

5122 CATHEDRAL AVENUE NW
SINGLE FAMILY DETACHED | ADDITION/ALTERATION

No.	Description	Date
1	ARCH WALL REVISIONS	07/07/20
2	ARCH WALL REVISIONS	5/26/20
3	ARCH WALL REVISIONS	5/26/20
4	ARCH WALL REVISIONS	5/26/20
5	ARCH WALL REVISIONS	5/26/20



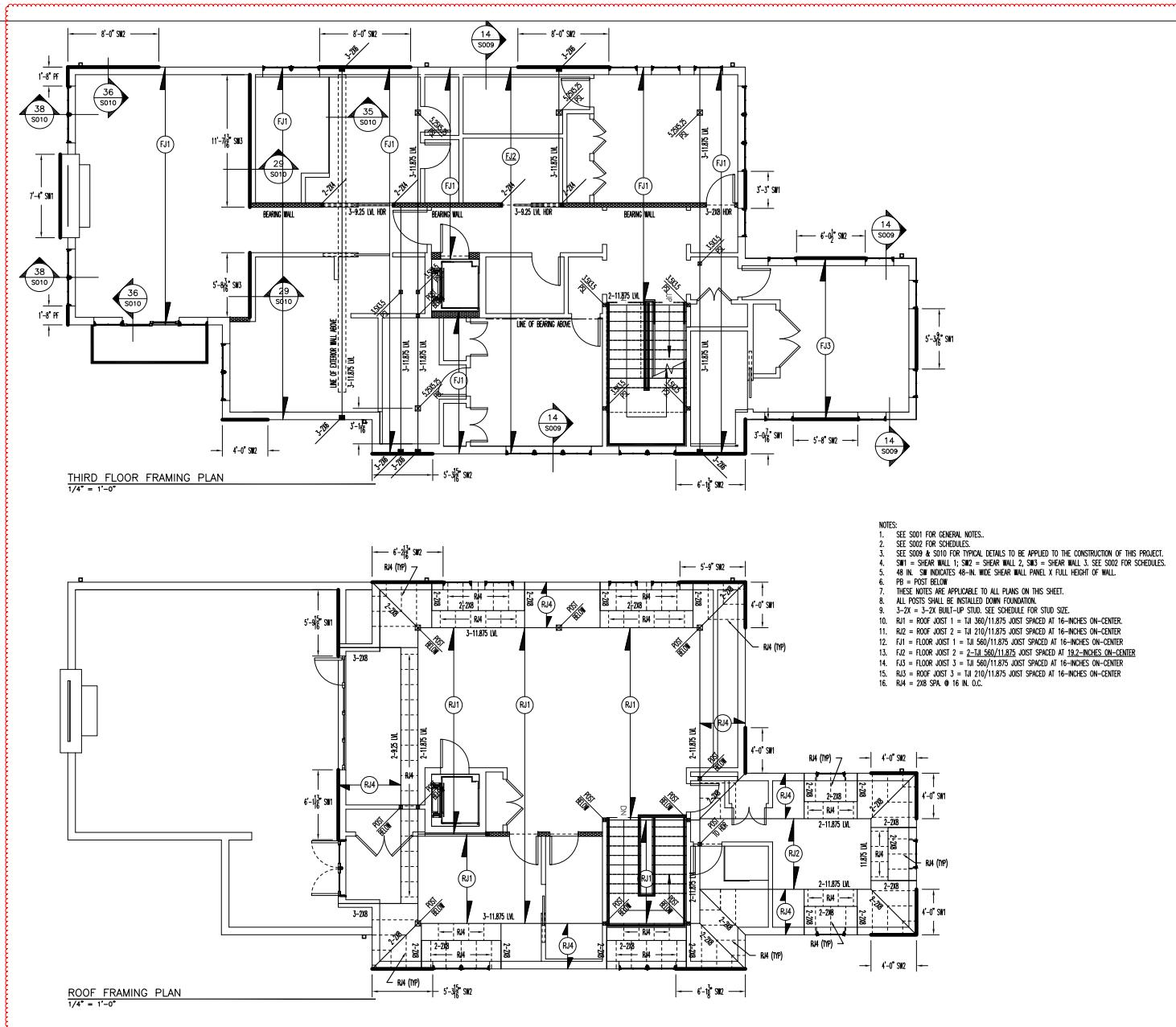
S007

FRAMING PLANS

82814-3057A

