STRUCTURAL OBSERVATION

DEPARTMENT OF BUILDING & SAFETY

GENERAL NOTES FOR STRUCTURAL OBSERVATION

1. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH MGD 110. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.

2. THE OWNER SHALL EMPLOY A CIVIL OR STRUCTURAL ENGINEER OR ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. THE ENGINEER OR ARCHITECT SHALL BE REGISTERED OR LICENSED IN THE STATE OF CALIFORNIA. THE DEPARTMENT OF BUILDING AND SAFELY RECOMMENDS THE USE OF THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN WHEN THEY ARE INDEPENDENT OF THE CONTRACTOR.

3. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER. A LETTER FROM THE OWNER OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT. THE STRUCTURAL OBSERVER SHALL ALSO INFORM THE OWNER OF THE REQUIREMENTS FOR A PRECONSTRUCTION MEETING AND SHALL PRESIDE OVER THIS MEETING.

4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSYTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.

5. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER:

CONSTRUCTION STAGES	ELEMENT/CONNECTION TO BE OBSERVED
A. FOUNDATION - CAISSON & GRADE BEAM	REINFORCING
B. FRAMING	SHEAR WALL & NAILING
C. FRAMING	DIAPHRAGM NAILING
D. FRAMING	FRAMING HARDWARE

6. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT ON THE DEPARTMENT FORM B&S 261 FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. THE ORIGINAL OF THE OBSERVATION REPORT SHALL BE SENT TO THE BUILDING INSPECTOR'S OFFICE AND SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER. ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS. THE COPY ATTACHED TO THE PLANS NEED NOT BE SEALED BUT SHALL BE SIGNED BY THE RESPONSIBLE STRUCTURAL OBSERVER OR THEIR DESIGNEE. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR.

7. A FINAL OBSERVATION REPORT MUST BE SUBMITTED AND WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE DEPARTMENT OF BUILDING AND SAFELY WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THE CORRECTION OF THE SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING AND DEPUTY INSPECTIONS.

8. THE STRUCTURAL OBSERVER SHALL SEND THE ORIGINAL OBSERVATION REPORT TO THE FOLLOWING

   INSPECTION OFFICE: _____

   INSPECTION GROUP NAME _____

   STREET ADDRESS _____

   COMMUNITY OF LA, CA, ZIP CODE _____

9. WHEN THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD. THE OWNER SHALL:
   A. NOTIFY THE BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION.
   B. CALL AN ADDITIONAL PRECONSTRUCTION MEETING
   C. FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF ALL PREVIOUS REPORTS.

   THE REPLACEMENT STRUCTURAL OBERVER SHALL APPROVE THE CORRECTION OF THE ORIGINAL OBSERVED DEFICIENCIES UNLESS OTHERWISE APPROVE BY PLAN CHECK SUPERVISION. THE POLICY OF THE DEPARTMENT SHALL BE TO CORRECT ANY PROPERLY NOTED DIFICIENCIES WITHOUT CONSIDERATION OF THEIR SOURCE.

10. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES RELATING TO THE STRUCTURAL SYSTEMS. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES TO APPROVE PLAN SPECIFICATION.

11. THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT REGISTERED/LISENSED IN STATE OF CALIFORNIA WHO IS RESPONSIBLE FOR THE STRUCTURAL DESIGN TO DO STRUCTURAL OBSERVATION.

12. NAME OF STRUCTURAL OBSERVER:
    NAME OF STRUCTURAL DESIGNER :

13. THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL OBSERVATION, THE CONTRACTOR, AND APPROPIATE SUBCONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING TO REVIEW THE DETAILS OF THE STRUCTURAL SYSTEM TO BE STRUCTURALLY OBSERVED.

