# STRUCTURAL NOTES

## GENERAL NOTES:

1. THESE NOTES SHALL APPLY EXCEPT WHERE OTHERWISE INDICATED BY DRAWINGS OR SPECIFICATIONS.
2. CONTRACT DOCUMENTS INCLUDE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS OR OTHER SUBMITTALS BY THE CONTRACTOR.
3. REFERENCE TO DESIGN STANDARDS AND BUILDING CODES SHALL MEAN THE LATEST EDITION OF THE REFERENCE UNLESS SPECIFICALLY STATED OTHERWISE.
4. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK. FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL DRAWINGS.
5. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE REVIEW OF THE ARCHITECT AND ENGINEER OF RECORD.
6. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND THE SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.
7. COORDINATE WITH OTHER DISCIPLINE DRAWINGS FOR DRIPS, CHAMFERS, REGLETS, RUSTICATIONS, SLOTS, SLEEVES, ANCHORS AND INSERTS.
8. THE GENERAL CONTRACTOR SHALL COORDINATE ALL SIZES AND LOCATIONS OF ROOF PENETRATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PENETRATIONS GREATER THAN 12" ACROSS SHALL BE FRAMED AS SHOWN IN ROOF OPENING FRAMING DETAIL.
9. UNLESS SHOWN ON STRUCTURAL DRAWINGS, NO OPENINGS LARGER THAN 12" x 12" SHALL BE PLACED IN SLABS OR WALLS. FOR OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS, APPROVAL MUST BE OBTAINED FROM THE ARCHITECT PRIOR TO CONSTRUCTION OF OPENING.
10. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION.
11. THE GENERAL CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH REQUIRED OSHA REGULATIONS.
12. THE STRUCTURE DESCRIBED BY THESE DRAWINGS IS SELF SUPPORTING ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF TEMPORARY BRACING AND SHORING OF ALL WORK.
13. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE BUILDING OFFICIAL REGARDING SUBMITTAL OF INSPECTION REPORTS TO THE BUILDING DEPARTMENT.
14. REVIEW OF SUBMITTALS AND SHOP DRAWINGS BY THE ARCHITECT AND STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. CONTRACTOR REMAINS SOLEY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
15. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR THE DESIGN 0F STEEL STAIRS, HANDRAILS, LADDERS, CURTAIN OR WINDOW WALL SYSTEMS, RACK STORAGE SYSTEMS, COLD-FORMED METAL FRAMING, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS. SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS.
16. DO NOT HANG OR ATTACH DUCTWORK, PIPING, LIGHTING, CONDUIT, EQUIPMENT, CEILINGS, ETC. FROM METAL DECKING.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING AND MAINTAINING THE EXCAVATIONS REQUIRED FOR THE CONSTRUCTION SHOWN.

## DESIGN CRITERIA:

1. STRUCTURAL DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE WITH GA AMMENDMENTS.
2. LIVE LOADS:

   ROOF LOAD = 20 PSF (REDUCIBLE AS PER CODE)
   SIGNAGE ACCESS AREA = 40 PSF
   FLOOR SLAB-ON-GRADE = 100 PSF

3. DEAD LOADS:

   ROOF LOAD = 25 PSF
   SIGNAGE ACCESS AREA = 10 PSF

4. WIND LOADS:

   ULTIMATE WIND SPEED, Vult (3 sec. GUST) = 115 MPH
   NOMINAL WIND SPEED, Vasd (3 sec. GUST) = 90 MPH
   WIND IMPORTANCE FACTOR ( I w) = 1.0
   RISK CATEGORY: II
   WIND EXPOSURE = C
   ENCLOSED BUILDING INTERNAL PRESSURE COEFFICIENT = +0.18 or -0.18

5. SEISMIC LOADS:

   SEISMIC IMPORTANCE FACTOR: 1.0
   RISK CATEGORY: II
   MAPPED ACCELERATIONS:
   Ss: 0.254g
   S1: 0.090g
   SITE CLASS DEFINITION: D (ASSUMED)
   SPECTRAL RESPONSE COEF:
   Sds: 0.270
   Sd1: 0.140
   SEISMIC DESIGN CATEGORY: [illegible]
   RESPONSE MODIFICATION FACTOR (R): [illegible]
   SEISMIC FORCE RESISTING SYSTEM:
   STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE.
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

