BUILDING & SAFETY DIVISION

CITY OF BURBANK

PLAN CHECK: _____

DATE: _____

STRUCTURAL DESIGN PLAN CHECK CORRECTION LIST

BEFORE APPROVAL FOR CODE COMPLIANCE OR ISSUANCE OF A BUILDING PERMIT, THE PLANS AND APPLICATION FOR THIS CONSTRUCTION REQUIRE THE INFORMATION, REVISIONS, AND CORRECTIONS INDICATED BELOW. THE APPROVAL OF PLANS AND SPECIFICATIONS DOES NOT PERMIT THE VIOLATION OF ANY SECTION OF THE BUILDING CODE, OTHER ORDINANCES, OR STATE LAWS.

BUILDING ADDRESS:	
PROJECT TYPE:	**VALUATION:**
OCCUPANCY:	**USE OF STRUCTURE:**
TYPE OF CONSTRUCTION:	
PLAN CHECK ENGINEER:	
PHONE:	**EMAIL:**

Building permit application expires on: _____

(Building Permit Plan Check Application will expire 180 days after the date of plan check fee receipt.) It is the responsibility of the Applicant/ Owner to request a Plan Check Extension in writing prior to the expiration date.

CONTACT:	**PHONE:**	**EMAIL:**
CORRECTION:	**CORRECTION:**	**CORRECTION:**

The following ☑ are items that remain to be corrected:

Corrections on Sheet #		*Required*
A.	**PLAN RECHECK:**	
	☐	• **Provide updated correction drawings, uploaded to ProjectDox for electronic review.** • Sets must be complete. Upload each sheet of the drawings as an individual file. • See the marked-up set of plans for additional corrections. Red marks apply to all similar conditions. • Revised plans and calculations shall incorporate or address all comments marked on the original checked set of plans, calculations, and this plan review checklist. Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Time spent searching for the corrected items on the revised plans or calculations will delay the review and approval process. • Itemize any changes, revisions, or additions made to drawings that are not a direct answer to a correction on a separate sheet.
	☐	All plans and calculations shall be stamped and wet signed (or electronically stamped and signed) by an architect or engineer licensed by the State of California. (**BP 5537, 6735**)
	☐	Plans are illegible and/or prints are too light/dark. Provide clear and legible plans for review.
	☐	**Submitted plans and related documents are not complete. Additional reviewing time may be necessary upon re-submittal. Please submit complete plans for review.**
B.	**ADDITIONAL FEES:**	
	☐	Significant changes to the original scope of work will require a modification to the Construction Valuation. Valuation is raised to: $_____
	☐	Excessive number of resubmittals. Additional Plan Check fee will be required after the third review on an hourly rate basis.
	☐	The permit application is nearing the expiration date. Submit the Plan Check Extension Request form prior to the expiration date.
	☐	The permit application has passed the expiration date and is considered cancelled. To reinstate the plan check, submit the Plan Check Reinstatement Request form

C. DEPARTMENTAL CLEARANCES ():		
	☐	**ALL CLEARANCE SIGN-OFFS ARE TO BE PROVIDED THROUGH PROJECTDOX:** Upon Plan Check completion and approval, the Plan Check Engineer will verify that all departments have provided approval/clearance of documents and thereby provide final electronic approval. Applicant will be required to print out 1 set to provide for General Contractor.
	☐	**BWP/ Water Division** 164 W. Magnolia Boulevard
	☐	**BWP/ Electrical Division** 164 W. Magnolia Boulevard
	☐	**Fire Department** 311 E. Orange Grove Avenue
	☐	**Public Works Dept.** 150 N Third Street
	☐	**Planning Division** 150 N Third Street
	☐	**School Board** (Provide electronic copy of School Board receipt) 510 S. Shelton Street - BUSDDeveloperFees@BurbankUSD.org Submit, via email, attached Project Information Sheet and Building Permit Application
	☐	**Parks & Recreation** 150 N Third Street
D. APPLICATION:		
	☐	A separate permit is required for grading and shoring and/or demolition, swimming pool, accessory building, retaining walls, CMU walls, detached accessory structures etc.
	☐	New architect or engineer of record.
	☐	Provide an 8-1/2”x11” reduced copy of the Site Plan. (One copy required)
	☐	**Deferred Submittals** for any element of a single-family dwelling, except fire sprinklers & roof truss, **shall not be allowed**. All building elements shall be submitted and reviewed as a part of the plan review process prior to any permit issuance. **Remove any reference to deferred submittals from the plans.**
	☐	**SCAQMD Rule 1403** requires the contractor to file a Demolition Notification with the SCAQMD 10 days prior to issuance of a Demolition Permit.
E. PLAN REQUIREMENTS:		
		The following plans are required for plan review and shall be drawn to scale with sufficient clarity. The use of any alternate scale or sheet size not indicated above must be approved by the Plan Check Engineer.
	☐	**Site plans**: • **1/8” = 1’-0”** or **1” = 10’**
	☐	**Floor plans**: • **1/4" = 1’-0”** (shall match the scale of the Structural Framing Plan and Demolition Plan)
	☐	**Framing plans**: • **1/4’” = 1’-0”** (shall match the scale of the Architectural Floor Plan)
	☐	**Details**: • **1/2" = 1’-0”** (Details and dimensions must be specific to area of reference, do not make ‘Similar” detail reference or maximum/ minimum dimension references)
	☐	**Exterior Building Elevations**: • **1/4" = 1’-0”** OR **1/8” = 1”-0”**
	☐	**Minimum Sheet size**: • **11”x17”**
		Provide the following drawings:
	☐	**SITE PLAN** - Completely showing yard setbacks, easements, lot dimensions, distances between buildings, size of building, accessory structures, pools… etc.
	☐	**EXISTING FLOOR PLAN** and **DEMOLITION PLAN** - Fully dimensioned. Door and window opening sizes to be provided.
	☐	**FLOOR PLAN** of each level - Fully dimensioned
	☐	**ROOF PLAN** - Fully dimensioned
	☐	**FOUNDATION PLAN** - Fully dimensioned

