Structural Observation/Significant Construction Stages
(Only Checked items are required)

Firm or Individual to be responsible for the Structural Observation:
Name: McCullum Engineering ☐Licensed Architect ☑Registered Engineer
Phone: (310) 944-0898 California Registration Number: C68850

CONSTRUCTION STAGE	Construction Type	Elements/Connections to be observed
Foundation	☑ Footing, Stem Walls, Piers ☐ Mat Foundation ☐ Caisson, Pile, Grade Beams ☐ Stepping/Retaining Foundation, Hillside Special Anchors ☐ Others:	Shear Wall Anchor Bolts and Holdowns, Foundation Reinforcement
Wall	☐ Concrete ☐ Masonry ☑ Wood ☐ Others:	Shear Wall Nailing, Shear Transfer Connections, Drag Straps/Struts
Frame	☐ Steel Moment Frame ☐ Steel Braced Frame ☐ Concrete Moment Frame ☐ Masonry Moment Frame ☐ Others: Hardy Frame Panels	
Diaphragm	☐ Concrete ☐ Steel Deck ☑ Wood ☐ Others:	Plywood/Diaphragm Nailing, Drag Line Nailing
Others		

DECLARATION BY OWNER OR OWNER'S REPRESENTATIVE

I, the owner of the project the owner's representative, declare that the above listed firm or individual is hired by me to be the Structural Observer.

Signature Date

GENERAL NOTES FOR STRUCTURAL OBSERVATION

(1) Structural Observation is required for the structural system in accordance with the Information Bulletin No. P/BC 2002-024 Structural Observation is the visual observation at the construction site of the elements and connections of the structural system at significant construction stages and the complete 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 State of California registered civil or structural engineer or licensed architect to perform the structural observation. The Department of Building and Safety (LADBS) recommends the use of the engineer or architect responsible for the structural design who are independent of the contractor.

(3) The structural observer shall provide evidence of employment by the owner or the owner's representative. A letter from the owner, the owener's representative, or a copy of the service agreement for services shall be sent to the building inspector before the first site visit.

(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 systems 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 department.

(5) The Structural Observer shall perfrom 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 listed significatn construction stages on the following Structural Observation/Signficant Construction Stages table require a site visit and an observation report from the structural observer.

(6) The structural observer shall prepare a report of the Structural Observatoin Report from IN/Form.08 (part 1) for each significant stage of construction observered. The original of the Structural 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 attached copy to the plans shall be signed and sealed (wet stamp) by the reponsible structural observer or their designee. Copied of the report shall also be given to the owner, contractor, and deputy inspector. Any deficiency noted on the observation report will become the responsibility of the structural engineer or record to verify its compliance by him (her), or by a registered deputy inspector at the discretion of the Structural Observer.

(7) A final structural observation report and that of the registered deputy inspector must be submitted which shows that all observed deficiences were resolved and structural system generally conforms with the approved plans and specifications. The Department of Building and Safety (LADBS) will not accept the structural work without this final observation report and that of the registered deputy inspector (when provided) and the correction of specific deficiencies noted during normal building inspection.

(8) The Structural Observer shall provide the original stamped and signed Structural Observation report to the City of Los Angeles Building Department of Building and Safety Building Inspector.

(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 by submitting completed "Structural Observation Program" and Designation of the Structural Observer" from IN/Form.08 (part 2)
b) call an additional preconstruction meeting, and
c) furnish the replacement structural observer with a copy of all previous observation reports.

The replacement structural observer shall approve the correction of the orginal observed deficiencies unless otherwise approved by plan check supervision. The policy of the Department shall be to correct any property noted deficiencies without consideration of thier source.

(10) The engineer or architect of record shall develop all changes relating to the structural systes. The building department shall review and approve all changes to the approved plans and specifications.

SPECIAL INSPECTION (BY A CERTIFIED INSPECTOR) IS REQUIRED FOR THE FOLLOWING:

ELEMENT(S) TYPE OF INSPECTION

-SHEAR PANELS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.....PERIODIC INSPECTION
-SIMPSON SET-XP EPOXY.....CONTINUOUS INSPECTION

NOTES

CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS FOR POURED-IN-PLACE CONTINUOUS AND SPREAD FOOTINGS.

PROVIDE A CORROSION RESISTANT WEEP SCREED AT FOUNDATION PLATE WHICH ALLOWS TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. MINIMUM HEIGHT ABOVE GRADE 4"

FOR ALL SHEARWALLS (B) (C) (D) & (E) - SILL PLATES AND PANEL EDGE STUDS SHALL BE 3x MEMBERS

PRESSURE TREATED BOTTOM PLATE REQ'D

ALL HOLD DOWNS MUST BE IN PLACE PRIOR TO FOUNDATION INSPECTION

ALL BOLT HOLES SHALL BE DRILLED 1/32 TO 1/16 INCHES OVERSIZED

IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED

ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE 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

ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS.

U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH SELECT STRUCTURE OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR -LARCH NO. 2 OR BETTER.

ROOF SHEATHING SHALL BE 15/32" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6"o.c. EDGES & BOUNDARIES AND 12"o.c AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6"o.c. AT EDGES & BOUNDARIES AND 12"o.c. AT INTERMEDIATE FRAMING MEMBERS.

A LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL, GLULAM BEAMS AND PARALLAMS

3x4 OR 2x6 MINIMUM STUD SIZE @ 16" o.c. REQUIRED FOR BEARING WALLS OVER 10 FEET IN HT.

ROOFING MATERIAL NOT TO EXCEED 4 PSF

CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTME/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

HOLDOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLDOWS SHALL BE RETIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS.

MINIMUM 3"x3"x0.229" SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS IN SHEAR WALL SILL PLATES

DRAG LINE DL

DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY SHORING OF STRUCTURAL MEMBERS AND FRAMING AS NEEDED, AND TO INFORM THE ENGINEER OF RECORD OF ANY DEVIATION OF EXISTING FRAMING CONDITIONS

EXISTING STRUCTURAL SYSTEMS/CONDITIONS MAY DIFFER FROM THOSE SHOWN ON PLANS
**CONTRACTOR TO VERIFY ALL (E) CONDITIONS MATCH THOSE NOTED ON PLANS, E.O.R. TO BE CONTACTED SHOULD DISCREPANCIES EXIST.

FOUNDATION KEY

(E) GARAGE RETAINING WALL SYSTEM

(E) FOOTING

ALL NEW FOUNDATIONS TO HAVE ⅝" DIAM. x 10" ANCHOR BOLTS WITH 7" EMBEDMENT, SPACED NOT MORE THAN 4 FEET ON CENTER AND NOT MORE THAN 12 INCHES OR LESS THAN 4 INCHES FROM EACH END PIECE.

FASTENERS IN PRESERVATIVE TREATED WOOD OR FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL.

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

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a. 3x SILL PLATE
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c. ½" EDGE DISTANCES FOR PLYWOOD BOUNDARY NAILING
d. ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED
e. FOR THE ANCHOR BOLTS IN SHEAR WALL SILL PLATES, PROVIDE 0.229"x3"x3" PLATE WASHERS WITH SLOTTED CUT HOLE

MOISTURE CONTENT OF MATERIALS REQUIREMENT: BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. INSULATION WHICH IS VISIBLY WET OR HAS HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES.

***ALL PLUMBING AND HVAC PLAN TO BE COORDINATED DIRECTLY WITH A.O.R. TO INSURE COMPATIBILITY WITH STRUCTURAL PLANS. A.O.R. RESPONSIBLE FOR COORDINATION OF ELECTRICAL, PLUMBING AND HVAC RUNS.

ICC SCHED.

CONNECTOR/ELEMENT	ICC#
SIMP. A35	ESR-0112
LUS HANGER	ESR-2549
ST STRAPS	ESR-2105
PC/EPC POST CAP	ESR-2604
AC/ACE POST CAP	ESR-2604
HDU HOLDOWN	ESR-2330
LSL, PSL, & LVL BEAMS	ESR-1387
HARDY FRAME PANELS	ESR-2089
MST STRAPS	ESR-2105

DESIGN DEAD LOADS
ROOF - 14 psf.
CEILING - 7 psf.
EXT. WALL - 16 psf.
INT. WALL - 8 psf.
FLOOR - 12 psf.

DESIGN LIVE LOADS
ROOF - 20 psf.
CEILING - 10 psf.
FLOOR - 40 psf.

SEISMIC COEFFICIENTS
F_a= 1.0 R= 6.5 Ω = 3.0
S_{XS}= 1.409 F_v= 1.1 F_a= 1.5
S_{DS}= 0.939 I = 1.0 Site Class D
ρ = 1.3 C_s = 3.0

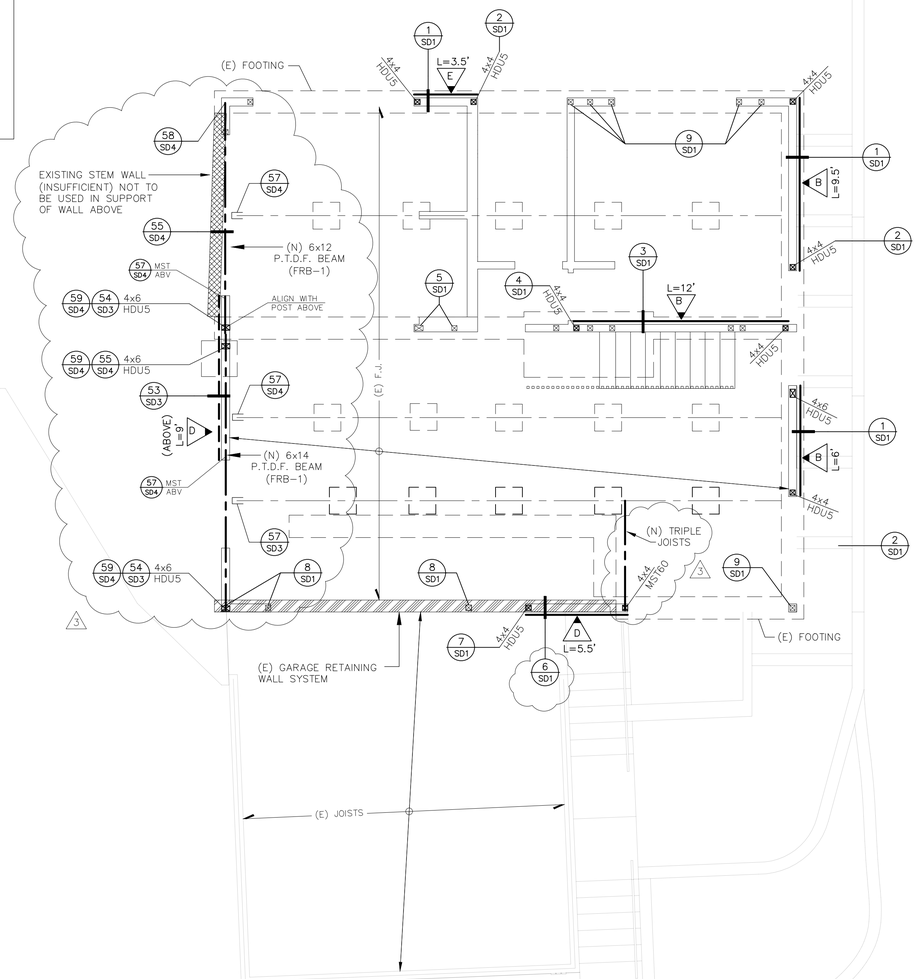
BASE SHEAR: 7,569 lbs.

-SEISMIC DESIGN CATEGORY D
-SIMPLIFIED DESIGN PROCEDURE
-FORCE RESISTING SYSTEM: BEARING WALL-SHEAR WALL SYSTEM

WIND PRESSURE COEFFICIENTS
110 mph Basic Wind Speed
I=1.0 Exposure C
P_{S30A}= 15.49 psf P_{S30C}= 10.29 psf
P_{S30B}= -8.11 psf P_{S30D}= -4.84 psf

SOIL DESCRIPTION
STIFF SOIL (SITE CLASS D)
W/ 1500 psf. BEARING VALUE.

