GENERAL NOTES

1. DESIGN CRITERIA

A. CODE REFERENCES: 2012 INTERNATIONAL BUILDING CODE
ASCE 7–10
ACI 318–11,
ANSI/AWC 2012–NATIONAL DESIGN SPECIFICATION (NDS)
AISC MANUAL OF STEEL CONSTRUCTION 14th Ed. (AISC 360–10)

GRAVITY

ROOF LOADS.................................... (SEE WOOD TRUSS NOTES BELOW)
FLOOR LOADS.................................. (SEE WOOD TRUSS NOTES BELOW)
STAIR DEAD LOAD .... (SEE STAIR MANUFACTURER)
STAIR LIVE LOAD .... 100 PSF (REDUCIBLE)
.... 300 LB OVER 4 IN^2

RESIDENTIAL WALL DEAD LOAD

INTERIOR DEMISING WALL (DBL WALL) .... 12 PSF
INTERIOR UNIT BEARING WALL .... 8 PSF
EXTERIOR W/ BRICK .... 52 PSF
EXTERIOR W/ SIDING .... 14 PSF
EXTERIOR W/ STUCCO .... 22 PSF

WIND

ULTIMATE WIND SPEED (3 SEC GUST).................... 115 MPH
NOMINAL WIND SPEED (3 SEC GUST).................... 90 MPH
RISK CATEGORY... II
EXPOSURE CATEGORY... B
BUILDING CLASSIFICATION – ENCLOSED
INTERNAL PRESSURE COEFFICIENT, GC_{PI}................. ±0.18
COMPONENTS & CLADDING..................................... SEE DWG S0.3

SEISMIC

RISK CATEGORY... II
SEISMIC IMPORTANCE FACTOR (I_e)........................... 1.0
SHORT PERIOD RESPONSE COEFF (S_s) 0.375g
1 SEC PERIOD RESPONSE COEFF (S_1) 0.125g
SOIL SITE CLASS C
SHORT PERIOD RESPONSE COEFF (S_{DS}) 0.525g
1 SEC PERIOD RESPONSE COEFF (S_{D1}) 0.285g
RESPONSE MODIFICATION FACTOR (R)
WOOD SHEAR WALLS 6½
DEFLECTION AMPLIFICATION FACTOR (C_d)
WOOD SHEAR WALLS 4
ANALYSIS PROCEDURE .... E.L.F.P.
SEISMIC DESIGN CATEGORY .... D
SEISMIC RESPONSE COEFFICIENT (C_s)
WOOD SHEAR WALLS 0.081

BUILDING BASE SHEAR .... VARIES PER BUILDING

2. GENERAL

A. THE FOLLOWING SPECIFICATIONS ARE A SUPPLEMENT TO ALL OTHER REQUIREMENTS. WHERE CONFLICTS EXIST OR WHEN MANUFACTURER SPECIFICATIONS AND LOCAL CODE REQUIREMENTS ARE IN EXCESS OF THOSE CONTAINED HEREIN, THE STRICTEST REQUIREMENT SHALL GOVERN.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND SUBMIT ALL SHOP DRAWINGS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT PRIOR TO FABRICATION OR ERECTION.

C. ALL DIMENSIONS TO TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS, AND DETAILS.

D. SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

E. WHERE A SECTION IS CUT ON THE DRAWINGS, IT SHALL APPLY AT ALL LIKE OR SIMILAR CONDITIONS UNO

F. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:

1. SIZE & LOCATION OF ALL DOOR & WINDOW OPENINGS
2. SIZE & LOCATION OF ALL ROOF OPENINGS.
3. FLOOR AND ROOF FINISHES.
4. DETAILS OF VENEER ATTACHMENT.
5. LOC'N & EXTENT OF INSULATION.

G. SEE MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS FOR THE FOLLOWING INFORMATION:

1. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC.
2. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
3. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
4. UNDERGROUND CONCRETE DUCTS, TRENCHES, PITS OR MANHOLES.
5. CONCRETE AND ASPHALT PAVEMENT

H. THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE, UNLESS OTHERWISE INDICATED. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ALL MEANS AND METHODS OF CONSTRUCTION AND SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT, AND BRACING FOR CRANES, ETC.