	☐	**BUILDING CROSS SECTIONS**
	☐	**BUILDING ELEVATIONS** – Dimension finished floor height, top of plate, and top of roof elevations, natural and finished grade around the perimeter of the building
	☐	**STRUCTURAL FOUNDATION, ROOF**, and **FLOOR FRAMING PLANS**, with cross-referenced construction details. Must show grid system.
F. GENERAL:		
	☐	The following design loads and other information pertinent to the structural design required by CBC 1603.1.1 through 1603.1.9 shall be indicated on the construction documents: (CBC 1603.1)
	☐	Floor dead load and live load.
	☐	Roof dead load and live load.
	☐	Wind design data:
	☐	Basic wind speed in M.P.H.
	☐	Wind importance factor, I, and risk category.
	☐	Wind exposure.
	☐	Internal pressure coefficient.
	☐	Design wind pressures.
	☐	Earthquake design data:
	☐	Seismic importance factor, I, and risk category.
	☐	Mapped spectral response accelerations, SS and S1.
	☐	Site class.
	☐	Spectral response coefficients, SDS and SD1.
	☐	Seismic design category.
	☐	Basic seismic-force-resisting system(s).
	☐	Design base shear.
	☐	Seismic response coefficient(s), CS.
	☐	Response modification factor(s), R.
	☐	Analysis procedure used.
	☐	Redundancy factor used.
	☐	Special loads.
	☐	System or components requiring special inspections for seismic resistance. Refer to municipal code amendments for additional requirements for special inspections.(9-1-2-1705.13)
	☐	Designate on the plans a registered design professional in responsible charge. The jurisdiction having authority shall be notified in writing of any changes. The registered design professional shall review, and coordinate all submitted documents prepared by others, including deferred submittal items. The registered design professional shall submit deferred documents to the jurisdiction having authority in a timely manner. The owner shall notify the Building Official in writing if the registered design professional in responsible charge is changed.
	☐	Deferred submittal documents shall be listed on the plans and shall have prior approval of the Building Official within a specified period.
	☐	When submitted by the registered design professional in responsible charge, deferred documents shall bear a notation indicating the documents have been reviewed by the registered design professional and have been found to be in general conformance with the design of the building. This statement should be made adjacent to where the deferred item or item submitted “by others” is noted on the plans.
	☐	Provide details of anchorage of roof and ceiling mounted mechanical, electrical and plumbing equipment as applicable. Include the weight in the calculations as necessary. (CBC 1603.1 and 1606.2, ASCE 7-16 Section 13.1)
G. VERTICAL LOADS:		
	☐	Floor live load, where less than 80 psf, must include a min. 15 psf partition load, in addition to other loads per CBC 1607.5.
	☐	Exit facilities must be designed for a 100 psf live load. (CBC T-1607.1)
	☐	The (uniform) (concentrated) (special) loads must be used in accordance with CBC T-1607.1.