EPOXY ANCHOR INSTALLATIONS REQUIRE SPECIAL INSPECTION (PER ADJACENT STATEMENT OF SPECIAL INSPECTIONS)



NORTH

McCullum Engineering Inc.
727 2nd St. Suite 104
Hermosa Beach, CA 90254
(310) 944-0898
(310) 376-6999 Fax
email: EMengineering@verizon.net

These drawings are not valid for construction unless wet stamped and signed by McCullum Engineer, Inc..

STAMP

PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Foundation Plan

REVISIONS	BY
1 9/1/15	EWM
2 9/18/15	EWM
3 11/9/15	EWM

JOB# 15-051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE 1/4"=1'-0"
SHEET S1
OF 8 SHEETS

FOUNDATION PLAN

SCALE 1/4"=1'-0"

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- (H) ST6236 STRAP AT PLATE HEIGHT

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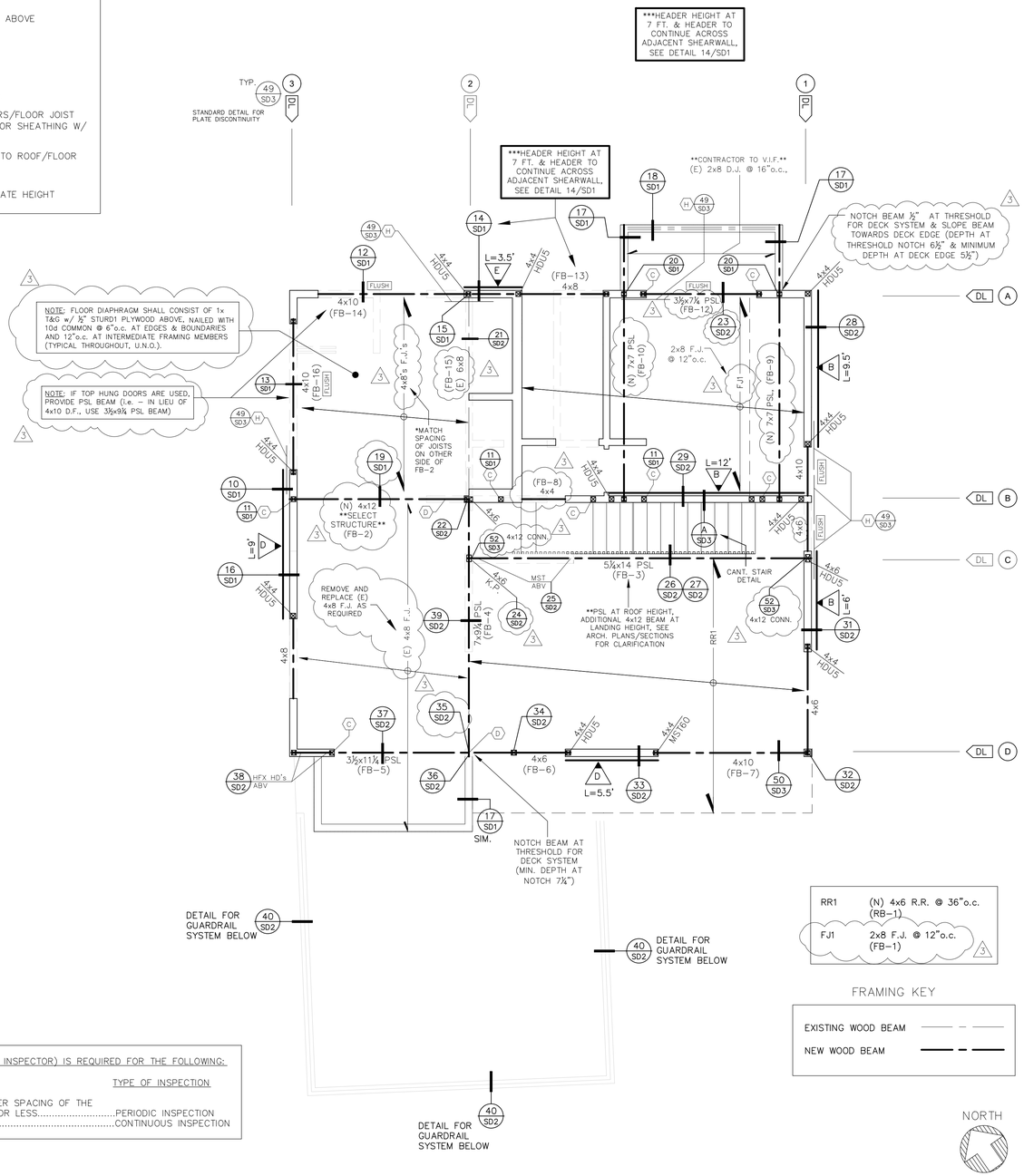

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SYMBOLS/ABBREVIATIONS:

F.J. = FLOOR JOISTS
R.R. = ROOF RAFTERS
C.J. = CEILING JOISTS
K.P. = KING POST
TYP. = TYPICAL
O.C. = ON CENTER
B.N. = BOUNDARY NAILING
E.N. = EDGE NAILING
SIM. = SIMILAR
V.I.F. = VERIFY IN FIELD
BLKN'G = BLOCKING

(N) = NEW
(E) = EXISTING
RB = ROOF BEAM/JOIST
FB = FLOOR BEAM/JOIST
HNGR = HANGER
SIMP. = SIMPSON
PSL = PARALLAM, TRUSJOIST
M.B. = MACHINE BOLT
R.B. = RIDGE BEAM/BOARD
HDR = HEADER
UNO = UNLESS NOTE OTHERWISE

▷ INDICATES SHEAR WALL
□ INDICATES KING POST (4x4, UNO)
⊠ INDICATES POST (4x4, UNO)
⊠ INDICATES 6x6 POST (U.N.O.)
⊠ INDICATES 4x6 POST (U.N.O.)
▭ INDICATES SIMPSON HANGER "HUS" FOR SOLID SAWN "HGUS" FOR PSL BEAMS (U.N.O. IN DETAILS OR ON PLANS)

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ELEMENT(S)	TYPE OF INSPECTION
-SHEAR PANELS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS	PERIODIC INSPECTION
-SIMPSON SET-XP EPOXY	CONTINUOUS INSPECTION

EPOXY ANCHOR INSTALLATIONS REQUIRE SPECIAL INSPECTION (PER ADJACENT STATEMENT OF SPECIAL INSPECTIONS)

2nd FLOOR FRAMING PLAN

SCALE 1/4"=1'-0"

1

McCullum Engineering Inc.
727 2nd St. Suite 104
Hermosa Beach, CA 90254
(310) 944-0888
(310) 376-6999 Fax
email: EMengineering@verizon.net

PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
2nd Floor Framing Plan

REVISIONS	BY
1 9/1/15	EWM
2 9/18/15	EWM
3 11/9/15	EWM

JOB# 15-051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
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SHEET
S2
OF 8 SHEETS

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- (H) ST6236 STRAP AT PLATE HEIGHT

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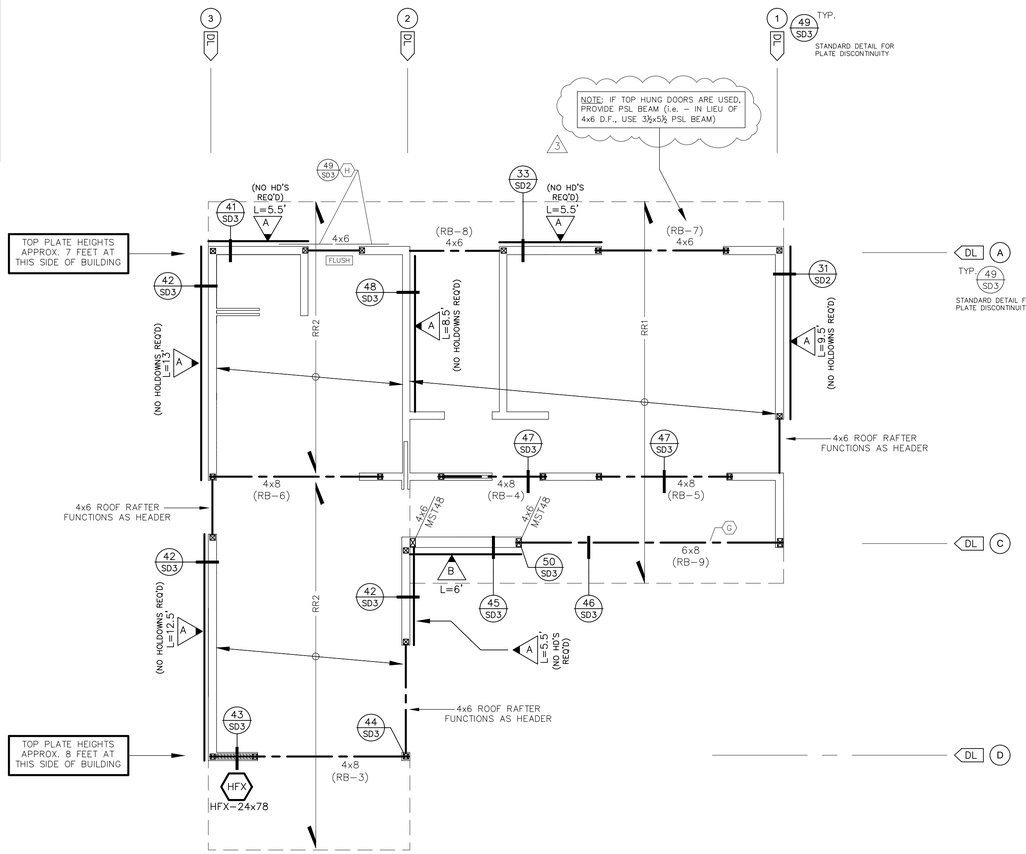
**CONTRACTOR TO VERIFY ALL (E) CONDITIONS MATCH THOSE NOTED ON PLANS, E.O.R. TO BE CONTACTED SHOULD DISCREPANCIES EXIST.



RR1 (N) 4x6 R.R. @ 36"o.c. (RB-1)

RR2 (E) 4x6 R.R. @ 32"o.c. (RB-2)

**NOTE: ALL BEAMS TO BE DOUG-FIR LARCH, SELECT STRUCTURE GRADE

NORTH

ALL NEW FOUNDATIONS TO HAVE ⅝" DIAM. x 10" ANCHOR BOLTS WITH 7" EMBEDMENT, SPACED NOT MORE THAN 4 FEET ON CENTER AND NOT MORE THAN 12 INCHES OR LESS THAN 4 INCHES FROM EACH END PIECE.

FASTENERS IN PRESERVATIVE TREATED WOOD OR FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL.

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

THE FOLLOWING APPLIES TO ALL SHEAR WALLS DESIGNATIONS OF B, C, D, & E:
a. 3x SILL PLATE
b. 3x STUDS AND BLOCKS BETWEEN ADJACENT PANELS
c. ½" EDGE DISTANCES FOR PLYWOOD BOUNDARY NAILING
d. ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED
e. FOR THE ANCHOR BOLTS IN SHEAR WALL SILL PLATES, PROVIDE 0.229"x3"x3" PLATE WASHERS WITH SLOTTED CUT HOLE

MOISTURE CONTENT OF MATERIALS REQUIREMENT: BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. INSULATION WHICH IS VISIBLY WET OR HAS HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES.

ICC SCHED.

CONNECTOR/ELEMENT	ICC#
SIMP. A35	ESR-0112
LUS HANGER	ESR-2549
ST STRAPS	ESR-2105
PC/EPC POST CAP	ESR-2604
AC/ACE POST CAP	ESR-2604
HDU HOLDOWN	ESR-2330
LSL, PSL, & LVL BEAMS	ESR-1387
HARDY FRAME PANELS	ESR-2089
MST STRAPS	ESR-2105

SYMBOLS/ABBREVIATIONS:

F.J. = FLOOR JOISTS
R.R. = ROOF RAFTERS
C.J. = CEILING JOISTS
K.P. = KING POST
TYP. = TYPICAL
O.C. = ON CENTER
B.N. = BOUNDARY NAILING
E.N. = EDGE NAILING
SIM. = SIMILAR
V.I.F. = VERIFY IN FIELD
BLKN'G = BLOCKING

(N) = NEW
(E) = EXISTING
RB = ROOF BEAM/JOIST
FB = FLOOR BEAM/JOIST
HNGR = HANGER
SIMP. = SIMPSON
PSL = PARALLAM, TRUSJOIST
M.B. = MACHINE BOLT
R.B. = RIDGE BEAM/BOARD
HDR = HEADER
UNO = UNLESS NOTE OTHERWISE

▷ INDICATES SHEAR WALL

□ INDICATES KING POST (4x4, UNO)

⊠ INDICATES POST (4x4, UNO)

⊠ INDICATES 6x6 POST (U.N.O.)