6. SNOW LOADS:

   GROUND SNOW LOAD (Pg): [illegible] PSF
   SNOW EXPOSURE FACTOR (Ce): 1.0
   THERMAL FACTOR (Ct): 1.0
   SNOW IMPORTANCE FACTOR: 1.0
   FLAT ROOF SNOW LOAD (Pf): 5 PSF

## FOUNDATION NOTES:

1. DESIGN SOIL BEARING PRESSURE = 2500 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED AT TIME OF EXCAVATION AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IF THE ACTUAL SOIL BEARING PRESSURE IS LOWER THAN THE DESIGN SOIL PRESSURE. FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON A SOILS REPORT PREPARED BY: ECS DATED: JANUARY 8, 2017
2. ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL OR STRUCTURAL FILL AND HAVE A MINIMUM 12" OF COVER.
3. PRIOR TO PLACING CONCRETE, ALL DEBRIS, WATER, AND LOOSE EARTH SHALL BE REMOVED FROM THE FOUNDATION BED.
4. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE PLACED MONOLITHICALLY WITH ADJACENT FOOTINGS AT THE SAME ELEVATION.
5. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL THE FLOOR SLABS AT THE TOP AND BOTTOM OF WALL ARE IN PLACE AND CURED.
6. BACKFILL AGAINST WALLS SHALL NOT BE PLACED UNTIL CONCRETE HAS CURED FOR 7 DAYS. BACKFILL SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF WALLS UNTIL THE LOWER FINAL GRADE IS REACHED. COMPACTION OF BACKFILL WITHIN 10 FEET OF WALLS SHOULD BE PERFORMED WITH HAND OPERATED EQUIPMENT.
7. PLACEMENT AND COMPACTION OF STRUCTURAL FILL SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE MINIMUM 95% OF STANDARD PROCTOR.
8. ALL DRAIN TILE SHALL BE 4" DIA. (MIN) PERFORATED PLASTIC PIPE WITH FABRIC SOCK AND 12" MINIMUM WASHED RIVER ROCK SURROUND. DO NOT USE CRUSHED OR FINE GRAVEL.
9. WHERE A UTILITY LINE PASSES UNDER A FOOTING, PROVIDE A STEEL OR CAST-IRON SLEEVE WITH MINIMUM 2" CLEAR ON ALL SIDES OF PIPE.

## CONCRETE NOTES:

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH, (f'c), AT 28 DAYS:

   A. BUILDING FOUNDATIONS: 3000 PSI
   B. FOR SITE PAVING REQUIREMENTS REFER TO DRAWING A100 & CIVIL.
   C. BUILDING SLAB, SIDEWALKS AND EQUIPMENT PADS: 4000 PSI

2. CONCRETE PROPORTIONS SHALL CONSIST OF THE FOLLOWING MATERIALS TO ACHIEVE A MIX THAT WILL YIELD A FINISHED PRODUCT THAT WILL PRODUCE THE REQUIRED COMPRESSIVE STRENGTHS LISTED IN NOTE #1 ABOVE.

   A. CEMENTITIOUS MATERIALS:
      a. PORTLAND CEMENT, ASTM C150, TYPE 1.
      b. FLYASH AND SLAG CEMENT ARE NOT ALLOWED.
   B. AGGREGATES: NORMAL WEIGHT, ASTM C33; LIGHT WEIGHT, ASTM C330. PROVIDE ALL AGGREGATE FROM A SINGLE SOURCE.
   C. WATER: ASTM C94, POTABLE.
   D. AIR ENTRAINMENT ADMIXTURE: ASTM C260.
   E. WATER REDUCING ADMIXTURE: ASTM C494, TYPE F OR G.
   F. CALCIUM CHLORIDE: ANY ADMIXTURE CONTAINING MORE THAN 0.1% CHLORIDE IONS, CONTENT BY WEIGHT, ARE NOT PERMITTED.