	☐	Balconies must be designed for the same live loads as the occupancy served. (CBC T-1607.1)
	☐	Ceiling joists shall be designed for 20 psf live load. Attic without storage and less than 42" of headroom may be designed for 10 psf live load. (CBC T-1607.1 Item 26)
	☐	Suspended ceilings shall be designed per ASCE 7-16 Section 13.5.6. Provide details. Refer to municipal code amendments for additional requirements.(9-1-2-1613.7)
	☐	The live loads used in the design of buildings and other structures shall be the max. load expected by the intended use or occupancy but shall in no case be less than the min. uniformly distributed unit loads required by CBC T-1607.1.
	☐	Where the min. 1/4" per foot roof or deck slope for drainage is not provided, a design to support accumulated water per ASCE 7-16 chapter 8 is required.
	☐	Provide connection details of guards and/or handrail, including connections of posts or panels to deck or floor framing, capable of withstanding a load of at least 200 lbs. applied in any direction at any point of the rail. Assemblies and guards, including connection of posts or panels to deck framing, shall be designed to resist a load of 50 plf applied in any direction and intermediate rails shall be designed to withstand a horizontally applied normal load of 50 pounds. Provide calculations to verify the above. (CBC 1607.8.1)
	☐	Vehicle barrier systems shall be designed to resist loadings specified in CBC 1607.9.
	☐	Roof live loads shall be considered where surface mounted photovoltaic panels or modules occur (CBC 1607.14.4.1)
H. HORIZONTAL DIAPHRAGM:		
	☐	Provide calculations and details to show that collector elements, splices, and connections to resisting elements have the strength to resist the combined loads resulting from the special seismic load of ASCE 7-16 Section 2.3.6 & 2.4.5.
	☐	Calculate seismic drift based on deflections of each level with Cd and using strength level forces in accordance with ASCE 7-16 Section 12.8.6 with municipal code amendment (9-1-2-1613.5.)
	☐	Provide separation from property line or adjacent building(s) of not less than the building drift in accordance with ASCE 7-16 Section 12.12.3.
	☐	Submit structural calculations and connection details for the structural members that provide support for the seismic forces generated by elevators. The seismic forces must be determined in accordance with ASCE 7-16 Section 13.3. The calculations and details provided must show the complete load path from the rail supports to the building's lateral-force-resisting system. (ASCE 7-16 Section 13.6.1 & CBC 1607.11.1)
	☐	The lateral design shall be based on the most restrictive of either the wind or seismic forces per CBC 1609 and 1613 respectively.
	☐	The redundancy factor, p, shall be 1.3, except where the conditions of ASCE 7-16 Section 12.3.4.2 are met.
	☐	Provide detail to show that the interior shear walls are connected to the roof diaphragm.
	☐	Check the shear wall overturning reactions on the beams/columns per ASCE 7-16 Section 12.3.3.3 Also see ASCE 7-16 Section 12.4.3.
	☐	Wood elements designed primarily as flexural members shall be provided with lateral bracing or solid blocking at each end and at connection location(s) of the discontinuous system.
	☐	Where applicable, provide pre-engineered wall manufacturer's detail sheets on the plan
	☐	When determining the max. uplift force for hold-down design, multiply the dead load resisting moment by 0.9 for seismic or wind forces for LRFD combination. For ASD load combinations, 0.6 shall be used for basic load combination per ASCE 7-16 section 2.4, or 0.9 shall be used for alternate load combination per ASCE 7-16 section 2.3 . Consider Ev in load combinations.
	☐	Basement, foundation, and retaining walls shall be designed for soil lateral loads per CBC 1610. For walls retaining 6 feet or more soil and occurring in SDC d through F, lateral seismic earth pressures shall be considered (CBC 1807.2.2)
I. HORIZONTAL DIAPHRAGM:		
	☐	Provide a diaphragm analysis to show diaphragm adequacy per ASCE 7-16 Section 12.10.
	☐	Provide details, properly referenced, of the anchorage system between the wood roof and floor diaphragms to the concrete or masonry walls per ASCE 7-16 Section 12.11.

	☐	Provide calculations and details on the plans for the sub-diaphragm and continuous cross tie system required for all wood diaphragms, providing lateral support to masonry or concrete walls. (CBC 1604.8)
	☐	The wall anchorage shall provide a positive direction connection between the wall and floor or roof construction, capable of resisting a horizontal force specified in CBC 1604.8 & ASCE 7-16 Section 12.11.2. In addition, a diaphragm to wall anchorage using embedded straps shall have the straps attached to or hooked around the reinforcing steel or otherwise terminated to effectively transfer forces to the reinforcing steel. (ASCE 7-16 Section 12.11.2.2.5)
	☐	Elements of the wall anchorage system shall be designed for the forces specified in CBC 1604.8. The value of Fp used for the design of the elements of the wall anchorage system shall not be less than required per ASCE 7-16 Section 12.11.2.1.
	☐	Where elements of the wall anchorage system are loaded eccentrically or are not perpendicular to the wall, the system shall be designed to resist all components of the forces induced by the eccentricity.
	☐	Where pilasters are present in the wall, the anchorage force at the pilasters shall be calculated considering the additional load transferred from the wall panels to the pilasters. (ASCE 7-16 Section 12.11.2.2.7)
	☐	The strength design forces for steel elements of the wall anchorage system shall be 1.4 times the forces otherwise required above. (ASCE 7-16 Section 12.11.2.2.2)
	☐	Floor and roof diaphragms shall be designed to resist the forces per ASCE 7-16 Section 12.10.1. Max. aspect ratio of 3:1 for unblocked diaphragm.
	☐	The max. diaphragm shears used to determine the depth of the sub-diaphragm shall not exceed 75% of the diaphragm shear. (9-1-2-1613.5)
	☐	The max. length-to-width ratio of the wood, wood structural panel, or untopped steel deck sheathed structural sub-diaphragm shall be 2.5:1 per ASCE 7-16 Section 12.11.2.2.1.
	☐	The spacing of continuous ties shall not exceed 40’ (9-1-2-1613.5).
	☐	The wall anchorage shall not be accomplished by use of toenails or nails subject to withdrawal. Wood ledgers or framing shall not be used in cross-grain bending or cross-grain tension.
	☐	Provide a rigid diaphragm analysis if the building does not meet the conditional criteria under which a diaphragm can be idealized as flexible. (ASCE 7-16 Section 12.3.1.1)
J. STRUCTURAL OBSERVATIONS:		
	☐	Structural Observation is required per CBC 1704.6 and 9-1-2-1704.6. Photocopy/blueprint the attached Structural Observation Program form on the plans.
	☐	Structural observations for seismic resistance: Structural observations shall be provided for those structures included in Seismic Design Category D, E or F, as determined in CBC 1613, where one or more of the following conditions exist: (CBC 1704 with 9-1-2-1704.6 and 9-1-2-1704.6.2)
	☐	The structure is classified as Risk Category III or IV in accordance with CBC 1604.5.
	☐	The height of the structure is a high rise building.
	☐	A lateral design is required for the structure or portion thereof.
	☐	Such observation is required by the registered design professional in responsible for the structural design.
	☐	Such observation is specifically required by the Building Official.
K. SPECIAL INSPECTIONS:		
	☐	Where special inspection or testing is required, the registered design professional in responsible charge shall include a “Statement of Special Inspections” on the plans. (CBC 1704.3)
	☐	(Continuous) (Periodic) Special Inspection is required for_____ per CBC 1705. (CBC T-1705.2.3 steel, T-1705.3 concrete, 1705.4 masonry, T-1705.6 soils, T-1705.7 driven deep foundations, or T-1705.8 cast-in-place deep foundations).
	☐	Special inspection of concrete elements in buildings and structures and concreting operations shall be as required by CBC 1705.3 and CBC T-1705.3.
	☐	Specify the required minimum level of Quality Assurance for masonry per ACI 530 Section 1.6.
	☐	Periodic Special Inspection is required for wood shear walls, shear panels, and diaphragms, including nailing, bolting, anchoring, and other fastening of components of the seismic force resisting system. Special inspection by a registered deputy inspector is not required where the fastener spacing of the sheathing is more than 4” on center. (CBC 1705.13.2)