J. ALL CONNECTOR TYPES REFER TO SIMPSON STRONG–TIE SPECIFICATIONS. ANY CHANGE, MODIFICATION, OR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

K. COMPLETE STRUCTURAL SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE ENGINEER OF RECORD SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE (SEE "DEFERRED SUBMITTALS" SECTION OF GENERAL NOTES).

L. ALL SUBMITTALS SHALL BE REVIEWED AND APPROVED BY PROJECT ENGINEER OF RECORD PRIOR TO FABRICATION AND INSTALLATION.

M. REVIEWED AND APPROVED SHOP DRAWINGS SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.

3. REINFORCING STEEL–

(REFERENCE STANDARDS: ACI 117, 315, 318)

A. UNLESS SPECIFICALLY NOTED OTHERWISE REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A–615, GRADE 60. CMU WALL REINFORCING FROM MAIN ROOF TO STAIR ROOF AT ALL BUILDINGS REQUIRE ASTM A–706 REINFORCING PER SECTION 7/S8.2

B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A–185.

C. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE IN ACCORDANCE WITH SECTION 7.7 OF ACI 318, UNLESS SPECIFIED IN TABLE A BELOW OR DETAILED OTHERWISE ON THE DWGS.

D. ALL REINFORCING BAR BENDS ARE TO BE MADE COLD.

E. CONTRACTORS SHALL NOT PLACE ANY REINFORCING UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED ON THE JOB.

F. BARS SHALL BE IN CONTACT WHEN FORMING A LAP SPLICE, UNLESS NOTED OTHERWISE.

G. PROVIDE CORNER BARS @ ALL TURN–DOWN SLAB CORNERS AND C.I.P. CONCRETE WALL CORNERS. PROVIDE 30" LAP BETWEEN CORNER BARS AND MAIN REINFORCING.

H. REINFORCING STEEL MARKED "CONTINUOUS" SHALL BE LAPPED w/ CLASS "B" LAP SPLICE UNLESS SPECIFICALLY DETAILED OTHERWISE. LAP WELDED WIRE MESH ONE FULL MESH AT SIDE AND END LAPS.

J. LONGITUDINAL REINFORCING IN EXTERIOR BUILDING FOUNDATIONS SHALL BE CONTINUOUS AND TIED TO BE IN CONTACT AT ALL SPLICE LOCATIONS. THE ELECTRICAL INSPECTOR SHALL INSPECT LONGITUDINAL REINFORCING IN EXTERIOR BUILDING FOUNDATIONS PRIOR TO CONCRETE PLACEMENT.

3. REINFORCING STEEL – CONT

(REFERENCE STANDARDS: ACI 117, 315, 318)

CONCRETE COVER FOR CAST–IN PLACE NONPRESTRESSED CONCRETE MEMBERS (UNO)			
CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	SPECIFIED COVER, IN.
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3"
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	NO. 6 THROUGH NO. 18 BARS	2"
		NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1½"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, JOISTS, AND WALLS	NO. 14 AND NO. 18 BARS	1½"
		NO. 11 BAR AND SMALLER	¾"
	BEAMS, COLUMN, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1½"

NOTE: STANDARD CLEAR COVERS PER ACI 318.

4. CONCRETE (REFERENCE STANDARDS: ACI 318)

A. CONCRETE PROTECTION FOR REINFORCEMENT OF POURED–IN–PLACE MEMBERS: (SEE SECTION 7.7 OF ACI 318).

B. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I.

C. REFER TO ARCHITECTURAL DRAWINGS FOR CLIPS, GROOVES, GROUNDS, ETC., TO BE CAST IN CONCRETE AND CONCRETE FINISHES.

D. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.

