

STRUCTURAL GENERAL NOTES:

- A. DESIGN CRITERIA
 ALL STRUCTURAL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:
- 1) THE INTERNATIONAL BUILDING CODE (IBC), 2000.
 - 2) STRUCTURAL STEEL DESIGN: "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS", ALLOWABLE STRESS DESIGN NINTH EDITION.
 - 3) CONCRETE DESIGN: ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", 2002.
 - 4) TRUCK LOADING DESIGN: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) - STANDARD SPECIFICATION FOR HIGHWAY BRIDGES (LATEST EDITION).
- IN CASE OF CONFLICT, THE MOST STRINGENT CODE REQUIREMENT SHALL APPLY.

- B. MINIMUM DESIGN LOADS
1. DEAD LOADS: IN ACCORDANCE WITH DESIGN CODE REQUIREMENTS.
 2. LIVE LOAD FOR PEDESTRIAN AREAS: 150 PSF
 3. STAIRWAY LIVE LOAD AND OFFICE AREAS: 100 PSF
 4. LIVE LOAD FOR AREAS ACCESSIBLE TO TRUCKS: 400 PSF OR HS20 AXLE LOAD, WHICHEVER PRODUCES THE GREATER STRESS
 5. THERMAL FORCES ARISING FROM A RANGE IN TEMPERATURE FROM: 0 DEGREES TO 120 DEGREES FAHRENHEIT
 [APPLICABLE TO ALL METAL BUILDING ELEMENTS NOT SUBJECT TO ENVIRONMENTAL CONTROL]
 6. ROOF SNOW LOAD DESIGN DATA:
 - a) FLAT ROOF SNOW LOAD, P: 25 PSF
 - b) SNOW EXPOSURE FACTOR, Ce: 0.9
 - c) SNOW LOAD IMPORTANCE FACTOR, I: 1.0
 - d) THERMAL FACTOR, Ct: 1.0 (With Environmental Control), 1.2 (Without Environmental Control)
 7. WIND LOAD DESIGN DATA:
 - a) BASIC WIND SPEED: 100 MPH
 - b) WIND IMPORTANCE FACTOR: 1.0
 - c) WIND EXPOSURE CATEGORY: C
 8. EARTHQUAKE DESIGN DATA:
 - a) SEISMIC USE GROUP: II
 - b) SPECTRAL RESPONSE COEFFICIENTS (SDS, SD1): 0.45, 0.14
 - c) BASIC SEISMIC-FORCE RESISTING SYSTEM: ORDINARY STEEL CENTRICALLY BRACED FRAME
 - d) ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

- FOUNDATION NOTES:**
1. FOUNDATIONS ARE DESIGNED TO BEAR ON UNDISTURBED SOIL WITH MIN. ALLOWABLE BEARING CAPACITY OF 2.0 TONS PER SQUARE FOOT.
 2. WHERE THE REQUIRED BEARING MATERIAL IS NOT FOUND AT THE ANTICIPATED ELEVATION SHOWN, THE FOOTING SHALL BE LOWERED TO A DEPTH AT WHICH THE REQUIRED BEARING CAPACITY IS FOUND.

- REINFORCED CONCRETE NOTES:**
1. STRUCTURAL CONCRETE AND CONCRETING PRACTICES SHALL CONFORM WITH ACI-318, "AMERICAN CONCRETE INSTITUTE BUILDING CODE FOR REINFORCED CONCRETE". DETAILS SHALL BE IN ACCORDANCE WITH ACI-115, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 2. ALL CONCRETE SHALL BE NORMAL WEIGHT AND COMPLY WITH A.C.I. BUILDING CODE CONCRETE, U.O.M.
 3. CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH AT 28 DAYS, U.O.M. ON PLAN:
 - a) FOUNDATION WALLS: 4000psi
 - b) SLAB ON METAL DECK: 3500psi
 4. ALL REINFORCING BARS SHALL CONFORM TO ASTM A185, CHAIR OR LIFT WIRE FABRIC DURING CONCRETE POURMENT TO INSURE PROPER POSITION IN SLAB.
 5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, CHAIR OR LIFT POSITION IN SLAB.
 6. ALL REINFORCEMENT BARS, IF REQUIRED TO BE SPICED, SHALL BE LAPPED AS/WHEN THE CONCRETE IS PLACED. SPICE REQUIREMENTS: LAP GRADE BEAM & WALL TOP REINFORCEMENT AT 12" LAP GRADE BEAM AND WALL BOTTOM REINFORCEMENT AT SUPPORTS. LAP WALL INSIDE FACE REINFORCEMENT AT SUPPORTS. LAP WALL OUTSIDE FACE REINFORCEMENT AT MIDSPAN. TERMINATE CONTINUOUS BARS AT DISCONTINUOUS ENDS WITH STANDARD HOOKS.