   CONCRETE MIX DESIGNS MUST BE SUBMITTED TO THE E.O.R. FOR HIS APPROVAL BEFORE CONSTRUCTION BEGINS. MIX DESIGNS MUST BE SUBMITTED WITH COMPRESSIVE STRENGTH INFORMATION, FOR THAT SPECIFIC MIX, AS PER THE REQUIREMENTS OF CHAPTER 5 OF ACI-318-11. SUBMISSIONS WITHOUT THIS INFORMATION WILL BE STAMPED "REJECTED" & RETURNED TO THE CONTRACTOR WITHOUT E.O.R. REVIEW. TEST DATA SHALL BE NO OLDER THAN 12 MONTHS. ALL CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE ON THE JOB SITE FOR REVIEW BY THE INSPECTOR.

3. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CODE REFERENCED ACI 318-11.
4. SLAB ON GRADE CONTROL OR CONSTRUCTION JOINTS SHALL BE LOCATED AT COLUMN LINES AND INTERMEDIATELY SO THAT NO JOINT SPACING SHALL EXCEED 20'-0", NOR SHALL THE LENGTH OF ANY PANEL EXCEED ONE AND A HALF, (1 1/2), TIMES THE WIDTH OF THAT PANEL. REFER TO TYPICAL DETAILS FOR SLAB JOINT CONSTRUCTION.
5. FLOOR SLAB CONSTRUCTION JOINTS MUST BE DOWELED.
6. EXTERIOR SLABS SHALL DRAIN FREELY AWAY FROM THE BUILDING. COORDINATE ELEVATIONS WITH CIVIL ENGINEER AND ARCHITECT.
7. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SLAB FINISHES, SLOPES AND DEPRESSIONS OF INTERIOR SLABS.

## REINFORCING STEEL NOTES:

1. SHALL BE DETAILED, FABRICATED AND PLACED ACCORDING TO THE LATEST STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. MATERIALS:

   REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
   WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A1064, FLAT SHEETS ONLY. REINFORCING BARS FOR WELDING SHALL COMPLY WITH ASTM A706.

3. CLEAR MINIMUM COVER OF CONCRETE OVER REINFORCING BARS SHALL BE AS FOLLOWS:

   CONCRETE PLACED AGAINST EARTH .......... 3"
   FORMED SURFACES EXPOSED TO EARTH .......... 2"
   TOP OF SLABS .......... 3/4"

4. ALL BARS DENOTED CONTINUOUS ON PLANS, SECTIONS AND DETAILS SHALL HAVE CLASS "B" TENSION SPLICE LAPS AND CORNER BARS AND HOOKS AT DISCONTINUOUS ENDS. SPLICED BARS SHALL BE SECURELY WIRED TOGETHER. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED 24" WHEREVER POSSIBLE.
5. WELDED WIRE FABRIC, WHERE REQUIRED, SHALL BE PLACED IN THE CENTER OF THE SLAB UNLESS NOTED OTHERWISE. LAP JOINTS ONE WIRE SPACING PLUS 2" OR A MINIMUM OF 6". EXTEND FABRIC TO WITHIN 1" OF EDGES OF SLABS ON GRADE.
6. PROVIDE PRECAST DOBIES, WIRE OR PLASTIC CHAIRS, SUPPORT BARS, ETC. TO MAINTAIN SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING BARS AND WELDED WIRE FABRIC. DO NOT USE REBAR STAKES TO SUPPORT REINFORCING. ALL REINFORCEMENT SHALL BE FASTENED AND SECURED TO PREVENT DISPLACEMENT BY THE PLACING OF CONCRETE.
7. ALL CONCRETE WALLS TO BE DETAILED IN ELEVATION ON SHOP DRAWINGS. NO MORE THAN 50% OF HORIZONTAL WALL REINFORCING SHALL LAP IN A SINGLE VERTICAL PLANE.
8. PROVIDE (2) #4 REINFORCING BARS, 3'-0" LONG, IN CONCRETE SLABS AT ALL RE-ENTRANT CORNERS. PLACE BARS AT MID DEPTH OF SLAB WITH 2" MINIMUM HORIZONTAL CLEARANCE FROM SLAB CORNER.
9. REBAR FOR WELDED CONNECTIONS MUST MEET ASTM A706. STANDARD ASTM A615 GRADE 60 REBARS ARE NOT ACCEPTABLE FOR WELDING. WELDING PROCEDURE SHALL CONFORM TO ANSI/AWS D1.4 "STRUCTURAL WELDING CODE - REINFORCING STEEL". DO NOT TACK WELD.
10. REINFORCING DOWELS, WHERE REQUIRED, SHALL MATCH THE SIZE, SPACING AND QUANTITY OF MAIN REINFORCING, UNLESS NOTED OTHERWISE.

