STRUCTURAL STATEMENT OF SPECIAL INSPECTIONS & TESTING

1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS. (SEE IBC CHAPTER 17).
2. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL. DUDLEY ENGINEERING CAN BE SOLICITED TO PROVIDE SPECIAL INSPECTIONS. WE RECOMMEND THAT THE PROJECT GEOTECHNICAL ENGINEER BE SOLICITED TO PROVIDE SPECIAL INSPECTIONS FOR THE SOILS AND TESTING FOR THE SOIL AND CONCRETE.
3. DUTIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED BELOW FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AND THE IBC.
   B. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE EOR, CONTRACTOR, OWNER AND BUILDING OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY AS REQUIRED BY THE BUILDING OFFICIAL. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE EOR AND THE BUILDING OFFICIAL.
   C. ONCE CORRECTIONS HAVE BEEN MADE BY THE CONTRACTOR, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AS WELL AS THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.
4. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
   A. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. IN ACCORDANCE WITH IBC 1704.4, THE STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED WITHIN THIS "STATEMENT OF SPECIAL INSPECTIONS".
   B. THE CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
   C. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.
5. PLEASE SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.
6. REFER TO ARCHITECTURAL AND/OR MEP DRAWINGS FOR ADDITIONAL SPECIAL INSPECTION REQUIRED. DUDLEY ENGINEERING HAS LISTED THE STRUCTURAL SPECIAL INSPECTIONS AND TESTING.

WIND-RESISTING COMPONENTS (1705.11.3)

PERIODIC SPECIAL INSPECTION IS REQUIRED FOR FASTENING OF THE FOLLOWING SYSTEMS AND COMPONENTS:
1. ROOF COVERING, ROOF DECK AND ROOF FRAMING CONNECTIONS.
2. EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING

REQUIRED VERIFICATION AND INSPECTION OF GRADING AND DRAINAGE FOR FOUNDATIONS ON EXPANSIVE SOILS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
AFTER BUILDING CONSTRUCTION AND LANDSCAPING HAVE BEEN COMPLETED, FINAL GRADES SHALL BE VERIFIED TO DOCUMENT REQUIRED DRAINAGE	-	X	YES
AFTER BUILDING CONSTRUCTION AND LANDSCAPING HAVE BEEN COMPLETED, DOWNSPOUTS SHALL BE INSPECTED TO CONFIRM CONFORMANCE.	-	X	YES
GRADES AROUND THE STRUCTURE SHALL BE PERIODICALLY INSPECTED AND ADJUSTED AS PART OF THE BUILDING'S MAINTENANCE PROGRAM	-	X	YES
PLUMBING LEAK "HYRDROSTATIC" TEST PERFORMED BY A LICENSED PLUMBER. TEST TO OCCUR AFTER ROUGH PLUMBING INSTALL	-	X	YES
WHERE PAVING/FLATWORK ABUT THE FOUNDATION, A MAINTENANCE PROGRAM SHALL BE ESTABLISHED TO EFFECTIVELY SEAL AND MAINTAIN JOINTS AND PREVENT SURFACE WATER INFILTRATION.	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1705.6)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	-	X	YES
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS	-	X	YES
PERFORM CLASSIFICATION AND TESTING OF COMPACTED MATERIALS	-	X	YES
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	-	YES
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THE SITE HAS BEEN PREPARED PROPERLY	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION (§1705.5)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
PREFABRICATED WOOD STRUCTURAL ELEMENTS (METAL PLATE CONNECTED WOOD TRUSSES) FABRICATION AND IMPLEMENTATION PROCEDURES (NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION	-	X	YES
HIGH-LOAD DIAPHRAGMS A. INSPECT GRADE AND THICKNESS OF WOOD STRUCTURAL PANEL SHEATHING. B. VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, THE NAILS OR STAPLE DIAMETER AND LENGTH, THE NUMBER OF FASTENER LINES AND THAT THE SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS AGREES WITH THE APPROVED BUILDING PLANS	-	X	NO
METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FT OR GREATER A. VERIFY THAT TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAIN/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	-	X	NO
INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING COMPONENTS WITHIN THE SEISMIC / MAIN WIND FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR WALLS AND HOLD-DOWNS.	-	X	YES
MOISTURE CONTENT OF LOAD BEARING WOOD FRAMING: • MOISTURE CONTENT JUST PRIOR TO INSTALLING SHEET ROCK SHOULD BE AT OR BELOW 15%. SPECIAL ATTENTION SHALL BE PAID TO MEMBERS ORIENTED WITH THEIR VERTICAL AXIS PERPENDICULAR TO THE VERTICAL PLANE (PLATES, JOISTS, TRUSS CHORDS, ETC.)	-	X	YES

