR TO INSTALLATION OF BOND BEAM COURSE.

ALL HEAD AND BED JOINTS SHALL BE A NOMINAL 3/8 IN. THICK, UNLESS OTHERWISE REQUIRED.

MASONRY SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE INDICATED IN THE DRAWINGS.

BRACE MASONRY DURING CONSTRUCTION TO ASSURE STABILITY. DESIGN, PROVIDE, AND INSTALL BRACING AS REQUIRED.

ALL MORTAR JOINTS ON EXPOSED WALLS SHALL BE STRUCK TO PRODUCE A DENSE, SLIGHTLY CONCAVE SURFACE WELL BONDED TO THE SURFACE OF THE MASONRY UNIT.

UNLESS OTHER CONDITIONS ARE SPECIFICALLY DETAILED, GROUT CAVITIES SOLID FOR AT LEAST 24 INCHES BELOW BEARING PLATES, LINTELS, AND SIMILAR FEATURES AND CONDITIONS.

PROVIDE MASONRY WALL CONTROL JOINTS AT A MAXIMUM SPACING OF 25 FEET ON CENTER AND AT EACH CORNER OR CHANGE IN WALL HEIGHT. CONSTRUCT CONTROL JOINTS WITH PREFORMED CONTROL JOINT GASKETS AS DETAILED IN THE DRAWINGS AS MASONRY PROGRESSES.

PROVIDE ONE VERTICAL REINFORCING BAR WITHIN 16 INCHES OF EACH SIDE OF EVERY CORNER AND AT EACH SIDE OF ALL WALL OPENINGS.

CAVITIES CONTAINING REINFORCING OR BELOW BEARING PLATES SHALL BE GROUTED BY MEANS OF LOW-LIFT TECHNIQUES. HIGH-LIFT GROUTING MAY BE USED ONLY WITH PRIOR APPROVAL. FOLLOW ACI SPECIFICATIONS FOR MASONRY GROUTING.

COVER TOPS OF INCOMPLETE MASONRY ELEMENTS WITH WATERPROOF SHEET MATERIAL AT END OF EACH WORK DAY AND WHEN MASONRY WORK IS NOT UNDER WAY.

IMPLEMENT COLD WEATHER CONSTRUCTION PROCEDURES IN ACCORDANCE WITH ACI 530.1 WHEN AMBIENT TEMPERATURE FALLS BELOW 40°F OR THE TEMPERATURE OF MASONRY UNITS IS BELOW 40°F. WET OR FROZEN UNITS SHALL NOT BE LAID.

IMPLEMENT HOT WEATHER CONSTRUCTION PROCEDURES IN ACCORDANCE WITH ACI 530.1 WHEN AMBIENT TEMPERATURE EXCEEDS 100°F, OR EXCEEDS 90°F WITH A WIND VELOCITY GREATER THAN 8 MPH.

INSTALL FLASHING AT ALL CONDITIONS SUCH AS LINTELS AND SHELF ANGLES, WHERE THE DOWNWARD FLOW OF WATER WITHIN THE MASONRY WILL BE INTERRUPTED.

DO NOT APPLY UNIFORM FLOOR OR ROOF LOADS FOR AT LEAST 12 HOURS, OR CONCENTRATED LOADS FOR AT LEAST 3 DAYS, AFTER COMPLETION OF MASONRY ELEMENTS.

AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN EXPOSED MASONRY SURFACES OF STAINS, EFFLORESCENCE, MORTAR OR GROUT DROPPINGS, AND DEBRIS.

AT COMPLETION OF MASONRY WORK, REMOVE ALL SCAFFOLDING AND EQUIPMENT USED DURING CONSTRUCTION, AND REMOVE ALL DEBRIS, REFUSE, AND SURPLUS MASONRY MATERIAL FROM THE SITE.

SPRAYED-ON WATER REPELLENT SHALL BE APPLIED AFTER MASONRY UNITS ARE CLEANED AND THOROUGHLY DRY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

THE OWNER WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.

THE CONTRACTOR WILL REPLACE WORK THAT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS AND BE RESPONSIBLE FOR ADDITIONAL INSPECTING TO DETERMINE COMPLIANCE OF CORRECTED WORK WITH SPECIFIED REQUIREMENTS.

PRECAST CONCRETE HOLLOW CORE PLANK

ALL PRECAST CONCRETE HOLLOW CORE PLANK SHALL BE DESIGNED, MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRESTRESSED CONCRETE INSTITUTE.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW OF ALL PLANK UNITS PRIOR TO FABRICATION. THE CONTRACTOR SHALL LOCATE AND MARK ALL REQUIRED OPENINGS TO BE CAST OR FIELD CUT BEFORE SUBMITTING THE DRAWINGS.

DESIGN OF THE PRECAST UNITS SHALL PROVIDE FOR A MAXIMUM LIVE LOAD DEFLECTION OF L/480 OF THE TOTAL SPAN.

THE INSTALLER SHALL INSPECT ALL EXISTING CONSTRUCTION PRIOR TO DELIVERY OF THE PRECAST UNITS TO ENSURE THAT ALL CONDITIONS ARE ACCEPTABLE AND WITHIN ALLOWABLE TOLERANCES.

NO BROKEN, CRACKED, SPALLED OR OTHERWISE DEFECTIVE UNITS SHALL BE ERECTED.

