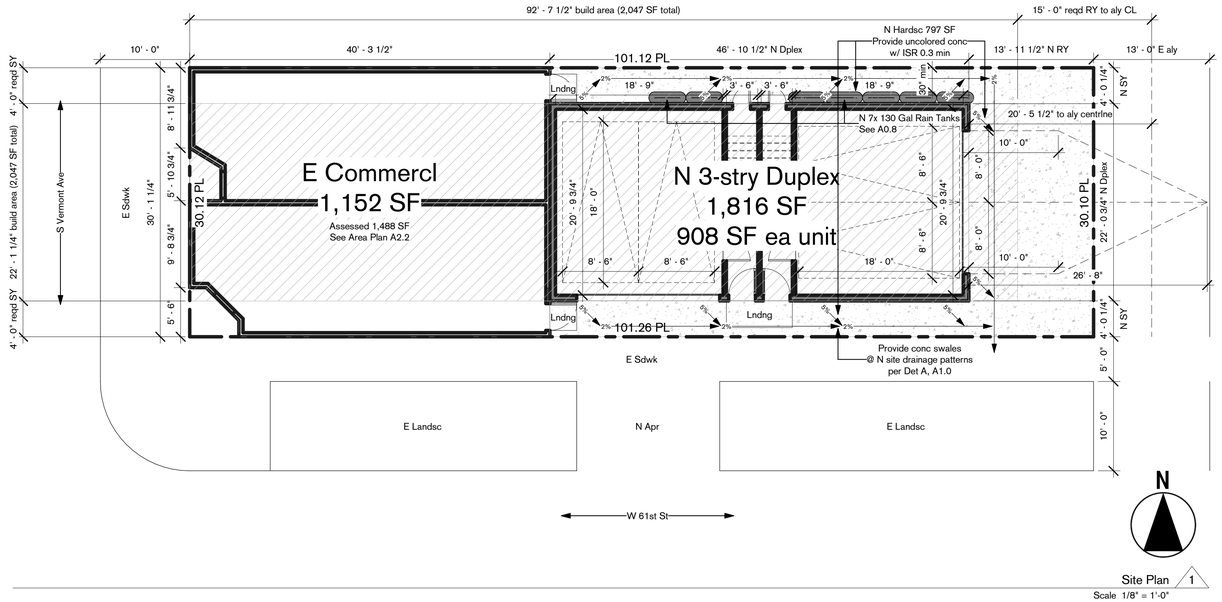
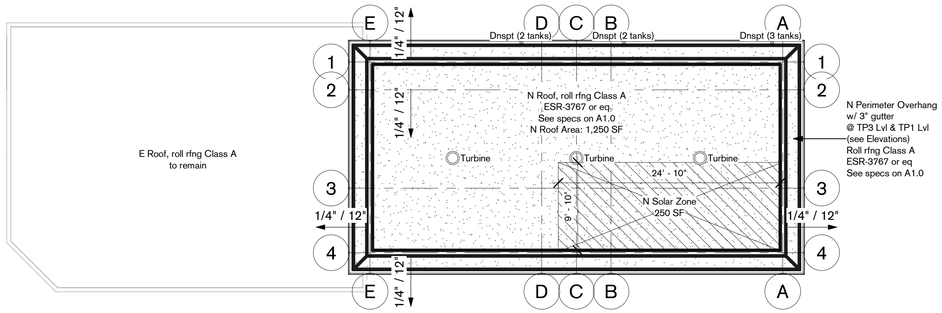


Site Plan 1
Scale 1/8" = 1'-0"



Propsd Rf Plan 2
Scale 1/8" = 1'-0"

Cool roofing material, ESR-3767
Contractor to use materials from the list or equal per specifications

CRRC PROD. ID	MANUFACTURER	BRAND AND MODEL	PRODUCT TYPE	COLOR	SOLAR REFLECTANCE		THERMAL EMITTANCE		SRI	
					INITIAL	3 YEAR	INITIAL	3 YEAR	INITIAL	3 YEAR
0662-0042b	Johns Manville	**CR Granule** APPeX 4.5 M CR G | **CR Granule** APPeX 4.5 M FR CR G | **CR Granule** APPeX 4.5 M Sanded CR G | **CR Granule** APPeX 4.5 M FR Sanded CR G | **CR Granule** BICOR M FR CR G | **CR Granule** Dibiten 4.5 FR CR G | **CR Granule** Dibiten Poly 4.5 CR G | **CR Granule** TRICOR M FR CR G | **CR Granule** DynaFlex CR G | **CR Granule** DynaGlas FR CR G | **CR Granule** DynaGlas FR XT CR G | **CR Granule** DynaKap T1 CR G | **CR Granule** DynaKap FR T1 CR G | **CR Granule** DynaKap FR T1 HW CR G | **CR Granule** DynaLastic 180 FR CR G | **CR Granule** DynaLastic 250 FR CR G | **CR Granule** DynaMax FR CR G | **CR Granule** DynaMax FR Plus CR G | **CR Granule** DynaMax FR HW CR G | **CR Granule** DynaWeld Cap 180 FR CR G | **CR Granule** DynaWeld Cap 250 FR CR G | **CR Granule** DynaWeld Cap FR XT CR G | **CR Granule** DynaWeld Cap FR CR G | **CR Granule** GlasKap CR G	Asphaltic M embrane	Bright White	0.72	0.64 *	0.90	0.90 *	89	78*

ATTIC VENTILATION CALCULATIONS

N Attic: 969 SF

969 x 144 = 139,536
139,536 / 150 = 930

Provide: 3x Turbine Vents (347 cu in / minute) = 1,041

BMP CALCULATIONS
All slopes must be vegetated

N Roof: 1,250 SF	1,250 x 0.42 = 525 Gal
N Conc Hardsc: 797 SF	797 x 0.42 = 335 Gal
	Total Gal: 860
Provide:	7 x 130 Gal Rain Tanks

FAR CALCULATIONS

	Sq. Ft.	Exempt	Total
E Commercial	1,152		1,152
N Duplex			1,816
Unit 1	908		908
Unit 2	908		908
N Unit 1 Cov Parking	390	400	0
N Unit 2 Cov Parking	390	400	0

Building code: 1,931	Build area (see Site Pln):	2,047
School fees: 3,102	Total FAR:	2,968
	Max FAR - 1.5:1	3,070.5

N SF (see Area Plans A2.1)

	Sq. Ft.	Exempt	Total
Unit 1			908
Flr 1	36		36
Flr 2	433		433
Flr 3	439		439
Unit 2			908
Flr 1	36		36
Flr 2	433		433
Flr 3	439		439
Cov Parking			0
Unit 1	390	400	0
Unit 2	390	400	0

Expansion

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Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Site Plan, Roof Plan

Drawn by	Egor Shpak
Date	04.02.2020
	A1.0
Scale	1/8" = 1'-0"

6/23/2020 5:08:40 AM

Wall Legend

- E wll
- New std wll
  2x4 @16" oc, UNO
  2x6 @16" oc @ plmbg wls
  2x6 @16" oc @ ext wls
- New std wll
  1-hr w/ STC50
  See A0.8

Detector Legend

- SD — Smoke detector, shall be hardwired w/ battery backup
- CD — Carbon detector, shall be hardwired w/ battery backup

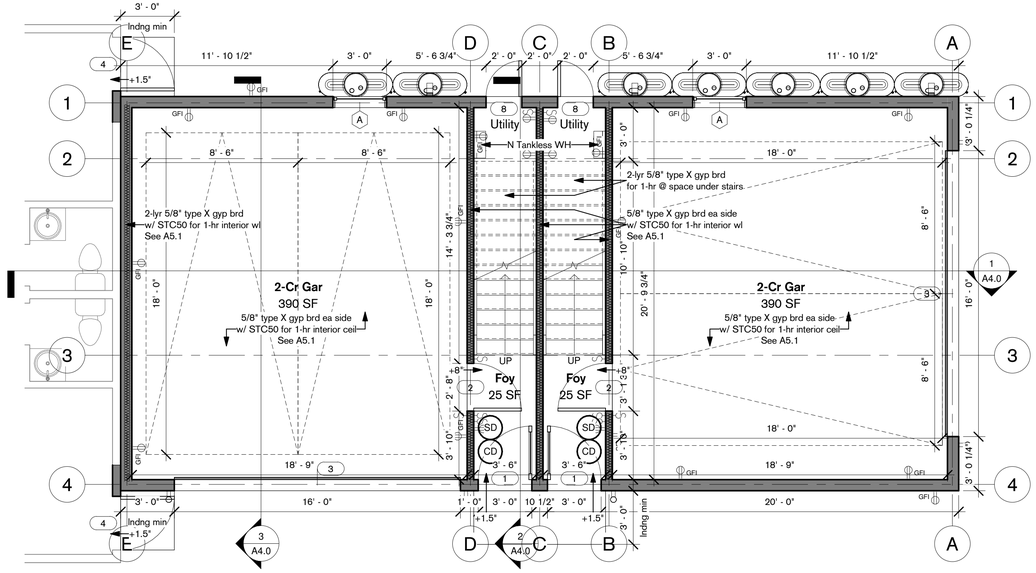
Exhaust fan 50 CFM, shall be "Energy Star" compliant, and ducted to terminate to the outside of the building. Fans not functioning as a component of the whole house ventilation, must be controlled by humidity control. (4.506.1)