⊠ INDICATES 4x6 POST (U.N.O.)

▭ INDICATES SIMPSON HANGER "HUS" FOR SOLID SAWN "HGUS" FOR PSL BEAMS (U.N.O. IN DETAILS OR ON PLANS)

SPECIAL INSPECTION (BY A CERTIFIED INSPECTOR) IS REQUIRED FOR THE FOLLOWING:

ELEMENT(S)	TYPE OF INSPECTION
-SHEAR PANELS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS	PERIODIC INSPECTION
-SIMPSON SET-XP EPOXY	CONTINUOUS INSPECTION

EPOXY ANCHOR INSTALLATIONS REQUIRE SPECIAL INSPECTION (PER STATEMENT OF SPECIAL INSPECTIONS ABOVE)

ROOF FRAMING PLAN

SCALE 1/4"=1'-0"

1

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727 2nd St. Suite 104
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(310) 376-6999 Fax
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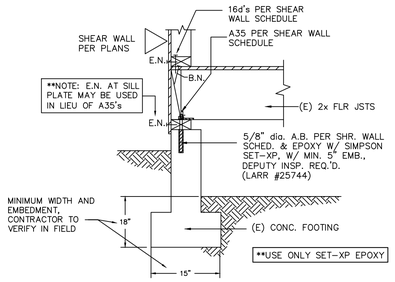
PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Roof Framing Plan

REVISIONS	BY
1 9/1/15	EWM

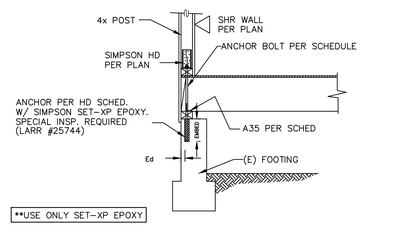
JOB# 15-051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE 1/4"=1'-0"

SHEET S3
OF 8 SHEETS

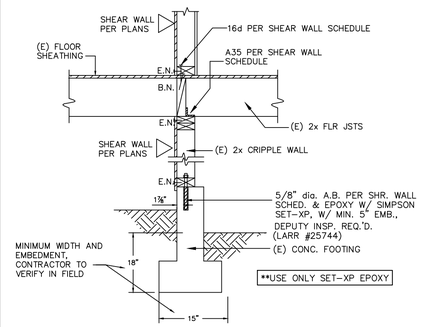


FOOTING DETAIL 1

HOLD DOWN	ANCHOR DIA.	SDS SCREWS	EDGE DISTANCE (Ed)	EMBEDMENT
HDU2	5/8"	6	1-7/8" MIN.	10"
HDU5	5/8"	14	1-7/8" MIN.	10"

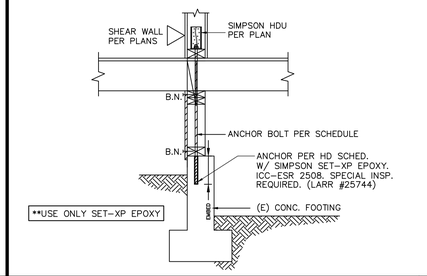


HOLDOWN DETAIL 2



FOOTING DETAIL 3

HOLD DOWN	ANCHOR DIA.	SDS SCREWS	EDGE DISTANCE (Ed)	EMBEDMENT
HDU2	5/8"	6	1-7/8" MIN.	10"
HDU5	5/8"	14	1-7/8" MIN.	10"



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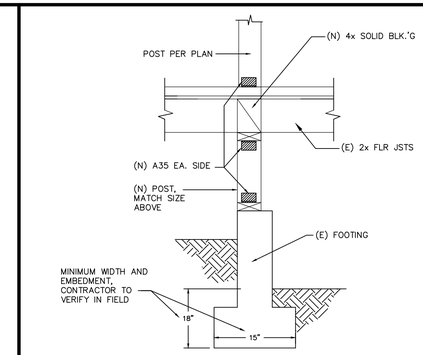
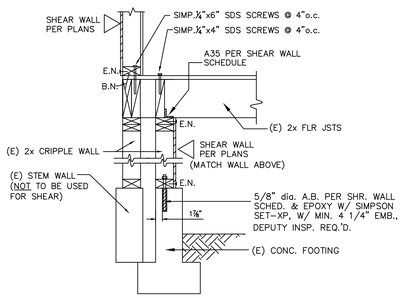
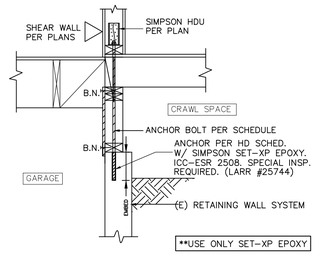


POST BASE DETAIL 5

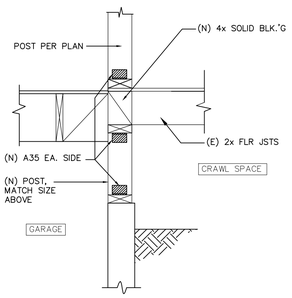


FOOTING DETAIL 6

HOLD DOWN	ANCHOR DIA.	SDS SCREWS	EDGE DISTANCE (Ed)	EMBEDMENT
HDU2	5/8"	6	1-7/8" MIN.	10"
HDU5	5/8"	14	1-7/8" MIN.	10"



HOLDOWN DETAIL 7



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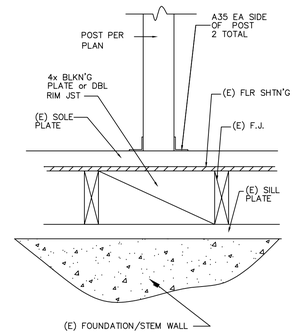
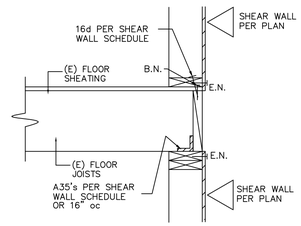
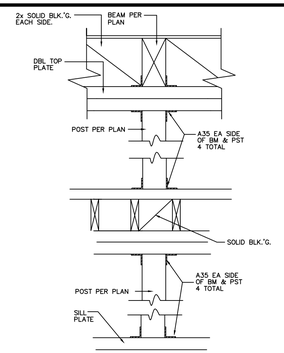


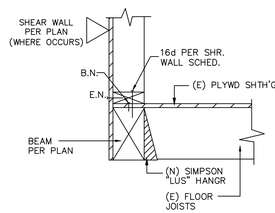
POST BASE DETAIL 9



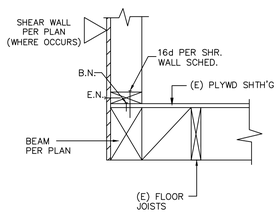
SHEAR TRANSFER DETAIL 10



STACKING POSTS DETAIL 11



SHEAR TRANSFER DETAIL 12



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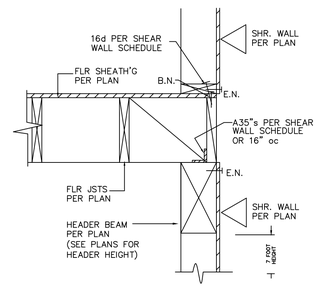

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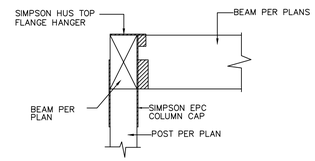
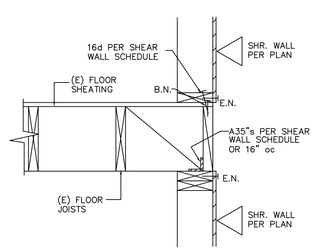
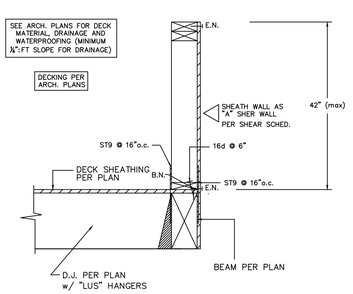


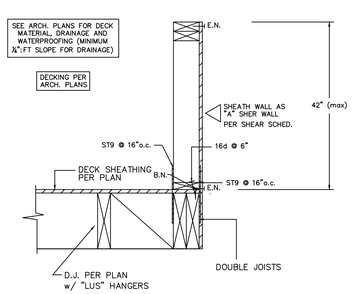
POST-BEAM DETAIL 15



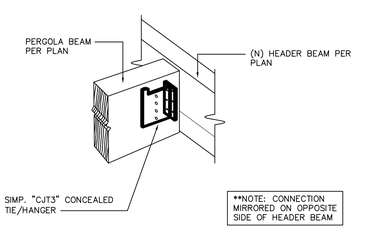
SHEAR TRANSFER DETAIL 16



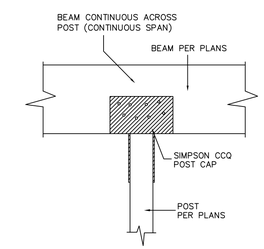
GUARDRAIL DETAIL 17



GUARDRAIL DETAIL 18



BEAM-BEAM DETAIL 19



POST-BEAM DETAIL 20

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STAMP

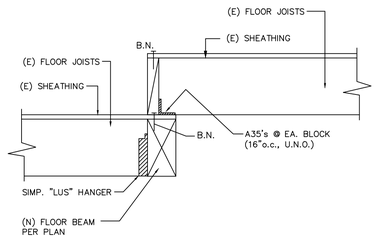
PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Structural Details

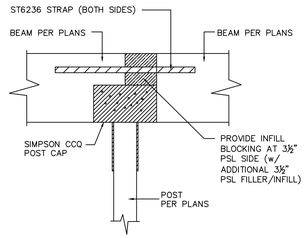
REVISIONS	BY
1 9/1/15	EWM
2 9/18/15	EWM
3 11/9/15	EWM

JOB# 15-051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS

SHEET
SD1
OF 8 SHEETS



FLOOR BEAM DETAIL **21**



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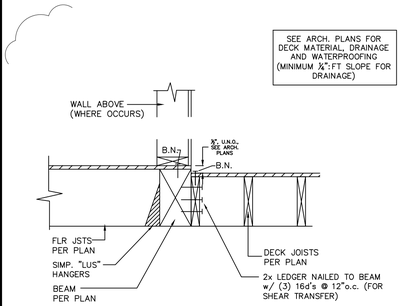
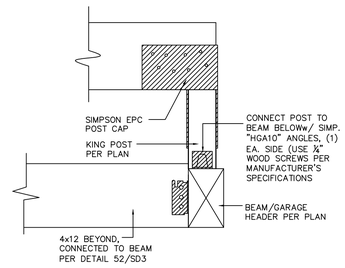
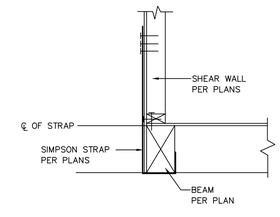