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION (§1705.2.1)

STRUCTURAL STEEL - GENERAL

THE SPECIAL INSPECTOR SHALL INSPECT THE FABRICATED OR ERECTED STEEL FRAME, AS APPROPRIATE, TO VERIFY COMPLIANCE WITH THE DETAIL SHOWN ON THE CONSTRUCTION DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.

STRUCTURAL STEEL - ANCHOR RODS / EMBED PLATES

THE SPECIAL INSPECTOR SHALL BE ON THE PREMISES FOR INSPECTION DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENT SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. AS A MINIMUM, THE DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR RODS OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE, SHALL BE VERIFIED PRIOR TO PLACEMENT OF CONCRETE.

STRUCTURAL STEEL - WELDS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
INSPECTION TASKS PRIOR TO WELDING (AISC 360 TABLE N5.4-1)			
WELDING PROCEDURE SPECIFICATION(WPS'S) AVAILABLE	X	-	YES
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	-	YES
MATERIAL IDENTIFICATION (TYPE / GRADE)	-	X	YES
WELDER IDENTIFICATION SYSTEM	-	X	YES
FIT-UP GROOVE WELDS	-	X	NO
CONFIGURATION AND FINISH OF ACCESS HOLES	-	X	NO
FIT-UP FILLET WELDS	-	X	YES
CHECK WELDING EQUIPMENT	-	X	YES
INSPECTION TASKS DURING WELDING (AISC 360 TABLE N5.4-2)			
USE OF QUALIFIED WELDERS	-	X	YES
CONTROL AND HANDLING OF WELDING CONSUMABLES	-	X	YES
NO WELDING OVER CRACKED TACK WELDS	-	X	YES
ENVIRONMENTAL CONDITIONS (WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE	-	X	YES
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE / FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/ MAX) • PROPER POSITION (F, V, H, OH)	-	X	YES
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEET QUALITY REQUIREMENTS	-	X	YES
WELDS CLEANED	-	X	YES
SIZE, LENGTH AND LOCATION OF WELDS	X	-	YES
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD / BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	X	-	YES
ARC STRIKES	X	-	YES
k-AREA	X	-	YES
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	-	YES
REPAIR ACTIVITIES	X	-	YES
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT MEMBER	X	-	YES
	X	-	YES
NON-DESTRUCTIVE TESTING OF WELDED JOINTS			
FILLET WELDS:			
MT TEST A MINIMUM OF 10% OF THE LENGTH OF EACH FILLET WELD EXCEEDING 5/16".	-	X	YES
PERIODIC MT TESTING OF REPRESENTATIVE FILLET WELDS 5/16" AND LESS BUT NEED NOT EXCEED 10% OF ALL SUCH WELDS, EXCEPT AS REQUIRED FOR HIGH REJECTION RATES AS INDICATED IN THE FOLLOWING PARAGRAPH.	-	X	YES
INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS.	X	-	YES
PARTIAL JOINT PENETRATION (PJP) WELDS INCLUDING FLARE BEVEL WELDS			
MT TEST A MINIMUM OF 25% OF THE LENGTH OF EACH PJP WELD EXCEEDING 5/16" EFFECTIVE THROAT.	-	X	YES
PERIODIC MT TESTING OF REPRESENTATIVE PJP WELDS 5/16" AND LESS BUT NEED NOT EXCEED 10% OF ALL SUCH WELDS, EXCEPT AS REQUIRED FOR HIGH REJECTION RATES AS INDICATED IN THE FOLLOWING PARAGRAPH.	-	X	YES
INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS	X	-	YES
COMPLETE JOINT PENETRATION (CJP) WELDS			
ALL CJP WELDS EXCEEDING 5/16" THICKNESS SHALL BE 100% UT TESTED PER AWS D1.1 CLAUSE 6 PART F. THE TESTING LABORATORY SHALL REVIEW THE CJP JOINTS TO DETERMINE WHERE GEOMETRY OR ACCESSIBILITY PRECLUDES THE USE OF STANDARD SCANNING PATTERNS PER AWS D1.1 CLAUSE 6 PART F. AT THESE LOCATIONS THE TESTING LABORATORY SHALL DEVELOP AND SUBMIT FOR APPROVAL A WRITTEN TESTING PROCEDURE IN ACCORDANCE WITH AWS D1.1 ANNEX S.	X	-	YES
PERIODIC MT TESTING OF REPRESENTATIVE CJP WELDS 5/16" AND LESS NOT TO EXCEED 10% OF ALL SUCH WELDS.	-	X	YES
INCREASE MT TESTING RATE FOR WELDERS HAVING A HIGH REJECTION RATE AS REQUIRED TO ENSURE ACCEPTABLE WELDS.	X	-	YES