## MASONRY NOTES:

1. MATERIALS, TESTING AND STORAGE OF MATERIALS SHALL CONFORM TO ACI-530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI-530.1 "SPECIFICATION FOR MASONRY STRUCTURES".
2. CONCRETE MASONRY UNITS: SHALL CONFORM TO ASTM C90, LIGHTWEIGHT UNITS.
   UNIT MINIMUM COMPRESSIVE STRENGTH = 1900 PSI ON NET AREA
   MORTAR SHALL CONFORM TO ASTM C270 CEMENT-LIME, TYPE S.
   COMPRESSIVE DESIGN STRENGTH = 1800 PSI
   MIN. MASONRY SYSTEM COMPRESSIVE STRENGTH f'm = 1500 PSI ON NET AREA
   GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8", A MINIMUM COMPRESSIVE STRENGTH OF 2200 PSI, AND A MAXIMUM SLUMP OF 9 INCHES.
3. MASONRY UNITS AND MORTAR SHALL INCLUDE INTEGRAL WATERPROOFING AGENT "DRYBLOCK" BY W.R. GRACE.
4. MASONRY SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE NOTED.
5. ALL REINFORCING BARS DENOTED AS CONTINUOUS SHALL HAVE LAP SPLICES, CORNER BARS AND HOOKS AT DISCONTINUOUS ENDS. SEE MASONRY SPLICE LAP TABLE FOR MINIMUM LAP SPLICE LENGTHS.
6. HORIZONTAL JOINT REINFORCING SHALL BE LADDER TYPE HOT DIPPED GALVANIZED AND SPACED AT 16" ON CENTER, WITH MIN. WIRE SIZE EQUAL TO W1.7, (U.N.O.). MINIMUM STRAIGHT LAP = 16". MINIMUM CORNER OR TEE LAP = 30". JOINT REINFORCING SHALL BE FULLY EMBEDDED IN MORTAR WITH A MIN. COVER 5/8" FROM FACE OF MORTAR. DISCONTINUE HORIZONTAL REINFORCING AT CONTROL JOINTS.
7. AT FIRST COURSE OF MASONRY, PROVIDE FULL MORTAR BED EQUAL TO WALL THICKNESS EXCEPT AT CELLS TO BE GROUTED SOLID.
8. UNITS TO RECEIVE VERTICAL REINFORCING SHALL HAVE CELLS ALIGNED VERTICALLY FOR FULL HEIGHT OF REINFORCEMENT.
9. FILL ALL MASONRY CELLS BELOW FINISHED FLOOR WITH GROUT. WHERE FINISHED FLOOR IS BELOW GRADE, FILL ALL CELLS BELOW GRADE.
10. ALL ANCHOR BOLTS INTO MASONRY SHALL BE PLACED IN FULLY GROUTED CELLS. MINIMUM EMBEDMENT TO BE 4 1/4" U.N.O.
11. PIPES OR CONDUITS MAY PENETRATE HORIZONTALLY THROUGH MASONRY WALLS BY MEANS OF A SCHEDULE 40 GALVANIZED STEEL SLEEVE SOLIDLY GROUTED IN PLACE. CENTER TO CENTER SLEEVE SPACING SHALL NOT BE LESS THAN 3 SLEEVE DIAMETERS.
12. AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN MASONRY COMPLETELY USING THE LEAST HARSH METHOD POSSIBLE.

## STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL MATERIALS:

| | |
|---|---|
| STRUCTURAL STEEL: | ASTM A992, Fy = 50 KSI |
| OTHER SHAPES & PLATES: | ASTM A36, Fy = 36 KSI |
| STRUCTURAL TUBING: | ASTM A500, GRADE B, Fy = 46 KSI |
| STRUCTURAL PIPE: | ASTM A53, GRADE B, Fy = 35 KSI |
| CONNECTION BOLTS: | ASTM A325, UNLESS NOTED OTHERWISE |
| ANCHOR BOLTS: | ASTM F1554, A307 OR A36, Fy = 36 KSI. *PROVIDE 3 NUTS AND 2 WASHERS WITH EACH ANCHOR BOLT |
| WELDING ELECTRODES: | E70-XX, UNLESS NOTED OTHERWISE |

2. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE "STEEL CONSTRUCTION MANUAL" OF THE AISC (360-10).
3. BOLTED CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER BOLTS AND WASHERS CONFORMING TO ASTM A325 UNLESS OTHERWISE NOTED. THEY SHALL BE ASSEMBLED, INSTALLED AND INSPECTED IN ACCORDANCE WITH "RCSC-2009, SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS". BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL HOLES TO BE DRILLED OR PUNCHED; FLAME CUT HOLES ARE ONLY PERMITTED WITH THE APPROVAL OF THE ENGINEER OF RECORD.

   *BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED ON THE DRAWINGS.

4. SHOP OR FIELD SPLICES BETWEEN SUPPORTS THAT ARE NOT REQUIRED BY DESIGN WILL NOT BE ALLOWED. ANY MEMBERS CONTAINING SUCH SPLICES SHALL BE REMOVED AND REPLACED WITH UNSPLICED MEMBERS AT THE FABRICATOR'S EXPENSE.
5. PROVIDE BOLTS AND PUNCHED HOLES IN STRUCTURAL AND MISCELLANEOUS STEEL FOR ATTACHMENTS OF WOOD NAILERS AS REQUIRED ON THE ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS.
6. MINIMUM SIZE OF WELD IS 3/16" UNLESS NOTED OTHERWISE. ALL WELDING SHALL CONFORM TO THE CURRENT PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY THE AMERICAN WELDING SOCIETY. ALL WORK SHALL BE PERFORMED BY CERTIFIED WELDERS EXPERIENCED IN THE TYPE OF CONSTRUCTION INVOLVED. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.
7. SHOP DRAWINGS SHALL SHOW COMPLETE WELDING INFORMATION, BOTH SHOP AND FIELD, USING AMERICAN WELDING SOCIETY SYMBOLS UNLESS OTHERWISE INDICATED.
8. STEEL BEAMS SUPPORTED ON MASONRY OR CONCRETE WALLS SHALL HAVE A MIN. OF 6" BEARING ON STEEL PLATE WITH ANCHORS UNLESS STATED OTHERWISE.
9. PROVIDE 1 1/2" NON-METALLIC, SHRINKAGE RESISTANT GROUT CONFORMING TO ASTM C1107 UNDER ALL COLUMN BASEPLATES.
10. ALL STEEL SHALL HAVE A PRIME COAT OF PAINT EXCEPT AREAS TO BE FIELD WELDED.
11. ALL PORTIONS OF STEEL ENCASED IN CONCRETE, GROUT, OR IN CONTACT WITH EARTH SHALL BE PAINTED WITH BITUMINOUS PAINT.
12. PRIME AND PAINT ALL FIELD WELDS AFTER INSPECTION.
13. STEEL FABRICATOR TO BE AN AISC CERTIFIED FABRICATOR.
14. ALL PLAN DIMENSIONS ARE TO CENTERLINE OF STEEL MEMBERS EXCEPT FOR STEEL CHANNELS. CHANNEL DIMENSIONS ARE TO THE BACK FACE OF THE WEB.
15. REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL BRACKETS, BRACES, SUPPORTS, ETC. NOT INDICATED ON THE STRUCTURAL DRAWINGS.