Board of Zoning Adjustment
District of Columbia
CASE NO.20944
EXHIBIT NO.57A3


SYSTEMATIC
ENGINEERING LLC
STRUCTURAL ENGINEERS
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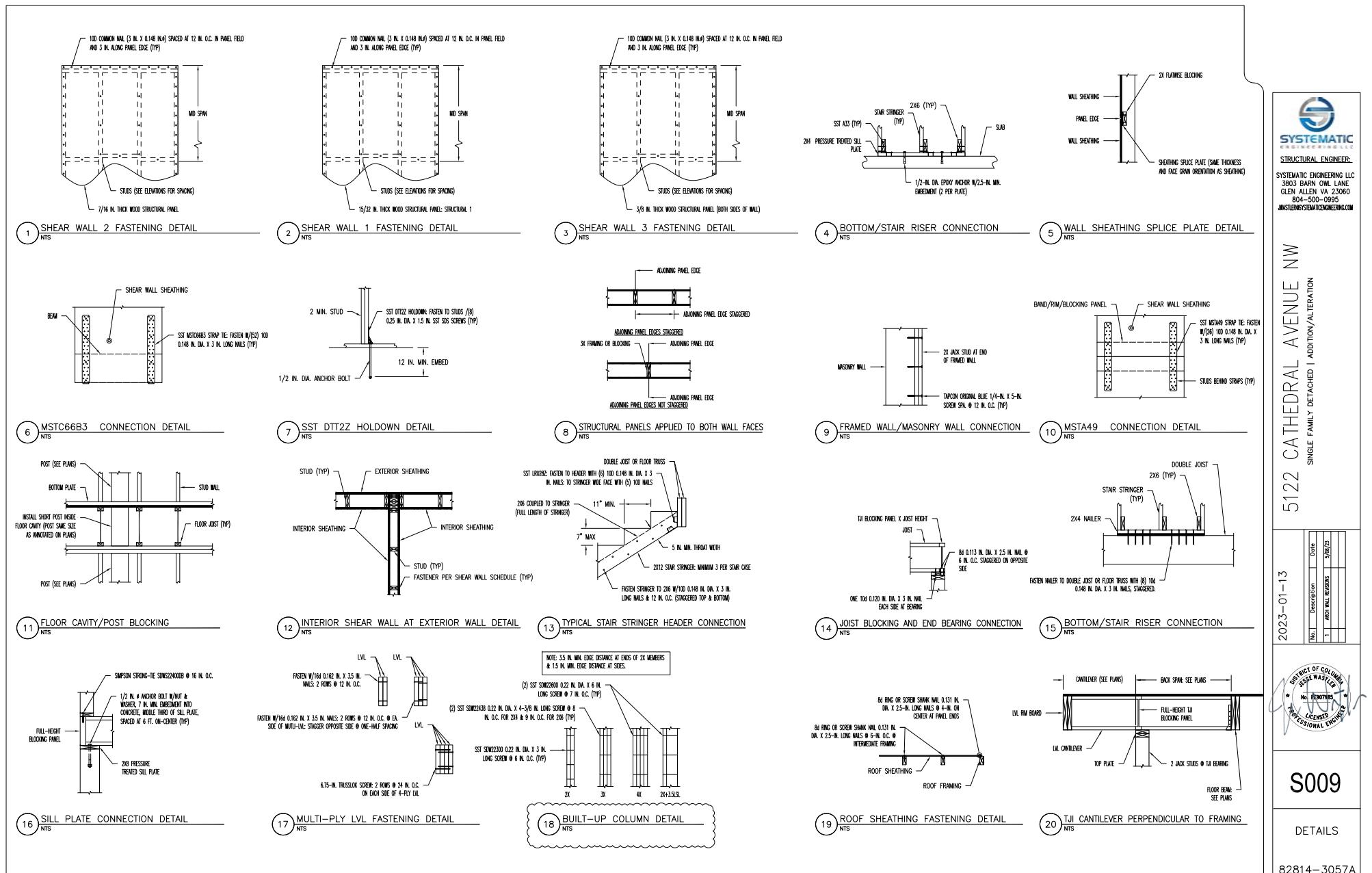
No.	Description	Date
1	DBA REVIEW	2/29/23
2	ARCH. REVIEWS	3/07/23
3	ARCH. PLAN REVIEWS	3/07/23