	☐	Add the following notes to the plans:	
		☐	Contractors responsible for the construction of a wind or seismic force resisting system/component listed in the "Statement of Special Inspection" shall submit a written statement of responsibility to the Building Official and the owner prior to the commencement of work on such system or component per CBC 1704.3.
		☐	Continuous Special Inspection by a registered deputy inspector is required for field welding, concrete strength f'c > 2500 psi, high strength bolting, sprayed-on fireproofing, engineered masonry, high-lift grouting, pre-stressed concrete, high load diaphragms and special moment-resisting concrete frames. (CBC 1705).
		☐	Field Welding to be done by welders certified by an approved agency for (structural steel) (reinforcing steel) (light gauge steel). Continuous inspection by a registered deputy inspector is required.
		☐	Shop welds must be performed in a fabricator's shop licensed by an approved agency.
		☐	(Trusses) (Structural Steel) (Glulam Beams) (Engineered Joist) (_____) shall be made by a fabricator licensed by an approved agency.
L. SOIL INVESTIGATION:			
	☐	Provide a geological/soil investigation report to satisfy CBC section 1803 of CBC.	
	☐	Soil bearing pressure is limited to 1500 lbs./sq ft unless soil is classified per CBC 1806.2, or a soils report recommends otherwise. (CBC T-1806.2)	
M. EXCAVATION, GRADING AND FILL			
	☐	The soils report requires foundation excavations to be reviewed by the soils engineer. Note on the foundation plan "Prior to requesting a foundation inspection, the soils engineer/geotechnical consultant shall inspect and approve the foundation excavations".	
N. FOOTINGS AND FOUNDATIONS:			
	☐	Min. depth of footings below the undisturbed ground surface shall be 12". (CBC 1809.4)	
	☐	The soils/geotechnical engineer shall review and approve the foundation plans and details for general conformance with the recommendations in the geotechnical/soils report, if one is provided or required, and shall bear the seal and signature of the soils/geotechnical engineer.	
	☐	Retaining wall shall be designed for a min. factor of safety of 1.5 against lateral sliding and overturning. (CBC 1807.2.3)	
	☐	Provide complete shoring plans for the subterranean excavation or provide plans and sections showing cut slopes as recommended per approved soils report. Before commencing the excavation, proof of notification to adjoining property owners shall be submitted. (CBC 3307)	
	☐	Concrete and masonry foundation walls shall be designed in accordance with Chapter 19 or 21.	
O. GENERAL CONCRETE:			
	☐	Construction documents shall include the following information as applicable to the project:	
		☐	Specified concrete compressive strength at the stated ages or stages of construction.
		☐	Specified grade of reinforcement.
		☐	Size and location of structural elements, reinforcement and anchors.
		☐	Reinforcement anchorage length, location and length of lap splice
		☐	Type and location of mechanical and/or welded splices of reinforcement.
	☐	Strength design of anchors installed in concrete shall be designed in accordance with Chapter 17 of ACI 318.	
	☐	Connections between concrete members shall comply with ACI 318 Section 4.10 for structural integrity.	
	☐	Provide details, properly referenced, of the anchorage system between the wood roof and floor diaphragms and the concrete or masonry walls. The connections shall be Capable of resisting horizontal forces specified in ASCE 7-16 Section 12.11.2.	
	☐	Non-structural components (precast panels, exterior non-bearing, non-shear wall panels, or elements) that are attached to or enclose the exterior shall be designed to resist the forces and connections shall be in compliance with ASCE 7-16 Section 13.4.1, 13.4.2, and 13.5.3.	
	☐	Alternate slender wall design for out-of-plane bending must satisfy deflection limitation in accordance with ACI 318 Section 11.8.4.	