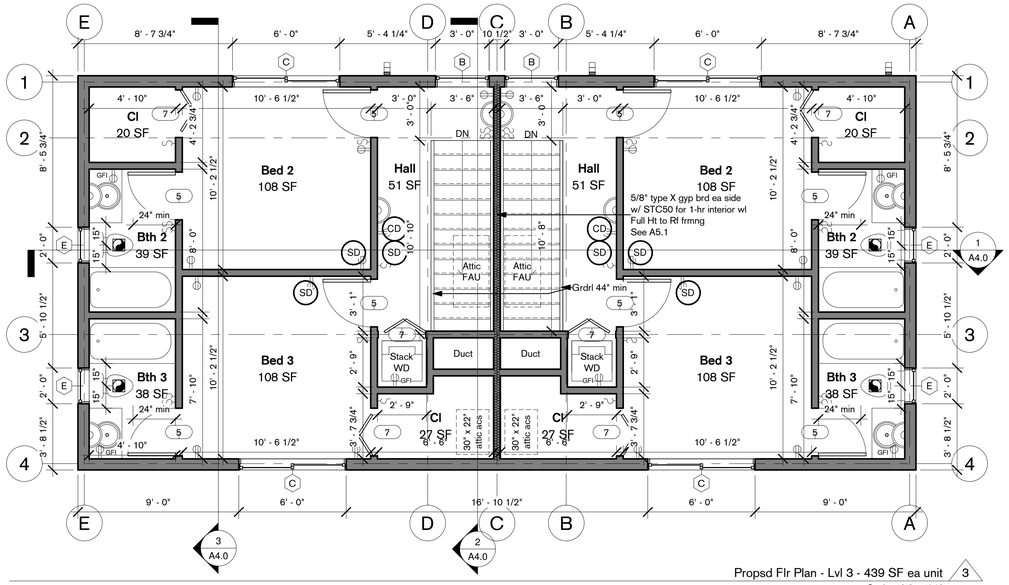
Door Schedule

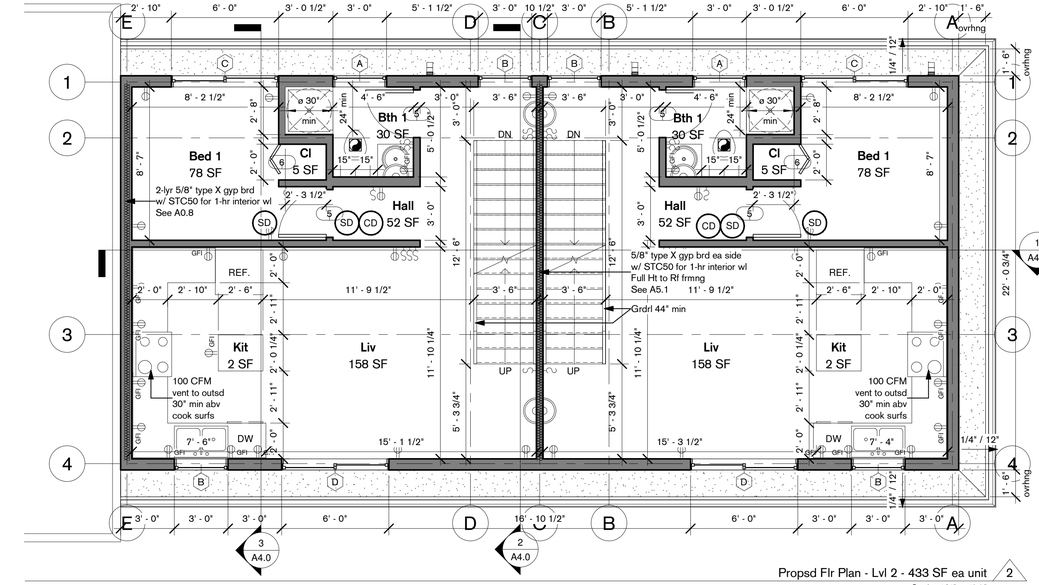
Mark	Width	Height	Type	Count
1	3' - 0"	6' - 8"	Single flush / solid / temp gl	2
2	2' - 8"	6' - 8"	Single flush / solid / 20-min	2
3	16' - 0"	7' - 0"	Garage overhead / insul	2
4	3' - 0"	6' - 8"	Single flush / solid / panick hrdwr	2
5	2' - 8"	6' - 8"	Single flush / hollow	12
6	2' - 0"	6' - 8"	2-pane bifold	2
7	2' - 8"	6' - 8"	2-pane bifold	6
8	2' - 0"	6' - 8"	Single flush / hollow / vent	2

Window Schedule

Mark	Width	Height	Type	Material	SHGC	U-Factor	Count
A	3' - 0"	3' - 0"	Csmnt / temp	Vin	See T24	See T24	4
B	3' - 0"	3' - 0"	Csmnt	Vin	See T24	See T24	6
C	6' - 0"	3' - 0"	Sldr	Vin	See T24	See T24	6
D	6' - 0"	6' - 0"	Sldr	Vin	See T24	See T24	2
E	2' - 0"	2' - 0"	Csmnt / temp	Vin	See T24	See T24	4







Expansion

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Owner:

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Project:

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Los Angeles, CA 90044

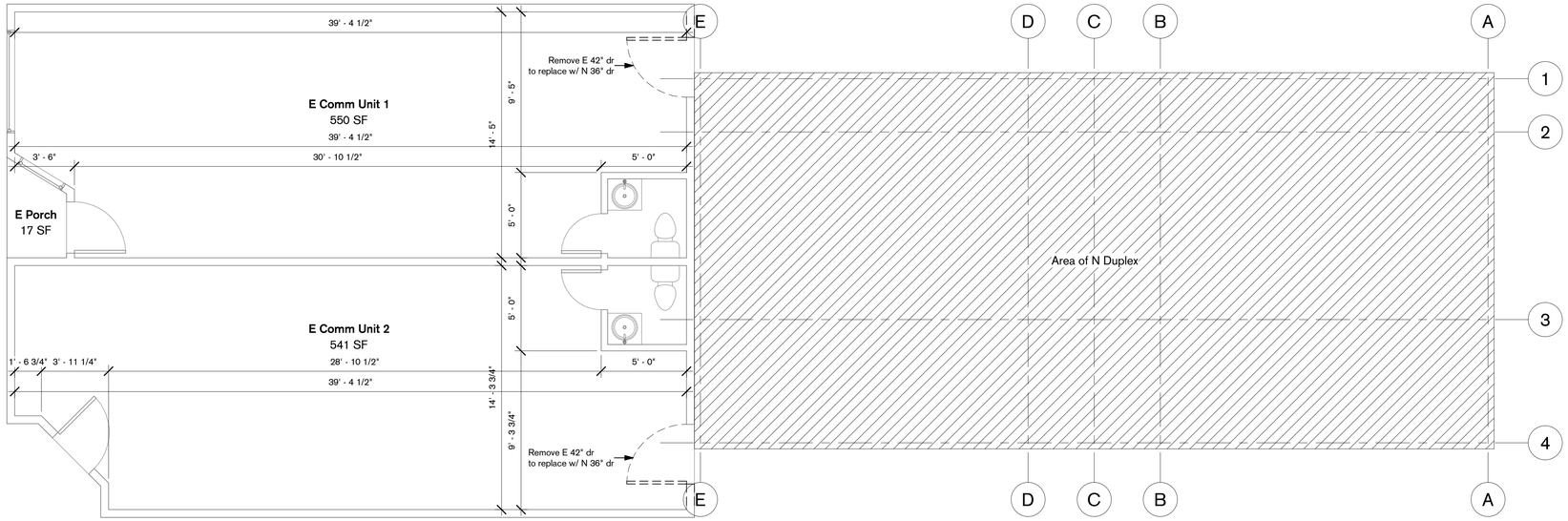
Revisions

No.	Description	Date

Proposed Floor Plan

Drawn by	Egor Shpak
Date	04.02.2020
	A2.0
Scale	1/4" = 1'-0"

6/23/2020 5:08:43 AM



Demo Plan - E Commercial 1

Scale 1/4" = 1'-0"

Wall Legend

E wll

Demo wll / item

Expansion

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Revisions

No.	Description	Date

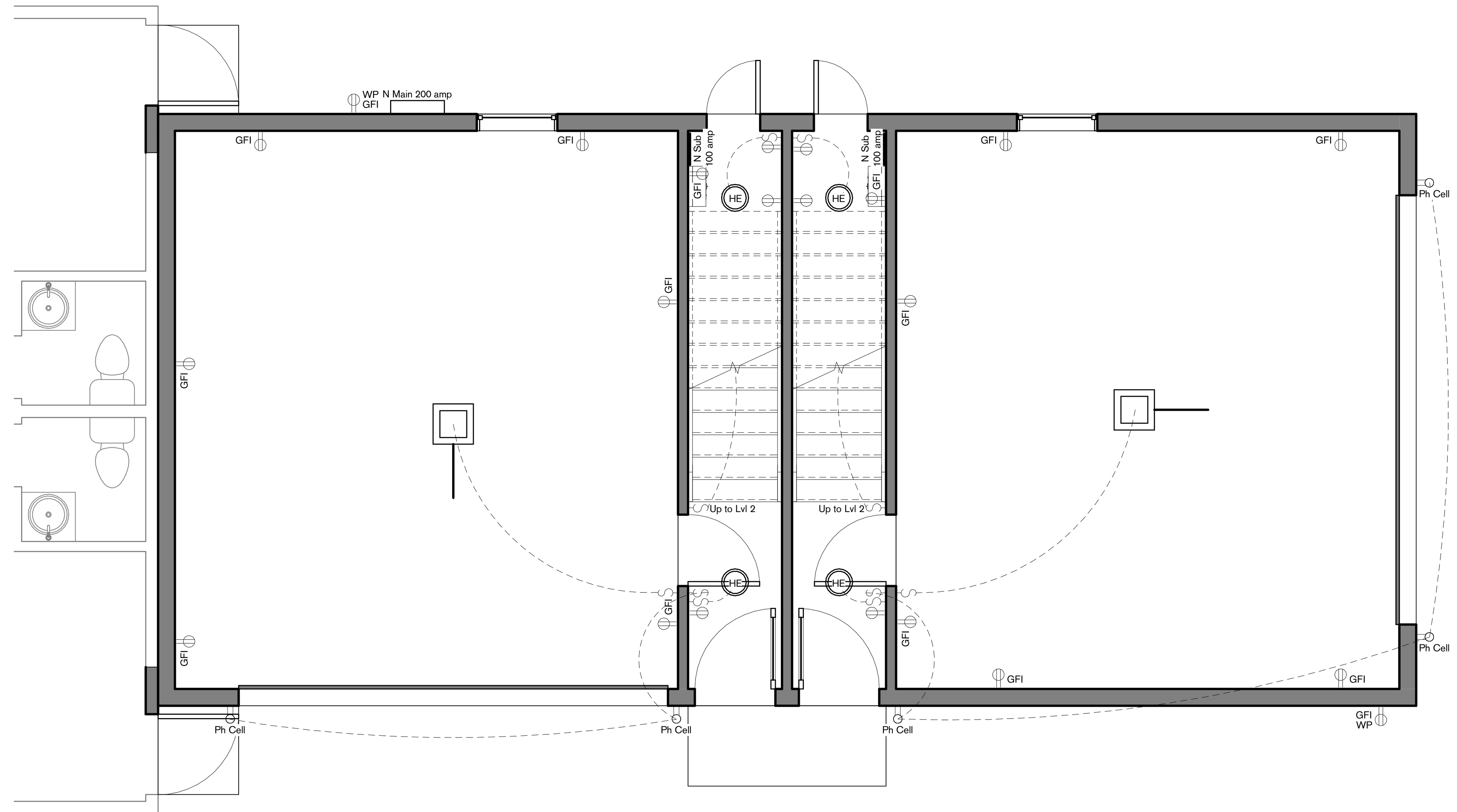
Demo Plan

Drawn by	Egor Shpak
Date	04.02.2020
	A2.2
Scale	1/4" = 1'-0"