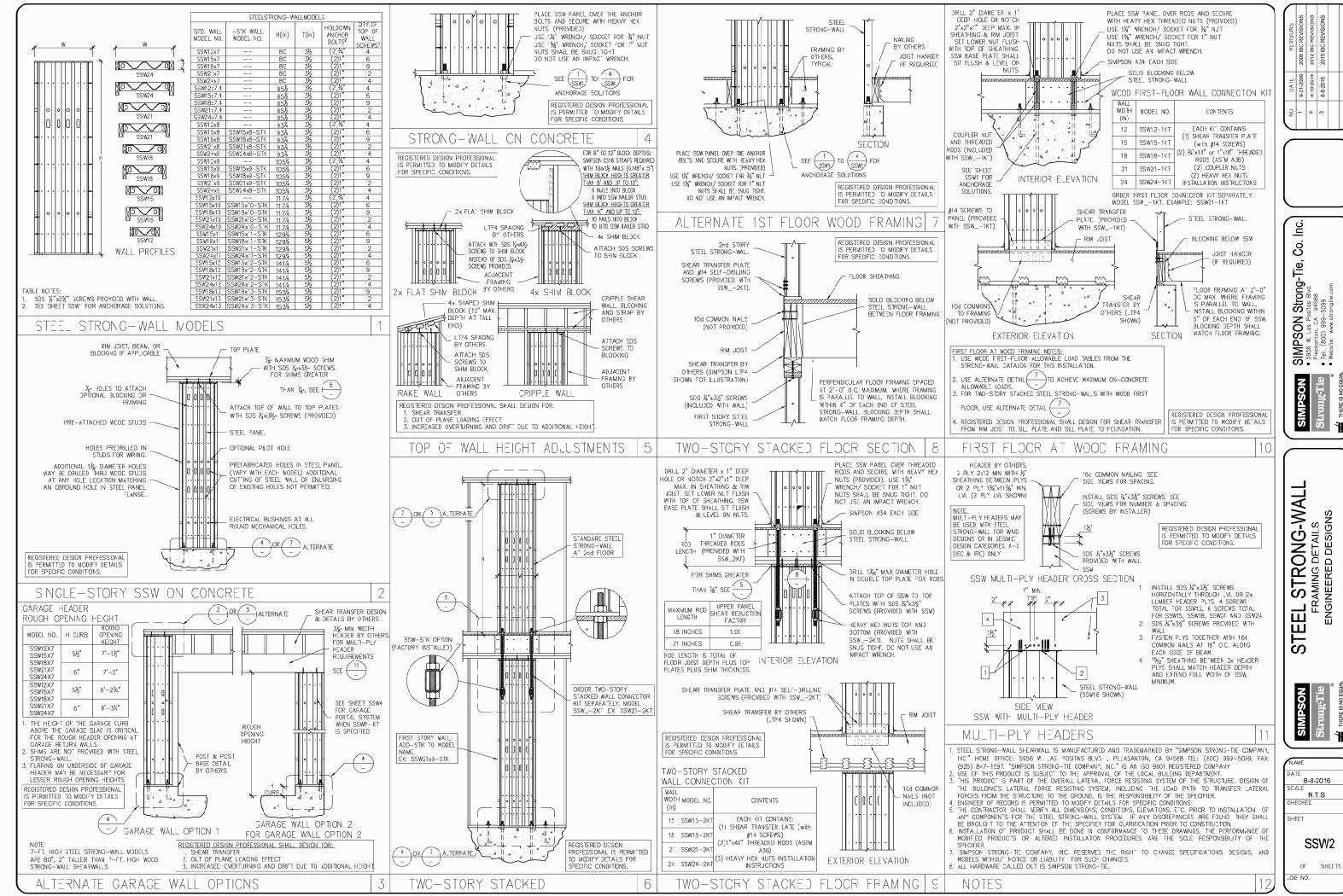


S008

FRAMING PLANS

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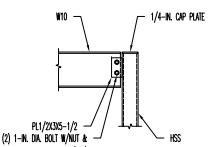
5122 CATHEDRAL AVENUE NW

2023-02-19

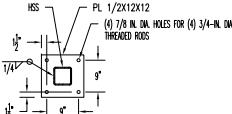
S011.1

DETAILS

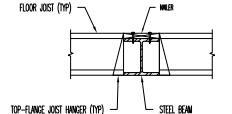
82814-3057A



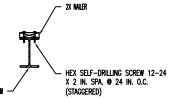
40 W10-TO-HSS TYPICAL DETAIL
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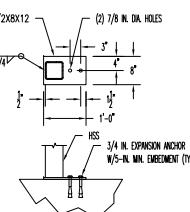
41 TYP HSS BASE DETAIL: BP1
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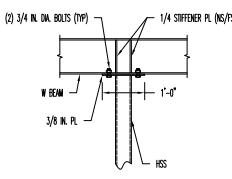
42 TJI-TO-STEEL BEAM CONNECTION DETAIL
