10-46471-19V-YS ...0N REVISIONS CHK APPR DATE CONTENT HOT STEEL GENERAL NOTES B.Y. P.T. D.J. 07-08-16 APPROVED FOR CONSTRUCTION WELDS: **GENERAL:** 1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF 2009 INTERNATIONAL BUILDING CODE, ASCE 7-05, 1. ALL WELDS SHALL RECEIVE 100 PERCENT VISUAL INSPECTION. LOCAL CODE(S), AND REQUIREMENTS SPECIFIED HEREIN. 2. FABRICATOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH CORRECTING DEFICIENCIES AND RETESTING IN THE EVENT OF A TEST FAILURE. 2. ERECTION CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO PROVIDE ADEQUATE SAFETY PROTECTION FOR THE GENERAL PUBLIC AND THE WORKERS. OSHA REQUIREMENTS SHALL BE STRICTLY ADHERED TO. 3. FILLET WELDS WHICH OCCUR ON OPPOSITE SIDES OF A COMMON PLANE SHALL BE INTERRUPTED AT THE CORNER COMMON TO BOTH WELDS. 3. ALL WORK SHALL BE EXECUTED IN A SKILLFUL AND WORKMANLIKE MANNER WITH MATERIALS SPECIFIED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE BEST PRACTICE OF THE 4. AFTER COMPLETING FULL PENATRATION WELDING, REMOVE THE BACKING BARS, GOUGE OR GRIND EXPOSED TRADE. WELDING AND PROVIDE ADDITIONAL WELDING. 4. ERECTION CONTRACTOR SHALL VERIFY ALL DIMENSION OF EXISTING STRUCTURE PRIOR TO THE COMMENCEMENT 5. ALL WELDING SHALL BE DONE BY SHIELDED METAL ARC WELDING (SMAW); FLUX CORED ARC WELDING (FCAW); OF RELATED WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES. GAS METAL ARC WELDING (GMAW); OR SUBMERGED ARC WELDING (SAW). [3353mm] 5. ERECTION CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AND SHORING, AS REQUIRED. 6. FOR WELDING, DO NOT USE E70 T-4 ELECTRODES. WELDING RODS TO BE USED SHALL BE LOW HYDROGEN AND TO ENSURE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR A PORTION THEREOF DURING 2 1/2" SHALL BE RATED FOR NOTCH TOUGHNESS AND SHALL HAVE LP AMINA'S APPROVAL PRIOR TO THE START OF © OF PL.1 SIDE SUPPORT WELDING OPERATION. 7. BACKING BAR SHALL BE USED FOR ALL COMPLETE PENETRATION FIELD WELDS. 8. FOR COMPLETE PENETRATION SHOP WELDS, BACKING BAR MAY BE USED FOR MOMENT CONNECTION DETAILS. OTHERWISE, GROOVE WELDS SHALL BE USED, BACK GOUGED & WELDED FROM THE OPPOSITE SIDE STRUCTURAL STEEL: CO FRAME UNLESS OTHERWISE NOTED ON DESIGN DRAWINGS. 1. DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE THIRTEENTH EDITION 9. ULTRASONIC TESTING (UT) IS REQUIRED ON FULL PENETRATION WELDS WHERE NOTED ON DESIGN DRAWINGS. OF THE A.I.S.C. "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," ANSI/AISC 360-05, AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", EXCEPT AS OTHERWISE NOTED HEREIN OR ON DRAWINGS. 10. ALL GROOVE WELDS SHALL HAVE COMPLETE JOINT PENETRATION IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE, ANSI/AWS D1.1-2010, UNLESS OTHERWISE NOTED ON DESIGN DRAWINGS. 2. ALL STRUCTURAL STEEL SHALL BE NEW AND CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS: a. STRUCTURAL WIDE FLANGE SHAPES — ASTM A992 b. STRUCTURAL CHANNELS, S SHAPES & ANGLES - ASTM A36 c. HOLLOW STRUCTURAL STEEL (RECTANGULAR) — ASTM A500, GRADE B d. HOLLOW STRUCTURAL STEEL (ROUND) - ASTM A500, GRADE B DESIGN CRITERIA: e. PLATES - ASTM A572, GRADE 50 f. STRUCTURAL BOLTS - ASTM A193, GRADE B7, WITH A194 GRADE 7 HEX NUTS. IBC2009/ASCE 7-05 g. UNFINISHED ERECTION BOLTS - ASTM A307, GR. A, WITH ASTM A563, GR. A NUTS NON-BUILDING STRUCTURE. OCCUPANCY CATEGORY: III 3. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY, AWS D1.1-2014, AND SHALL BE PERFORMED BY A CERTIFIED WELDER. **SEISMIC DESIGN DATA:** 4. ALL WELDS SHALL BE 1/4" MINIMUM UNLESS ATTACHED MATERIAL IS 3/16" THICK OR LESS OR NOTED ON SITE CLASSIFICATION = DIMPORTANCE FACTOR, le = 1.25MAX. CONSIDERED EARTHQUAKE GROUND MOTION,  $S_s = 0.322$ 5. MINIMUM SIZE OF CONNECTION BOLTS SHALL BE 3/4" DIAMETER, EXCEPT WHERE NOTED ON DRAWINGS. MAX. CONSIDERED EARTHQUAKE GROUND MOTION,  $S_1 = 0.105$ DESIGN EARTHQUAKE SPECTRAL RESPONSE ACCEL.,  $S_{DS} = 0.331$ 6. ALL GUSSET PLATES SHALL BE A MINIMUM 3/8" THICK, EXCEPT WHERE NOTED ON DRAWINGS. DESIGN EARTHQUAKE SPECTRAL RESPONSE ACCEL., Sp. = 0.167 SEISMIC DESIGN CATEGORY = C7. FOR FIELD WELDED CONNECTIONS, ALL BEAM ENDS SHALL BE CUT SQUARE AND TRUE. (LENGTH: OVERCUT = 0", UNDERCUT = 1/4" MAXIMUM). DESIGN TEMPERATURE: CO CATALYST GUIDE FRAME = 740°F 8. HOLD OUT-TO-OUT DIMENSIONS EXACT FOR ALL CONTINUOUS RUNS OF COLUMNS AND/OR BEAMS TO AVOID AN ACCUMULATIVE ERROR. 9. HOLES FOR BOLTS SHALL BE 1/16" LARGER THAN THE BOLT DIAMETER, U.O.N. DESIGN CRITERIA NOTES: 1. SEISMIC DESIGN DATA IS FOR KINGS MOUNTAIN PROJECT AND TO BE CONFIRMED BY VPI. 10. WORK POINT OF BRACINGS, BEAMS AND/OR COLUMNS SHALL INTERSECT AT A COMMON POINT UNLESS SHOWN ON THE DRAWING. THE BRACING CENTERLINE OR CONNECTING BOLTS GAGE LINE SHALL COINCIDE WITH THE 2. COMPARED WITH MIDDLETOWN PROJECT, KINGS MOUNTAIN PROJECT HAS HIGHER SEISMIC DESIGN CONDITION. GRAVITY AXIS OF BEAM AND/OR COLUMN. ANY DEVIATION NEEDS APPROVAL OF THE STRUCTURAL ENGINEER. LPA WAS INSTRUCTED BY VPI TO USE THE SEISMIC DESIGN DATA OF KINGS MOUNTAIN FOR BOTH PROJECTS. CO, NOx CATALYST & AIG SUPPORTS 11. ENLARGEMENT OF BOLT HOLES, IF REQUIRED, SHALL BE DONE BY REAMING ONLY, BURNING OF HOLE IS ABSOLUTELY FORBIDDEN. LOCATION PLAN Painting per paint system P-5 on VPI document V17494-EBNC-0001 12. ALL BOXED AND PIPE SECTIONS WITH ENDS SEALED SHALL HAVE 1/2" DIAMETER VENT (WEEP) HOLE. 13. FABRICATOR SHALL SUBMIT STEEL FABRICATION (SHOP) DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO 14. MILL CERTIFICATE(S) FROM STRUCTURAL STEEL MANUFACTURER AND CERTIFICATE OF FABRICATION FROM FABRICATION SHOP OR A REPORT PREPARED BY A SPECIAL INSPECTOR SHALL BE FURNISHED TO THE JOB INSPECTOR PRIOR TO FRAMING APPROVAL. 15. ALL STUDS CALLED ON DRAWINGS SHALL BE NELSON CFL, CJL, CPL OR HBL THREADED STUDS, U.N.O. **VOGT POWER INTERNATIONAL** Released, Work May Proceed Aug-20-2016 Bell. Milton MEC/KMEC **VOGT POWER INTERNATIONAL** SYNERGY V17494-CVXD-5000-05 CO Catalyst-General Notes PO NO. (KM): 05-Aug-2016 SYSTEM TAG NO.: LP Amina DESIGNED E.GU0 10-26-2015 VOGT POWER INTERNATIONAL MIDDLETOWN, OH - V17494 E.GU0 10-26-2015 KINGS MOUNTAIN, NC - V17495 STRUCTURAL GENERAL NOTES THIS DRAWING CONTAINS PROPRIETARY INFORMATION WHICH MAY N.TANAKA 10-26-2015 BE HELD CONFIDENTIAL AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE WRITTEN CONSENT OF SYNERGY OR A DULY AUTHORIZED REPRESENTATIVE THEREFORE. SY-VPI-17494-01 M.THORNHILI SCALE: 3/16" = 1'-0" SHEET 1 LPA 035-07-0100 10-26-2015