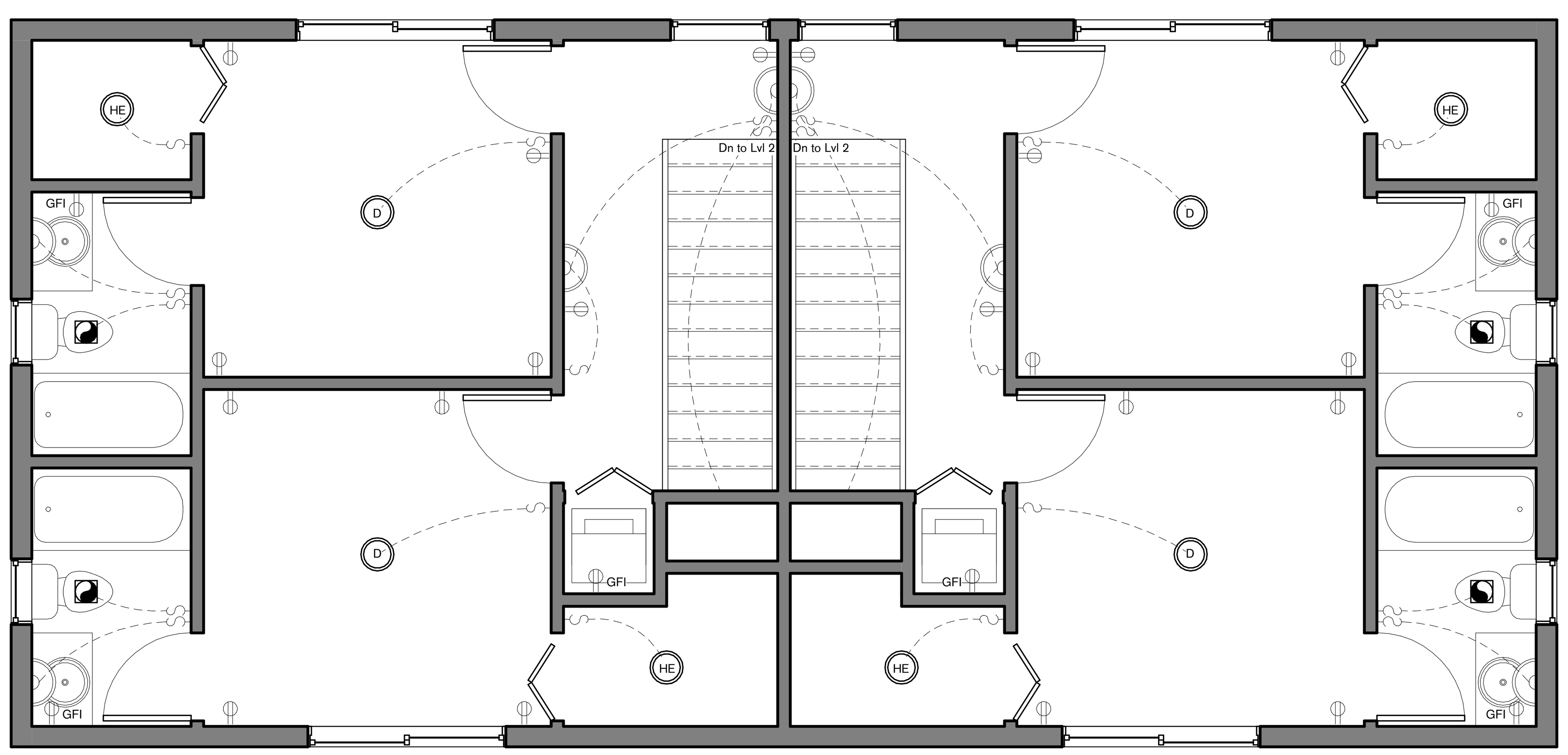
6/23/2020 5:09:43 AM

Electrical Legend
All luminaries shall be high efficacy

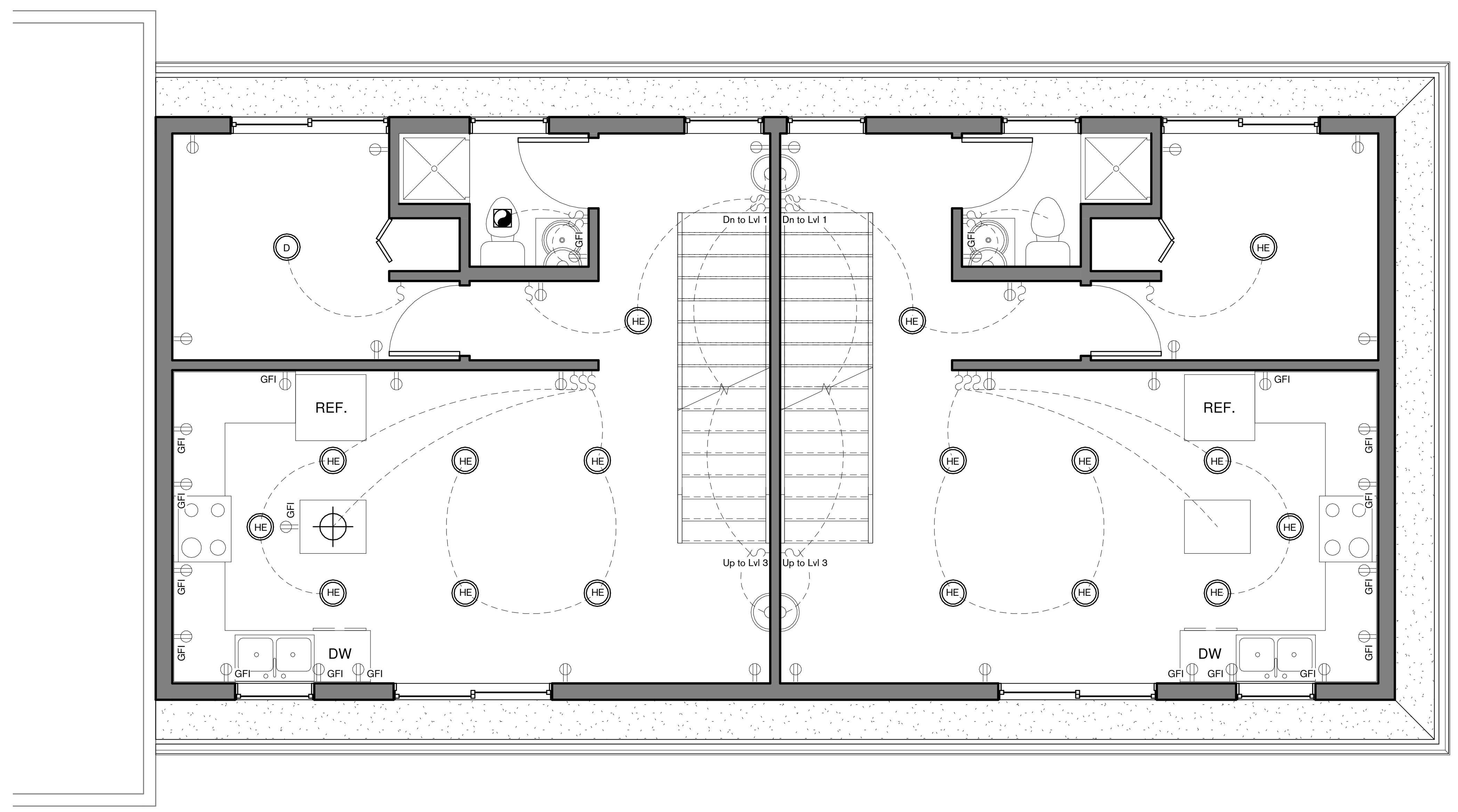
- (D) Recessed downlight, dimmer switch, shall be sealed type
- (HE) Recessed downlight, shall be sealed type
- Ph Cell — Wall mounted light fixture w/ photocontrol / motion sensor
- Pendant light fixture
- Wall mounted light fixture sconce light
- Garage opener w/ light
- GFI — Duplex outlet w/ ground fault interrupter
- GFI WP — Duplex outlet w/ ground fault interrupter Water-proof
- Duplex outlet, arc-fault interrupter
- Exhaust fan 50 CFM, shall be "Energy Star" compliant, and ducted to terminate to the outside of the building. Fans not functioning as a component of the whole house ventilation, must be controlled by humidity control. (4.506.1)
- $ Electric switch



Propsd Elec Plan - Lvl 1 (1)
Scale 1/4" = 1'-0"



Propsd Elec Plan - Lvl 3 (3)
Scale 1/4" = 1'-0"



Propsd Elec Plan - Lvl 2 (2)
Scale 1/4" = 1'-0"

Expansion
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Owner:

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Project:

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Los Angeles, CA 90044

Revisions

No.	Description	Date

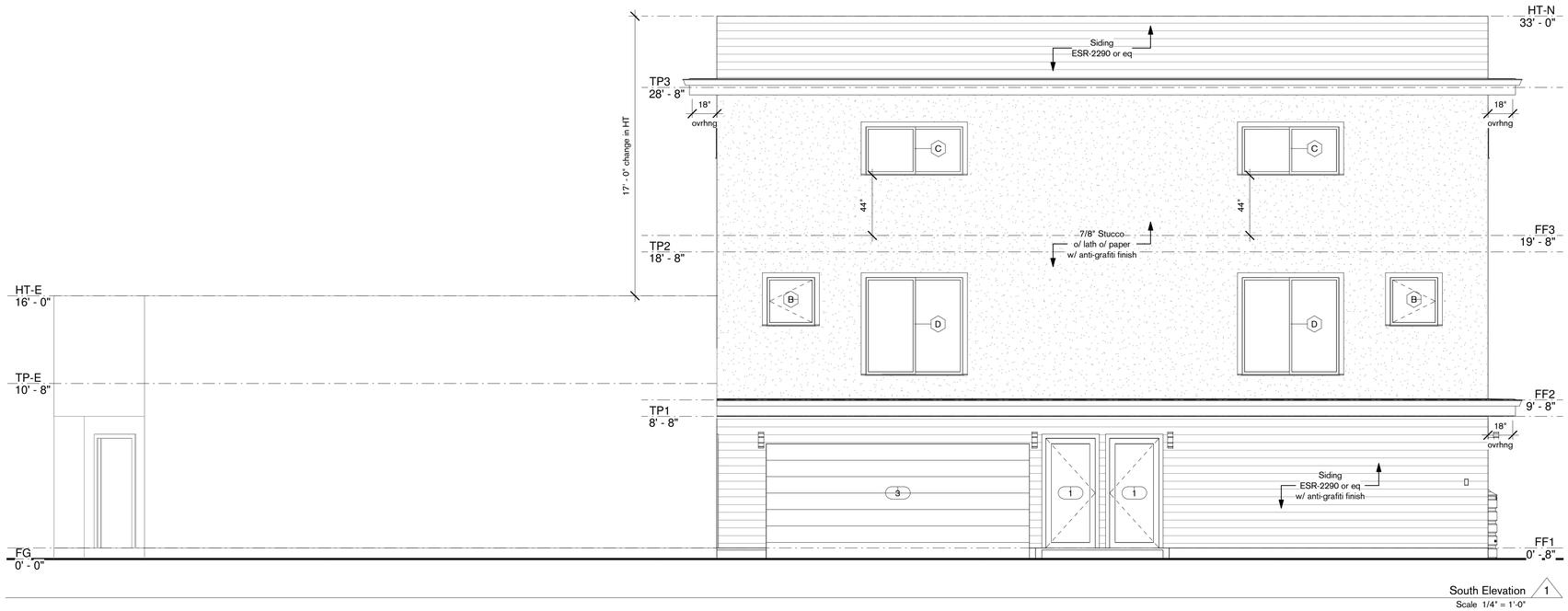
Proposed Elec Layouts

Drawn by Egor Shpak
Date 04.02.2020

A2.3

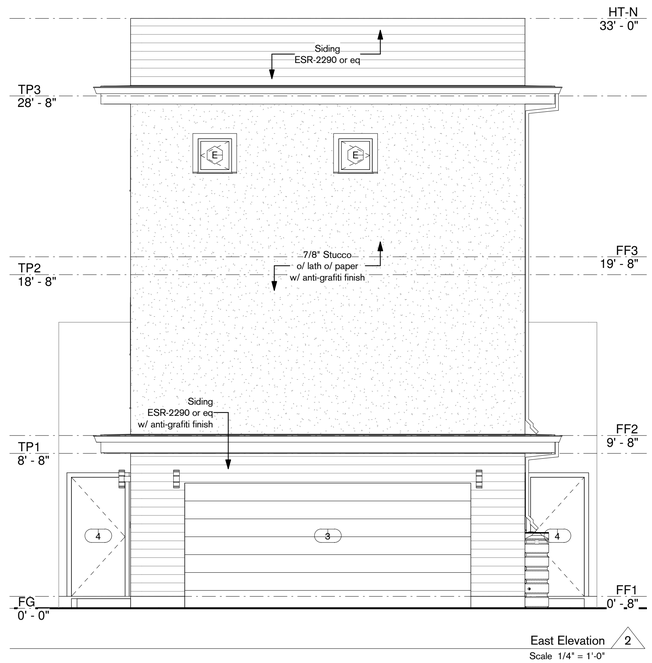
Scale 1/4" = 1'-0"

6/23/2020 5:09:44 AM



South Elevation 1

Scale 1/4" = 1'-0"



East Elevation 2

Scale 1/4" = 1'-0"

Expansion

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Owner:

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Los Angeles, CA 90044

Revisions

No.	Description	Date

Elevations

Drawn by	Egor Shpak
Date	04.02.2020
	A3.0
Scale	1/4" = 1'-0"

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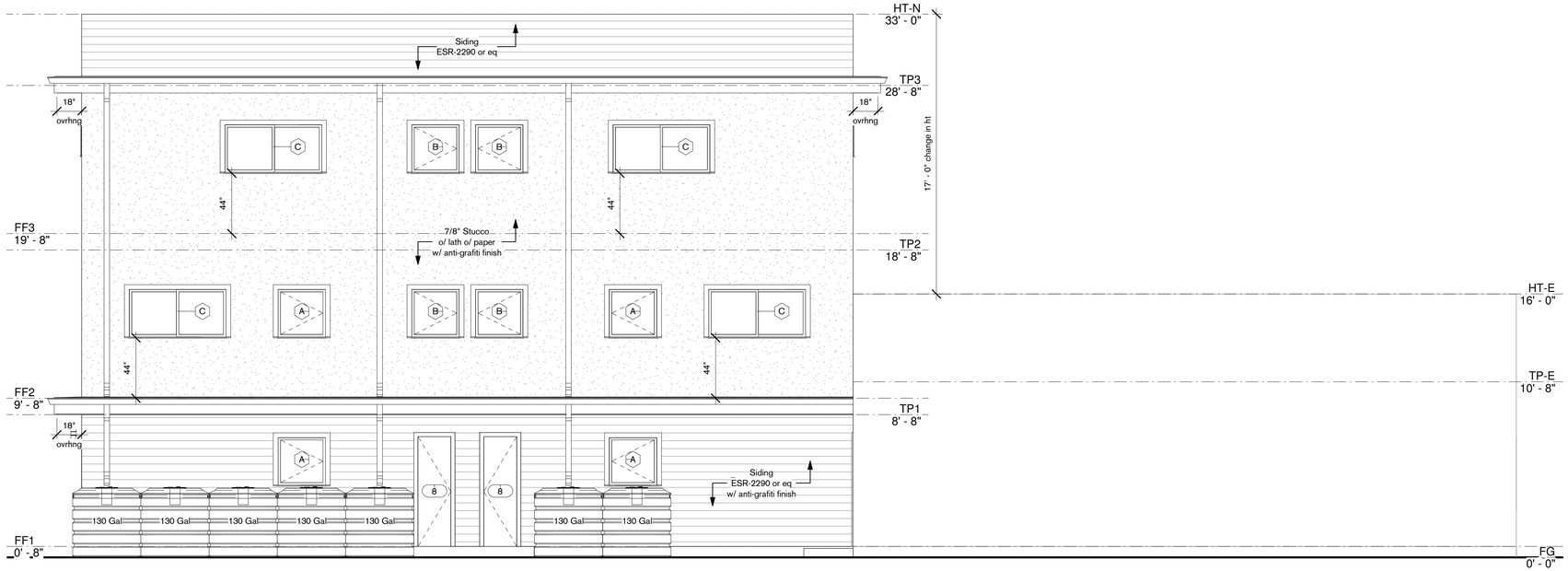
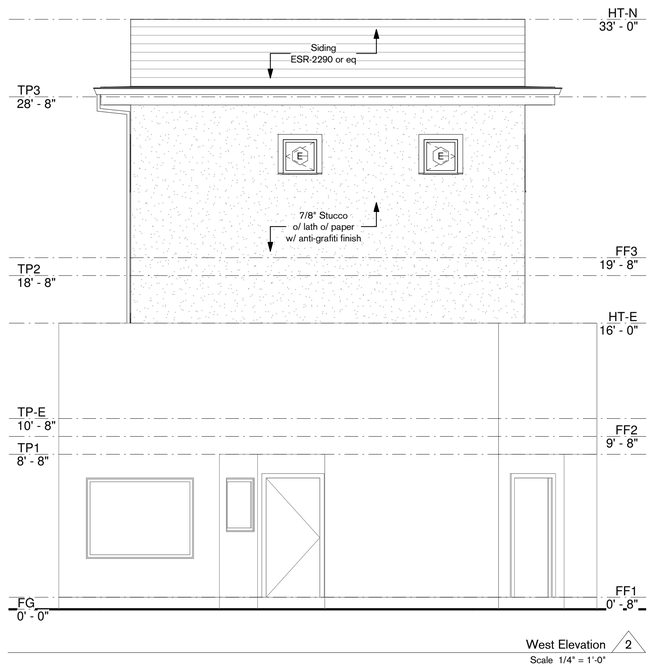


North Elevation 1
Scale 1/4" = 1'-0"



West Elevation 2
Scale 1/4" = 1'-0"

Expansion

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Los Angeles, CA 90044

Revisions

No.	Description	Date

Elevations

Drawn by	Egor Shpak
Date	04.02.2020
	A3.1
Scale	1/4" = 1'-0"

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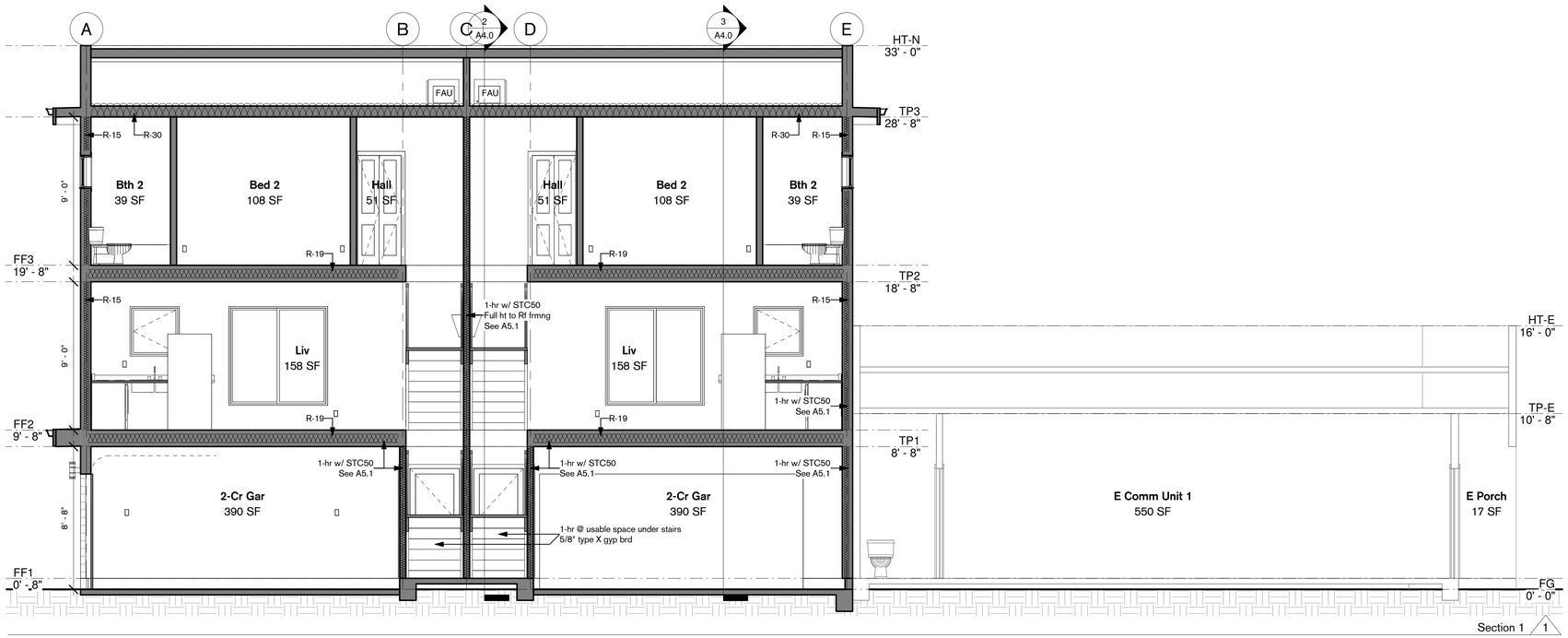