NTS



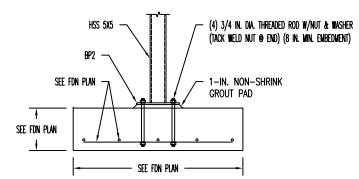
43 W-SHAPE TOP FLANGE NAILER DETAIL
NTS



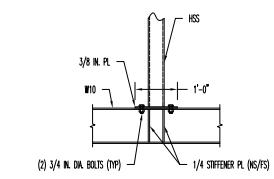
44 HSS POST BASE @ FDN WALL: BP2
NTS



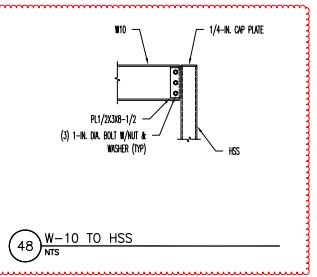
45 TYPICAL HSS TO BEAM CONNECTION
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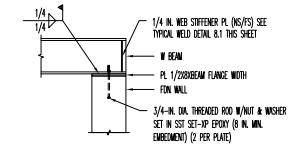
46 HSS TYPICAL FOUNDATION DETAIL
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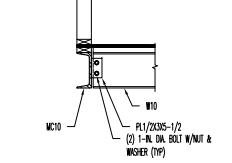
47 TYPICAL HSS TO BEAM CONNECTION
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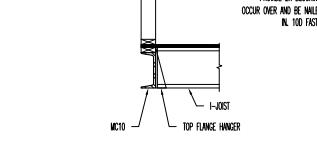
48 W-10 TO HSS
NTS