BLOCK MASONRY

1. REINFORCED BLOCK MASONRY: ASSUMED DESIGN STRENGTH F'm = 1500 PSI. ALL MASONRY CONSTRUCTION PER UNIFORM BUILDING CODE, SECTION 24.
2. UNITS SHALL BE NORMAL WEIGHT (OR LIGHTER) CONCRETE BLOCK, GRADE N CONFORMING TO A.S.T.M. C90 WITH A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
3. GROUT SHALL BE OF FLUID CONSISTENCY, GROUT MIX SHALL BE (BY VOLUME) 1 PART CEMENT, THREE PARTS SAND (FINE GROUT) AND MAY CONTAIN AN ADDITIONAL 2 PARTS PEA GRAVEL IF SPACES ARE 4 INCHES OR MORE IN EVERY DIRECTION (COARSE GROUT) F'c = 2,000 PSI AT 28 DAYS.
4. MORTAR SHALL BE TYPE S, (BY VOLUME) 1 PART PORTLAND CEMENT, 3 1/2 PARTS SAND AND 1/4 TO 1/2 PARTS LIME PUTTY OR HYDRATED LIME F'c = 2,000 PSI AT 28 DAYS.
5. REINFORCING SHALL HAVE A MINIMUM LAP OF 40 BARS DIAMETER OR 24" WHICH EVER IS LARGER.
6. ALL BLOCK WALLS TO BE RUNNING BOND UNLESS NOTED OTHERWISE.
7. BRICK SHALL CONFORM TO STANDARD SPECIFICATION FOR BUILDING BRICK A.S.T.M. C62, BRICK GROUTING PER T21-2413.
8. MORTAR JOINTS SHALL BE A MIN. OF 3/8" AND SHALL BE FULL HEAD AND BED.
9. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT 1 1/2" BELOW THE TOP OF THE UPPERMOST UNIT.
10. PLASTIC CEMENT SHALL NOT BE USED. (U.N.O.)

EPOXY DRILLED ANCHOR BOLT

SIMPSON EPOXY CONDITIONS OF APPROVAL PER CITY OF L.A. RESEARCH REPORT NO 25279:

SIMPSON STRONG-TIE SET, SET 1.7 AND SET-PAC ADHESIVE ARE APPROVED FOR INSTALLATION IN STONE AGGREGATE CONCRETE OR MASONRY, SUBJECT TO THE FOLLOWING CONDITIONS:

1) THE VALUES SHOWN IN THIS REPORT SHALL NOT BE USED IN REAIR, RETROFIT AND NEW CONSTRUCTION OF CONCRETE TILT-UP OR MASONRY WALL ANCHORAGE (IN TENSION) FOR THE CONNECTION WITH THE HORIZONTAL WOOD DIAPHRAGM.
2) A 25% REDUCTION IN ALL ALLOWABLE LOADS SPECIFIED IN THIS RESEARCH REPORT SHALL BE TAKEN IN HOLD-DOWN DEVICES AS REQUIRED BY SECTION 91.2314.5.6 OF THE 1996 LOS ANGELES CITY BUILDING CODE.
3) THE VALUES SHOWN IN TABLES 6 AND 8 ARE FOR ANCHORS INSTALLED IN STONE AGGREGATE CONCRETE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND 4000 PSI.
4) EPOXY TYPE ANCHORS SHALL NOT BE INSTALLED INTO OR USED TO SUPPORT ANY FIRE-RESSISTIVE CONSTRUCTION.
5) THE TABULATED VALUES MUST BE REDUCED BY LOAD FACTORS, AS RECOMMENDED BY THE MANUFACTURER, WHEN ANCHORS ARE INSTALLED IN LOCATIONS WHERE THE CONCRETE TEMPERATURES MAY EXCEED 110 DEGREES F. ATTACHED IS A TEMPERATURE SENSITIVITY CURVE TO REDUCE THE ALLOWABLE STRESS WITH INCREASE IN TEMPERATURE (FIGURE 3).
6) THE VALUES IN TABLE 6 AND 8 MAY BE INCREASED ONE-THIRD WHEN CONSIDERING WIND OR SEISMIC LOADS. EXCEPT WHEN ALLOWABLE LOADS ARE GOVERNED BY BOND STRENGTH, THEN NO INCREASE SHALL BE PERMITTED FOR WIND OR SEISMIC LOADS.
7) BEFORE INSTALLATION OF THE THREADED ROD OR REINFORCING BAR, CONCRETE OR GROUT SHALL HAVE REACHED ITS DESIGN STRENGTH.
8) INSTALLATION OF THE THREADED ROD OR REINFORCING BAR SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS EXCEPT WHERE SPECIFIED OTHERWISE HEREIN. A COPY OF THE INSTALLATION INSTRUCTION SHALL BE PROVIDED AT EACH JOBSITE.
9) THE TABULATED VALUES ARE FOR THREADED RODS OF A307 QUALITY OR BETTER AND DEFORMED REINFORCING BARS OF GRADE 60 OR BETTER.
10) THE TREADED ROD OR REINFORCING BAR SHALL NOT BE INSTALLED IN OVERHEAD APPLICATIONS SUCH AS IN THE SOFFIT OF A BEAM OR ARCH OR SIMILAR LOCATIONS.
11) THESE ARE NOT APPROVED FOR USE WHERE SUPPORT WILL BE SUBJECTED TO VIBRATORY OR IMPACT LOADS, SUCH AS SUPPORTS FOR RECIPROCATING ENGINES OR CRANE RAILS.
12) SPECIAL INSPECTION IS REQUIRED BY REINFORCED CONCRETE, STEEL, OR REINFORCED MASONRY DEPUTY INSPECTOR WITH CONTROLLED ACTIVITY IN DRILLED IN ANCHOR BOLTS.