## JOIST NOTES:

1. BAR JOISTS SHALL BE DESIGNED AND FABRICATED ACCORDING TO THE LATEST STANDARDS OF THE STEEL JOIST INSTITUTE. JOIST FABRICATOR SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.
2. BAR JOISTS SHALL BE WELDED TO SUPPORTING BEAMS, OR WELD PLATES WITH 1" OF 3/16" WELD ON EACH SIDE OF BAR JOIST, UNLESS NOTED OTHERWISE.
3. PROVIDE JOIST BRIDGING TO MEET THE REQUIREMENTS OF SJI. PROVIDE UPLIFT BRIDGING FOR THE NET UPLIFT SHOWN IN THE DESIGN LOADING NOTES.
4. BRIDGING TERMINATING AT MASONRY WALLS OR STEEL BEAMS SHALL BE ANCHORED TO WALL OR BEAM. BRIDGING SHALL BE ANCHORED AT ENDS PRIOR TO APPLYING ROOF OR FLOOR LOADS.
5. BAR JOISTS AT COLUMN LOCATIONS TO BE BOLTED TO SUPPORTING BEAM AT TIME OF ERECTION.
6. MINIMUM BEARING REQUIREMENTS:

   BAR JOISTS:
   2 1/2" ON STRUCTURAL STEEL
   4" ON STEEL BEARING PLATES ON MASONRY OR CONCRETE

   JOIST GIRDERS: IF APPLICABLE
   4" ON STRUCTURAL STEEL
   6" ON STEEL BEARING PLATES ON MASONRY OR CONCRETE

7. UNLESS SHOWN ON STRUCTURAL DRAWINGS, NO PROVISIONS HAVE BEEN MADE IN THE BAR JOIST DESIGN TO ACCOUNT FOR CONCENTRATED LOADS. CONCENTRATED LOADS IN EXCESS OF 100 POUNDS WILL REQUIRE JOIST REINFORCING PER THE DETAILS.

## METAL DECK NOTES:

1. ROOF DECK:

   1 1/2" DEEP, TYPE "B" (WIDE RIB), 20 GAUGE GALVANIZED SHEET, WIDTH = 36"

   PREPARE AND REPAIR DAMAGED GALVANIZED COATING ON BOTH SURFACES OF DECK WITH GALVANIZING REPAIR PAINT ACCORDING TO ASTM 780 AND MANUFACTURER'S INSTRUCTIONS.

2. METAL DECK MANUFACTURER SHALL BE A MEMBER OF THE STEEL DECK INSTITUTE (SDI). ALL PRODUCTS SHALL BE FACTORY MUTUAL APPROVED.
3. STEEL DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 4 SUPPORTS.
4. DECK ATTACHMENT PATTERN SHALL BE AS INDICATED ON THE DRAWINGS.
5. PROVIDE 1 1/2" MINIMUM DECK BEARING AT ALL SUPPORTS. DECK SHALL BE PLACED AT THE PERIMETER WITH A COMPLETE RIB BEARING ON THE STEEL SUPPORT.
6. ALL METAL DECK WELDING IS ONLY TO BE PERFORMED BY AN AWS D1.3 CERTIFIED WELDER. CERTIFICATIONS ARE TO BE AVAILABLE ON SITE FOR VERIFICATION.

## SHOP DRAWING NOTES:

1. CONTRACTOR SHALL FURNISH COMPLETE AND DETAILED SHOP DRAWINGS FOR THE FOLLOWING STRUCTURAL MATERIALS:

   ANCHOR BOLT LAYOUT
   STRUCTURAL STEEL, JOIST, AND METAL DECK
   REINFORCING STEEL
   CONCRETE MIX DESIGN
   MASONRY UNITS, REINFORCING, MORTAR AND GROUT
   LIGHT GAUGE METAL FRAMING (SEE NOTE #5)