P. DETAILS OF REINFORCEMENT:		
	☐	Foundations with stem walls shall be reinforced with a min. of one No. 4 bar at the top of the wall and one No. 4 bar at the bottom of the footing. (CBC 1905.1.7,9-1-2-1905.1.7, ACI 318 Section 14.1.4(c))
	☐	Concrete cover for reinforcement shall comply with ACI 318 Section 20.5.1.
	☐	Provide min. thickness of 3-1/2" concrete on-grade slab, and identify reinforcement and moisture barrier. (CBC 1907.1)
	☐	Slabs-on-grade with turndown footings shall be reinforced with a min. of one No. 4 bar at the top and one No. 4 bar at the bottom. (CBC 1905.1.7,9-12-1905.1.7, ACI 318 Section 14.1.4(c))
	☐	Provide shrinkage and temperature reinforcement to comply with ACI 318 Section 24.4.
	☐	Provide an analysis of all tilt up panels with openings. Show that the reinforcing in the panels, on each side of the openings is adequate for in-plane and out-of-plane forces combined with axial loads. (ACI 318 Section 18.2.1.6,1905.1.2 and 18.10)
	☐	Provide confinement reinforcement in wall piers in accordance with ACI 318 Section 18.10.8.
	☐	Concrete structural wall reinforcement shall be terminated with required development length beyond the boundary reinforcing at the vertical and horizontal end faces of wall sections. (ACI 318 Section 18.10.2)
Q. GENERAL MASONRY:		
	☐	Identify the following masonry material specifications and add as notes to the structural plans: (ACI 530/TMS 402, 1.2)
	☐	Concrete masonry units – ASTM C90
	☐	Mortar – ASTM C270. Specify mortar proportions per ASTM C270.
	☐	Grout – ASTM C476. Specify grout proportions per ASTM C476.
	☐	Compressive strength. Specify strength per ACI 530.1/TMS 602, Table 2.
	☐	Loads for special reinforced masonry shear designed by the allowable stress design method shall be designed to resist 1.5 times the seismic forces required by CBC Chapter 16. (ACI 530/TMS 402, 7.3.2.6.1.2)
	☐	Masonry shear wall shall be designed as a "special reinforced masonry shear wall" per ASCE 7-16 T-12.2-1. Other masonry shear wall types are not permitted in seismic design category D and higher.
	☐	Masonry walls, unless isolated from the seismic force-resisting system, shall be considered participating elements per ACI 530/TMS 402, 7.3.2
R. GENERAL STEEL:		
	☐	Identify the following steel material specifications and add as notes to the structural plans: (AISC 360 Section A3) (AISC 341 Section A3 & D2)
	☐	Hot rolled structural shape – ASTM (A36) (A992)
	☐	Hollow structural sections (HSS) – ASTM (A500 Grade B or C) (A501)
	☐	Pipe – ASTM A53 Grade B
	☐	Plates – ASTM (A36) (A572 Grade 50) (A588)
	☐	Bars – ASTM (A36) (A572 Grade 50)
	☐	Bolts – ASTM (A307) (A325) (A490)
	☐	Nuts – ASTM A563
	☐	Washers – ASTM F436
	☐	Anchor or threaded rods – ASTM F1554
	☐	Filler metal and flux for welding – AWS (A5.1) (A5.5)
	☐	Identify on the structural plans the inspection points and frequencies required for the following (AISC 360 and AISC 341):
	☐	Visual Welding Inspection
	☐	Nondestructive Testing (NDT) of Welds
	☐	Inspection of Bolting
	☐	Other Inspections