Section 1 1

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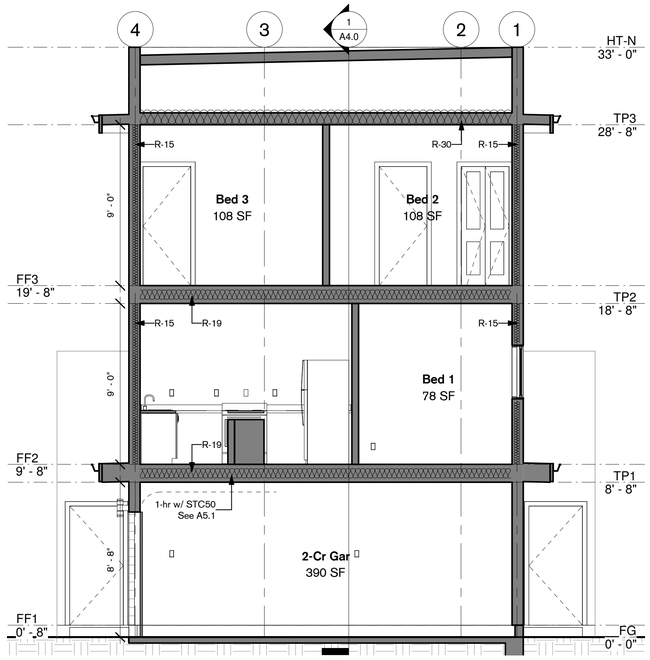
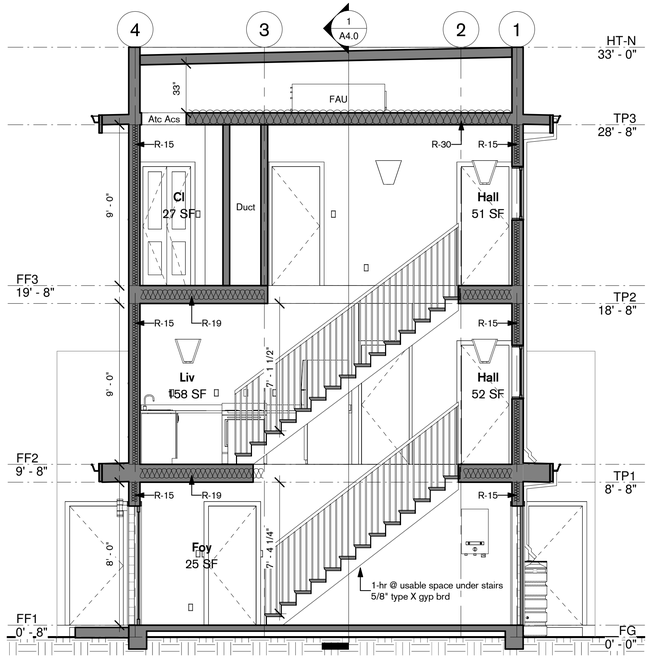


Section 3 3

Scale 1/4" = 1'-0"



Section 2 2

Scale 1/4" = 1'-0"

Expansion

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Los Angeles, CA 90044

Revisions

No.	Description	Date

Sections

Drawn by: Egor Shpak

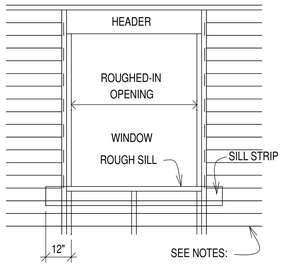
Date: 04.02.2020

A4.0

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

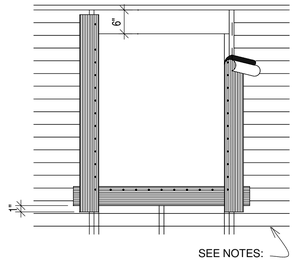
6/23/2020 5:08:48 AM

1



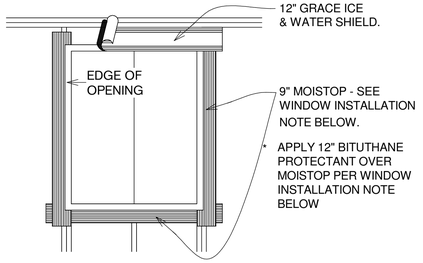
ATTACH A SILL STRIP OF MOISTOP FLASHING MATERIAL AT LEAST 12" WIDE WITH THE TOP EDGE EVEN WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND SILL STRIP AT LEAST 12" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW. ATTACH FLASHING WITH GALVANIZED ROOFING NAILS OR RUST RESISTANT STAPLES.

2



AFTER SILL STRIP IS IN PLACE ATTACH JAMB STRIPS (SIDE OF OPENING) AT LEAST 9" WIDE WITH INSIDE EDGE OF FLASHING FLUSH WITH EDGE OF WINDOW OPENING. START JAMB STRIPS 1" BELOW THE SILL STRIP AND EXTEND JAMB STRIPS 6" ABOVE THE LOWER EDGE OF THE HEADER (TOP OF WINDOW OPENING.

3



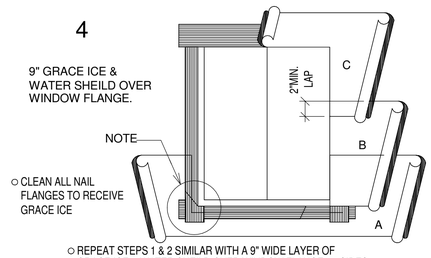
APPLY A CONTINUOUS (TOP 900 BEAD OF BUTYL RUBBER)SEALANT TO THE BACK SURFACES OF THE WINDOW FLANGE, THEN PLACE THE WINDOW INTO THE ROUGH OPENING WITH FLANGES OVER THE INSTALLED FLASHING STRIPS. AFTER WINDOW IS PLACED, CAULK ALL VOIDS VISIBLE @ TOP OF WINDOW FLANGE EDGE AND DOWN SIDES 6"

NOTES: SECTION 1402.2, UNIFORM BUILDING CODE CALLS FOR FLASHING OF ALL EXTERIOR OPENINGS EXPOSED TO WEATHER TO MAKE THEM WEATHERPROOF. SINCE U.B.C. DOES NOT OUTLINE PROCEDURES FOR WINDOW FLASHING, TECHNIQUES SHOWN HERE ARE RECOMMENDED. USE "MOISTOP" FLASHING BY FORTIFIBER CORP., OR EQUAL WHENEVER POSSIBLE FOR FLASHING MATERIAL. CAULK BACK OF WINDOW FRAMES BEFORE SETTING. USE USE WINDOWS THAT ARE WATERTIGHT.

26 GA. G.I. FLASHING REQUIRED AS SHOWN IN OTHER WINDOW DETAILS TO BE INSTALLED BY SHEET METAL CONTRACTOR.

NOT TO SCALE

4



○ REPEAT STEPS 1 & 2 SIMILAR WITH A 9" WIDE LAYER OF GRACE ICE & WATER SHEILD OVER WINDOW FLANGE, 4" SIDES GRACE ICE & WATER SHEILD MUST BE SECURELY SEALED TO NAIL FLANGE

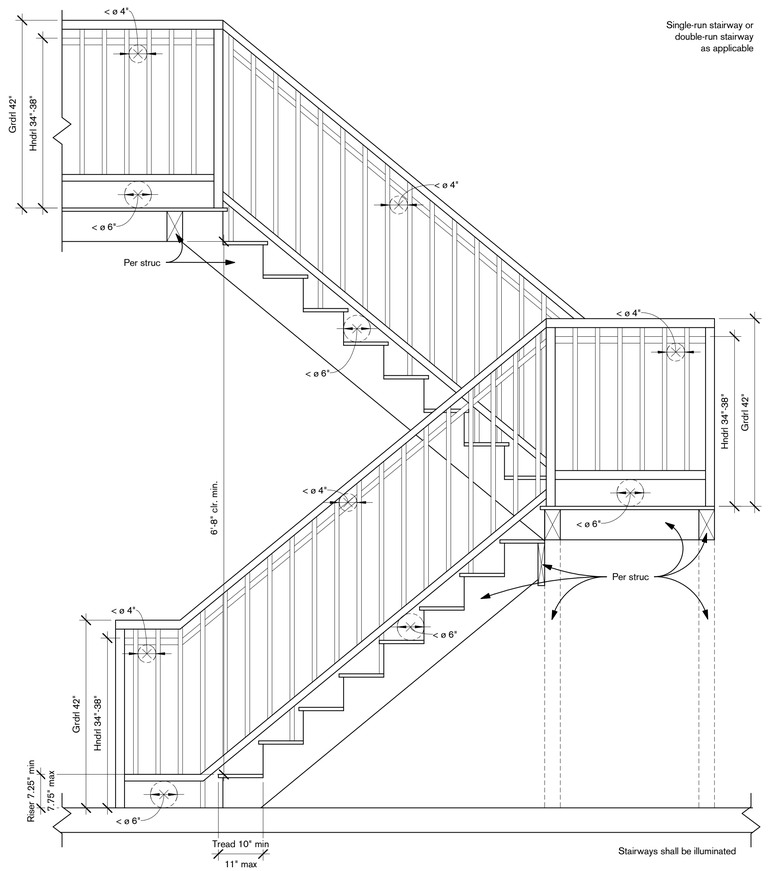
○ STARTING AT THE BOTTOM OF THE WALL (SOLE PLATE), LAY WATER-RESISTANT PAPER UNDER THE SILL STRIP. CUT ANY EXCESS WATER-RESISTANT PAPER THAT MAY EXTEND ABOVE THE SILL FLANGE ON EACH SIDE OF THE OPENING. (SHOWN IN DIAGRAM AS SHORT DASHED LINES). INSTALL SUCCEEDING COURSES OF WATER-RESISTANT PAPER (B, C, ETC.) OVER JAMB AND HEAD FLANGES IN SHINGLE-BOARD FASHION.