2. UNLESS NOTED, SUBMIT SHOP DRAWINGS FOR ALL FABRICATED MATERIALS. ALL SHOP DRAWINGS MUST BEAR THE REVIEW STAMP OF THE GENERAL CONTRACTOR. UNSTAMPED SHOP DRAWINGS WILL BE REJECTED WITHOUT REVIEW.
3. THREE COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED IN PAPER FORMAT. ELECTRONIC COPIES OF SHOP DRAWINGS WILL ONLY BE ACCEPTED WITH THE APPROVAL OF THE ENGINEER OF RECORD. REPRODUCTION OF ELECTRONIC COPIES WILL BE BILLED TO GENERAL CONTRACTOR FOR REIMBURSEMENT OF PRINTING COSTS. DESIGN DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS. TWO SETS OF REVIEWED SHOP DRAWINGS WILL BE RETURNED TO THE GENERAL CONTRACTOR.
4. ALLOW MINIMUM 10 WORKING DAYS FOR ARCHITECT/ENGINEER REVIEW OF EACH SHOP DRAWING SUBMITTAL. ALLOW AN ADDITIONAL WORKING DAY FOR EVERY 5 DRAWINGS OVER 30.
5. SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE DESIGN ENGINEER OF RECORD AND NOT SPECIFIED IN THE CONSTRUCTION DOCUMENTS SHALL BE SIGNED & SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. COMPONENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING: PRE ENGINEERED TRUSSES, RAILINGS, LADDERS, LIGHT GAUGE STUD FRAMING, RACK SYSTEMS, GLAZING SYSTEMS, AWNINGS AND ANY OTHER ITEM THAT IS DESIGNATED AS "DESIGNED BY OTHERS" OR "PRE ENGINEERED". THESE SHOP DRAWINGS SHALL BEAR CLEAR INDICATION THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT ARCHITECT OR ENGINEER OF RECORD.
6. SHOP DRAWINGS SUBMITTED TO THE ENGINEER OF RECORD SHALL ADHERE TO THE FOLLOWING GUIDELINES OR THEY WILL BE REJECTED AND RETURNED TO SENDER UNCHECKED:

   A. THE LATEST ISSUE DATE, IN THE DRAWING REVISION BOX, OF ANY SHEET IN THE STRUCTURAL DRAWING SET, SHALL BE CLEARLY SHOWN ON THE TOP SHEET OF THE SHOP DRAWINGS.
   B. NO PARTIAL SETS WILL BE ACCEPTED, UNLESS PREVIOUSLY APPROVED BY THE ENGINEER OF RECORD.
   C. STEEL JOIST SUBMITTALS SHALL HAVE JOB SPECIFIC DETAILS IN ADDITION TO THE JOIST MANUFACTURER'S TYPICAL DETAILS.

7. DETAILER SHALL COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS OR DUCTWORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
8. DIMENSIONAL COORDINATION SHALL BE PERFORMED BY THE GENERAL CONTRACTOR AND/OR HIS FABRICATOR.
9. PROPOSED CHANGES TO THE CONSTRUCTION DOCUMENTS SHALL BE CLEARLY MARKED IN THE SHOP DRAWINGS AND SHALL INCLUDE SIGNED & SEALED DRAWINGS AND CALCULATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE ENGINEER OF RECORD WILL REVIEW THE PROPOSED CHANGE FOR ACCEPTANCE.
10. THE CONTRACTOR SHALL HAVE PROOF OF WELDER CERTIFICATION AT THE JOBSITE AT ALL TIMES.
11. APPROVED SHOP DRAWINGS SHALL BE AVAILABLE AT THE JOBSITE AT ALL TIMES.

## PRESSURE TREATED LUMBER NOTES:

1. ALL FASTENERS USED WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL. ALL SIMPSON CONNECTORS USED WITH PRESSURE TREATED LUMBER SHALL BE "ZMAX" COATED AS A MINIMUM.