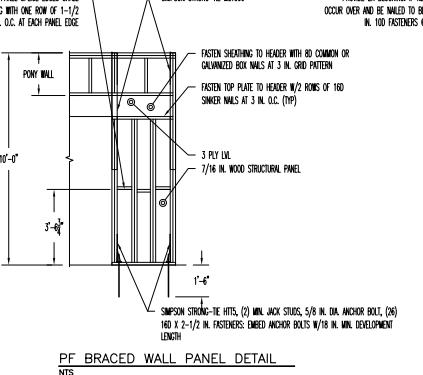
49 W-BEAM FDN BEARING DETAIL
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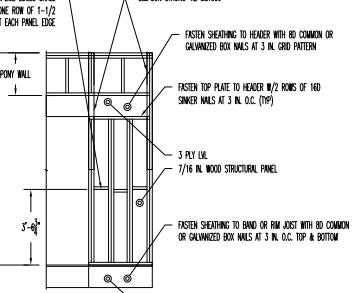
50 W10-TO-MC TYPICAL CONNECTION
NTS



51 JOIST-TO-MC TYPICAL CONNECTION
NTS



PF BRACED WALL PANEL DETAIL
NTS



PF BRACED WALL PANEL DETAIL
NTS

5122 CATHEDRAL AVENUE NW
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2023-01-13	Date	
No. Description	1	
Arch. Rev. No.	1	
Arch. Rev. Date	07/07/20	

S011
DETAILS
82814-3057A



X. SCHEDULE OF SPECIAL INSPECTIONS

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT		
		Y / C/P	EXTENT/REFERENCE	AGENT COMPLETED
GENERAL				
Pre-construction conference	Meeting with parties listed in Section 6 of IBCA, SPPA to discuss Special Inspection procedures	Y	P	Scheduled by SPPA with the Contractor prior to commencement of work
EARTHWORK				
Site preparation (building)	Field testing and inspection	N	P	Field Review; IBC 1705.4
Fill (building)	Review submittals, field testing and inspection	N	P	Field Review; IBC 1705.5
Fill compaction (building)	In-place density tests, lift thickness	N	C	Field Review; IBC 1705.5
Excavation	Field inspection and verification of proper depths	Y	P	Field Review; IBC 1705.5
Foundation subgrade	Field inspection of foundation subgrade prior to placement of concrete	Y	P	Field Review; IBC 1705.6
DEEP FOUNDATION ELEMENTS				
Materials	Review product, sizes, and lengths	N	C	Submittal and Field Review; IBC 1705.7, 1705.8, 1705.9
Test piles	Monitor driving of test piles	N	C	Field Review; IBC 1705.8, 9 or 10
Installation	Monitoring, placement, plumb, driving of piles, including recording blows per foot, cut off, and top elevation	N	C	Field Review; IBC 1705.7, 1705.8, 1705.9
Load test	Monitor pile load test	N	C	Field Review; IBC 1705.8, 9 or 10
CONCRETE				
Materials	Review product supplied versus certificates of compliance and mix design	Y	P	Submitta & Field Review; IBC 1705.3, ACI 318, Ch. 4 & 5; IBC 1904.2, 1910.2, 1903.1, 1903.2, 1903.3, 1903.4, 1903.5, 1903.6, 1903.7, 1903.8 & Ch. 7 & 13 and 21.2.8, AWS D1.4; IBC 1705.3, 1906.3, 1909.1, 1910.1, 1910.2, 1910.3
Formwork installation	Field inspection	Y	P	Field Review; IBC 1705.3, 1705.4, 1705.5, 1705.6
Concrete operations and placement	Field inspection of placement/sampling	Y	C	Field Review; IBC 318: 1.6, 5.8, 5.9-10; ASTM C 172, C 31; IBC 1705.3, 1910.6, 1910.7, 1910.8, 1910.9
Concrete curing	Field inspection of curing process	Y	P	Field Review; IBC 318: 5.11-13; IBC 1705.3, 1910.9
Concrete strength	Evaluation of concrete strength	Y	P	Laboratory Testing; IBC 318: 6.2; IBC 1705.3