E. SLEEVE PLUMBING OPENINGS IN SLABS BEFORE PLACING CONCRETE AND BEND REINFORCING AROUND SLEEVES. CORING NOT PERMITTED IN FLOOR SLABS, UNLESS APPROVED BY STRUCTURAL ENGINEER.

F. THE FOLLOWING CHART SHALL BE USED TO DETERMINE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, MAXIMUM WATER TO CEMENTITIOUS MATERIAL RATIO (W/CM), AND ENTRAINED AIR CONTENT UNLESS SPECIFICALLY NOTED OTHERWISE:

STRUCTURAL COMPONENT		EXPOSURE CATEGORY: F[1] CLASS	S[5,7] CLASS	P CLASS	C[6] CLASS	MIN[2] F'c (PSI)	MAX[3] W/ CM	ENTRAINED[4] AIR CONTENT ±1½%
WALL FOOTINGS		F0	S0	P0	C0	3000	N/A	N/A
EXTERIOR SPREAD FOOTINGS		F1	S0	P0	C0	3000	N/A	5%
INTERIOR SPREAD FOOTINGS		F0	S0	P0	C0	3000	N/A	5%
EXTERIOR WALLS		F2	S0	P0	C0	4500	0.45	6%
SOG	INT	F0	S0	P0	C0	3000	N/A	N/A
SOG	EXT	F1	S0	P0	C0	3500	0.55	5%

NOTES:

1. MINIMUM IS BASED ON MAXIMUM OF DESIGN AND GOVERNING EXPOSURE CLASS REQUIREMENTS.
2. MAXIMUM IS BASED ON GOVERNING EXPOSURE CLASS REQUIREMENTS.
3. BASED ON MAXIMUM ¾" AGGREGATE SIZE.
4. SEE ACI 318 TABLE 4.3.1 FOR CEMENTITIOUS MATERIAL AND CALCIUM CHLORIDE ADMIXTURE RESTRICTIONS.
5. SEE ACI TABLE 4.3.1 FOR MAXIMUM WATER–SOLUBLE CHLORIDE ION CONTENT.
6. S0 EXPOSURE ASSUMED. GC SHALL VERIFY WITH GEOTECHNICAL REPORT.

A. CONCRETE SLUMP SHALL BE 3" TO 5" AT TIME OF PLACEMENT.

B. CONCRETE MIX DESIGNS SHALL BE ESTABLISHED BY THE SUPPLIER IN ACCORDANCE WITH THE ABOVE REFERENCED STANDARDS. MIX DESIGNS SHALL BE SUBMITTED WITH BACK–UP DATA PER ACI 318 TO THE ARCHITECT FOR REVIEW PRIOR TO CONCRETE PLACEMENT.

C. ALL CONCRETE CONSTRUCTION SHALL COMPLY W/ THE ABOVE REFERENCED STANDARDS AND CONCRETE TEST REPORTS SHALL BE AVAILABLE AT JOB SITE.

5. FOUNDATION

A. DESIGN IS BASED ON THE REPORTS TITLED: "GEOTECHNICAL INTERPRETIVE REPORT BROAD AND WEST 33RD STREET–MIXED USE DEVELOPMENT, CHATTANOOGA, TENNESSEE", PERFORMED BY CHAZEN ENGINEERING CONSULTANTS, LLC – DATED FEBRUARY [illegible]

"GEOTECHNICAL INTERPRETIVE REPORT – ADDENDUM NO.1" – DATED AUGUST 29, 2019

"GEOTECHNICAL INTERPRETIVE REPORT – ADDENDUM NO.2" – DATED SEPTEMBER 27, 2019

B. FOUNDATION DESIGN CRITERIA PER ABOVE GEOTECHNICAL REPORT:

FOUNDATION SYSTEM:
SHALLOW FOUNDATIONS BEARING ON RESIDUAL SOIL/ ENGINEERED FILL
MAX ALLOWABLE BEARING PRESSURE:
FOOTINGS .... 2,500 PSF