**Vult = 115 MPH, Vasd = 90, EXPOSURE = C, I = 1.0, RISK CATEGORY II, Cpi = +/- 0.18**

**WIND LOADS - COMPONENTS AND CLADDING: H <= 60'** Ultimate Wind Pressure

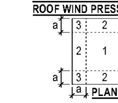
Kh (case 1) = 0.85 h = 15.0 ft
Base Pressure (qh) = 20.2 psf a = 5.2 ft
Minimum parapet ht. = 5.0 ft GCpi = +/- 0.18
Roof Angle (Θ) = 1.2 deg

| ROOF | | | |
|---|---|---|---|
| Area | Surface Pressure (psf) | | |
| | 10 sf | 50 sf | 100 sf |
| Negative Zone 1 | -23.8 | -22.4 | -21.8 |
| Negative Zone 2 | -39.9 | -30.1 | -25.8 |
| Negative Zone 3 | -39.9 | -30.1 | -25.8 |
| Positive Zone 1 | 16.0 | 16.0 | 16.0 |
| Positive Zone 2 & 3 | 21.8 | 19.5 | 18.6 |

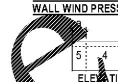
| WALLS | | | |
|---|---|---|---|
| Area | Surface Pressure (psf) | | |
| | 10 sf | 100 sf | 500 sf |
| Negative Zone 4 | -23.6 | -20.4 | -18.1 |
| Negative Zone 5 | -29.0 | -22.6 | -18.1 |
| Positive Zone 4 & 5 | 21.8 | 18.6 | 16.3 |

| PARAPET | | | | |
|---|---|---|---|---|
| Solid Parapet Pressure | | Surface Pressure (psf) | | |
| | | 10 sf | 100 sf | 500 sf |
| Case A | Interior Zone | 54.4 | [illegible] | 34.9 |
| | Corner Zone | 54.4 | [illegible] | 34.9 |
| Case B | Interior Zone | -38.1 | [illegible] | -27.2 |
| | Corner Zone | -43.5 | [illegible] | -27.2 |

**COMPONENTS AND CLADDING ROOF WIND PRESSURES (PSF)**




**COMPONENTS AND CLADDING WALL WIND PRESSURES (PSF)**




| ROOF NET UPLIFT | |
|---|---|
| Zone 1 | 4.0 psf |
| Zone 2 & 3 | 7.0 psf |

**RaceTrac®**


COPYRIGHT NOTICE
THESE PLANS ARE SUBJECT TO FEDERAL COPYRIGHT LAWS: ANY USE OF SAME WITHOUT THE EXPRESSED WRITTEN PERMISSION OF RACETRAC PETROLEUM, INC. IS PROHIBITED. 2016 RACETRAC PETROLEUM INC.


**DESIGN PROFESSIONALS**


HILLFOLEYROSSI & ASSOCIATES
ARCHITECTURE
ENGINEERING
3680 Pleasant Hill Road
Suite 200
Duluth, Georgia 30096
p 770.622.9858
f 770.622.9535
www.hillfoleyrossi.com



© Copyright (as dated below).
This drawing and all reproductions thereof are the property of Hill Foley Rossi & Associates, LLC.(HFR). It is intended for the sole use of the project named hereon. Reproduction without the written consent of HFR is unlawful. All copies are to be returned to HFR upon project completion.


**ISSUE/REVISION RECORD**

| DATE | DESCRIPTION |
|---|---|
| 09/04/18 | ISSUED FOR PERMIT |

**RaceTrac®**


RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600


**PROJECT NAME**

**PEACHTREE PKWY & ENG.**

**PEACHTREE CORNERS**
**5780 PEACHTREE PKWY**
**PEACHTREE CORNERS, GA**

**RACETRAC STORE NUMBER**

**1201**

**PROTOTYPE SERIES 5.5K 2.0**

**2018 RH MO**

**PLAN MODIFICATION NOTICE**

**SPB NO. DATE**

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/ REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED IN THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

**PROFESSIONAL SEAL**

09/04/18

**PROJECT NUMBER**
18.703.00

**SHEET TITLE**

**GENERAL STRUCTURAL NOTES**

**SHEET NUMBER**

**S000**

ISSUED FOR PERMIT


Order Plans @ www.LDIline.com