1. BUILDING CODE(S): - 2018 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS

2. DESIGN LOADS:

A. FLOOR LIVE LOADS

a.	FLOORS (NON-REDUCED/REDUCED)	100 PSF
b.	MECHANICAL ROOMS	150 PSF

B. ROOF LIVE LOAD — 20 PSF

C. ROOF SNOW LOAD

a.	GROUND SNOW LOAD, Pg	20 PSF
b.	FLAT ROOF SNOW LOAD, Pf	14 PSF
c.	SNOW EXPOSURE FACTOR, Ce	1.0
d.	RISK CATEGORY	II
e.	SNOW LOAD IMPORTANCE FACTOR, I	1.0
f.	THERMAL FACTOR, Ct	
1	HEATED STRUCTURE	1.0
g.	DRIFTING	PER CODE

D. RAIN LOADS

a.	RAIN INTENSITY	
1	i (15 MIN)	7.73 IN./HR
2	i (60 MIN)	3.75 IN./HR
b.	RAIN LOAD	20.80 PSF

E. WIND LOADS

a.	BASIC WIND SPEED (3 SECOND GUST)	
1	V(ULTIMATE)	100 MPH
2	V(SERVICE)	85 MPH
b.	RISK CATEGORY	II
c.	WIND EXPOSURE	C
d.	INTERNAL PRESSURE COEFFICIENT	+/- 0.18
e.	COMPONENT AND CLADDING PRESSURE	SEE TABLE 1/S0.3

F. SEISMIC LOADS

a.	RISK CATEGORY	II
b.	SPECTRAL ACCELERATION	Ss = 0.092g, S1 = 0.065g
c.	SEISMIC IMPORTANCE FACTOR, I	1.0
d.	SPECTRAL RESPONSE COEFFICIENTS	
1	SDS	0.098
2	SD1	0.104
e.	SITE CLASS	D
f.	SEISMIC DESIGN CATEGORY	B
g.	BASIC SEISMIC-FORCE-RESISTING SYSTEM	LIGHT FRAME WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
h.	RESPONSE MODIFICATION FACTOR, R	6 1/2
i.	SEISMIC RESPONSE COEFFICIENT, Cs	0.015
j.	DESIGN BASE SHEAR	0.015W
k.	SEISMIC BASE SHEAR	2 KIPS
l.	ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE	

G. DEAD LOADS

a.	STRUCTURE	ACTUAL WEIGHT
b.	MISC. UNDERHUNG MECHANICAL	10 PSF
c.	ROOF STRUCTURE (INCLUDING UNDERHUNG)	15 PSF
d.	EXTERIOR WALLS (EIFS)	10 PSF
e.	EXTERIOR WALLS (FAUX STONE AND TILE)	20 PSF

H. THE STRUCTURAL SYSTEMS SHOWN ON THESE DOCUMENTS HAVE BEEN DESIGNED FOR THE FINAL, IN PLACE USAGE OF THE STRUCTURE BASED ON THE INTENDED OCCUPANCY AND CODE REQUIREMENTS. WHILE GENERAL CONSTRUCTABILITY HAS BEEN CONSIDERED, THE STRUCTURAL SYSTEMS HAVE NOT BEEN DESIGNED TO ACCOMMODATE SPECIFIC CONSTRUCTION MEANS AND METHODS THAT MIGHT BE UTILIZED BY THE CONTRACTOR.

3. STATEMENT OF SPECIAL INSPECTIONS

A. THIS STATEMENT OF SPECIAL INSPECTIONS IS IN ACCORDANCE WITH 1704.3 OF THE 2018 IBC CODE. THE INTENT OF THIS SECTION IS THAT ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE 2018 IBC UNLESS SPECIFICALLY NOTED OTHERWISE. ADDITIONAL SPECIAL INSPECTIONS MAY BE REQUIRED BY LOCAL CODE OR BUILDING OFFICIAL, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ANY ADDITIONAL REQUIRMENTS ABOVE AND BEYOND THE CODE REQUIRED SPECIAL INSPECTION INDICATED BELOW.

B. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.

a. REINFORCED MASONRY CONSTRUCTION - LEVEL B INSPECTION
b. CONCRETE AND MASONRY GROUT DESIGN MIX
c. PLACING OF CONCRETE AND REINFORCING STEEL
d. BOLTS AND ANCHORS EMBEDDED IN CONCRETE AND MASONRY
e. STRUCTURAL STEEL FABRICATIONS
f. STRUCTURAL STEEL BOLTING AND WELDING
g. INSPECTION OF ROOF DECK ATTACHMENT
h. POST-INSTALLED ANCHORS IN MASONRY AND CONCRETE
i. IN-SITU SOILS, EXCAVATIONS, FILLING AND COMPACTION
j. RAMMED AGGREGATE PIERS
k. WOOD TRUSS FABRICATIONS
l. WOOD TRUSS ATTACHMENT
m. SHEAR WALL ATTACHMENTS AND ANCHORS

C. THE OWNER IS RESPONSIBLE FOR EMPLOYING ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS DURING CONSTRUCTION, BASED ON REQUIREMENTS OF ONE OR MORE DESIGN PROFESSIONALS.

D. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO THE JOB SITE AND ITEMS TO BE INSPECTED. SAFE ACCESS INCLUDES BUT IS NOT LIMITED TO LADDERS, SCAFFOLDING AND/OR CONTRACTOR OPERATED LIFTS AS REQUIRED FOR SITE OBSERVATION.

E. SPECIAL INSPECTOR SHALL PROVIDE BI-WEEKLY SPECIAL INSPECTION REPORTS AND SHALL DISTRIBUTE THESE REPORTS TO THE BUILDING OFFICIAL, OWNER, CONTRACTOR, ARCHITECT, STRUCTURAL ENGINEER OF RECORD, AND MECHANICAL/ELECTRICAL/PLUMBING ENGINEER OF RECORD. SPECIAL INSPECTION REPORTING SHALL BE IN ACCORDANCE WITH SECTION 1704.2.4 OF THE 2018 IBC.

F. ALL DISCREPANCIES NOTED DURING INSPECTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. IF LEFT UNCORRECTED, THESE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE APPROPRIATE DESIGN PROFESSIONALS AND/OR BUILDING OFFICIAL. THE INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE CONTRACT DRAWINGS.

4. STRUCTURAL ENGINEER SITE OBSERVATIONS:

A. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES.

B. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

C. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF PMA ENGINEERING IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FABRICATION.

6. REFERENCE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED. THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE UTILIZED AS A COMPLETE SET OF DOCUMENTS THAT REPRESENT THE BUILDING'S STRUCTURAL SYSTEMS. NO SINGLE SHEET OR SERIES OF SHEETS IS INTENDED TO “STAND ALONE.” THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE INCLUDED IN A COMPLETE SET OF CONSTRUCTION DOCUMENTS, INCLUDING, BUT NOT LIMITED TO: ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, AND MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY COORDINATION OF THESE DRAWINGS WITH CONTENTS OF ABOVE DRAWING SETS SPECIFIED AND ONLY PROCEED WITH BIDDING AND CONSTRUCTION AFTER SUCH HAS TAKEN PLACE.

8. DETAILS LABELED “TYP” OR “TYPICAL” ARE TO BE APPLIED AT LOCATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR SIMILAR CONDITIONS OR AS SHOWN IN THE “TYPICAL DETAILS.”

9. THE BUILDING IS NOT STRUCTURALLY STABLE UNTIL ALL CONNECTIONS, GRAVITY AND LATERAL FRAMING, SHEAR WALLS, DIAPHRAGMS, PERMANENT BRACING AND EXTERIOR LOAD BEARING WALLS ARE COMPLETE AND HAVE ACHIEVED THEIR DESIGN STRENGTH. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY DURING ERECTION AND CONSTRUCTION. TEMPORARY BRACING SYSTEMS ARE NOT TO BE REMOVED UNTIL STRUCTURAL WORK IS COMPLETE.