INSTALL DOWELS AS SHOWN ON THE SHOP DRAWINGS AND DETAILS. ALL PLANK JOINTS AND ENDS SHALL BE GROUTED AS SHOWN AND IN ACCORDANCE WITH THE SPECIFICATIONS.

PRIOR TO GROUTING PLANK DIFFERENTIAL PLANK CAMBER SHALL BE REMOVED BY INSERTING THREADED RODS WITH LOCK PLATES AND NUTS IN THE JOINTS. TIGHTEN THE NUTS TO FORCE THE PLANKS TOGETHER. GROUT AFTER PLANKS ARE ALIGNED.

BRICK VENEER

ALL BRICK VENEER CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF ACI 530, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," AND THE BRICK INSTITUTE OF AMERICA, "TECHNICAL NOTES ON BRICK CONSTRUCTION".

PROVIDE MORTAR FOR BRICK VENEER PER ASTM C 270 PROPORTION SPECIFICATION. PROVIDE TYPE S MORTAR FOR VENEER BELOW GRADE AND TYPE N MORTAR FOR VENEER ABOVE GRADE.

BRICK VENEER WITH A MAXIMUM UNIT WEIGHT OF 40 POUNDS PER SQUARE FOOT SHALL BE ANCHORED BY GALVANIZED WALL TIES WITH A MINIMUM CLEAR SPACE OF 1 INCH BETWEEN INSIDE FACE VENEER AND OUTSIDE FACE OF SHEATHING OR INSULATION.

BRICK VENEER INSTALLED OVER SOLID SURFACE SHALL BE ANCHORED WITH HOHMANN & BARNARD DW-10HS VENEER ANCHORS OR APPROVED EQUAL. BRICK VENEER INSTALLED OVER RIGID INSULATION SHALL BE ANCHORED WITH HOHMANN & BARNARD X-SEAL VENEER ANCHORS OR APPROVED EQUAL.

EMBED ALL BRICK TIES A MINIMUM OF 1 1/2 INCHES INTO MORTAR JOINTS WITH AT LEAST 5/8 INCH COVER TO OUTSIDE FACE.

SPACE ANCHORS TO PROVIDE AT LEAST ONE ANCHOR FOR 2.67 SQUARE FEET OF WALL AREA WITH A MAXIMUM TIE SPACING NOT TO EXCEED 16 INCHES HORIZONTAL OR 24" VERTICAL.

STRUCTURAL STEEL

ALL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," LATEST EDITION.

ALL WELDERS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL" FOR EACH PROCESS, POSITION AND JOINT CONFIGURATION.

STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM WITH ASTM A992.

STEEL PLATE, BARS AND CHANNELS SHALL CONFORM WITH ASTM A36 UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL TUBING SHALL CONFORM WITH ASTM A500, GRADE B

STRUCTURAL STEEL PIPE SHALL CONFORM WITH ASTM A53, GRADE B.

BOLTS FOR STRUCTURAL STEEL CONNECTIONS SHALL BE MINIMUM 3/4" DIAMETER ASTM A325-N UNLESS DESIGNATED AS A490 ON THE DRAWINGS. NUTS SHALL BE ASTM A563 GRADE C OR DH. TENSION CONTROL BOLTS SHALL BE ASTM F1852 OR ASTM F2280.

WASHERS SHALL BE FLAT CONFORMING TO ASTM F436 TYPE 1. THE FINISH OF WASHERS IS TO MATCH THE NUT. A325 BOLTS SHALL HAVE WASHERS UNDER THE HEAD AND A490 BOLTS SHALL HAVE HARDENED WASHERS UNDER THE HEAD AND THE NUT.

ANCHOR BOLTS SHALL BE ASTM F1554 35 KSI YIELD STRENGTH, UNLESS OTHERWISE NOTED.

SHEAR STUD CONNECTORS CONFORMING TO ASTM A108 ARE TO BE FIELD INSTALLED. AFTER WELDING, STUDS ARE TO BE THE LENGTH SHOWN ON THE DRAWINGS. SHOP WELDING OF STUDS IS NOT PERMITTED.

ALL WELDS SHALL UTILIZE E70XX ELECTRODES AND SHALL BE A MINIMUM OF 3/16 INCH IN SIZE UNLESS NOTED OTHERWISE.

CONNECTIONS SHALL BE BOLTED OR WELDED WITH A MINIMUM OF TWO BOLTS OR EQUIVALENT WELD.

UNLESS CONNECTIONS ARE DETAILED ON THE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF CONNECTIONS. CONNECTION DESIGN SHALL BE UNDER THE DIRECT SUPERVISION OF AN ENGINEER EXPERIENCED IN CONNECTION DESIGN.

BEAM CONNECTIONS SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION. STANDARD WEB CONNECTIONS SHALL BE PROVIDED WHERE POSSIBLE.

BEAM CONNECTIONS ARE TO BE DESIGNED TO RESIST ONE HALF THE ALLOWABLE LOAD FOR THE APPROPRIATE SPAN GIVEN IN THE MAXIMUM TOTAL UNIFORM LOAD TABLE OF THE AISC MANUAL OF STEEL CONSTRUCTION.

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Date 1/10/20
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Revisions:
ISSUE TO BID 11/23/20

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GENERAL NOTES

2019 BOND REFERENDUM
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File No.

S6.01