	☐		The registered design professional in responsible charge shall indicate the following QA/QC information in accordance with AISC 341 Part I & J on the structural plans:
		☐	Referenced documents.
		☐	Material specifications.
		☐	Welding processes.
		☐	Inspection & nondestructive testing.
	☐		Column base plate shall be designed in accordance with AISC 341 Section D2.6 and AISC 360 Section J8.
	☐		Column splices when column is not part of the seismic load resisting system shall be detailed in accordance AISC 341 Section D2.5.
	☐		Beams and columns shall meet the width-thickness ratio limitations of AISC 360 T-B4.1a and T-B4.1b
	☐		Bolts and welds shall not be designed to share force in a joint or the same force component in a connection. (AISC 341 Section D2.2)
	☐		The design, manufacture and use of open web steel joists and joist girders shall be as follows: (CBC 2207)
		☐	The registered design professional in responsible charge shall indicate on the structural plans the steel joist and/or steel joist girder designations and indicate the requirements for joist and joist girder design, layout, end supports, anchorage, non-SJI standard bridging, bridging termination connections and bearing connection design to resist uplift and lateral loads.
		☐	Submission of the steel joist and joist girder calculations is required and shall bear the seal and signature of the registered design professional in responsible charge.
		☐	Location of steel joist placement shall be clearly identified on the structural plans including connection for joist and joist girder supports, field splices, bridging attachment and joist headers. List all applicable loads used in the design of the steel joists and joist girders.
	☐		Add the following notes to the plans:
		☐	Individual structural members and assembled panels of cold-formed steel construction shall be protected against corrosion with an approved coat of paint, enamel or other approved protection. (CBC 2203.1)
		☐	Anchor rods shall be set accurately to the pattern and dimensions called for on the plans. The protraction of the threaded ends through the connected material shall be sufficient to fully engage the threads of the nuts, but shall not be greater than the length of the threads on the bolts."(CBC 2204.3)
		☐	Contractor documents shall be submitted to and reviewed by the registered design professional in responsible charge, including but not limited to, shop drawings, erection drawings, welding procedure specifications (WPS), manufacturer certificate of conformance for all electrodes, fluxes and shielding gases, and manufacturer product data sheets or catalog for SMAW, FCAW and GMAW process. (AISC 341 Section J2)
		☐	All bolts used in a seismic load force resisting system shall be pretensioned high strength bolts and shall meet the requirements for slip critical faying surfaces in accordance with AISC 360 Section J3.8 with a Class A surface. (AISC 341 Section D2.2)
		☐	All welds used in members and connections in the seismic load force resisting shall be made with a filler metals per AISC 341 Section A3.4a.
		☐	Welds designated as "demand critical" shall be made of filler metals meeting the Charpy V-Notch toughness per AISC 341 Section A3.4b.
S. GENERAL WOOD:			
	☐		The allowable values used in the structural design shall be per the 2022 CBC. _____.
	☐		Identify the following wood material specifications and add as notes to the structural plans: (CBC 2303 & AWC NDS-21)
		☐	Sawn lumber – DOC PS 20. Specify grade and species.
		☐	Prefabricated wood I-joists – ASTM D5055.
		☐	Structural glued laminated timbers – ANSI/AITC A190.1 and ASTM D3737. Specify grade and lamination species
		☐	Wood structural panels – DOC PS 1, PS 2, or ANSI/APA PRP210. Specify grade, construction and glue type.
		☐	Particleboards – ANSI A208.1. Specify grade mark.

		☐	Preservative-treated wood – AWPA Standard U1 and M4. Specify identification of treating manufacturer, type of preservative used, and min. preservative retention (pcf).
	☐		Light-frame construction of unusual shape, size, split-level, or more than one story shall be designed to resist lateral forces. Submit calculations for the design of the lateral forces. (CBC 2308.1.1)
	☐		Structural design is not in compliance with the conventional light-frame construction provisions per CBC 2308 (a.k.a. Type V Sheet). Submit calculations sealed and signed by registered design profession licensed in the State of California. (CBC 2308.1)
	☐		Cross-reference all calculations for joists, beams, shear walls, etc, to the structural framing/floor plans.
	☐		Provide a detailed schedule of “Statement of Special Inspections” on the plans in accordance with CBC 1704.3
	☐		Provide a framing nailing schedule on the plans meeting the requirements of CBC T-2304.10.1.
	☐		Add the following notes to plans:
		☐	Foundation sills shall be naturally durable or preservative-treated wood. (CBC 2304.12.1.4)
		☐	Glulam beams must be fabricated in an approved shop. Identify grade symbol and lamination species per AWC NDS-18 Supplement T-5-A.
		☐	Provide lead hole 40% to 70% of threaded shank diameter and full diameter for smooth shank portion. (AWC NDS-18)
		☐	All bolt holes shall be drilled 1/32” to 1/16" oversized. (AWC NDS-18 Section 12.1.3.2)
		☐	Hold-down connector bolts into wood framing require approved plate washers; and hold-downs shall be tightened just prior to covering the wall framing. (9-1-2-2305.4)
		☐	Hold-down hardware must be secured in place prior to foundation inspection.
		☐	Roof diaphragm nailing to be inspected before covering. Strength axis of wood structural panel shall be perpendicular to supports. Floor diaphragms shall be tongue and groove or have blocked panel edges. Wood structural panel spans shall conform to CBC T-2304.8.
		☐	All diaphragm and shear wall nailing shall utilize common nails with full heads unless otherwise approved. (CBC 2306.2 and 9-1-2-2306.2)
		☐	Fasteners in preservative treated wood or fire-retardant treated wood shall be in accordance with CBC 2304.10.5.
		☐	Mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, min. length and min. head diameter. Clipped head or box nails are not acceptable. (9-1-2-2304.10.2.1)
		☐	Engineered wood products such as prefabricated wood I-joists, structural glued-laminated timber, structural composite lumber and design trusses shall not be notched or drilled except where permitted by the manufacturers’ recommendations or where the effects of such alterations are specifically considered in the design of the member by a registered design professional in responsible charge. (CBC 2308.4.3 & 2308.7.9).
		☐	The quality mark shall be on the stamp or label affixed to preservative-treated wood and shall include the following information: identification of treating manufacturer, type of preservative used, min. preservative retention (pcf), end use for which the product is treated, AWPA standard to which the product was treated and identity of the accredited inspection agency. (CBC 2303.1.9.1)
		☐	Moisture content of preservative-treated wood shall be 19% or less before being covered with insulation, interior wall finish, and floor covering of other materials (CBC 2303.1.9.2).
		☐	Moisture content of fire-retardant-treated wood shall be 19% or less for lumber and 15% or less for wood structural panels before use. (CBC 2303.2.8)
		☐	Sheathing nails or other approved sheathing connectors shall be driven so that their head or crown is flush with the surface of the sheathing. (CBC 2304.10.2)
		☐	Weather-exposed beams or posts supporting balconies, porches shall be naturally durable or preservative-treated wood per CBC 2304.12.2.3.
		☐	The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16” larger than the bolt diameter and a slot length not to exceed 1-3/4”, provided a standard cut washer is placed between the plate washer and the nut. (AWC SDPWS-2015 Section 4.3.6.4.3 and CBC 2308.3.1.2)