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MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT		
		Y/N	C/P	EXTENT/REFERENCE
PRECAST CONCRETE				
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures or submit Certificate of Compliance	N	P	Submittal or Field Review; IBC 1705.3
Direction and installation	Review submitted plans and as-built assemblies; Field inspection of in-place precast	N	P	Submittal and Field Review; ACI 318; Ch. 16; IBC Table 1705.3
MASONRY (Level 1 – Building Risk Category 1, 2, 3, 4)				
Materials	Review of products supplied versus certificate of compliance and mix design	Y	P	Submitta & Field Review; ACI 330/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, 1105.2.2, 2105.3
Strength	Testing/review of strength	Y	C	Submitta & Field Review; ACI 330/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Mortar and Grout	Inspection of proportioning and mixing. Placement of mortar only.	Y	P	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Brout placement, including pre-stressing	Verification to ensure compliance	Y	C	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Brout space	Verification to ensure compliance	Y	C	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Mortar, grout, and grout specimens	Observe Preparation	Y	P	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Reinforcement, pre-stressing tendons, and connections	Inspect condition, size, location, and spacing	Y	P	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Welding of reinforcing bars	Inspection and testing of welds	N	C	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Pre-stressing force	Verify application and measurement	N	C	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Protection	Inspect procedures for protection during cold and hot weather	N	P	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Anchorage	Inspection of anchorages	N	P	Field Review; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, ACI 330/ASCE 5; ACI 530.1/ASCE 6
Masonry installation	Inspection of placement of spacers and joints (maximum joint size limit 5000sq.in.)	N	C	Field Review; ACI 330/ASCE 5; ACI 530.1/ASCE 6
Brouting of pre-stressed tendons	Field inspection	N	C	Field Review; ACI 318: 18.38.4; IBC 1705.3
Application of forces for pre-stressed concrete	Field inspection	N	C	Field Review; ACI 318: 18.20; IBC 1705.3

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STRUCTURAL STEEL	Y/N C/P	APPLICABLE TO THIS PROJECT		
		Y	P	IBC 1704.2.5, IBC 1704.2.3, 1705.2
STRUCTURAL STEEL				
Bolts, nuts, washers – materials	Material identification markings	Y	P	Submitta & Field Review; IBC 1705.3, IBC 1705.4, ACI 318, Ch. 4 & 5; IBC 1904.2, 1910.2, 1903.1, 1903.2, 1903.3, 1903.4, 1903.5, 1903.6, 1903.7, 1903.8 & Ch. 7 & 13 and 21.2.8, AWS D1.4; IBC 1705.3, 1906.3, 1909.1, 1910.1, 1910.2, 1910.3
Bolts, nuts, washers – installation	Inspection of in-place high-strength bolts, snug-tight joints, pre-tensioned and bearing type, and edge distances	Y	C	Submitta & Field Review; IBC 1705.3, IBC 1705.4, ACI 360 Section M2.5
Structural steel – material	Material identification markings and review of Certificate of Compliance	Y	P	Submitta & Field Review; IBC 1705.2, 1705.2.2, 1706; ASTM A6, A50
Structural steel – details – installation	Inspection of member locations, structural details for bracing, stiffeners, stiffening	N	P	Submitta & Field Review; IBC 1705.2.2, 1705.3
Weld/filler materials and welder certification	Review of identification markings, certificate of compliance, and welder certifications	Y	P	Submitta & Field Review; ASTM A36 A3.5
Wells	Inspection and testing of wells	Y	C	Field Review; IBC 1705.2.1, AWS D1.1, D1.3
Coldformed metal deck – materials	Review of identification marking manufacturer's certificate of compliance	N	P	Submitta and Field Review; IBC 1705.2.2, ASTM D1.3
Coldformed metal deck – installation	Review tags and webs	N	P	Submitta and Field Review; IBC 1705.2.2, AWS D1.3
Coldformed light frame construction – webs	Review welding operation	N	P	Field Review; IBC 1705.10, 1705.10.2, 1705.10.3
Coldformed light frame construction wind resistance curves	Review cross reinforcement, bolting, anchoring hold down, bracing, diaphragms, struts	N	P	Field Review; IBC 1705.3, 1705.10.2, 1705.10.3
Coldformed steel trusses spanning 60' or greater	Inspection of temporary and permanent restraints/bracing	N	C	Field review IBC 1705.2.2
WOOD				
Wood (fabrication) quality control procedures	In-plant inspection of fabrication/quality control procedures* or submit Certificate of Compliance	N	P	Submitta or Field Review; IBC 1705.5, 1705.5.2
Wood joists connected wood/steel trusses spanning 60' or greater	Review approved submitted and installation of joists	N	P	Field Review; IBC 1704.2.5, IBC 1705.5, 1705.2
Joist/Hangers – Materials/installation	Review manufacturer's material and test standards	N	P	Field Review; IBC 1711, ASTM D 1761
High-Load Diaphragms – Installation	Review submitted and as-built assemblies; inspection of sheeting, framing size, nail and staple diameter and length, and fastener spacing, and diaphragm spacing	N	C	IBC 1705.5, 1705.5.1
Wood Shear Walls–installation	Review nailing, bolting, anchoring, fastening, Diaphragms, struts, braces, and hold down webs (fasteners are 1/4" or larger)	Y	P	Field Review; IBC 1705.10.1