10. REINFORCING STEEL:

A. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60, EXCEPT WELDED REINFORCING WHICH SHALL BE ASTM A706 GRADE 60.

B. ALL WELDED WIRE FABRIC SHALL BE ASTM A185 AND A82 COLD DRAWN WIRE.

C. ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE GALVANIZED OR HAVE PLASTIC-COATED FEET.

D. PROVIDE CORNER BARS AT THE EXTERIOR FACE OF ALL WALL AND FOOTING CORNERS EQUAL TO HORIZONTAL BARS.

E. PROVIDE AT LEAST TWO VERTICAL #5 BARS AT ALL STEPS IN FOUNDATION WALLS, FOOTINGS, AND GRADE BEAMS.

F. REINFORCING SHALL BE DETAILED, FABRICATED, PLACED, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST EDITION.

G. THE FOLLOWING ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED IN STOCK LENGTHS FOR GENERAL JOB USE AS DIRECTED BY THE ENGINEER.
10 - #4 X 30-0 10 - #5 X 30-0

H. STANDARD COVERAGE OF REINFORCING, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

a.	CAST AGAINST EARTH, PERMANENTLY EXPOSED TO WEATHER	3”
b.	EXPOSED TO EARTH AND WEATHER (FORMED)	2”

I. ALL LAP SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE.

J. FOR REINFORCING BAR LAP LENGTHS IN CONCRETE, SEE TABLE 4/S0.3.

11. CONCRETE:

A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODE REQUIREMENTS, INDUSTRY GUIDES, AND REFERENCE STANDINGS INCLUDING, BUT NOT LIMITED TO:

a. ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
b. ACI 305R - GUIDE TO HOT WEATHER CONCRETING
c. ACI 306R - GUIDE TO COLD WEATHER CONCRETING
d. ACI 318 - STRUCTURAL CONCRETE BUILDING CODE
e. ACI 347 - GUIDE TO FORMWORK FOR CONCRETE
f. ACI SP-66 - ACI DETAILING MANUAL
g. AWS D1.4 - STRUCTURAL WELDING CODE - REINFORCING STEEL
h. CRSI - MANUAL OF STANDARD PRACTICE

B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH AND HAVE MAXIMUM WATER/CEMENT RATIOS AS FOLLOWS & BE PORTLAND CEMENT SHALL BE ASTM C 150 TYPE II:

a.	FOOTINGS, PIERS, GRADE BEAMS, FOUNDATION WALLS	4,500 PSI (w/c < 0.45)
b.	SLABS-ON-GRADE	4,000 PSI (w/c < 0.44)

C. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%.

D. NORMAL WEIGHT AGGREGATES SHALL COMPLY WITH ASTM C33 STANDARD SPECIFICATION FOR CONCRETE AGGREGATES. COARSE AGGREGATE SHALL MEET THE DELETERIOUS SUBSTANCE AND PHYSICAL PROPERTIES REQUIREMENTS OF ASTM C33, TABLE 4 FOR CLASS DESIGNATION 3S OR BETTER. FINE AGGREGATE SHALL CONFORM TO ASTM C33.

E. THE CONCRETE SLAB-ON-GRADE HAVE BEEN DESIGNED FOR THE FINAL USE AND NOT FOR CONSTRUCTION CONSIDERATIONS. CONTRACTOR SHALL COORDINATE THE SLAB DESIGN WITH CONSTRUCTION NEEDS. THE SLAB DESIGN INDICATED ON THESE DRAWINGS IS TO BE CONSIDERED A MINIMUM. SUBMIT CHANGES TO THE SLAB DESIGN TO THE ENGINEER OF RECORD FOR REVIEW.

F. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING AND/OR SUPER-PLASTICIZING CHEMICAL ADMIXTURES.

G. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO USE OF SELF-CONSOLIDATING CONCRETE MIX.

H. CONCRETE SLUMP SHALL BE A MAXIMUM OF 3 1/2” +/- 1” (ASTM C143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8” FOR WORKABILITY.

I. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY, IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIX. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS.

J. FLY ASH MAY BE USED AT A RATE NOT TO EXCEED 25% OF THE TOTAL CEMENT CONTENT.

K. CHAMFER ALL EXPOSED CORNERS OF CONCRETE WALLS, BEAMS, AND COLUMNS 3/4”.

L. ALL CONTROL JOINTS IN CONCRETE SLABS-ON-GRADE SHALL BE CUT TO 1/3 OF THE DEPTH. CUT JOINTS AS SOON AS POSSIBLE AFTER CONCRETE HAS BEEN PLACED WITHOUT DISLODGING AGGREGATE OR USE KEYED COLD JOINT.

M. THE UNIT POUR FOR SLABS AND WALLS SHALL NOT EXCEED 100 LINEAL FEET IN ANY ONE DIRECTION. CUT SLABS TO 1/3 THE DEPTH ON GRID LINES INTO AREAS OF ABOUT 150 SQUARE FEET.

N. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESSES, AND BLOCKOUTS SHOWN ON THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.

O. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.

P. ANCHOR RODS SHALL BE HELD IN PLACE WITH A RIGID TEMPLATE.

Q. CONCRETE CURING SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ACI-318-14 SECTION 26.5.3 AND STANDARD PRACTICE FOR CURING CONCRETE REPORTED BY COMMITTEE 308.

12. MASONRY:

A. SPECIAL INSPECTION OF ALL REINFORCED MASONRY IS REQUIRED.

B. ALL MASONRY WALLS SHALL BE RUNNING BOND UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

C. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, F'm OF 1,500 PSI. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND HAVE A NET AREA COMPRESSIVE STRENGTH OF 1,900 PSI.

D. MORTAR SHALL BE TYPE “S” FOR ABOVE-GRADE APPLICATIONS AND TYPE “M” FOR BELOW-GRADE APPLICATIONS.

E. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI.

F. REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO ASTM A615.

G. MAXIMUM HEIGHT OF GROUT POUR SHALL NOT EXCEED 5'- 4”.

H. VERTICAL CELLS TO BE GROUTED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A TOTAL MINIMUM CLEAR AREA OF 3” X 3”. ALL OVERHANG MORTAR, OBSTRUCTIONS, AND DEBRIS SHALL BE CLEANED FROM THE INSIDE OF CELLS PRIOR TO GROUTING.

I. REINFORCEMENT SHALL BE PLACED PRIOR TO GROUTING.

J. UNITS SHALL BE PLACED TO THE FULL HEIGHT OF THE GROUT POUR AND GROUT SHALL BE PLACED IN A CONTINUOUS LIFT. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING GROUT 1-1/2” BELOW A MORTAR JOINT EXCEPT AT THE TOP OF THE WALL.

K. ALL CONCRETE MASONRY WALLS SHALL BE REINFORCED WITH HORIZONTAL JOINT REINFORCING WITH #9 GAGE (W1.7) SIDE RODS AND #9 GAGE (W1.7) CROSS RODS, GALVANIZED REINFORCING @ 16” O.C. VERTICALLY. PROVIDE TRUSS TYPE FOR SINGLE WYTHE CMU WALLS WITH (2) SIDE RODS. PROVIDE LADDER TYPE FOR TWO WYTHE WALLS WITH (3) SIDE RODS AND A CAVITY DRIP.