SOIL DESIGN CRITERIA:
SOIL DENSITY .... 140 PCF
SUBGRADE MODULUS .... 100 PCI
LATERAL EARTH PRESSURE COEFFICIENTS:
ACTIVE W/ DRAINAGE PROVIDED (K_A) .... 0.42 (ASSUMED)
AT–REST (K_0) .... 0.60 (ASSUMED)
PASSIVE (K_P) (FS NOT INCLUDED) .... 2.50 (ASSUMED)
SOIL FRICTION FACTOR (FS INCLUDED) .... 0.30 (ASSUMED)
FACTORS OF SAFETY:
FACTOR OF SAFETY FOR PASSIVE EARTH PRESSURE................ 1.5
FACTOR OF SAFETY AGAINST OVERTURNING 1.5
FACTOR OF SAFETY AGAINST SLIDING 1.5

C. ACTUAL ALLOWABLE BEARING AND LATERAL EARTH PRESSURES SHALL BE VERIFIED BY A REGISTERED SOILS ENGINEER PRIOR TO FOOTING PLACEMENT.

D. THE SOILS ENGINEER OF RECORD SHALL CERTIFY IN WRITING THAT ALL FOUNDATIONS WERE PLACED AND COMPLETED AS SPECIFIED AND THAT ESTIMATED TOTAL & DIFFERENTIAL SETTLEMENTS ARE ACCEPTABLE FOR PROJECT'S CONSTRUCTION TYPE.

E. CONTRACTOR TO PROVIDE FOR DE–WATERING IN EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER, OR SEEPAGE.

F. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANKS.

G. CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC., ENCOUNTERED DURING EXCAVATION AND BACKFILLING.

H. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED, BUT NOT BEFORE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.

I. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE REQUIREMENTS AND RECOMMENDATIONS MADE IN THE ABOVE REFERENCED GEOTECHNICAL REPORT IN ORDER TO ACHIEVE THE MINIMUM ALLOWABLE BEARING PRESSURE NOTED ABOVE.

J. WATER DRAINAGE SYSTEMS, ON BACK FILL SIDE OF RETAINING WALLS, ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. WALLS HAVE NOT BEEN DESIGNED TO SUPPORT HYDROSTATIC PRESSURES. DRAINAGE SYSTEMS SHALL BE PROVIDED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

K. HEAVY EQUIPMENT SHOULD NOT OPERATE WITHIN 10 FEET OF BELOW GRADE WALLS.

L. CONTRACTOR SHALL REFER TO THE CIVIL DWGS AND PROJECT GEOTECHNICAL REPORT FOR FOUNDATION UNDERCUTTING REQUIREMENTS, MOISTURE CONDITIONG AND SOIL COMPACTION.

6. POST INSTALLED ANCHORS

A. POST–INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS.

B. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD PRIOR TO USING POST–INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST–IN–PLACE ANCHORS.

C. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACING INDICATED IN THE MANUFACTURER'S LITERATURE.

D. UNLESS SPECIFIED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES THE NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED TO SUPPORT THE INTENDED LOAD.

E. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE LISTED BELOW, SHALL BE SUBMITTED TO THE ENGINEER WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE BUILDING CODE.

F. ACCEPTABLE PRODUCTS

EXPANSION ANCHORS:
1. "STRONG–BOLT 2" BY SIMPSON STRONG–TIE
3. "KWIK BOLT TZ" BY HILTI
4. "POWER–STUD+ SD1" BY DEWALT

ADHESIVE ANCHORS:
FOR CONCRETE APPLICATIONS
1. "SET–XP EPOXY" W/ "IXP ANCHOR" RODS BY SIMPSON STRONG–TIE
2. "HIT HY 200" W/ STANDARD HAS ANCHOR RODS BY HILTI
3. "PURE110+" WITH THREADED RODS BY DEWALT (STANDARD CURE)
4. "AC200+" WITH THREADED RODS BY DEWALT (RAPID CURE)

FOR MASONRY APPLICATIONS
1. "HIT HY 70" W/ STANDARD HAS ANCHOR RODS BY HILTI

SCREW ANCHORS:
1. "TITEN HD" BY SIMPSON STRONG–TIE
2. "SCREW BOLT+" BY DEWALT

7. MASONRY –

(REFERENCE STANDARDS: ACI 530, ACI 530.1)

A. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'm) SHALL BE 1,500 PSI.