	☐	Fire-retardant-treated lumber and wood structural panels shall be labeled. The label shall contain the following items: the identification mark of an approved agency in accordance with CBC 1703.5, identification of the treating manufacturer, the name of the fire-retardant treatment, the species of wood treated, flame spread and smoke-developed index, method of drying after treatment, conformance with appropriate standards in accordance with CBC 2303.2.1 through 2303.2.5.
	☐	Labeling for fire-treated wood exposed to weather, damp or wet locations, must include the words “no increase in the listed classification when subjected to the Standard Rain Test.” (ASTM D 2898).
T. FOUNDATION:		
	☐	Call out foundation bolt size and spacing on foundation plan. The foundation bolts shall be a minimum 1/2” diameter for SDC D or a minimum 5/8” diameter for SDC E or F. Foundation bolts shall be embedded at least 7” into the concrete or masonry foundation spaced not more than 6’ spacing, 2 anchors min. per section, located 4” to 12” from each end of that section, and 0.229” x 3” x 3” plate washers. (CBC 2308.3)
	☐	Braced wall lines shall be supported by continuous foundations. (CBC 2308.6.8.1and 9-1-2-2308.6.8.1)
	☐	Show min. 18” under floor clearance from grade to bottom of floor joists and min. 12” clearance to bottom of girders. (CBC 2304.12.1.1)
	☐	A foundation cripple wall over 14” in height shall be framed of studs having the size required for an additional story; cripple walls shall be framed and sheathed per CBC 2308.6.6.
	☐	Wood sill plate shall be min. 8” above adjacent grade. (CBC 2304.12.1.2)
U. WOOD FRAMING:		
	☐	Specify the size, spacing and direction of rafters.
	☐	Provide designed ridge beams (4x min.) for open beam vaulted ceilings, or when ceiling joists or rafter ties are not provided.
	☐	Ridge / hip / valley members shall be designed as vertical load carrying members when the roof slope is less than 3:12. Provide calculations. (CBC 2308.7)
	☐	Show ceiling joist size, spacing, and direction on plans.
	☐	Rafter ties spaced max. 4’ O.C. are required immediately above ceiling joists that are not parallel to the rafters. Connections shall be in accordance with CBC T-2308.7.3.1 & 2304.10.1 or equivalent capacities shall be provided. (CBC 2308.7.3.1)
	☐	For wood structural panel roof diaphragms, specify thickness, grade, panel span rating, and nailing schedule. Min. 8d common nails shall be used. (AWC SDPWS-2021, T4.2A, T4.2B, and T4.2C)
	☐	Show blocking at ends of rafters and trusses at exterior walls, and at supports of floor joists. (CBC 2308.7.8, 2308.4.2.3)
	☐	Show size, spacing and direction of floor joists.
	☐	Beams, girders, doubled joists, walls or other bearing partitions are required under parallel bearing partitions. (CBC 2308.4.5)
	☐	For wood structural panel floor diaphragm specify thickness, grade, T&G edges, panel span rating, nailing schedule, and panel layout pattern. (AWC SDPWS-2021, T4.2A, T4.2B, and T4.2C. CBC T-2306.2)
	☐	Headers shall be provided over each opening in exterior and interior bearing walls. (CBC 2308.5.5.1)
	☐	Detail is required for header support at the corner window(s) as noted on plans. (CBC 2308.5.5.1)
	☐	Studs in bearing walls are limited to 10’ in height unless an approved design is submitted. (CBC T-2308.5.1)
	☐	Provide shrinkage analysis for wood stud walls and bearing partitions supporting more than two floors and a roof. (CBC 2304.3.3)
	☐	Studs supporting two floors, ceiling, and roof must be 3x4 or 2x6 at 16” O.C. (CBC T-2308.5.1)
	☐	Note the use of full-length studs (balloon frame) on exterior walls of rooms with vaulted ceiling.
	☐	Call out all post sizes. Elements supporting concentrated loads which transfer forces to members below should be shown as “Post Above” on the second story framing plan and foundation plan. Call out their locations, connection hardware, and provide applicable details.
	☐	Provide axial plus bending column calculations to justify required number of studs/posts adjacent to windows and corners per CBC 1605, ASCE 7-16 Chapter 6 and AWC NDS-18 Section 3.7. Calculations shall address elements at areas of discontinuity.