L. ALL CMU WALLS SHALL BE REINFORCED VERTICALLY AS SPECIFIED ON DRAWINGS WITH THE SPECIFIED BAR FOR THAT WALL AT THE ENDS OF WALLS, AT EACH SIDE OF CONTROL OR EXPANSION JOINTS, AND AT EACH SIDE OF EACH OPENING, ALL FULLY GROUTED CELLS. IF REINFORCING IS NOT SHOWN ON THE DRAWINGS, REINFORCE WITH #5 BARS AT 4'-0” ON CENTER.

M. GROUT SOLID ALL REINFORCED CELLS, CELLS BELOW GRADE, AND ALL CELLS BELOW FINISH FLOOR.

N. PROVIDE BOND BEAMS AT THE BOTTOM AND TOP OF EACH WALL, ABOVE AND BELOW OPENINGS, AND WHERE SHOWN. BOND BEAMS SHALL HAVE 2-#5 CONTINUOUS AND BE FULLY GROUTED. VERTICAL BARS SHALL EXTEND INTO THE BOND BEAM.

O. EXTEND VERTICAL REINFORCING THROUGH BOND BEAMS UNLESS SPECIFICALLY NOTED OTHERWISE.

P. PROVIDE DOWELS INTO FLOOR OR FOUNDATION AT BOTTOM OF WALL TO MATCH SIZE AND SPACING OF VERTICAL WALL REINFORCING, UNLESS NOTED OTHERWISE ON DRAWINGS.

Q. STABILIZE TOP OF ALL VERTICALLY REINFORCED WALLS PER DRAWING DETAILS.

R. FOR REINFORCING BAR LAP LENGTHS IN MASONRY, SEE TABLE 2/S0.3.

13. STRUCTURAL STEEL:

A. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, LATEST EDITION, AND AISC “CODE OF STANDARD PRACTICE.”

B. ALL STRUCTURAL STEEL FOR WIDE FLANGE AND WT SHAPES SHALL BE ASTM A992, GRADE 50, UNLESS NOTED OTHERWISE ON THE PLANS. ALL ANGLES, PLATES, AND CHANNELS SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL RECTANGULAR AND ROUND HSS SHAPES SHALL BE ASTM A500, GRADE B.

C. ALL BEAM CONNECTIONS SHALL BE DESIGNED AS SIMPLY SUPPORTED BEAMS BY THE STEEL FABRICATOR FOR THE LOADS SHOWN ON THESE DOCUMENTS. LOADS AND REACTIONS SHOWN ON THESE DOCUMENTS ARE NON-FACTORED, WORKING STRESS VALUES (ASD). CONNECTIONS MAY BE BOLTED OR WELDED.

D. ALL BOLTS SHALL BE 3/4” DIAMETER MINIMUM UNLESS NOTED OTHERWISE ON DRAWINGS. ALL CONNECTIONS SHALL BE SNUG-TIGHTENED BEARING TYPE USING A MINIMUM OF TWO A325N OR A490N BOLTS, U.N.O..

E. ALL STRUCTURAL STEEL WELDS IN THE SHOP OR IN THE FIELD SHALL BE PERFORMED BY A QUALIFIED WELDER AND SHALL CONFORM TO THE CURRENT REQUIREMENTS OF AWS.

F. SHOP WELDED AND FIELD BOLTED CONNECTIONS ARE PREFERRED, UNLESS OTHERWISE SHOWN.

G. FILLET WELDS NOT SPECIFICALLY SIZED IN THESE DOCUMENTS SHALL BE THE MINIMUM SIZE IN ACCORDANCE WITH AWS D1.1, LATEST EDITION, DEPENDENT ON THE THINNER PART JOINED, BUT NO LESS THAN 3/16”.

H. WELDING ELECTRODES SHALL BE E70XX

I. THE CONTRACTOR SHALL PROVIDE SHELF ANGLES, GLASS SUPPORTS, LINTELS, AND OTHER MISCELLANEOUS STEEL, AS SHOWN ON THE DRAWINGS, AND AS REQUIRED TO PROVIDE SUPPORT (STABILIZATION) AROUND AND THROUGHOUT THE BUILDING. NOT EVERY DETAIL IS SHOWN. SEE ARCHITECTURAL AND ELEVATOR DRAWINGS FOR ADDITIONAL MISCELLANEOUS STEEL DETAILS.