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MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT		
		Y/N	C/P	EXTENT/REFERENCE
MAIN WIND FORCE RESISTING SYSTEM				
Wind requirements	Review of the system components and installation for wood construction, cold-formed steel light frame construction, components, and cladding	N	P	IBC 1704.5.2, 1705.10, 1705.4, 1705.4.1, 1705.4.2, 1710
SEISMIC FORCE RESISTING SYSTEMS				
Seismic requirements	Review of the designated seismic systems and seismic force resisting systems	N	C	Submitta and Field Review; IBC 1713, 1704.5.1, 1705.11, 1705.12, ACSE 7
SMOKE CONTROL				
Special Inspection of smoke control systems	Leakage testing and recording of device location, pressure difference testing, flow measurement, detection, and control verification	P	P	Field Review; IBC 1705.17, 1705.17.1, 1705.17.2
SPRAYED FIRE RESISTIVE MATERIAL, FIRE RESISTANT PENETRATIONS/JOINTS, MASTIC AND INTERMSEANT FIRE RESISTANT COATING				
Structural member surface conditions	Review of the structural surface conditions prior to application	P	P	AWO 12-8; IBC 1705.13, 1705.13.2
Application/thickness/density/bond strength	Field review of application operations, thickness, thickness, and density	P	P	ASTM E605, AWO 12-8; IBC 1705.13.2, 1705.13.3, 1705.13.4, 1705.13.5, 1705.13.6, 1705.13.7
Mastic & Intermseant Fire Resistant Coating	Field review of application operations and thickness	P	P	AWO 12-8; IBC 1705.14
EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)				
Application	Field Review of application/installation	P	P	ASTM E2570, IBC 1705.15
SPECIAL CASES				
Alternative Materials and Systems	As requested by Building Official, review system and installation	C/P	P	IBC 1705.1.1
INSPECTION AGENT'S				
Special Inspections Engineer of Record				
Materials and Testing Laboratory				
Special Inspections Engineer of Record Smoke/N/A				
Control System				
Additional Agents	N/A			

Note: The Qualifications of the Special Inspections Engineer of Record and Testing Laboratories are subject to the Approval of the Chief Building Official. The Schedule of Special Inspections includes certain Architectural, Mechanical, Electric components, Storage Racks and Isolation Systems specified in Section 1705.11 of the Construction Code.

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SINGLE FAMILY DETACHED / ADDITION/ALTERATION

2023-01-13
No. Description
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S012
SPECIAL INSPECTIONS
82814-3057A

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