B. MATERIAL SHALL BE AS FOLLOWS: – CMU......NORMAL WEIGHT ASTM C–90 (UNIT STRENGTH = 1,900 PSI) – MORTAR.....TYPE "S" FOR WALLS NOT IN CONTACT WITH EARTH, TYPE "M" FOR WALLS IN CONTACT WITH EARTH.

C. GROUT FOR CONCRETE MASONRY WALL SHALL CONFORM TO ASTM C476, MIN f'c = 3,000 PSI GROUT SHALL BE CONSOLIDATED BY THOROUGHLY RODDING ALL CELLS.

D. GROUT PLACEMENT SHALL BE LOW–LIFT. THE CONSTRUCTION JOINTS ARE CREATED BY THE LEVEL OF GROUT STOPPING 1–1/2" FROM TOP OF MASONRY AND THE STEEL REINFORCING PROJECTING ABOVE THE TOP COURSE FOR A SUFFICIENT HEIGHT TO PROVIDE A LAP AT THE SPLICE. SEE 1/S9.1 FOR LAP SPLICE LENGTH. THE CONSTRUCTION JOINT SHALL BE LOCATED 3'–0" MINIMUM FROM TOP AND BOTTOM OF STRUCTURAL ELEMENTS SUCH AS SLABS, ROOFS,ETC.

E. CONCRETE MASONRY WALLS SHALL BE TEMPORARILY BRACED DURING ERECTION. REMOVE TEMPORARY BRACING ONLY AFTER WALLS ARE CONNECTED TO SUPPORTING ELEMENTS.

F. ALL CONCRETE BLOCK BELOW GRADE SHALL HAVE ALL CELLS FILLED WITH GROUT.

G. ALL CELLS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.

H. MAXIMUM CONTROL JOINT SPACING IN MASONRY WALL = 30'–0" UNLESS NOTED. SEE ARCHITECTURAL DRAWINGS FOR LOCATION.

I. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL CMU WALLS SHALL BE REINFORCED AS FOLLOWS:
1. FOR ELEVATOR SHAFT WALLS, #5 VERTICALS @ 32" ON–CENTER CENTERED IN CELL
2. FOR ALL OTHER VERTICAL REINFORCING SEE SCHEDULE BELOW
3. CONTINUOUS 16" DEEP BOND BEAM REINFORCEMENT W/2–#5 CONT AT ALL FLOOR LEVELS, INTERMEDIATE STAIR LANDINGS, TOP OF WALL AND SLAB ON GRADE ELEVATIONS.
4. CONTINUOUS 9 GA. LADDER TYPE HORIZONTAL JOINT REINFORCEMENT AT 16" OC VERTICALLY.

J. DOWEL ALL CMU MASONRY WALLS INTO GRADE BEAMS, ELEVATED CONCRETE SLABS, AND CONCRETE FOUNDATION WALLS. DOWELS SHALL HAVE STANDARD HOOKS AND MINIMUM FOOTING EMBEDMENT OF 9". DOWELS SHALL BE OF SUFFICIENT LENGTH TO PROVIDE 48 BAR DIAMETER LAP WITH VERTICAL REINFORCING. DOWELS SHALL BE OF SAME SIZE AND LOCATION AS VERTICAL WALL REINFORCING.

K. SEE ARCHITECTURAL DRAWINGS FOR ALL CMU. WALL OPENING SIZES AND LOCATIONS.

L. ALL CMU SHALL BE PLACED IN RUNNING BOND.

M. ALL MASONRY CONSTRUCTION AND INSPECTION SHALL COMPLY WITH THE ABOVE REFERENCED STANDARDS.

N. ALL CONCRETE MASONRY CONSTRUCTION SHALL BE INSPECTED AND TESTED PER THE ABOVE REFERENCED STANDARDS. COSTS OF THE SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM TESTING AND INSPECTION SERVICES SHALL BE BORNE BY THE OWNER.