14. POST-INSTALLED ANCHORAGE:

A. DESIGN OF ALL POST-INSTALLED ANCHORAGE SHALL BE IN ACCORDANCE WITH ACI 318 APPENDIX D AND SHALL CONSIDER CRACKED CONCRETE CONDITIONS.

B. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED BY TRAINED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AS SHOWN IN THE CORRESPONDING ICC-ESR REPORT AND INCLUDED IN THE ANCHOR PACKAGING.

C. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL POST-INSTALLED ANCHORAGE ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

D. ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS THAT ARE ORIENTED HORIZONTALLY OR UPWARDLY INCLINED SHALL BE INSTALLED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM SUCH AS THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. AN APPLICABLE CERTIFICATION PROGRAM SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI CERTIFICATION PROGRAM AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO INSTALLATION.

E. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. EXISTING REINFORCING BARS SHALL NOT BE CUT UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY FERROSCAN, GPR, X-RAY, OR OTHER MEANS PRIOR TO INSTALLATION OF ANCHORS.

F. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

G. EMBEDMENT DEPTH FOR MECHANICAL EXPANSION ANCHORS SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR WHICH TENSION LOAD IS TRANSFERRED TO THE CONCRETE, MEASURED PRIOR TO APPLYING TORQUE TO THE ANCHOR.

H. EMBEDMENT DEPTH FOR ADHESIVE AND SCREW TYPE ANCHORS SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN INSTALLED INTO THE HOLE.

I. ADHESIVE ANCHORING SYSTEMS SHALL BE ACCEPTABLE FOR LONG-TERM LOADING. ONLY NON-EPOXY (HYBRID) BASED ADHESIVES SHALL BE INSTALLED WHEN BASE MATERIAL TEMPERATURES ARE BELOW 40 DEGREES F.

J. POST-INSTALLED ANCHORAGE SHALL ONLY BE USED WHERE SPECIFIED ON THESE DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED ANCHORAGE FOR MISSING OR MIS-LOCATED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS.

K. STAINLESS STEEL ANCHORS ARE REQUIRED AT ALL EXPOSED LOCATIONS.

L. FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW OR ON THE DRAWINGS, CONTRACTOR SHALL SUBMIT DATA SUBSTANTIATING THE SUBSTITUTED PRODUCT PERFORMANCE VALUES. (POST-INSTALLED ANCHOR SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THEIR USE.)

M. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CODE COUNCIL (ICC-ES EVALUATION REPORT).

N. CONCRETE ANCHORS

a. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:

1 HILTI KWIK BOLT TZ EXPANSION ANCHOR (ICC-ES ESR-1917)
2 HILTI HSL-3 HEAVY DUTY EXPANSION ANCHOR (ICC-ES ESR-1545)
3 HILTI HDA UNDERCUT ANCHOR (ICC-ES ESR-1546)
4 HILTI KWIK HUS EZ SCREW ANCHOR (ICC-ES ESR-3027)
5 SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR (ICC-ES ESR-3037)
6 SIMPSON STRONG-TIE TITEN-HD SCREW ANCHOR (ICC-ES ESR-2713)

1 / S0.1 STRUCTURAL GENERAL NOTES

2 / S0.1 SHEET INDEX

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10.05.2020
Valerie J K Baehr
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(PROJECT # P20149)
18048.20003

CONTRACT DATE:
BUILDING TYPE: END. MED40
PLAN VERSION: MARCH 2020
SITE NUMBER:
STORE NUMBER:

TACO BELL

615 METROPOLITAN AVE
LEAVENWORTH, KS 66045

ENDEAVOR 1.0
GENERAL NOTES

S0.1

PLOT DATE: 10/5/2020 3:13:24 PM

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