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (TURN-OF-NUT)

TURN-OF-NUT PRETENSIONING: THE INSPECTOR SHALL OBSERVE THE PRE-INSTALLATION VERIFICATION TESTING REQUIRED IN SECTION 8.2. SUBSEQUENTLY, IT SHALL BE ENSURED BY ROUTINE OBSERVATION THAT THE BOLTING CREW PROPERLY ROTATES THE TURNED ELEMENT RELATIVE TO THE UNTURNED ELEMENT BY THE AMOUNT SPECIFIED IN TABLE 8.2. ALTERNATIVELY, WHEN FASTENER ASSEMBLIES ARE MATCH-MARKED AFTER THE INITIAL FIT-UP OF THE JOINT BUT PRIOR TO PRETENSIONING, VISUAL INSPECTION AFTER PRETENSIONING IS PERMITTED IN LIEU OF ROUTINE OBSERVATION. NO FURTHER EVIDENCE OF CONFORMITY IS REQUIRED. A PRETENSION THAT IS GREATER THAN THE VALUE SPECIFIED IN TABLE 8.1 SHALL NOT BE CAUSE FOR REJECTION. A ROTATION THAT EXCEEDS THE REQUIRED VALUES, INCLUDING TOLERANCE, SPECIFIED IN TABLE 8.2 SHALL NOT BE CAUSE FOR REJECTION.

TABLE 8.2: NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING

BOLT LENGTH	DISPOSITION OF OUTER FACES OF BOLTED PARTS		
	BOTH FACE NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS
LENGTH ≤ $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
$4d_b$ < LENGTH ≤ $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
$8d_b$ < LENGTH ≤ $12d_b$	2/3 TURN	5/6 TURN	1 TURN

a. NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR ALL REQUIRED ROTATIONS, THE TOLERANCE IS PLUS 60° AND MINUS 30°
b. APPLICABLE TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (SNUG-TIGHT) - INSPECTION TASKS PRIOR TO BOLTING

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
DOCUMENTATION AND ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	-	X	YES

STRUCTURAL STEEL HIGH-STRENGTH BOLTS (SNUG-TIGHT) - INSPECTION TASKS DURING BOLTING

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REQUIRED
DOCUMENTATION OF ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	-	X	YES

RENOVATION Wranglers
Owner: Renovation Wranglers
102 E 26th St
Bryan, TX 77803
Katieneason@me.com | 979.450.9969

LKB ARCHITECTURE
Architect of Record: LKB Architecture
2929 Allen Pkwy Suite 200
Houston, TX 77019
lisa@lkbarchitecture.com | 713.425.3076

DUDLEY
Structural: Dudley
6102 Imperial Loop Drive
College Station, TX 77845
(979) 777-0720

amc ENGINEERS
MEP: AMC Engineers
508 E Jackson St # 552
Burnet, TX 78611
info@amcengineers.com

openingdesign
Architect: OpeningDesign
17 S Fairchild | FL 7
Madison, WI 53703
ryan@openingdesign.com | 773.425.6456

This project, like most OpeningDesign's projects, is open source (Attribution-ShareAlike 4.0 International--CC BY-SA 4.0)--freely available to any party for future use, assuming the terms such as Attribution and ShareAlike are honored.

Date	Description
06/10/2022	Issued for Permit