BEAM–BEAM DETAIL **23**



KING POST DETAIL **24**



HOLDOWN STRAP DETAIL **25**

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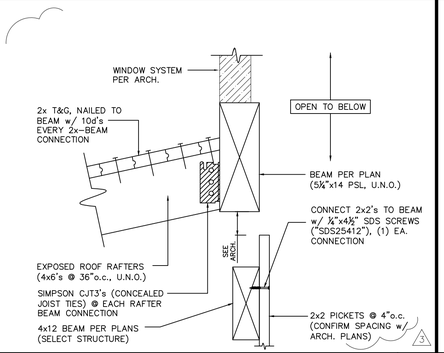
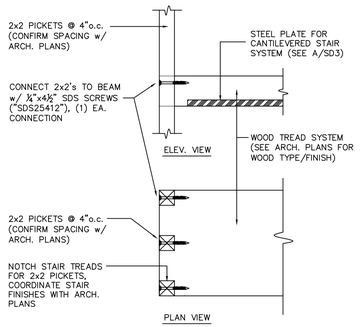
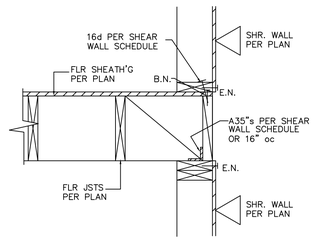
STAMP



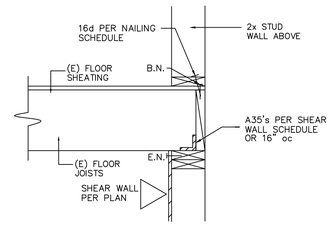
ROOF BEAM DETAIL **26**



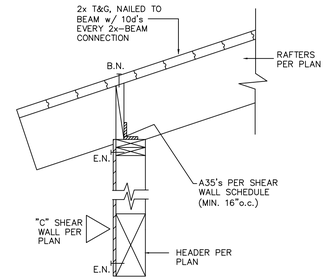
STAIR PICKET DETAIL **27**



SHEAR TRANSFER DETAIL **28**



SHEAR TRANSFER DETAIL **29**



SHEAR TRANSFER DETAIL **30**

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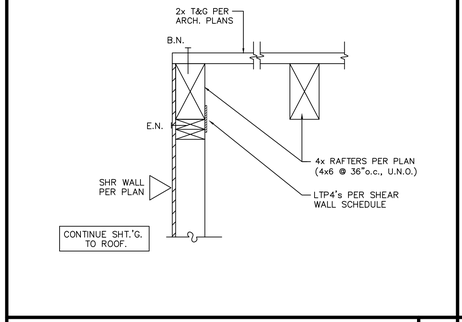
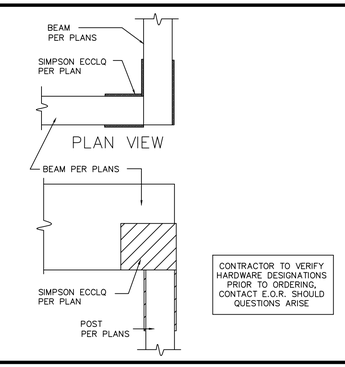
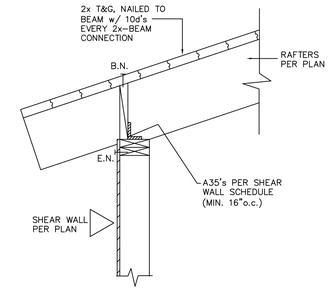


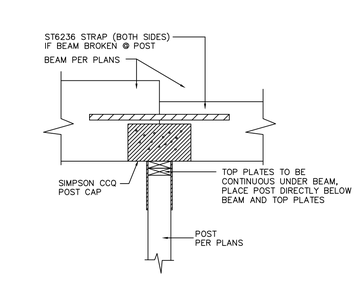
SHEAR TRANSFER DETAIL **31**



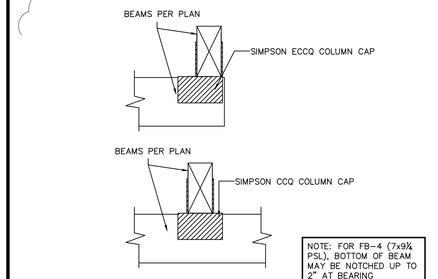
POST–BEAM DETAIL **32**



SHEAR TRANSFER DETAIL **33**



POST–BEAM DETAIL **34**



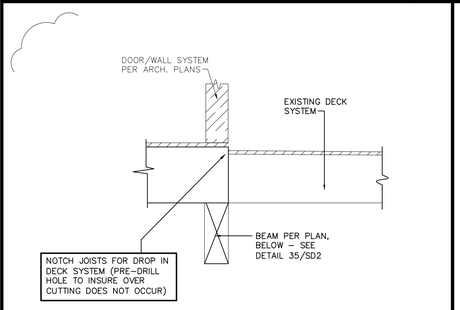
BEAM–BEAM DETAIL **35**

DRAWING
Structural Details

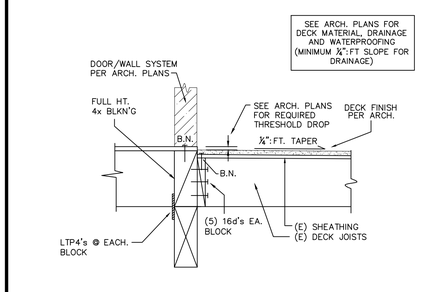
REVISIONS	BY
1 9/1/15	EWM
3 11/9/15	EWM

JOB# 15–051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS

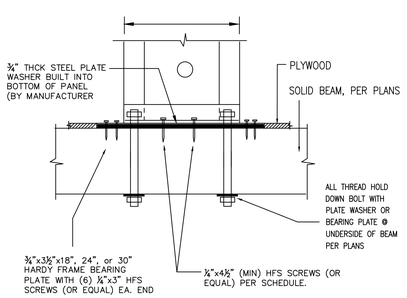
SHEET
SD2
OF 8 SHEETS



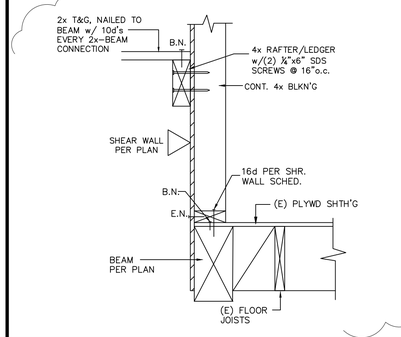
BEAM NOTCH DETAIL **36**



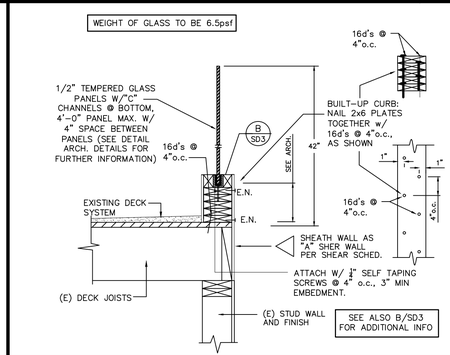
JOIST–BEAM DETAIL **37**



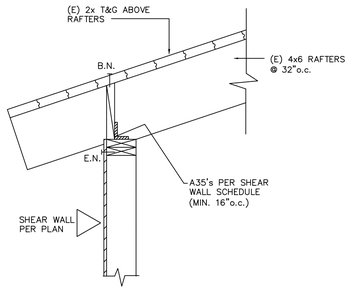
HARDY PANEL DETAIL **38**



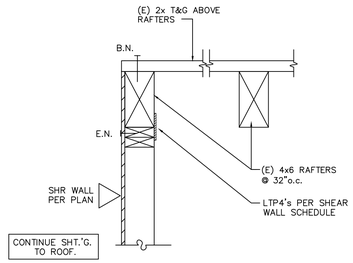
SHEAR TRANSFER DETAIL **39**



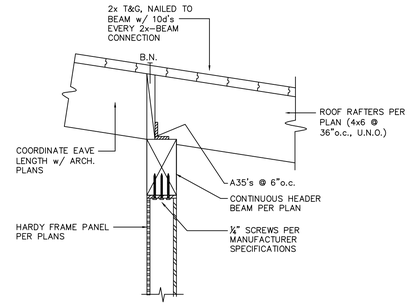
GAURDRAIL DETAIL **40**



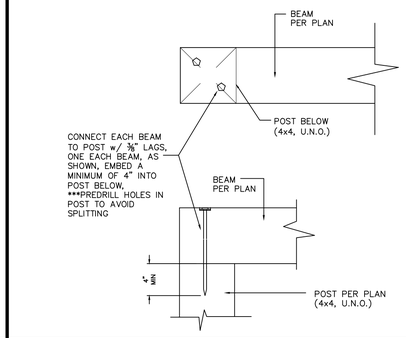
SHEAR TRANSFER DETAIL **41**



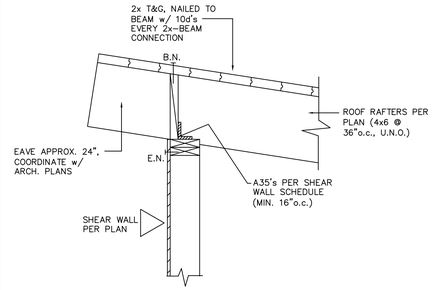
SHEAR TRANSFER DETAIL **42**



HARDY PANEL DETAIL **43**



POST-BEAM DETAIL **44**



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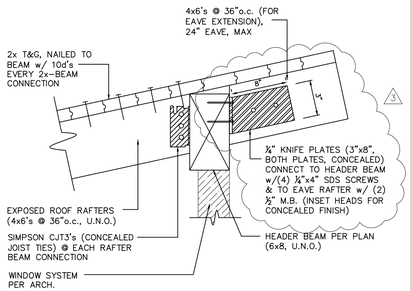
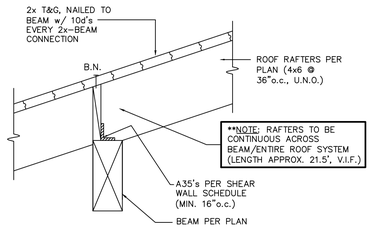
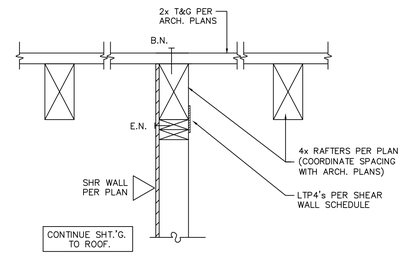


HEADER BEAM DETAIL **46**



HEADER BEAM DETAIL **47**



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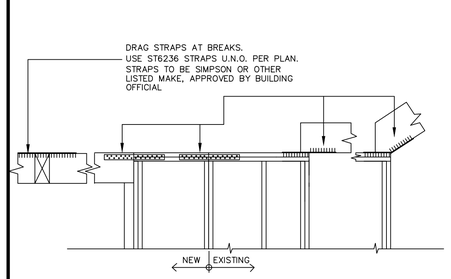
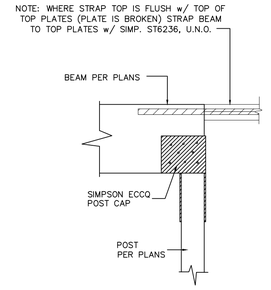
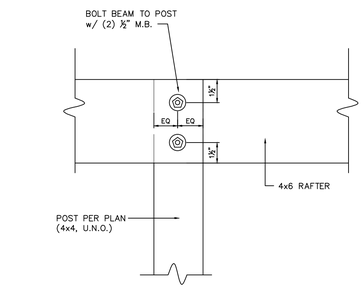


DRAG STRAP DETAIL **49**



POST-BEAM DETAIL **50**



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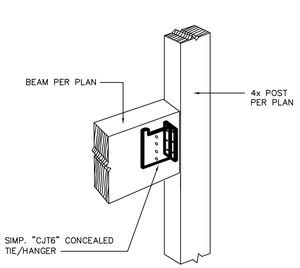
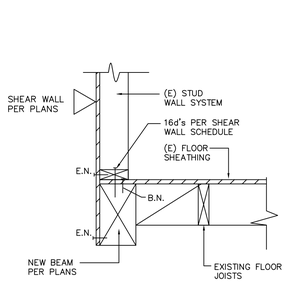
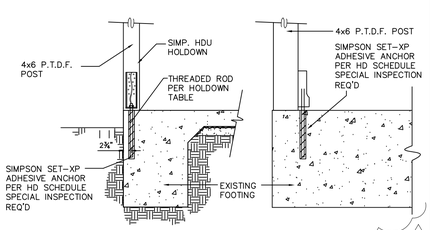