O. CMU GROUT FILL SHALL ARRIVE AT THE JOB SITE WITH A SLUMP BETWEEN 3" TO 5". PRIOR TO DEPOSITING GROUT, SUPERPLASTICIZER SHALL BE ADDED TO THE GROUT AT THE JOB SITE INCREASING THE SLUMP TO 9" TO 11".

O. CMU WALL REINFORCING SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION. DRAWINGS SHALL SHOW ALL WALL AND PILASTER REINFORCING IN PLAN AND IN ELEVATION.

Q. PROVIDE CORNER BARS AT ALL BOND BEAMS TO ENSURE CONTINUITY AT CORNERS. LAP CORNER BARS 48 BAR DIAMETERS WITH BOND BEAM BARS.

R. PROVIDE BAR SUPPORTS AND POSITIONERS AS REQUIRED TO ENSURE THAT FINAL IN–PLACE LOCATION OF REINFORCING IS AS INDICATED ON THE DRAWINGS.

S. MASONRY SHALL BE PROTECTED FROM FREEZING DURING PLACEMENT & CURING. COLD WEATHER MASONRY PROCEDURES SHALL COMPLY W/ THE ABOVE REFERENCED STANDARDS.

T. THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BRACING AND SHORING FOR ALL MASONRY WALLS AS REQUIRED TO ENSURE STABILITY DURING CONSTRUCTION.

U. MASONRY VENEER SHALL BE ANCHORED TO WOOD STUDS W/ ADJUSTABLE WIRE ANCHORS (WIRE SIZE W1.7) THAT WILL PERMIT A MINIMUM OF ½" OF VERTICAL MOVEMENT (UP & DOWN) AFTER INSTALLATION. ANCHORS SHALL BE SPACED A MAXIMUM OF 32" OC HORIZONTAL AND 12" OC VERTICAL AND WITHIN 12" OF ALL WALL OPENINGS. ANCHORS SHALL BE FASTENED W/ CORROSION RESISTANT NAILS.

STEEL LINTEL SCHEDULE		
MAXIMUM CLR SPAN	LINTEL SIZE	COMMENTS
3'–6"	L4x3½x5/16 LLH	MAX HEIGHT OF SUPPORTED BRICK = 6'–0"
6'–6"	L6x4x3/8 LLV	MAX HEIGHT OF SUPPORTED BRICK = 6'–0"
10'–0"	L6x4x7/16 LLV	MAX HEIGHT OF SUPPORTED BRICK = 3'–3"

NOTES:
1. PROVIDE 6" MIN BEARING EACH END OF STEEL LINTEL.
2. PROVIDE ROLLED STEEL ANGLE LINTELS @ ALL ARCHES.

8. POST–TENSIONED CONCRETE

A. MATERIALS:
STRAND – 270K ½" DIA 7 WIRE LOW RELAXATION, PER ASTM A416
ANCHORAGES – CAST DUCTILE IRON, GRADE 80–55–06 PER ASTM A536.

B. ELONGATION: = $\frac{\text{LTH. x 12 x189 KSI}}{\text{28,800 KSI (ASSUMED)}}$

C. FIELD RECORDINGS OF ELONGATIONS AND FORCES SHALL NOT VARY MORE THAN ± 7% FROM THE REQUIRED VALUES.

D. BURN TAILS OFF APPROXIMATELY 1½" INSIDE POCKET AFTER TENDONS HAVE BEEN STRESSED. CARE MUST BE TAKEN SO AS NOT TO DIRECT FLAME DIRECTLY ONTO WEDGES.

E. TENDONS SHALL BE LOCATED 6" MIN OFF CENTERLINE OF ALL LOAD BEARING WALLS. TENDONS SHALL BE LOCATED PRIOR TO POST–INSTALLATION OF ANCHORS.