LINE WIRE, WHEN USED AS BACKING TO SUPPORT WATER-RESISTANT BUILDING PAPER OR FELT BENEATH LATH FOR STUCCO SHOULD BE INSTALLED ACCORDING TO INDUSTRY STANDARDS AND PRACTICE. NO ATTACHMENT DEVICE NOR THE WIRE BACKING SHOULD COVER OR PENETRATE FLASHING MATERIAL. PERIPHERAL FLASHING AT ALL EDGES OF WALL OPENING MUST COVER WIRE BACKING.

WINDOW INSTALLATION:

WHITE VINYL FRAME DUAL PANE WINDOWS PER PLAN AND PER TITLE 24 REQUIREMENTS. GRIDS PER PLAN AND ELEVATIONS. ALL WINDOWS INSTALLED BY FRAMER WITH 1/4" BEAD OF TOP 900 OR SCHNEE MOOREHEAD ADHESIVE AND 9" BITUTHANE OVER TOP OF NAILING FIN AT SILLS AND JAMBS, 12" AT HEAD.

Window Flashing 2
Scale 3/8" = 1'-0"



Interior Stairs 1
Scale 3/4" = 1'-0"

Expansion

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Revisions

No.	Description	Date

Arch Details

Drawn by	Egor Shpak
Date	04.02.2020
	A5.0
Scale	As indicated

6/23/2020 5:09:48 AM

SOUND-RATED PARTITIONS AND FLOOR-CEILING CONSTRUCTION

In accordance with Section 1207.9.1 and Section 1207.10 of the Los Angeles Building Code (LABC), walls and floor ceiling assemblies separating dwelling units or guest rooms from each other and from public or service areas (such as interior corridors, garages, and mechanical spaces) shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor-ceiling assemblies.

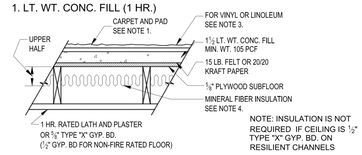
Partitions and floor-ceiling assemblies constructed in accordance with the diagrams shown herein are considered to have Sound Transmission Class (STC) ratings and Impact Insulation Class (IIC) ratings of 50 as shown. They may be used to meet the acoustically rated construction requirements stipulated in Sections 1207.10 and 1207.11 of the LABC. Other assemblies may be used provided that they comply with the requirements of Section 1207.12 of the LABC. Laboratory and field tests to establish general approvals require an STC rating of 50 for walls and floors and an IIC rating of 50 for floors. The specified rating of 45 for field-tested assemblies (noted in Section 1207.10 of the LABC) is to be used for acceptance of individual jobs only.

The following notes shall be provided on the plans or in their contents delineated as details on the plans.

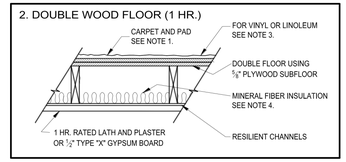
1. All penetrations into sound rated partitions or floor-ceiling assemblies shall be sealed, lined, or insulated with an approved permanent resilient sealant.
2. All rigid conduits, ducts, plumbing pipes, and appliance vents located in sound rated assemblies shall be isolated from the building construction by means of resilient sleeves, mounts, or a minimum 1/4" thick approved resilient material.
3. An approved permanent and resilient acoustical sealant shall be provided along the joint between the floor and the separation walls.
4. Metal ventilating and conditioned air ducts located in sound rated assemblies shall be lined (Exception: Ducts serving only exit ways, kitchen cooking facilities, and bathrooms need not be lined).
5. Mineral fiber insulation shall be installed in joist spaces whenever a plumbing, piping, or duct penetrates a floor-ceiling assembly or where such unit passes through the plane of the floor-ceiling assembly from within a wall. The insulation shall be installed to a point 12" beyond the pipe or duct. This requirement is not applicable to fire sprinkler pipe, gas line or electrical conduit.
6. Electrical outlet boxes in opposite faces of separation walls shall be separated horizontally by 24" and note that back and sides of boxes shall be sealed with 1/8" resilient sealant and backed by a minimum of 2" thick mineral fiber insulation.
7. No wall furnace shall be installed in sound rated partitions.
8. No electrical panel shall be installed in sound rated partitions.

STANDARD SOUND RATED FLOOR - CEILING ASSEMBLIES
STC 50 - IIC 50 FIRE RATING AS SHOWN

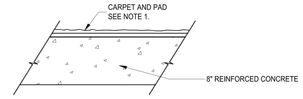
1. LT. WT. CONC. FILL (1 HR.)

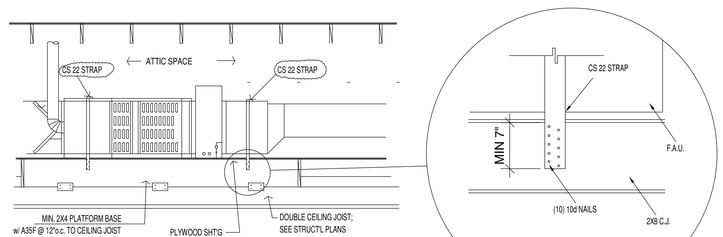


2. DOUBLE WOOD FLOOR (1 HR.)

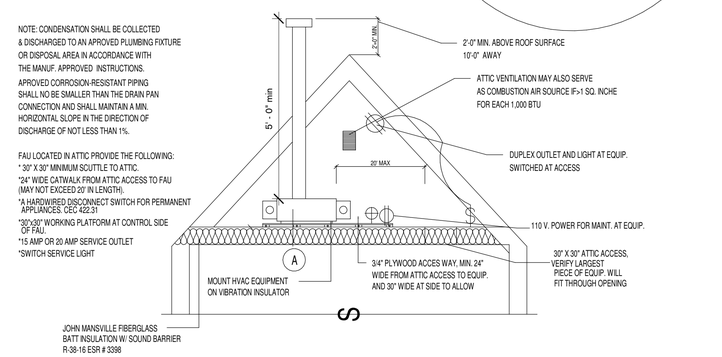


3. CONCRETE SLAB - NO CEILING (4 HR.)





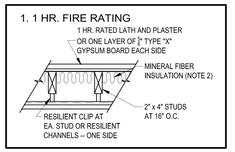
SEC. A-A : F.A.U. ATTACHMENT



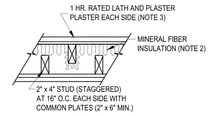
FAU in Atc 1
Scale 1/4" = 1'-0"

STANDARD SOUND RATED PARTITION ASEMBLIES
STC 50 – FIRE RATING AS SHOWN

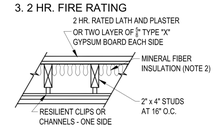
1. 1 HR. FIRE RATING



2. 1 HR. FIRE RATING



3. 2 HR. FIRE RATING



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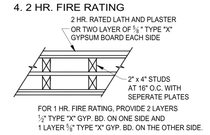

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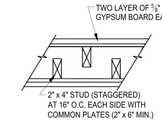
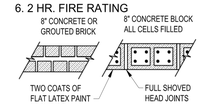


6. 2 HR. FIRE RATING



GENERAL NOTES:

1. The type and spacing of resilient channels and clips and the attachment of gypsum board or lath shall be as required for fire ratings.
2. The mineral fiber insulation shall have a thermal resistance R value of 11 or greater as determined by Federal Specification RR-I-521B.
3. No test is on file to justify an STC 50 with one 5/8" type "X" gypsum board each side.

Expansion
Георгий Шпак | Проектировщик
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Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Arch Details

Drawn by Egor Shpak

Date 04.02.2020

A5.1

Scale 1/4" = 1'-0"

6/29/2020 5:09:50 AM

FOUNDATION NOTES

1. CONCRETE SLAB-ON-GRADE 4" THICK WITH #4 @ 16" OC EACH WAY. SLAB SHALL BE OVER 10 MIL VAPOR BARRIER OVER 4" OF 1/2" GRAVEL. SLAB SHALL HAVE .5 MAX WATER-TO-CEMENT RATIO.

2. ALL HOLDOWNS AND ANCHOR BOLTS SHALL BE SECURED IN PLACE BY TEMPLATE PRIOR TO FOUNDATION INSPECTION AND STRUCTURAL OBSERVATION. HOLDOWNS ANCHOR NUTS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING. PLATE WASHERS ARE REQUIRED FOR ALL BOLTED HOLDOWNS.

3. FOOTING PSI SHALL BE AS SPECIFIED ON SHEET S4.0.

4. ALL GRADING AND FOUNDATION EXCAVATIONS SHALL BE OBSERVED & APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.

5. ALL EXCAVATIONS SHALL BE APPROVED BY THE CITY BUILDING INSPECTOR.

6. POSTS WITHOUT SPECIFIED CONNECTORS SHALL BE ATTACHED TO TOP AND BOTTOM PLATES w/ "A35" ON 2 SIDES, (4 TOTAL PER POST). ALL BEAMS WITHOUT SPECIFIED CONNECTORS SHALL BE ATTACHED TO TOP PLATES w/ "A35" EACH SIDE.

7. WOOD FRAMING MEMBERS INCLUDING WOOD SHEATHING THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH SHALL BE NATURALLY DURABLE AND PRESERVATIVE TREATED WOOD.

8. WHERE CONTINUOUS FOOTING INTERSECTS w/ PAD FOOTING, EXTEND CONTINUOUS FOOTING REINFORCING INTO PAD FOOTINGS PER LAP SPLICE SCHEDULE.