POST-BEAM DETAIL **52**

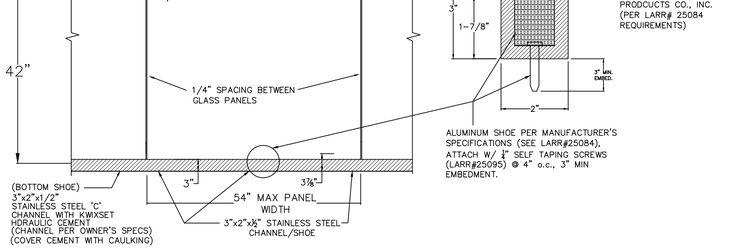


FLOOR BEAM DETAIL **53**

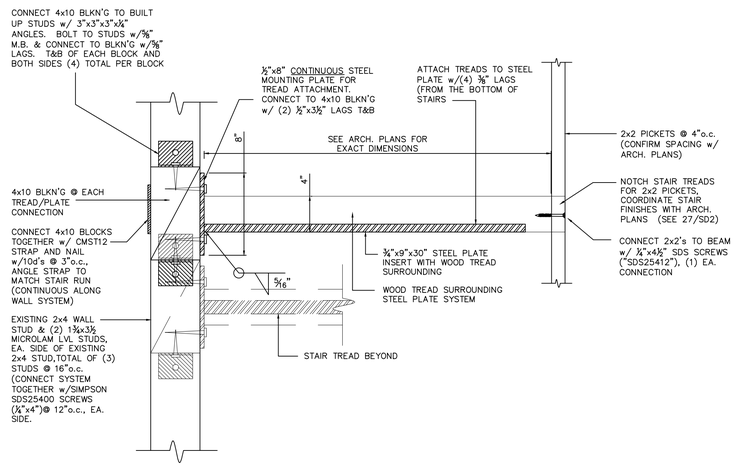
HOLD DOWN	ANCHOR DIA.	3/4" BOLTS	EDGE DISTANCE (Ed)	EMBEDMENT
HDU2	5/8"	6	1-7/8" MIN.	10"
HDU5	5/8"	14	1-7/8" MIN.	10"



POST-BEAM DETAIL **54**



GUARDRAIL DETAIL **B**



STAIR SYSTEM DETAIL **A**

McCullum Engineering Inc.
727 2nd St. Suite 104
Hermosa Beach, CA 90254
(310) 944-0688
(310) 376-6999 Fax
email: EMengineering@verizon.net

These drawings are not valid for construction unless wet stamped and signed by McCullum Engineer, Inc..

STAMP

PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Structural Details

REVISIONS	BY
1 9/1/15	EWM
3 11/9/15	EWM

JOB# 15-051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS

SHEET SD3
OF 8 SHEETS

HOLD DOWN	ANCHOR DIA.	3/4" BOLTS	EDGE DISTANCE (Ed)	EMBEDMENT
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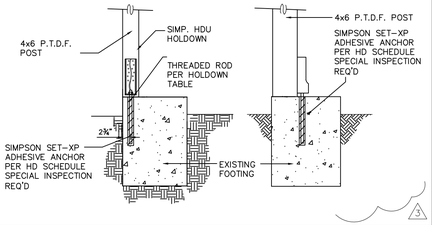
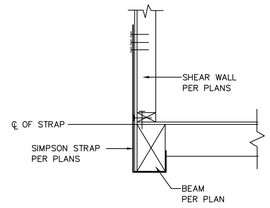
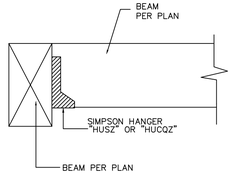


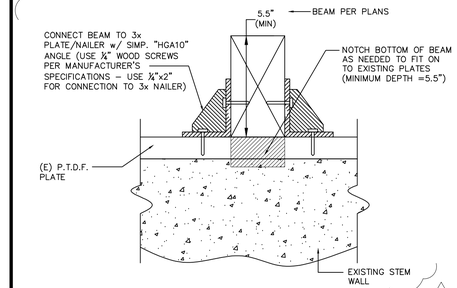
HOLDOWN DETAIL **55**



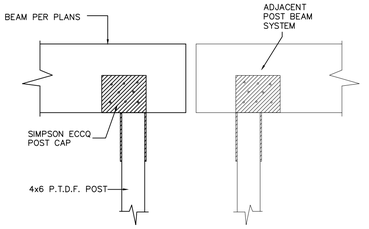
HOLDOWN STRAP DETAIL **56**



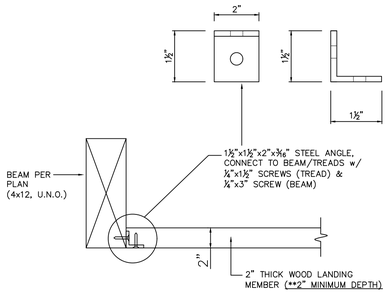
BEAM–BEAM DETAIL **57**



BEAM–FOOTING DETAIL **58**



POST–BEAM DETAIL **59**



STAIR DETAIL **66**

67 **68** **69** **70**

71 **72** **73** **74** **75**

76 **77** **78** **79** **80**

McCullum Engineering Inc.
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3 11/9/15	EWM

JOB# 15–051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS
SHEET SD4
OF 9 SHEETS

GENERAL

1) ALL DESIGN, CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO THE 2013 EDITION OF THE CALIFORNIA BUILDING CODE (CBC), AND ALL LOCAL ORDINANCES AND REQUIREMENTS.

2) THE APPROVED CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

3) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SUPERVISION, AND INSTALLATION OF ALL TEMPORARY BRACING AND SHORING SHOULD ENSURE THE SAFETY OF THE WORK. BRACING AND SHORING IS TO BE INSTALLED PER THE LATEST OSHA STANDARDS. ALL BRACING AND/OR SHORING SHALL STAY IN PLACE UNTIL ALL WORK HAS BEEN SUITABLY COMPLETED.

4) THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

5) DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES ON DRAWINGS. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

6) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT ALL APPLICABLE SAFETY LAWS ARE STRICTLY ENFORCED AND TO MAINTAIN A SAFE CONSTRUCTION PROJECT.

7) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE SUPERVISION OF THE CONSTRUCTION WORK TO ENSURE THAT IT IS BUILT IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE ENGINEER WILL PROVIDE ONLY OBSERVATION OF THE WORK DURING CONSTRUCTION.

8) THE APPROVED SET OF CONSTRUCTION DOCUMENTS, INCLUDING ALL APPROVED REVISIONS, SHALL BE PRESENT AT THE JOB SITE AT ALL TIMES.

9) CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS. LOADS SHALL NOT EXCEED THE DESIGN LOADING FOR THE SUPPORTING MEMBERS.

10) NO CHANGES IN THE PLANS WILL BE MADE AND NO EXTRA WORK PERFORMED UNLESS SO APPROVED BY THE OWNER, CIVIL/STRUCTURAL ENGINEER, SOILS ENGINEER/GEOLOGISTS, COUNTY/CITY INSPECTOR AND BUILDING OFFICIALS.

11) A CLAIM FOR EXTRAS WILL BE CONSIDERED IF A CONDITION ARISES WHICH WAS CHANGED BY DESIGN BY OTHERS, UNFORESEEN OR HAS NOT BEEN SHOWN ON THE PLANS. SUCH CLAIMS FOR EXTRAS WILL NOT BE ALLOWED UNLESS THE CONTRACTOR HAS NOTIFIED THE OWNER AND SUPERVISING ENGINEER IN WRITING, INCLUDING AN AGREED–TO REIMBURSEMENT SCHEDULE, PRIOR TO PERFORMING THE EXTRA WORK.

INTENT OF THE DOCUMENTS

IT IS THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS TO REQUIRE THE COMPLETION OF THE WORK IN A THOROUGH AND WORKMANLIKE MANNER IN EVERY RESPECT.

DESCRIPTION OF WORK

THE CONTRACTOR SHALL FURNISH PERMITS, LICENSES, FEES, MATERIAL, LABOR, TOOLS, PLANT, SUPPLIES, EQUIPMENT, TRANSPORTATION, SUPERINTENDENCE, TEMPORARY CONSTRUCTION OF EVERY NATURE, INSURANCE, TAXES, CONTRIBUTIONS, AND ALL OTHER SERVICES AND FACILITIES, UNLESS SPECIFICALLY EXCEPTED NECESSARY TO COMPLETE THIS PROJECT.

LIABILITY AND COMPENSATION INSURANCE

THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES, FULL AND UNLIMITED WORKMEN'S COMPENSATION INSURANCE IN ACCORDANCE WITH THE LABOR CODE OF THE STATE OF CALIFORNIA, AND SHALL CARRY PUBLIC CONTINGENT LIABILITY OF INSURANCE, IN AMOUNTS SATISFACTORY TO AND IN COMPANIES SELECTED WITH THE CONSENT OF THE OWNER.

PERMITS

THE CONTRACTOR SHALL OBTAIN THE BUILDING PERMIT, AND ALL OTHER CERTIFICATIONS, INSPECTION REPORTS, RELEASES, JURISDICTIONAL SETTLEMENTS, NOTICES, RECEIPTS FOR FEE PAYMENTS, JUDGMENTS, AND SIMILAR DOCUMENTS, CORRESPONDENCE AND RECORDS IN COLLECTION.

SUBCONTRACTOR'S STATUS

EVERY ITEM MENTIONED IN THE SPECIFICATIONS IS INTENDED TO REPRESENT THE QUALITY OF MATERIALS THAT WILL BE DEMANDED. SHOULD THE SUBCONTRACTOR WISH TO SUGGEST ANY SUBSTITUTES THAT HE CONSIDERS EQUAL IN VALUE AND EFFICIENCY WITH THE ONE SPECIFIED, HE SHALL STATE WHAT THE ITEM SUGGESTED IS, AND THE DIFFERENCE IN COST, IF ANY.

IF SUBSTITUTES OF MATERIALS (EQUALLY GOOD) ARE OFFERED AT THE TIME BIDS ARE SUBMITTED, THEY WILL BE CONSIDERED. IN THE EVENT THE OWNER WISHES TO ACCEPT THE SUBSTITUTE, ARRANGEMENTS WILL BE MADE FOR THE CHANGE BEFORE ENTERING INTO A CONTRACT.

IF NO ITEMS ARE SUGGESTED AS A SUBSTITUTE AT THE TIME THE BIDS ARE SUBMITTED, THEN NO DEVIATION WILL BE ALLOWED FROM THE MATERIALS SPECIFIED WITHOUT FIRST SECURING THE APPROVAL OF THE OWNER.

TRASH REMOVAL

THE CONTRACTOR SHALL PROMPTLY REMOVE FROM THE BUILDING, LOT, SIDEWALKS, AND STREETS – ALL RUBBISH AND DIRT, AS IT ACCUMULATES, DUE TO THE WORK DONE UNDER THIS CONTRACT.

ALL COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING ON A DAILY BASIS.

FOUNDATION

1) CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS FOR POURED–IN–PLACE CONTINUOUS AND SPREAD FOOTINGS, AND 3000 PSI (SPECIAL INSP. REQ.'D) AT 28 DAYS FOR GRADE BEAMS.

2) PORTLAND CEMENT SHALL BE TYPE 1 PER ASTM C 150. AGGREGRATES SHALL BE PER ASTM C33 WITH MAXIMUM SIZE OF 11/2" FOR FOOTINGS AND 1" FOR ALL OTHER WORK.

3) REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, CLEAN AND RUST FREE. LAPS AT SPLICES AND POUR LINES TO BE 40 BAR DIAMETERS (2'–0" MINIMUM) UNLESS NOTED OTHERWISE ON PLANS.

4) U.N.O., SLABS ON GRADE SHALL BE 4" THICK WITH #4 BARS @ 16" o.c. EACH WAY WITH 2 INCH COVER AT BOTTOM. 4" CLEAN SAND SHALL BE PLACED BELOW THE SLAB WITH A 6 MIL PLASTIC VAPOR BARRIER PLACED AT MID–HEIGHT. BARS SHALL BE LAPPED 20". SEE SOILS REPORT (IF AVAILABLE) FOR OTHER REQUIREMENTS.

5) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED IN FRESH CONCRETE SHALL BE 5/8" DIAMETER A307 "L" BOLTS SPACED PER PLAN AND SHEARWALL SCHEDULE WITH MINIMUM 7" EMBEDMENT. MAXIMUM ANCHOR BOLT SPACING SHALL BE 4'–0" o.c. ANCHOR BOLTS AT ENDS OF WALL PANELS SHALL BE LOCATED WITHIN 12" AND GREATER THAN 7 BOLT DIAMETERS FROM THE END OF SILL PLATE. THERE SHALL BE A MINIMUM OF TWO ANCHOR BOLTS PER WALL PANEL. (ANCHOR BOLTS TO EXISTING FOOTINGS PER NOTE #13 BELOW). PLATE WASHERS A MINIMUM 3"X3"X3/16" THICK SHALL BE USED ON EACH BOLT.

6) IF NO SOILS REPORT IS PROVIDED, ASSUMED ALLOWABLE SOIL BEARING PRESSURE (ASBP) SHALL BE 1500 PSF (PER SOIL TYPE SD) & EMBED FOOTINGS A MINIMUM OF 12" INTO COMPETENT SOIL.

7) REINFORCEMENT CLEARANCES FOR FOOTINGS AND GRADE BEAMS, (U.N.O.):
A) POURED AGAINST EARTH – 3"
B) FORMED SURFACE – 2"

8) REMOVAL OF FORMS:
A) SUPPORTING VERTICAL SURFACES – 2 DAYS MINIMUM
B) SUPPORTING BEAMS & GIRDERS – 15 DAYS MINIMUM

9) REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH INTERSECTIONS.

10) DOWEL ANY NEW FOOTINGS TO EXISTING FOOTINGS WITH (2) #4 x 2'–0" BARS TOP AND BOTTOM WITH 6" EMBEDMENT IN 11/2" DIAMETER CORED HOLES IN APPROVED NON–SHRINK GROUT MATERIAL (e.g. EMBECO 636, POR–ROK, etc.).

11) ALL HOLD DOWNS INTO EXISTING FOOTINGS TO BE INSTALLED WITH SIMPSON SET–XP ADHESIVE EPOXY, ICC ESR–2508 (LARR# 25744). CONTRACTOR TO INSTALL PER MANUFACTURER'S SPECIFICATIONS AND OBTAIN DEPUTY INSPECTON.

12) UNLESS NOTED OTHERWISE, DOWEL ANY NEW SLABS TO EXISTING FOOTINGS WITH (1)–#4 x 2'–0" BARS SPACED @ 36" O.C.WITH 6" EMBEDMENT IN 1" DIAMETER CORED HOLES IN APPROVED NON–SHRINK GROUT MATERIAL.

13) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED INTO EXISTING FOOTINGS SHALL BE SIMPSON TITAN HD ANCHORS (ICC ESR – 1056), 5/8" DIAMETER WITH MIN. 4–1/8" EMBEDMENT WITH MINIMUM EDGE DISTANCE REQUIRED TO BE 1 7/8"; SPACING PER SHEARWALL SCHEDULE.

14) CONSTRUCTION JOINTS SHALL BE PREPARED BY WIRE BRUSHING, CLEANING AND BRUSHING IN A PASTE OF NEAT CEMENT MORTAR IMMEDIATELY PRIOR TO POURING. LOCATION OF CONSTRUCTION JOINT SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

15) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

16) PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.

17) DEEPEN NEW FOOTINGS AS NECESSARY TO OBTAIN REQUIRED EMBEDMENT FOR ALL NEW HOLD DOWN BOLTS. ALL HOLD DOWN BOLTS TO HAVE A MINIMUM OF 3" OF CONCRETE COVER TO SOIL @ BOTTOM.

WORKMAN SAFETY–EXCAVATIONS

ALL REGULATIONS OF THE STATE OR FEDERAL OSHA SHOULD BE FOLLOWED BEFORE ALLOWING WORKMEN IN A TRENCH OR OTHER EXCAVATION.

IF EXCAVATIONS ARE TO BE MADE DURING THE RAINY SEASON PARTICULAR CARE SHOULD BE GIVEN TO INSURE THAT BERMS OR OTHER DEVICES PREVENT SURFACE WATER FROM FLOWING OVER THE TOP OF THE EXCAVATION OR PONDING AT THE TOP OF THE EXCAVATIONS.

NO TRENCHES OR EXCAVATIONS SHALL BE 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN NECESSARY PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO ISSUANCE OF A BUILDING OR GRADING PERMIT.

WRAP AND PROTECT ALL UTILITY LINES IN WAY OF CONSTRUCTION PER STANDARD CONSTRUCTION PRACTICES

REINFORCING STEEL

ALL PRIMARY REINFORCEMENT SHALL CONFORM TO A.S.T.M. A– 615, GRADE 60 K.S.I. STEEL.

ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A–615, GRADE 60 K.S.I. STEEL.

WIRE MESH SHALL BE A MINIMUM OF 6" x 6" – #10 / #10 MESH CONFORMING TO A.S.T.M. A–185. SEE DRAWINGS FOR ANY OTHER MESH SIZES.

SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE.

STRUCTURAL STEEL

1) ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS:

W–WIDE FLANGE SHAPES	ASTM A992, Fy = 50–65 KSI
PLATES, ANGLES, CHANNELS:	ASTM A36, Fy = 36 KSI
HOLLOW TUBE SHAPES:	ASTM A500, GRADE B, Fy = 46 KSI
ROUND PIPE SHAPES:	ASTM A53, GRADE B, Fy = 35 KSI

2) ALL STRUCTURAL STEEL SHALL BE FABRICATED IN A SHOP APPROVED BY THE LOCAL MUNICIPAL BUILDING DEPARTMENT.

3) STRUCTURAL SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

4) ALL STRUCTURAL STEEL SHALL BE IDENTIFIED PER 2013 CBC, SECTION 2203. DESIGN OF STEEL MEMBERS SHALL BE PER PER AISC 360, PER SECTION 2205 OF THE 2013 CBC.

5) STRUCTURAL STEEL SHALL HAVE A SHOP COAT OF RED–OXIDE PRIMER.

6) AFTER ERECTION, ALL FIELD CONNECTIONS, BOLTS, WELDS, AND ALL ABRADED PLACES ON THE SHOP PAINT SHALL BE TOUCHED UP WITH THE SAME TYPE OF PAINT AS THE SHOP COAT.

7) FIELD AND SHOP WELDING SHALL BE DONE BY A DULY CERTIFIED WELDER USING LOW–HYDROGEN E70–T6 ELECTRODE RODS, UNLESS NOTED OTHERWISE. CONTINUOUS INSPECTION BY A REGISTERED INSPECTOR IS REQUIRED FOR FIELD WELDING. ALL WELDING SHALL BE PER AWS D1.1, LATEST EDITION, AND AISC SPECIFICATIONS.

8) BOLTS SHALL BE OF A307 QUALITY WITH WASHERS, UNLESS OTHERWISE SPECIFIED ON PLANS. ANY HIGH STRENGTH A325 OR A490 BOLTS SHALL HAVE SPECIAL INSPECTION, UNLESS NOTED OTHERWISE.

9) STEEL ERECTOR SHALL PROVIDE ALL ERECTION BRACING REQUIRED TO MAINTAIN STRUCTURE PLUMB AND PROPERLY BRACED DURING CONSTRUCTION.

TIMBER

1) ALL TIMBER DESIGN AND CONSTRUCTION SHALL BE PER 2013 CBC CHAPTER 23 AND 2005 NATIONAL DESIGN SPECIFICATION (NDS, REVISED 2005 EDITION) WITH AMENDMENTS PER 2013 CBC. ALL SAWN LUMBER SHALL BE GRADED BY EITHER WWPA OR WCLIB.

2) U.N.O., ALL WOOD SILL PLATES AND LEDGERS BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR–LARCH. ANCHOR BOLTS SHALL BE 5/8" DIAMETER SPACED A MAXIMUM 4'–0" o.c. AND WITHIN 12" AND GREATER THAN SEVEN BOLT DIAMETERS FROM: EACH END OF A SILL, FROM A HOLE, OR FROM A NOTCH GREATER THAN 1/3 THE WIDTH OF THE SILL. SEE SHEARWALL SCHEDULE FOR OTHER REQUIREMENTS.

3) ALL WALL BRACING AND MATCHING OF STUDS SHALL CONFORM TO SECTION 2308.9 OF THE 2013 CALIFORNIA BUILDING CODE. PROVIDE DIAGONAL BRACING PER 2013 CBC TABLE 2308.9.3(1), UNLESS A SHEAR WALL IS INSTALLED PER STRUCTURAL PLANS.

4) UNLESS NOTED OTHERWISE ON FRAMING PLANS:

ROOF SHEATHING SHALL BE 15/32" CDX APA–RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6"o.c. EDGES & BOUNDARIES AND 12"o.c AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA–RATED STURD–I–FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6"o.c. AT EDGES & BOUNDARIES AND 12"o.c. AT INTERMEDIATE FRAMING MEMBERS

SHEARWALL SHEATHING SHALL BE APA "STRUCTURAL I" RATED, EXPOSURE 1, GROUP 1. NAILING PER SHEARWALL SCHEDULE.

ALL WOOD STRUCTURAL PANEL SHEATHING SHALL BE GRADE MARKED BY APA, T.E.C.O., OR P.T.L. AND SHALL CONFORM TO PS 1–95, PS 2–92, OR PRP–108..

TIMBER (CONTINUED)

5) HORIZONTAL WOOD STRUCTURAL PANELS SHALL BE LAID WITH THE LONG DIMENSION AND FACE GRAIN PERPENDICULAR TO THE RAFTERS OR JOISTS, AND THE SHEETS SHALL BE STAGGERED AS SHOWN IN 2013 CBC TABLE 2306.3.1 (CASES 1). EACH SHEET SHALL CONTAIN A MINIMUM OF 8 SQUARE FEET AND EXTEND TO 3 SUPPORTS. 1/8" SPACING BETWEEN PANEL ENDS AND EDGES IS REQUIRED. ALL WOOD STRUCTURAL PANEL DIAPHRAGMS SHALL BE REVIEWED BY CONTRACTOR FOR COMPLIANCE WITH NAILING AND PANEL REQUIREMENTS BEFORE FINISH IS APPLIED.

6) U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR–LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR–LARCH SELECT STRUCTURE OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR –LARCH NO. 2 OR BETTER.

7) ALL PSL AND LVL ENGINEERED FRAMING MEMBERS SHOWN ON PLANS TO BE 2.0E PARALLAM (E=2000 ksi) AND 1.9E MICROLLAM BEAMS (E=1900 ksi), RESPECTIVELY, AS DESCRIBED IN ER–4979. ALL WOOD I–JOIST MEMBERS SHOWN ON PLANS TO BE AS DESCRIBED IN ESR–1153.

8) MOISTURE CONTENT OF SAWN LUMBER AT TIME OF INSTALLATION SHALL NOT EXCEED 19%.

9) ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE WASHERS. HOLES IN WOOD FOR BOLTS SHALL BE DRILLED MAX. 1/16" LARGER THAN NOMINAL BOLT SIZE.

10) NOTCHING OR DRILLING HOLES IN BEAMS OR JOISTS SHALL BE ONLY AS DETAILED PER ENGINEER AND SHALL COMPLY WITH 2013 CBC SECTION 2320.8.2.

11) ALL SAWN LUMBER (2x, 4x, 6x) RAFTERS, FLOOR JOISTS, AND BEAMS SHALL HAVE SOLID WOOD BLOCKING AT ALL POINTS OF SUPPORT. MEMBERS WITH NOMINAL DEPTH 10" OR GREATER SHALL HAVE 2x FULL DEPTH SOLID BLOCKING OR CROSS BRIDGING SPACED AT 8'–0" FOR MAXIMUM.