STRUCTURAL STEEL NOTES:

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "MANUAL FOR STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN", NINTH EDITION, 1
2. ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH ALLOWABLE STRESS DESIGN.
3. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-592, GRADE 50 WITH A MINIMUM YIELD STRENGTH OF 50 KSI UNLESS SPECIFICALLY INDICATED ELSEWHERE IN THE CONTRACT DOCUMENTS.
4. STEEL FOR TUBE SECTIONS SHALL COMPLY WITH ASTM A500 GRADE C. Fy = 46 ksi. PIPE SHALL CONFORM WITH ASTM A 500 OR B. Fy = 42 ksi.
5. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS. LATEST EDITION SHALL CONFORM TO THE A-325, SC U.O.M.
6. ALL ENDS OF COLUMNS AND ALL OTHER BEARING CONNECTIONS SHALL BE WELDED TO COMPLETE TRUE BEARING.
7. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A307 UNLESS OTHERWISE NOTED.
8. WELDING ELECTRODES SHALL CONFORM TO E70XX ELECTRODES.

METAL DECK NOTES:

1. STEEL DECK SHALL CONFORM TO THE CURRENT SPECIFICATIONS FOR THE DESIGN OF HIGH-GAUGE COIL FORMED STEEL STRUCTURAL MEMBERS AS PER THE AISC AND STEEL INSTITUTE SPECIFICATIONS AND STANDARDS.
2. FOR TYPE OF DECK SEE STRUCTURAL DWG'S.
3. METAL DECK ROOF UNITS SHALL BE FASTENED TO THE STEEL FRAMEWORK AT 12" ON CENTER. SIDEAPAYS OF ADJACENT UNITS SHALL BE FASTENED BY SIDE SEAM WELDING OR SIDEAP LAP SCREWS SPACED PER MANUFACTURER'S ENGINEERED CALCULATIONS WITH A MAXIMUM SPACING OF 24" ON CENTER. THE MINIMUM SHEAR DESIGN (ALLOWABLE) LOAD FOR THE ROOF DECK FASTENING SHALL BE 200 POUNDS PER LINEAR FOOT IN ADDITION TO 200 POUNDS PER LINEAR FOOT NET UPLET.
4. THE HANGING OF ANY LOADS FROM THE ROOF DECKS STRICTLY PROHIBITED.

OPEN WEB STEEL JOISTS NOTES:

1. ALL JOISTS SHALL BE DESIGNED AND FABRICATED BY THE MANUFACTURER, WITH STANDARD CAMBER, AND ERECTED IN ACCORDANCE WITH STEEL JOIST INSTITUTE, LATEST REVISION.
2. STEEL JOISTS MANUFACTURER SHALL SUBMIT PLANS, SECTIONS, DETAILS AND CALCULATIONS SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF NEW YORK. DRAWINGS AND CALCULATIONS SHALL INCLUDE ALL DESIGN COMPONENTS SUCH FOR JOISTS, CHORDS, WEBS, CONNECTIONS, BRACES, BRIDGING ETC.
3. UNLESS NOTED, K-SERIES, LONG SPAN STEEL JOISTS SHALL BE CONNECTED TO STEEL BY 3/16" WELD, 3" LONG EACH SIDE.
4. AT JOISTS CONNECTING EXTERIOR "COLUMNS" DESIGN JOISTS AND ITS END CONNECTION FOR AN ADDITIONAL AXIAL LOAD=15 KIPS.

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MASONRY WALL NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND CONFIGURATION OF EXTERIOR MASONRY WALLS.
2. ALL CMU BLOCKS SHALL BE 2-CELL UNITS WITH A PRISM STRENGTH, f'm = 2000 PSI.
3. ALL CELLS AND BOND BEAMS WITH REBARS SHALL BE FILLED SOLID WITH GROUT. GROUT SHALL CONFORM TO ASTM C476 WITH 3000 PSI STRENGTH AT 28 DAYS.
4. WHERE SPICES ARE REQUIRED, REBARS SHALL BE LAPPED A MINIMUM OF 40x5 OR 24 INCHES, WHICHEVER IS LARGER.
5. MORTAR SHALL CONFORM TO ASTM C270 TYPE S.