F. TENDONS LOCATED WITHIN THE THICKENED SLAB AREAS, PARALLEL TO THE LOAD BEARING WALLS SHALL BE REPAIRED IF DAMAGED/BROKEN.

G. PATCH ALL STRESSING POCKETS WITH NON–SHRINKING, NON–CATALYZED GROUT CONTAINING NO METALIC SUBSTANCES.

H. DO NOT APPLY GREASE TO POCKET FORMER, WHICH WILL HINDER BONDING OF THE GROUT IN THE POCKET. TWISTING THE SPINDLES ONE TURN AFTER BULKHEAD REMOVAL WILL LOOSEN THE POCKET FORMER FOR EASY REMOVAL.

I. ANY DAMAGE TO SHEATHING CAUSED BY INTERMEDIATE ANCHORS SHALL BE REPAIRED BY SPLICING ON AND TAPING ADDITIONAL SHEATHING TO ACHIEVE AT LEAST A 40 MIL THICKNESS.

J. THE FOLLOWING WORK SHALL BE PERFORMED BY THE GENERAL CONTRACTOR

1. LAYOUT AND DRILLING OF EDGE FORMS FOR TENDON ANCHORS (EDGE FORMS TO BE ADEQUATELY BRACED TO SUSTAIN 200 PLF).
2. PATCHING OF ALL STRESSING POCKETS WITH NON–SHRINKING, NON–CATALYZED GROUT CONTAINING NO METALIC SUBSTANCES.

K. PROVIDE ENCAPSULATED PT ANCHORAGE SYSTEM.

9. STEEL STAIRS, GUARD AND HAND RAILS

A. SEE ARCH DWGS FOR STAIR CONFIGURATION, TREAD INFO & RISER INFO

B. STEEL STAIRS, LANDINGS, LANDING POSTS, GUARD RAILS, HAND RAILS AND THEIR CONNECTIONS TO THE SUPPORTING STRUCTURE SHALL BE DESIGNED BY THE SUPPLIER/FABRICATOR TO SUPPORT THE DESIGN LOADS PRESCRIBED IN THE GOVERNING BUILDING CODE AND AS NOTED BELOW.

C. THE SUPPLIER/FABRICATOR SHALL SUBMIT COMPLETE CALCULATIONS FOR DESIGN OF ALL MEMBERS AND CONNECTIONS (INCLUDING CONNECTIONS TO THE SUPPORTING STRUCTURE) TO THE ARCHITECT FOR THE ARCHITECTS RECORD. CALCULATIONS SHALL BE PREPARED AND SEALED & SIGNED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE WHERE THE PROJECT IS BEING CONSTRUCTED. DESIGN CALCULATIONS SHALL BE SUBMITTED WITH SHOP DWGS.

D. HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED TO RESIST A LOAD OF 50 PLF APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE.

E. HANDRAIL ASSEMBLIES AND GUARDS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 LBS APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP, AND SHALL HAVE ATTACHMENT DEVICES AND SUPPORTING STRUCTURE TO TRANSFER THIS LOADING TO APPROPRIATE STRUCTURAL ELEMENTS OF THE BUILDING. THIS LOAD NEED NOT BE ASSUMED TO ACT CONCURRENTLY WITH THE LOADS SPECIFIED IN THE PRECEEDING NOTE.

F. INTERMEDIATE RAILS (ALL THOSE EXCEPT THE HANDRAIL), BALUSTERS AND PANEL FILLERS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 LBS ON AN AREA EQUAL TO 1 SQUARE FOOT, INCLUDING OPENINGS AND SPACE BETWEEN RAILS. REACTIONS DUE TO THIS LOADING ARE NOT REQUIRED TO BE SUPERIMPOSED WITH REACTIONS DUE TO LOADS SPECIFIED IN THE PRECEEDING NOTES.