12) U.N.O., ALL FRAMING CONNECTION HARDWARE SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG–TIE COMPANY AND SHALL BE REFERENCED AS SHOWN IN THEIR LATEST CATALOG. ALL CONNECTOR NAILS AND BOLTS SHALL BE AS DESIGNATED PER MANUFACTURER. ALTERNATE MANUFACTURER CONNECTOR HARDWARE MAY BE USED PROVIDED ENGINEER'S WRITTEN APPROVAL IS OBTAINED BY CONTRACTOR AND ICBO APPROVAL IS PROVIDED.

13) TOP PLATES SHALL LAP LOWER PLATES AT CORNERS, AND BREAKS AT PLATE SHALL BE LAPPED A MINIMUM OF 4'–0", WITH 20–16d NAILS ON EACH SIDE.

14) ALL BEAMS SHALL BE SUPPORTED BY POSTS OR GIRDERS. FOR 4x8 AND SMALLER BEAMS A MINIMUM (2)–2X4 D.F. #2 POST SHALL BE USED, U.N.O. FOR 4x10 AND LARGER BEAMS A MINIMUM 4x4 D.F. #1 POST SHALL BE USED, U.N.O. ALL POSTS SHALL PROVIDE FULL BEARING WIDTH FOR THE BEAM, U.N.O.

15) ALL POSTS SHALL BE CONTINUED BETWEEN FLOORS WITH SOLID FULL WIDTH BLOCKING AND A POST OF EQUAL OR GREATER SIZE BELOW, UNTIL A BEAM OR FOUNDATION IS ENCOUNTERED. ALL POSTS INSIDE WALLS MAY BEAR ON THE SOLE OR SILL PLATE, U.N.O. ISOLATED POSTS SHALL BE SEATED IN POST OR COLUMN BASES PER PLAN.

16) ALL WALLS HIGHER THAN 10'–0" SHALL BE 2x6 OR 3x6 STUDS @ 16" o.c., UNLESS SPECIFICALLY DESIGNED OTHERWISE BY ENGINEER. ALL WALLS CONTAINING MECHANICAL PIPING 2" IN DIAMETER OR LARGER SHALL BE FRAMED WITH 2x6 STUDS @ 16" o.c.

17) CUTTING, NOTCHING, OR BORING HOLES IN STUDS SHALL COMPLY WITH 2013 CBC SECTION 2308.9.10 AND 2308.9.11

18) FRAMING AND NAILING NOT SPECIFICALLY DETAILED ON THE PLANS ARE TO CONFORM TO 2013 CBC TABLE 2304.9.1. COMMON NAILS ARE REQUIRED FOR ALL SHEARWALL, FLOOR AND ROOF DIAPHRAGMS. USE DOUBLE JOISTS UNDER PARALLEL PARTITIONS, U.N.O. DOUBLED HORIZONTAL MEMBERS SHALL BE STITCH–NAILED TOGETHER WITH TWO ROWS OF 16d NAILS @ 12" o.c. STAGGERED, UNLESS OTHERWISE DETAILED. TRIPLED HORIZONTAL MEMBERS SHALL HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED.

19) ANCHOR BOLTS TO SILL AND SOLE PLATES SHALL HAVE NUTS DRIVEN FLUSH WITH SQUARE PLATE WASHERS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

BOLT DIAMETER	PLATE SIZE
5/8"	1/4" x 3" x 3"
3/4"	5/16" x 3" x 3"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3 1/2" x 3 1/2"

THE ABOVE SCHEDULE ALSO APPLIES TO LAG SCREWS DRIVEN INTO SOLE PLATES FOR RAISED FLOOR AND UPPER STORY CONDITIONS.

20) LAG SCREWS SHALL BE INSTALLED IN PRE–DRILLED HOLES. THE CLEARANCE HOLE FOR THE SHANK PORTION SHALL HAVE THE SAME DIAMETER AND DEPTH AS THE SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 40%–70% OF THE SHANK DIAMETER (FOR ALL DOUG–FIR LARCH MEMBERS). LAG SCREWS ARE TO BE INSTALLED WITH THE TURN OF A WRENCH. DRIVING, AS WITH A HAMMER, IS NOT PERMITTED.

21) MINIMUM NAILING SHALL BE PER TABLE 2304.9.1 OF THE 2013 C.B.C.

22) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

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These drawings are not valid for construction unless wet stamped and signed by McCullum Engineer, Inc..

STAMP

PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Notes and Specifications

REVISIONS	BY
1 9/1/15	EWM
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JOB# 15–051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS

SHEET
SN1
OF 8 SHEETS

TABLE 2304.9.1
FASTENING SCHEDULE

CONNECTION	FASTENING[a][1]	LOCATION
1. Joist to sill or girder	3 – 8d common (2 1/2" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
2. Bridging to joist	2 –8d common (2 1/2" x 0.131") 2 – 3" x 0.131" nails 2–3" 14 gage staples	toenail each end
3. 1" x 6" subfloor or less to each joist	2 –8d common (2 1/2" x 0.131")	face nail
4. Wider than 1" x 6" subfloor to each joist	3 – 8d common (2 1/2" x 0.131")	face nail
5. 2" subfloor to joist or girder	2 – 16d common (3 1/2" x 0.162")	blind and face nail
6. Sole plate to joist or blocking Sole plate to joist or blocking at braced wall panel	16d(3 1/2"x0.135") at 16"o.c. 3" x 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c. 3"-16d(3 1/2"x0.135")at 16" 4 – 3" x 0.131" nails at 16" 4 – 3" 14 gage staples per 16"	typical face nail braced wall panels
7. Top plate to stud	2 – 16d common (3 1/2" x 0.162") 3 – 3" x 0.131" nails 3–3" 14 gage staples	end nail
8. Stud to sole plate	4 – 8d common (2 1/2" x 0.131") 4 – 3" x 0.131" nails 3 – 3" 14 gage staples 2 – 16d common (3 1/2" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail end nail
9. Double studs	16d (3 1/2"x0.135")at24"o.c. 3" x 0.131" nail at 8" o.c. 3" 14 gage staple at 8" o.c.	face nail
10. Double top plates Double top plates	16d(3 1/2"x0.135")at 16"o.c. 3" x 0.131" nail at 12" o.c. 3" 14 gage staple at 12" o.c. 8–16d common (3 1/2" x 0.162") 12–3" x 0.131" nails 12–3" 14 gage staples	typical face nail lap splice
11. Blocking between joists or rafters to top plate	3 – 8d common (2 1/2" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
12. Rim j oist to top plate	8d(2 1/2"x0.131") at 6"o.c. 3" x 0.131" nail at 6" o.c. 3" 14 gage staple at 6" o.c.	toenail
13. Top plates, laps and intersections	2 – 16d common (3 1/2" x 0.162") 3 – 3" x 0.131" nails 3 –3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common (3 1/2" x 0.162")	16" o.c. along edge
15. Ceiling joists to plate	3 – 8d common (2 1/2" x 0.131") 5 – 3" x 0.131" nails 5 – 3" 14 gage staples	toenail
16. Continuous header to stud	4 – 8d common (2 1/2" x 0.131")	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 – 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	 face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 – 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	 face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 – 8d common (2 1/2" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	 toenail
20. 1" diagonal brace to each stud and plate	2 – 8d common (2 1/2" x 0.131") 2 – 3" x 0.131" nails 3 – 3" 14 gage staples	 face nail
21. 1" x 8" sheathing to each bearing	3 – 8d common (2 1/2" x 0.131")	face nail
22. Wider than 1" x 8" sheathing to each bearing	3 – 8d common (2 1/2" x 0.131")	face nail
23. Built–up corner studs	16d common (3 1/2" x 0.162") 3" x 0.131" nails 3" 14 gage staples	24" o.c. 16" o.c. 16" o.c.
24. Built–up girder and beams	20d common (4" x 0.192") 32" o.c. 3" x 0.131" nail at 24" o.c. 3" 14 gage staple at 24" o.c. 2 – 20d common (4" x 0.192") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	 face nail at top and bottom staggered on opposite sides face nail at ends and at each splice
25. 2" planks	16d common (3 1/2" x 0.162")	at each bearing
26. Collar tie to rafter	3– 10d common (3" x 0.148") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail
27. Jack rafter to hip	3– 10d common (3" x 0.148") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples 2 – 16d common (3 1/2" x 0.162") 3–3" x 0.131" nails 3 – 3" 14 gage staples	 toenail face nail
28. Roof rafter to 2–by ridge beam	2 – 16d common (3 1/2" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples 2–16d common (3 1/2" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	 toenail face nail
29. Joist to band joist	3 – 16d common (3 1/2" x 0.162") 4 – 3" x 0.131" nails 4–3" 14 gage staples	face nail
30. Ledger strip	3 – 16d common (3 ½" x 0.162") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	 face nail
31. Wood structural panels and particleboard1' Subfloor, roof and wall sheathing (to framing) Single Floor (combination subfloor– underlayment to framing)	1/2" and less 19/32" to ¾" 7/8" to 1" 1 1/8" to 1 ¼" 3/4" and less 7/8" to 1" 1 1/8" to 1 ¼"	6d c,1 2 3/8" x 0.113" nail n 1 3/4" 16 gage o 8d" or 6d e 2 3/8" x 0.113" nail p 2" 16 gage p 8d c 10d d or 8d d 6d e 8d e 10d d or 8d e	
32. Panel siding (to framing)	½" or less ⅝"	6d f 8df	
33. Fiberboard sheathing g	½" 25/32"	No. 11 gage roofing nail h 6d common nail (2" x 0.113") No. 16 gage staple i No. 11 gage roofing nail h 8d common nail (2 ½"x 0.131") No. 16 gage staple i	
34. Interior paneling	¼" 3/8"	4d j 6d k	

For SI: 1 inch = 25.4 mm.

a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d – 2" x0.113"; 8d–2 1/2"x 0.131"; 10d–3" x 0.148").
d. Common (6d – 2" x 0.113"; 8d – 2 ½" x 0.131"; 10d – 3" x 0.148").
e. Deformed shank (6d – 2" x 0.113"; 8d – 2 ½" x 0.131"; 10d – 3" x 0.148").
f. Corrosion–resistant siding (6d – 1 7/8" x 0.106"; 8d – 2 3/8" x 0.128") or casing (6d – 2" x 0.099"; 8d – 2 1/2" x 0.113") nail.
g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
h. Corrosion–resistant roofing nails with 7/16–inch–diameter head and 1 1/2–inch length for 1/2–inch sheathing and 1 3/4–inch length for 25/32–inch sheathing.
i. Corrosion–resistant staples with nominal 7/16–inch crown and 1 1/8–inch length for 1/2–inch sheathing and 1 1/2–inch length for 25/32–inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
j. Casing (1 ⅛" x 0.080") or finish (1 1/2" x 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
k. Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
l. For roof sheathing applications, 8d nails (2 1/2" x 0.113") are the minimum required for wood structural panels.
m. Staples shall have a minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

FRAMING

ROOF DIAPHRAGM

15/32" APA RATED SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, w/ 8d COMMON NAILS @ 6"o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS

FLOOR DIAPHRAGM

23/32" APA STURD–I–FLOOR, EXPOSURE 1, TONGUE AND GROOVE, w/ 10d COMMON NAILS @ 6" o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS

FRAMING

* BUILT–UP WOOD FRAMING MEMBERS MAY NOT BE SUBSTITUTED FOR 4x AND WIDER BEAMS UNLESS NOTED BY ENGINEER
* ALL (2) 2x ROOF & FLOOR FRAMING TO HAVE MIN. 16d AT 12" O.C. T&B, STAGGERED
* ALL (3) 2x FRAMING TO HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED
* 2x SOLID BLOCKING REQUIRED AT POINTS OF SUPPORT FOR ALL HORIZONTAL FRAMING MEMBERS. IN ADDITION, ALL 2x10 AND LARGER MEMBERS SHALL HAVE SOLID FULL DEPTH BLOCKING OR BRIDGING AT MAX. 8'–0" o.c.
* ALL WOOD POSTS AT UPPER FLOORS TO CONTINUE TO BEAM OR FOUNDATION
* UNLESS DETAILED OTHERWISE, ALL RIDGE / HIP / VALLEY CONNECTIONS TO HAVE A SIMPSON A35 CONNECTOR AT EACH CORNER WITH A 2x KICKER TO BEARING WALL
* ALL NEW TO EXISTING TOP PLATES TO HAVE SIMPSON ST6236 STRAP
* AT ROOF–TO–WALL FRAMING, PROVIDE A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE OR AT MAX. 48" O.C. FROM PLATES TO RAFTERS AND RAFTER BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)
* AT FIRST FLOOR AND SUBTERRANEAN LEVEL PROVIDE A35'S PER SHEARWALL SCHEDULE OR AT 32" O.C. MAX. FROM PLATES TO FLOOR JOISTS AND BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)
* PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL WALLS, U.N.O.
* WHEN SHEAR WALLS ARE SUPPORTED BY WOOD JOISTS THAT ARE PERPENDICULAR TO THE SHEAR WALL, ATTACH SOLID 4x BLOCKING UNDER SHEAR WALLS BETWEEN JOISTS. PROVIDE 2x SOLID BLOCKING UNDER NON–SHEAR WALLS PERPENDICULAR TO FLOOR JOISTS. SEE PLANS AND DETAILS FOR ANY ADDITIONAL REQUIREMENTS.
* ATTACH MIN. 2x SOLID BLOCKING AND EDGE NAIL THE PERIMETER OF ALL OPENINGS OVER 10" IN WIDTH OR LENGTH IN ALL SHEAR PANELS AND DIAPHRAGMS. SEE DETAILS WHERE OTHER REQUIREMENTS MAY OCCUR.
* PROVIDE A MINIMUM 3x4 OR 2x6 @ 16" FOR ALL STUD WALLS SUPPORTING TWO FLOORS OR MORE.
* ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

CONCRETE

1) ALL PHASES OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO 2013 CBC CHAPTER 19 (BASED ON ACI–318, LATEST ADOPTED EDITION) FOR REINFORCED CONCRETE.

2) MINIMUM ULTIMATE COMPRESSIVE CONCRETE STRENGTHS (f'c) SHALL BE:
SLAB ON GRADE . . . . . 2500 PSI @ 28 DAYS
FOOTINGS . . . . . 2500 PSI @ 28 DAYS
GRADE BEAMS . . . . . 3000 PSI @ 28 DAYS

3) CONTINUOUS INSPECTION BY AN APPROVED DEPUTY INSPECTOR IS REQUIRED FOR CAISSONS, GRADE BEAMS, STRUCTURAL SLABS, AND OTHER CONCRETE MEMBERS WHERE DESIGN COMPRESSIVE STRENGTH VALUE EXCEEDS 2500 PSI.

4) CEMENT SHALL BE TYPE I, LOW ALKALI, CONFORMING TO A.S.T.M. C–150.

5) ALL PRIMARY REINFORCEMENT SHALL BE PER ASTM A–615, GRADE 60 ksi STEEL. ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A–615, GRADE 60 ksi STEEL.

6) UNLESS NOTED OTHERWISE, SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE. WHERE SPECIFICALLY CALLED OUT, WELDING OF REINFORCING BARS SHALL BE PERFORMED BY A CERTIFIED WELDER USING E90 SERIES ELECTRODES PER AWS D1.4, LATEST EDITION.

7) INTERIOR CONCRETE SLABS ON GRADE SHALL HAVE A STEEL TROWEL FINISH. DRIVEWAYS, WALKS, AND GARAGE SLABS SHALL HAVE A BROOM FINISH AND SHALL BE PITCHED TO SHED WATER.

8) PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.

9) CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS, ANCHOR BOLTS, AND ALL OTHER CONCRETE INSERTS, UNLESS OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:
POURED AGAINST EARTH . . . . . 3" CLEAR
FORMED CONCRETE . . . . . 2" CLEAR

10) FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS. DECK CAMBERING SHOWN ON PLANS IS INTENDED TO PROVIDE A LEVEL DECK. ANY SLOPING FOR DRAINAGE SHALL BE ADDED OR SUBTRACTED FROM CAMBERING AS APPROPRIATE. THE DECK THICKNESS SHALL NOT BE REDUCED IN ORDER TO ACHIEVE DECK SLOPES.

11) DRYPACK UNDER BASEPLATES, SILL PLATES, AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF APPROVED NON–SHRINK HIGH STRENGTH GROUT. WHEN SPACE BETWEEN TWO SURFACES REQUIRES DRYPACK, IT SHALL BE PACKED BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED.

12) PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. STANDARD 614 AND PROJECT SPECIFICATIONS. WIRE BRUSH OR SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.

13) IF COLUMNS AND WALLS ARE PLACED WITH FLOORS, MINIMUM TIME OF TWO HOURS MUST ELAPSE BETWEEN END OF COLUMN OR WALL POUR AND BEGINNING OF FLOOR POUR.

14) PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. COPING IN CONCRETE IS NOT PERMITTED, EXCEPT AS SHOWN. NOTIFY THE PROJECT STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

15) COVER TO BEAM REINFORCEMENT TO BE 2" MINIMUM, UNLESS NOTED OTHERWISE.

16) ARCHITECTURAL DRAWINGS TO BE REFERRED TO FOR DECK SLOPES, DRAINAGE, PLUMBING, FRAMING AND ELECTRICAL HARDWARE.

17) REINFORCEMENT CALLED OUT IN DETAILS SHALL BE IN ADDITION TO THAT SHOWN ON PLANS (U.N.O). REINFORCING METHODS SHOWN IN DETAILS SHALL BE USED AS APPLICABLE.

18) WHEN A MONOLITHIC POUR IS NOT POSSIBLE, CONSTRUCTION JOINTS SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

19) SHORING SHALL NOT BE REMOVED UNTIL CONCRETE HAS ACHIEVED MINIMUM 28 DAY COMPRESSIVE STRENGTH. FIFTEEN DAYS AFTER CONCRETE POUR IS COMPLETED THE PROJECT STRUCTURAL ENGINEER MAY DETERMINE, BASED ON COMPRESSION TESTS, IF SHORING MAY BE REMOVED.

20) ALL DECK SURFACES EXPOSED TO WEATHER SHALL BE WATERPROOFED. SEE ARCHITECTURAL DOCUMENTS FOR SPECIFICATIONS.

21) PER 2013 CBC SECTION 1704.4, SPECIAL DEPUTY INSPECTION IS REQUIRED FOR ALL EPOXY–ADHESIVE INSTALLATION OF ANCHOR BOLTS OR REINFORCING BARS INTO EXISTING CONCRETE. NON–SHRINK GROUT INSTALLATION OF REINFORCING BAR DOWELS (e.g. NEW SLAB TO EXISTING FOOTING) DOES NOT REQUIRE SPECIAL INSPECTION.

CONCRETE (continued)

22) CONCRETE SHALL BE THOROUGHLY CONSOLIDATED IN A MANNER THAT WILL ENCASE THE REINFORCEMENT AND INSERTS, FILL THE FORMS, AND PRODUCE A SURFACE OF UNIFORM TEXTURE FREE OF ROCK POCKETS AND EXCESSIVE VOIDS. CONCRETE SHALL BE CONSOLIDATED BY MEANS OF HIGH FREQUENCY INTERNAL VIBRATORS WITHOUT CAUSING WATER OR CEMENT PASTE TO FLUSH TO THE SURFACE. INTERNAL VIBRATORS TYPE, SIZE, AND NUMBER SHALL BE APPROVED BY THE ENGINEER.

23) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

2013 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE (w/ 2013 LARUCP Ammendments) 1–7–2014

SHEAR–WALL NOTATION	STRUCTURAL I APA–RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @16"o.c., U.N.O) (REDUCED BY 25%)	SLIDING ANCHOR SYSTEM			
				5/8" A.B. SPACING [2] 2x SILL V= 1184# 3x SILL V= 1520# O.C.	A35 OR LTP4 FRAMING CLIP SPACING V = 450# O.C.	16d COMMON NAIL SPACING [3] 2x SOLE PLATE ONLY: V= 121# O.C.	1/4" LAG [6] SCREW SPACING 3x SOLE PLATE ONLY: V= 880# (MIN. 2" PENETRATION) O.C.
A	15/32"	8d @ 6" o.c.	210#/FT.	48"	24"	6"	12"
B [1]	15/32"	8d @ 4" o.c.	320#/FT.	48"	16"	4"	9"
C [1]	15/32"	8d @ 3" o.c.	410#/FT.	44"	12"	3"	6"
D [1]	15/32"	8d @ 2" o.c.	540#/FT.	32"	9"	SEE LAG SCREW SPACING →	5"
E [1]	15/32"	10d @ 2" o.c.	650#/FT.	26"	8"	SEE LAG SCREW SPACING →	4"
DBL SIDED C [4]	15/32" EACH SIDE	8d @ 3" o.c. EACH SIDE	820#/FT.	22"	12" [5]	SEE LAG SCREW SPACING →	3"
DBL SIDED D [4]	15/32" EACH SIDE	8d @ 2" o.c. EACH SIDE	1080#/FT.	16"	9" [5]	SEE LAG SCREW SPACING →	3"
DBL SIDED E [4]	15/32" EACH SIDE	10d @ 2" o.c. EACH SIDE	1300#/FT.	13"	8" [5]	SEE LAG SCREW SPACING →	3"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE.
2. SIMPSON BP5/8 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" ANCHORS. 5/8" SIMPSON TITAN HD ANCHORS (ICC ESR–1056) (LARR 25560) WITH 4–1\8" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
4. FRAMING AT FOUNDATION SILL PLATE, SOLE PLATES AND STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED W/ 1\2" EDGE DISTANCE. 2x NOMINAL DOUBLE TOP PLATE MAY BE USED.
5. LTP4 TO BE @ SPECIFIED SPACING AT BOTH FACES W/4x BLOCKING.
6. FOR 1/4" LAGS, USE SIMSPON "SDS" SCREWS (¼"x6", "SDS25600, U.N.O.).

SHEAR WALL

1) ONLY COMMON NAILS SHALL BE PERMITTED FOR REQUIRED NAILING AT VERTICAL SHEAR PANELS AND HORIZONTAL DIAPHRAGMS (ROOF AND FLOOR).

2) ALL SHEARWALLS WITH AN ALLOWABLE SHEAR CAPACITY GREATER THAN 300 plf REQUIRE 3x MEMBERS AT THE FOUNDATION SILL PLATE AND AT ADJACENT PANEL EDGES. A MINIMUM OF 1/2" EDGE DISTANCE FROM THE PANEL EDGE TO THE CENTER OF THE NAIL IS REQUIRED FOR THESE 3x MEMBERS.

3) ALL HOLD DOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. BOLT HOLES FOR HOLD DOWN CONNECTION TO POST SHALL BE 1/16" (MAX.) OVERSIZED. INSPECTOR TO VERIFY HOLD DOWN CONNECTIONS.

4) PROVIDE MINIMUM 4x4 POSTS FOR ALL HOLD DOWNS ENDS OF SHEARWALL.

5) APPROVED PLATE WASHERS SHALL BE PROVIDED FOR ALL WOOD STRUCTURAL PANEL SHEAR WALL ANCHOR BOLTS AND FOR ALL HOLD DOWN CONNECTOR BOLTS TO POSTS.

BOLT DIAMETER	PLATE SIZE
5/8"	1/4" x 3" x 3"
3/4"	5/16" x 3" x 3"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3 1/2" x 3 1/2"

DRAG LINE DL

DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

@ ROOF: SHEAR WALL TO CONTINUE UP TO ROOF FRAMING, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.

@ FLOOR: SHEAR WALL TO CONTINUE UP TO DBL TOP PL. MINIMUM, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.

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PROJECT
Remodel
135 Seawall Road
Rancho Palos Verdes, CA 90275

DRAWING
Notes and Specifications

REVISIONS	BY
1 9/1/15	EWM

JOB# 15–051
ENGINEER EWM
DRAWN
CHECKED
FILE Wyrsch
DATE 8/10/15
SCALE NTS
SHEET SN2
OF 8 SHEETS