LEGEND:

- ELEVATION CHANGE
- NUMBER OF SHEAR STUDS
- POST STARTING AT THIS LEVEL
- POST ENDING AT THIS LEVEL

THIS SHEET SUPERSEDES SHEET 104

FAÇADE SYSTEM NOTES

1. FAÇADE SYSTEMS TO INCLUDE ALL BUILDING WALL ENCLOSURE SYSTEMS INCLUDING, BUT NOT LIMITED TO, METAL PANEL WALLS, GLASS PANEL/CHANNEL CURTAIN WALLS, WINDOWS, AND DOORS.
2. ALL MISCELLANEOUS MEMBERS REQUIRED TO SUPPORT THE FAÇADE SYSTEM, EXCLUSIVE OF THE PRIMARY STRUCTURAL MEMBERS SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE STATE OF NEW YORK IN ACCORDANCE WITH THE DESIGN LOADS AND DESIGN CODES.
3. SIGNED AND SEALED SHOP DRAWINGS, CONNECTION DETAILS, ERECTION DRAWINGS, AND STRUCTURAL CALCULATIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. ALL LOADS IMPOSED ON THE PRIMARY STRUCTURAL MEMBERS SHALL BE INDICATED ON THE ABOVE NOTED SUBMITTALS.
4. FAÇADE SYSTEM SHALL BE DESIGNED AND DETAILLED TO ACCOMMODATE VERTICAL AND HORIZONTAL MOVEMENTS OF THE PRIMARY STRUCTURAL FRAMING AND BUILDING STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:
 - a) VERTICAL MOVEMENT OF BEAMS DUE TO LIVE LOADS = L/360 OF THE SPAN OR 1/4", WHICHEVER IS GREATER.
 - b) OUT-OF-PLANE HORIZONTAL MOVEMENT OF SPANDREL BEAMS DUE TO WIND LOADS = L/360 OF THE HORIZONTAL SPAN OR 1/4", WHICHEVER IS GREATER.
 - c) OUT-OF-PLANE HORIZONTAL MOVEMENT OF COLUMNS DUE TO WIND LOADS = H/400 OF THE VERTICAL SPAN OR 1/4", WHICHEVER IS GREATER.
 - d) HORIZONTAL STORY DRIFT DUE TO WIND OR THERMAL = H/400 OF THE VERTICAL SPAN OR 1/4", WHICHEVER IS GREATER.
 - e) ALL VERTICAL MOVEMENTS ABOVE INCLUDE BOTH UPWARD AND DOWNWARD DEFLECTIONS. ALL HORIZONTAL MOVEMENTS ABOVE INCLUDE DEFLECTIONS IN ALL LATERAL DIRECTIONS. WHERE THE HEIGHT OF MEMBER BETWEEN SUPPORTS IS GREATER THAN THE HEIGHT OF MEMBER BETWEEN SUPPORTS.
5. FOR ADDITIONAL REQUIREMENTS, SEE ALL RELEVANT CONSTRUCTION SPECIFICATIONS.

ABBREVIATIONS:

ACI	AMERICAN CONCRETE INSTITUTE	O.C.	ON CENTER
ADD'L	ADDITIONAL	OPNG.	OPENING
ASTM	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	P.E.	PROFESSIONAL ENGINEER
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	PSI	POUND PER SQUARE INCH
BTM	BOTTOM	REF.	REINFORCEMENT
BY	BY	STD	STANDARD
CANT.	CANTILEVER	TYP.	TYPICAL
CONC.	CONCRETE	U.O.M.	UNLESS OTHERWISE NOTED
CONT.	CONTINUOUS	VERT.	VERTICAL
CLR	CLEAR		
CUBIC FEET	CUBIC FEET		
DWG'S	DRAWING		
E.F.	EACH FACE		
E.J.	EXPANSION JOINT		
EL.	ELEVATION		
E.W.	EACH WAY		
EXP.	EXPANSION		
FLANGES	FLANGES		
GAU	GALVANIZED		
H.P.	HIGH POINT		
HORIZ.	HORIZONTAL		
KSI	KIPS PER SQUARE INCH		
L	LENGTH		
LCS	COMPRESSION EMBLEMMENT LENGTH		
LCS	COMPRESSION LAP SPUCE LENGTH		
L.P.	LOW POINT		
L.S.	TENSION-EMBLEMENT-LENGTH		
L.S.	TENSION LAP SPUCE LENGTH		
MAX.	MAXIMUM		
MOM.	MOMENT CONNECTION		
MIN.	MINIMUM		
M.M.K.	MINIMUM MEMBER MOMENT		
M.T.S.	NOT TO SCALE		

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THIS SHEET SUPERSEDES SHEET 104