	☐	Detail lateral support for the top of interior nonbearing walls when manufactured trusses are used.
	☐	Shear wall height shall be defined as the max. clear height from the top of the foundation to the bottom of the diaphragm framing above OR the max. clear height from the top of the diaphragm to the bottom of the diaphragm framing above. (AWC SDPWS-2021)
V.	**WOOD TRUSSES:**	
	☐	Provide calculations and specific details, for the proposed roof trusses, signed and stamped by the manufacturing engineer. The registered design professional in responsible charge shall review, approve and stamp truss design for loads, location, and suitability of intended use. (CBC 2303.4)
	☐	Panel point at bottom chord of trussed roof that occurs overuses such as manufacturing, storage warehouses and repair garages shall be designed for concentrated live load of 2,000 lbs. Revise plans and/or calculations to show compliance. (CBC T-1607.1)
	☐	Where permanent bracing is required, it shall comply with CBC 2303.4.1.2. Truss submittal package shall include the truss member permanent bracing specification. Revise truss placement diagram to show all required permanent bracings in accordance with CBC 2303.4.1.1.
	☐	Revise truss submittal package to specify all required anchorage/hangers to transfer load(s); including uplift forces of each truss to the supporting structures. (CBC 2303.4.1.1)
	☐	Revise framing and foundation plans to show load paths of all uplift forces shown at ends of designed trusses supported by bearing walls or beams. (CBC 2303.4.1.1)
	☐	The justification of the transfer of loads and anchorage details of each truss to the supporting structure is the responsibility of the registered design professional in responsible charge. Justify transfer of loads as noted on plans. provide anchorage details at
W.	**LATERAL DESIGN:**	
	☐	Provide a diaphragm analysis to show diaphragm adequacy. (CBC 2305.2, ASCE 7-16 Section 12.10)
	☐	When assuming flexible horizontal diaphragms for lateral force distribution, the base shear and lateral design shall meet the requirements of ASCE 7-16 Section 12.3.1.
	☐	Wood structural panel diaphragms and shear walls using staples as fasteners are not permitted. (9-1-2-2306.2)
	☐	Walls braced to resist wind and seismic forces shall not exceed the following height to width ratios: 2:1 for wood structural panels; 2:1 for gypsum wallboard and Portland cement plaster (stucco). 2:1 ratio may be used for wood structural panels provided the allowable shear values in AWC SDPWS-2021 Table 4.3A
	☐	Wood structural panel shear walls shall meet the story drift limitation of ASCE 7-16 Section 12.12.1 and 9-1-2-1613.4. Conformance shall be determined by testing or calculations. Calculated deflection shall be determined according to CBC 2305.3. (ASCE 7-16 Section 12.12.1 & T-12.12-1)
	☐	A common framing member at adjoining panel edges shall be at least 2” nominal thickness.
	☐	Portland cement plaster (stucco), gypsum lath and gypsum wallboard shear walls are not permitted below the top level of wood construction in a multilevel building.
	☐	When a diaphragm and or shear wall framing is not DFL or SP, the allowable shear values shall be adjusted per footnote 3 of AWC SDPWS-2021, T-4.3A.
	☐	Provide calculation showing the overturning moments in all shear wall segments. Specify the hold-down connector model at each location on the foundation plan. (AWC SDPWS-2021 Section 4.3)
	☐	The capacity of hold-down connectors that do not consider cyclic loading of the product shall be reduced to 75% of the allowable earthquake load values. (9-1-2-1613.4)
	☐	Detail the shear transfer connections that transfer lateral forces from horizontal diaphragms through intermediate elements and shear walls to the foundation.
	☐	Specify on the framing plans the shear wall material and thickness and the size and spacing of fasteners and sole plate nailing. Call out anchor bolt spacing that is compatible with the shear wall capacity.
	☐	The max. allowable shear for 3/8” wood structural panel resisting seismic forces is 400 plf. (9-1-2-2306.3)
	☐	Wood structural panels in shear walls shall be at least 3/8” thick and studs spaced no more than 16” O.C. (9-1-2-2306.3)
	☐	Detail how the interior shear walls or lateral force resisting elements are connected to the roof/floor diaphragm(s).
	☐	Provide a drag strut at _____. Show details of strut and top plate connections.

	☐	Provide complete calculations, including deflection, and details for shear wall with openings, perforated or force transfer around openings method. (AWC SDPWS-2021 Section 4.3)
X. ADDITIONAL COMMENTS:		
	☐	SEE MARKED SUBMITTAL SET FOR ADDITIONAL CORRECTIONS AND CLARIFICATIONS
	☐	THE COMMENTS LISTED HEREIN ARE NOT COMPREHENSIVE. ADDITIONAL COMMENTS MAY FOLLOW.
	☐	UPDATE / REVISE ALL NOTES, CODE SECTIONS, AND/OR REFERENCES ON SUBMITTED PLANS.
	☐	PLAN CHECK FEES HAVE NOT BEEN PAID. CONTACT BUILDING@BURBANKCA.GOV FOR INQUIRY ON PAYMENT. IF PAYMENT HAS NOT BEEN RECEIVE BY NEXT REVIEW CYCLE, REVIEW MAY BE DELAYED.
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	