9. ALL MEMBERS SPECIFIED AS DRAG TO HAVE B.N.

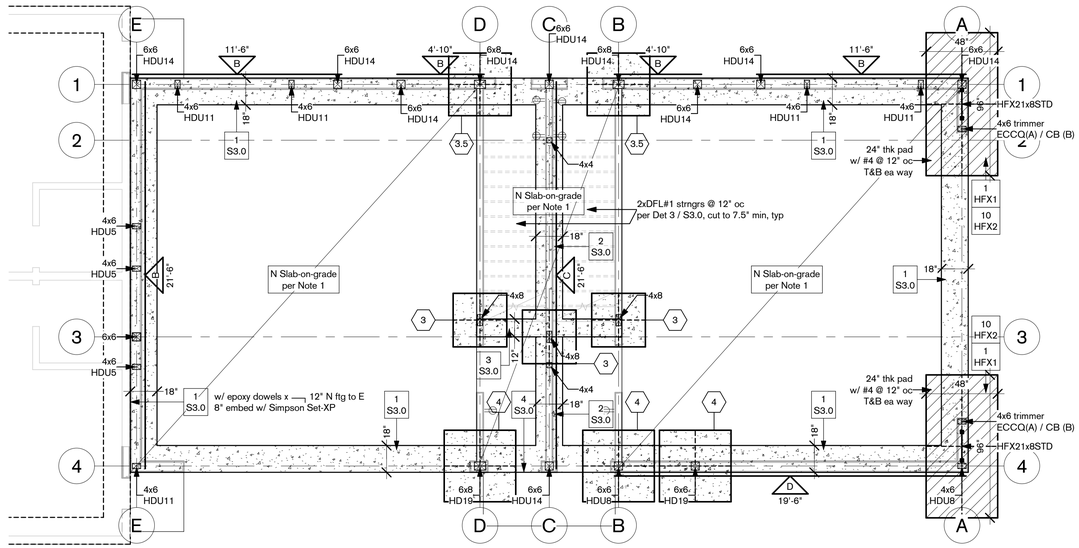
10. FOOTING REINF. TO RUN CONT. THRU HARDY FRAME PAD FOOTINGS. PROVIDE ADD'L MAT OF #4 @ 16" o.c. EACH WAY @ BOTTOM IN HARDY FRAME PAD FOOTINGS.

11. A COPY OF THE GLENDALE RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.

12. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.

13. REFER TO CURRENT SOILS INVESTIGATION REPORT FOR SOIL CONDITIONS AS APPLICABLE.

NOTIFY ENGINEER IF CONDITIONS ARE DIFFERENT THAN SHOWN ON THIS PLAN.



Foundation Plan 1
Scale 1/4" = 1'-0"

ANCHOR BOLT SCHEDULE

SYMBOL	DIAMETER	SPACING
A	5/8"	32" o.c.
B	5/8"	32" o.c.
C	5/8"	24" o.c.
D	5/8"	16" o.c.
BB	5/8"	16" o.c.
CC	5/8"	12" o.c.
DD	5/8"	10" o.c.

IN ADDITION TO SHEAR WALLS, 5/8" DIA @ 48" o.c. A.B. ARE REQ'D @ ALL EXTERIOR & BEARING WALLS w/ 7" MIN. CONC. EMBED. w/ 2 BOLTS MIN. PER PIECE, 5" MIN. & 12" MAX. FROM ENDS. SEE S4.0 AND SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS. MIN. PLATE WASHER SIZE FOR 5/8" DIA A.B. IS 3"x3"x.229"

PAD FOOTING SCHEDULE

SYMBOL	SIZE	THICKNESS	REINFORCING
2	2'-0" SQ.	18"	3#4 EA. WAY BOTT
2.5	2'-6" SQ.	18"	4#4 EA. WAY BOTT
3	3'-0" SQ.	18"	4#4 EA. WAY BOTT.
3.5	3'-6" SQ.	18"	5#4 EA. WAY BOTT.
4	4'-0" SQ.	18"	5#4 EA. WAY BOTT
5	5'-0" SQ.	18"	6#5 EA. WAY BOTT.
6	6'-0" SQ.	18"	8#5 EA. WAY T&B

BOTTOM OF PAD FOOTINGS @ SAME LEVEL AS STRIP FOOTINGS U.N.O. AND HAVE 18" MIN. EMBED. INTO BEARING MATERIAL AND 24" MIN EMBED BELOW LOWEST ADJACENT GRADE.

Wall Legend

- New std wll: 2x4 @16" oc, UNO; 2x6 @16" oc @ plmbg wls; 2x6 @16" oc @ ext wls
- Existing stud wall: 2x4 @ 16" oc uno
- Demo wall

Foundation Legend

- Typ. @ Hardy Frame 24" min. thick pad ftg, W/ #4 @ 12" oc T&B ea. way. Hardy Frame bolt to extend to 3" clr. from bottom of ftg. w/ 5" sq. x 0.5" thick plate washer w/ dbl. nuts 3" clr. from bot.
- E ftg to remain
- N ftg per 1 & 2, S3.0
- N pad ftg per schedule on S1.0
- XxX HDUX — Post w/ holdown per plan (LARR# 25828)

Expansion

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REGISTERED PROFESSIONAL ENGINEER PAUL V. BORANIAN No.59 CIVIL STATE OF CALIFORNIA

Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Foundation Plan

Drawn by Paul Boranian, Egor Shpak

Date 04.02.2020

S1.0

Scale 1/4" = 1'-0"

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WOOD FRAMED ROOF/ FLOOR NOTES

1. AT WOOD FRAMING, FLOOR SHALL BE OVER OVER 3/4" PLYWOOD CDX, PII 48/24 T & G w/ 10d COMMON NAILS @ 6, 12" o.c. UNBLOCKED. WHERE BLOCKED DIAPHRAGM IS SPECIFIED PER PLAN BLOCK ALL EDGES w/ FLAT 2x4 AND 10d COMMON NAILS @ 4; 6; 12" o.c. SEE 2/S3.3 FOR ADD INFO.

2. AT WOOD FRAMED ROOF, ROOFING SHALL BE OVER 5/8" PLYWOOD, CD-X P11 32/16, w/ 10d COMMON NAILS @ 6; 12" o.c. UNBLOCKED. WHERE BLOCKED DIAPHRAGM IS SPECIFIED PER PLAN BLOCK ALL EDGES w/ FLAT 2x4 AND 10d COMMON NAILS @ 4; 6; 12" o.c. SEE 2/S3.3 FOR ADD INFO.

3. SHEAR WALLS SHALL RUN FULL HT. BETWEEN THE FLOOR / ROOF OR FLR / FLR DIAPHRAGMS.

4. MINIMUM POST SIZE IS 4x4 IN 2x4 WALLS, AND 4x6 IN 2x6 WALLS.

5. STUD WALL THICKNESS SHALL BE THE GREATER OF WHAT IS REQUIRED PER THESE STRUCTURAL PLANS OR WHAT IS REQUIRED PER ARCHITECTURAL PLANS. EXTERIOR WALLS, BEARING WALLS, OR SHEAR WALLS SHALL BE 2X6 @ 16" O.C. MINIMUM FOR STUD HEIGHTS IN EXCESS OF 10'.

6. SEE TYPICAL NOTES ON S-1 AND TYPICAL DETAIL SHEETS FOR ADD INFO.

7. HEADER LENGTHS GREATER THAN 5'-0" OR SUPPORTING A BEAM OR POST SHALL HAVE DBL 2x OR 4x TRIMMERS U.N.O.

8. ALL FLUSH BM. TO BM. CONNECTIONS TO USE SIMP. "HGUS" HNGR @ FLRS & HUTF @ RF U.N.O.

9. LICENSED FABRICATOR REQUIRED FOR GLU-LAM BEAMS, ML, TJI & STRUCTURAL STEEL.

10. WELDING SHALL BE DONE BY WELDERS CERTIFIED BY THE CITY BUILDING DEPARTMENT FOR STRUC. STEEL.

11. PROVIDE DBL JOISTS UNDER ALL PARALLEL PARTITION WALLS OR SHEAR WALLS.

12. ALL POSTS WITHOUT SPECIFIED CONNECTORS SHALL BE ATTACHED TO TOP AND BOTTOM PLATES w/ "A35" ON 2 SIDES, (4 TOTAL PER POST). ALL BEAMS WITHOUT SPECIFIED CONNECTORS SHALL BE ATTACHED TO TOP PLATES w/ "A35" EACH SIDE.

13. ALL MEMBERS SPECIFIED AS DRAG TO HAVE B.N.

14. 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 CITY INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC. 1

15. 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.

16. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.).

17. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP.

18. 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.

19. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MINIMUM OF 0.299 INCH BY 3 INCHES BY 3 INCHES.

20. 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.

21. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS.

22. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED.

23. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

24. A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.

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

26. FIELD WELDING 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.

27. SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR'S SHOP.

28. LADBS LICENSED FABRICATOR IS REQUIRED FOR TRUSSES, STRUCTURAL STEEL, PARALLAMS.

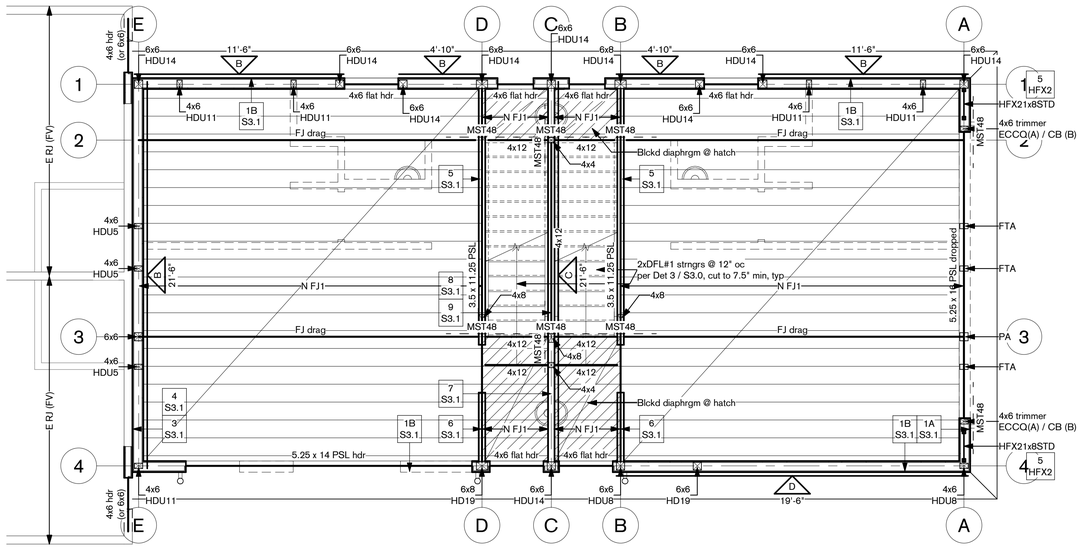
29. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.