G. WHERE HANDRAILS AND GUARDS ARE DESIGNED IN ACCORDANCE WITH THE PROVISIONS FOR ALLOWABLE STRESS DESIGN EXCLUSIVELY FOR THE LOADS SPECIFIED IN THE PRECEEDING PARAGRAPGHS, THE ALLOWABLE STRESS FOR THE MEMBERS AND THEIR ATTACHMENTS ARE PERMITTED TO BE INCREASED BY ONE–THIRD

H. GRAB BARS SHALL BE DESIGNED TO RESIST A SINGLE CONCENTRATED LOAD OF 250 LBS APPLIED IN ANY DIRECTION AT ANY POINT.

I. GUARD/HAND RAIL INFORMATION INDICATED ON ARCHITECTURAL SECTIONS, DETAILS AND/OR BUILDING ELEVATIONS SHALL REPRESENT MINIMUM ARCHITECTURAL REQUIREMENTS. THE SUPPLIER SHALL PROVIDE LARGER MEMBERS AND/OR CLOSER MEMBER SPACING WHERE REQUIRED BY HIS/HER STRUCTURAL DESIGN OF THE GUARD RAIL SYSTEM. THE CONTRACTOR'S ORIGINAL BID PRICE SHALL ANTICIPATE ALL FINAL GUARDRAIL COSTS AND CONDITIONS. THE SUBMITTAL AND CONSTRUCTION OF MEMBER SIZES THAT ARE LARGER THAN THOSE INDICATED ON THE ARCHITECTURAL DRAWINGS SHALL NOT BE AN ACCEPTABLE BASIS FOR AN ADDITIVE CHANGE ORDER FROM THE CONTRACTOR. THE SUBMITTAL AND CONSTRUCTION OF MEMBER SPACING THAT IS CLOSER THAN THAT INDICATED ON THE ARCHITECTURAL DRAWINGS SHALL NOT BE AN ACCEPTABLE BASIS FOR AN ADDITIVE CHANGE ORDER FROM THE CONTRACTOR.

J. GUARD/HAND RAIL TO SUPPORTING STRUCTURE CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC IN NATURE AND ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONNECTIONS SHALL BE DESIGNED BY A SPECIALTY ENGINEER EMPLOYED OR HIRED BY THE GUARD/HAND RAIL SUPPLIER.

10. FIRE WALL HANGERS

HANGER MFGR		HANGER CONDITION: 90°	HANGER CONDITION: SKEWED	HANGER CONDITION: OFFSET FLANGE	BEAM CONDITION: STAIR LANDING BM SUPPORTING UP TO 9' LONG STRINGER	BEAM CONDITION: STAIR LANDING BM SUPPORTING UP TO 18' LONG STRINGER
USP	SERIES NAME	FWH	FWHSK	N/A	FWHBP	FWHBP
USP	MAX LOAD (LBS)	2,400	1,920	N/A	7,055	7,055
SIMPSON	SERIES NAME	DG	DGH	DGH	DGB	N/A
SIMPSON	MAX LOAD (LBS)	1,680	1,620	2,010	3,015	N/A

NOTES:
1. SEE MANUFACTURER INSTALLATION INSTRUCTIONS FOR CONSTRUCTION REQUIREMENTS.
2. DGB HANGERS REQUIRE A MINIMUM OF (2) STUDS BELOW HANGER UNLESS NOTED OTHERWISE ON PLANS AND DETAILS.
3. FWHBP HANGERS ARE REQUIRED TO BE ORDERED TO ACCOMMODATE THE STUD PACKS DESIGNATED IN PLANS AND DETAILS.
4. HANGERS ARE TO BE INSTALLED PRIOR TO GYPSUM LAYERS.
5. WOOD SHEATHING SHALL BE INSTALLED PRIOR TO HANGERS AT SHEAR WALL CONDITIONS.

Seal

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Revisions		
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Borough 33
an Apartment Community by
33 Broad MF, LLC
in Chattanooga, Tennessee

Drawing Title:
GENERAL NOTES

S0.1

ISSUED FOR CONSTRUCTION