SHEAR WALLS NOTES:
1-Hold-down connector bolts into wood framing require approved plate washers; and hold-downs shall be tightened just prior to covering the wall framing. Connector bolts into wood framing require steel plate washers IN ACCORDANCE WITH TABLE 2305.5 OF THE LA BUILDING CODE.
2-Roof diaphragm nailing is to be inspected befor covering. Face grain of plywood shall be perpendicular to supports. Floor shall have tongue and groove or blocked panel edges. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7
3-All diaphragm and shear wall nailling shall utilize common nails or galvanized box.
4-All bolt holes shall be drilled 1/32 to 1/16" oversized.
5-Hold-down hardware must be secured in place prior to foundationinspection.

Simpson Strong-Wall Notes:

1. Strong-wall wood shearwall is manufactured and trademarked by "Simpson Strong-Tie Company Inc."Home Office: 5956 W. Las Positas Blvd. , Pleasanton, CA 94588 Tel: (800) 999-5099, Fax: (925) 847-1597. "Simpson Strong-Tie Company Inc." is an ISO 9001-2008 registered company.
2. Fabrication of Strong-Wall Panel shall be in a shop of a licensed fabricator, in accordance with the Manufacturing Standards submitted to the governing agency.
3. The contractor shall verify all dimensions, conditions, elevations, etc. prior to installation of any components for the Strong-Wall system. If any discrepancies are found, they shall be brought to the attention of the designer for clarification prior to construction.
4. Installation of the product shall be done in conformance to Simpson Strong-Wall details, published installation instruction, and detailed shown on plan sheets.
5. All hardware called out is Simpson Strong-Tie.
6. Panels located in exterior walls shall be covered with anapproved weather-resistance exterior wall enveloped complying with applicable local building code.
7. Structural Observation shall be required for the construction of all Portal Frames.
8. All products involving welding shall be fabricated in the shop of licensed fabricator.
9. See ICC-ES ESR-2652 or City of Los Angeles RR25730 as applicable for additional information.

ADDITIONAL NOTES

1. NUTS OF THE PRIMARY AND SECONDARY ANCHORS FASTERS SHALL BE WRENCH TIGHTEN PRIOR TO INSPECTION AND COVERING
2. POWER-DRIVEN FASTENERS SHALL NOT BE USED TO ANCHOR SILL PLATES EXCEPT AT INTERIOR NONBEARING WALLS NOT DESIGNED AS SHEAR WALLS.
3. EXTERIOR ANCHOR BOLTS AND BASES SHALL BE GALVANIZED AND EACH ANCHOR BOLTS SHALL HAVE AT LEAST TWO GALVANIZED NUTS ABOVE THE BASE PLATE.
4. THE TOP OF EXTERIOR PEDESTALS MUST BE SLOPED FOR POSITIVE DRAINAGE.
5. ALL MAIN FOOTING AND GRADE BEAM REINFORCEMENT STEEL SHALL BE BENT INTO THE INTERSECTING FOOTING AND FULLY DEVELOPED AROUND EACH CORNER AND INTERSECTION.
6. CONTINOUS INSPECTION BY LOS ANGELES CITY LICENSED DEPUTY INSPECTOR IS REQUIRED FOR ALL STRUCTURAL CONNECTIONS, FOOTINGS, GRADE BEAM, AND RETAINING WALL DURING INSTALLATION.
7. STRUCTURAL OBSERVATION BY THE ENGINEER OR ARCHITECT OF RECORD IS REQUIRED IN ACCORDANCE WITH L.A. INFORMATION BULLETIN P/BC 2001-24.

NOTES :

1. 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 LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1706.1
2. 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. (1704 & CHAPTERS 19, 21, AND 22)
3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (2304.11.2.4)
4. FIELD W ELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR (STRUCTURAL STEEL)(REINFORCING STEEL)(LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
5. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENCED FABRICATOR'S SHOP.
6. LADBS LICENSED FABRICATOR IS REQUIRED FOR (TRUSSES), (STRUCTURAL STEEL) ....
7. GLUE LAM BEAMS MUST BE FABRICATED IN A LADBS LICENCED SHOP. IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER T 5-A, 2005 NDS SUPP.
8. PROVIDE LEAD HOLE 40%-70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION." 2005NDS
9. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS. (1707.3

DESIGN CRITERIA

1. BUILDING CODE: ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE 2010 CBC INCLUDING LOCAL BUILDING OFFICIAL AMENDMENTS.

2. VERTICAL LOADS - (UNLESS OTHERWISE NOTED ON DRAWINGS)

	LIVE LOAD	DEAD LOAD
ROOF	20 PSF	18 PSF
FLOOR	40 PSF	18 PSF

3. LATERAL LOADS
   WIND 85 MPH BASIC WIND, EXPOSURE C
   WIND IMPORTANCE FACTOR = 1
   APPLICABLE INTERNAL PRESSURE COEFFICIENT = 0.18
   COMPONENTS AND CLADDING DESIGN WIND PRESSURE = 13.6 PSF
   Seismic importance factor = 1
   Mapped spectral response coefficients SMS=2.248 & SM1=1.181
Site class = D
   Spectral response coefficients, SDS=1.499 & SD1=0.788
Seismic design category = E
   Response modification factor "R" = 6.5
   Design base shear= 5.88 & Total weight of building= 124 K
   Seismic response coefficient Cs=0.210 Redundancy fator=1.3

BASIC SEISMIC FORCE RESISTING SYSTEM:
WOOD SHEAR WALLS HARDY FRAMES

ITEM	LARR#
ST6236	25713
MST, CMST	25713
A35	25119
LTP4	25716
ECC, CC	25714
LUS Hanger	25807
HDU	25720
HARDY FRAME	25759

SHEAR WALL SCHEDULE

TYPE	MATERIAL	PANEL NAILING		MIN. POST @ END OF SHEAR WALL PANEL	SHEAR ANCHORAGE				CAPACITY LBS / FT
		PERIMETER	FIELD		BLOCKING TO PLATE CONNECTION	ANCHOR BOLTS SILL PLATE FOUND CONNECT.F'c=2500 PSI	All Other Sill Anchors	ANCHOR BOLT EMB.	
1	1/2" STRUCTURAL 1 PLYWOOD OR OSB 8d COMMON NAILS	6" O.C.	12" O.C.	4x4 STUDS	A35 @ 16" O.C.	5/8" @ 48" O.C.	3/8"øx5" LAGES @ 24"	o.c. 9"	280
2	1/2" STRUCTURAL 1 PLYWOOD OR OSB 10d COMMON NAILS	4" O.C.	12" O.C.	4x4 STUDS	A35 @ 12" O.C.	5/8" @ 32" O.C.	3/8"øx6" LAGES @ 18"	o.c. 9"	430
3	1/2" STRUCTURAL 1 PLYWOOD OR OSB 10d COMMON NAILS	3" O.C.	12" O.C.	4x4 STUDS	A35 @ 8" O.C.	5/8"ø @ 24" O.C.	3/8"øx6" LAGS @ 12"	o.c. 9"	665

THE FOLLOWING APPLIES TO WALLS WITH A SHEAR CAPACITY OF OVER 350 BS./FT.:

- 3X FOUNDATION SILL PLATES (OR DOUBLE 2X FOR EXISTING)
- 3X STUDS AND BLOCKS BETWEEN ADJACENT PANELS
- 1/2 IN. EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING
- -SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS. FOR 5/8" BOLTS USE 3"X3"X1/4".
- -ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED

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MODERN DESIGN

GREG MISAKYAN
6277 VAN NUYS BLVD SUITE 118
VAN NUYS, CA. 91401
Tel. (818) 374 -1300
Fax (818) 374 -1305
E-Mail: GMmoderndesign@yahoo.com

Owner:
6940 Longridge Ave
North Hollywood, CA 91605

Project Name:
NEW S.F.D.
AND NEW GARAGE

Project Address:
6940 Longridge Ave
North Hollywood, CA 91605

Scale: 1/4"=1'-0"

REGISTERED PROFESSIONAL ENGINEER
TIGRAN KRATCHADOURIAN
No 3141
Exp 6-30-2020
STRUCTURAL
STATE OF CALIFORNIA

DRAWN BY:
GREG MISAKYAN
DRAWN BY:
JOB NUMBER:
000-2018
PRINT DATE:
6 / 18 / 2018
SHEET NO:

S-0