30. PROVIDE MST48 ACROSS ANY BROKEN TOP PLATES, OR WHERE TOP PLATES END AND TRANSITION TO A BEAM. AT BREAK DUE TO CONTINUOUS HSS COLUMN, TOP PLATE SHOULD BE TIGHTLY FITTED AGAINST COLUMN OR COLUMN NAILER AND SPLICED w/ MST48.

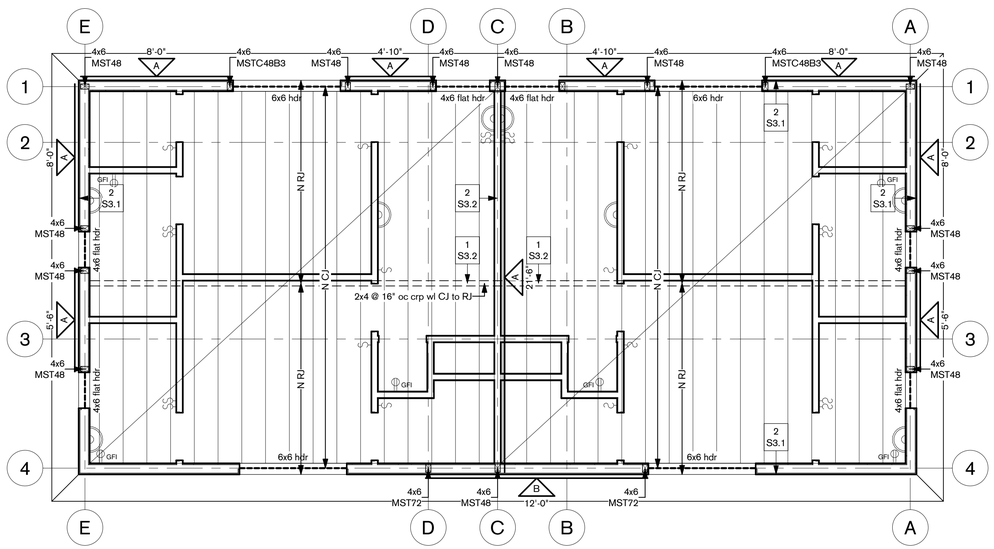
31. PROVIDE MST48 MIN. STRAP ACROSS ALL BROKEN TOP PLATES @ CC LOCATIONS, HSS LOCATIONS, OR SIMILAR.

32. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS.

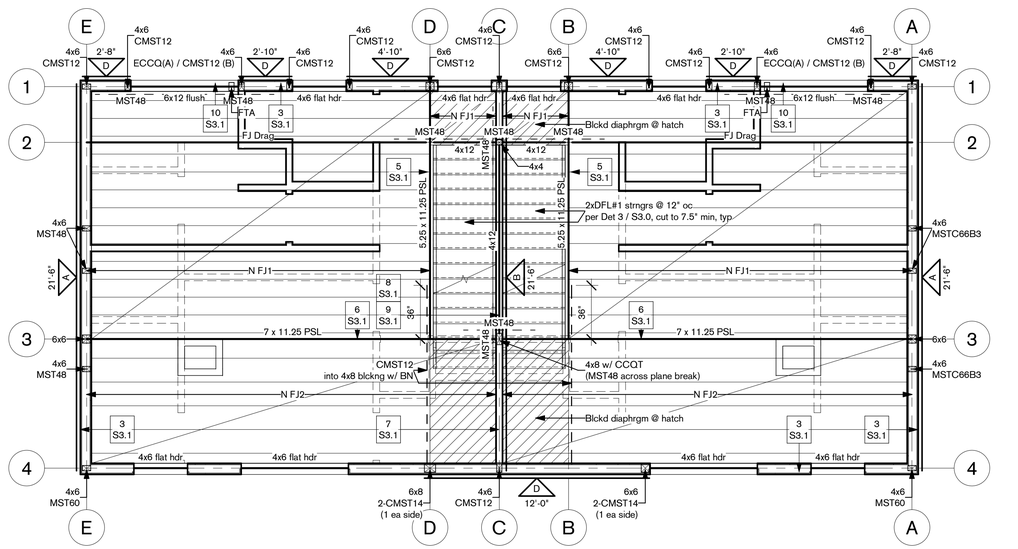
33. UNLESS SHOWN OTHERWISE ON THE PLANS, PROVIDE A POST BELOW ENDS OF ALL BEAMS (OR POSTS ABV.) TO MATCH THICKNESS OF STUD WALL AND WIDTH OF BEAM (OR POST ABOVE).



Framing Plan - Lvl 1 1
Scale 1/4" = 1'-0"



Framing Plan - Rf 3
Scale 1/4" = 1'-0"



Framing Plan - Lvl 2 2
Scale 1/4" = 1'-0"

INTERIOR NONBEARING WALL HEADER SCHEDULE

SIZE	MAX. AVG. DISTANCE TO ADJACENT WALL EA. SIDE	
	5'-0" OR LESS	10'-0"
4x4 OR DBL. 2x4 (ON EDGE)	4'-9"	3'-5"
4x6	7'-8"	5'-6"
4x8	10'-1"	7'-3"

CEILING JOIST SCHEDULE

SIZE/SPACING	> 42" ATTIC CLEARANCE MAX. SPAN o.c.	< 42" ATTIC CLEARANCE MAX. SPAN o.c.
2x4 @ 24	6'-9"	8'-1"
2x4 @ 16	7'-9"	9'-3"
2x4 @ 12	8'-6"	10'-2"
2x6 @ 24	10'-8"	12'-8"
2x6 @ 16	12'-3"	14'-6"
2x6 @ 12	13'-6"	15'-11"
2x8 @ 24	14'-1"	16'-8"
2x8 @ 16	16'-2"	19'-0"
2x8 @ 12	17'-9"	21'-0"
2x10 @ 24	18'-0"	21'-4"
2x10 @ 16	20'-7"	24'-5"
2x10 @ 12	22'-8"	26'-9"

Joist Legend

N RJ	2x6 @ 24" oc new roof joists
N CJ	2x12 @ 16" oc new ceiling joists
N FJ1	2x12 DFL#1 @ 16" oc OR 2x12 #2 @ 12" oc new floor joists
N FJ2	Dbl 2x12 #2 @ 16" oc new floor joists
E RJ	Existing Roof Joists as occurs

Symbol Legend

RJ	Span & direction of N roof joists
FJ	Span & direction of N floor joists
CJ	Span & direction of N ceil joists
X'-X' / X	Shear wall length and type per sched. on S5.0
XxX HDUX	Post w/ holdown or strap to below
FTA	Post above w/ strap or holdown floor tie from above
PA	Post above
PSL	Parallam by Weyerhaeuser

Wall Legend

	New std wll 2x4 @16" oc, UNO 2x6 @16" oc @ plmbg wls 2x6 @16" oc @ ext wls
	Existing stud wall 2x4 @ 16" oc uno
	Demo wall
	Wall above

Expansion

Георгий Шпак | Проектировщик
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REGISTERED PROFESSIONAL ENGINEER PAUL V. BORANIAN No.59 CIVIL STATE OF CALIFORNIA

Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Framing Plan

Drawn by Paul Boranian, Egor Shpak

Date 04.02.2020

S2.0

Scale 1/4" = 1'-0"

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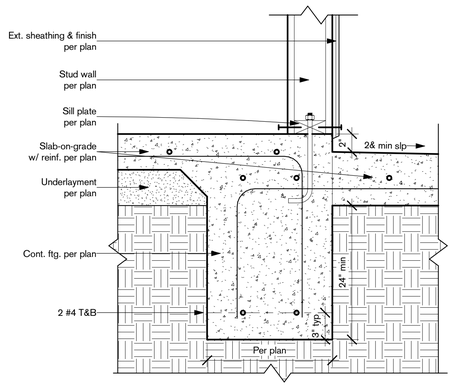
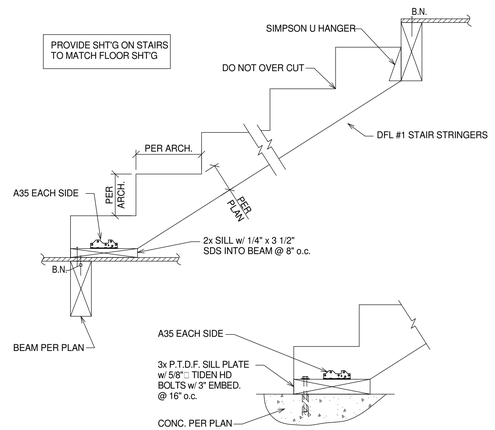


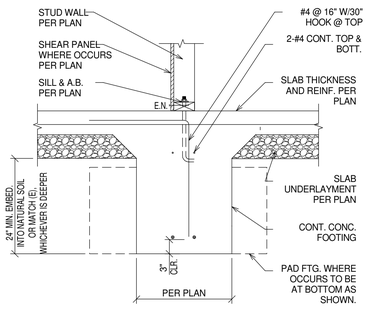
Ext. Ftg. to Depressed Slab 4

Scale 1 1/2" = 1'-0"



Str Strngr @ Ftg 3

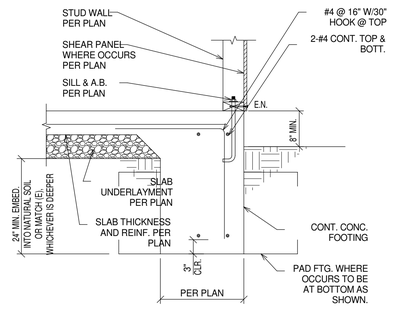
Scale 1" = 1'-0"



NOTE: WHERE CURB OCCURS, CURB TO BE 6" MIN WIDTH WITH 1 CONTINUOUS #4 @ TOP. ALSO PROVIDE #4 @ 24" O.C. VERTICAL BARS FROM TOP OF CURB TO BOTTOM OF FOOTING.

Int. Ftg. 2

Scale 1" = 1'-0"

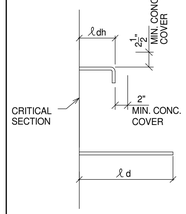


NOTE: WHERE CURB OCCURS, CURB TO BE 6" MIN WIDTH WITH 1 CONTINUOUS #4 @ TOP. ALSO PROVIDE #4 @ 24" O.C. VERTICAL BARS FROM TOP OF CURB TO BOTTOM OF FOOTING.

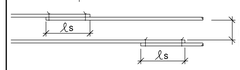
Ext. Ftg. 1

Scale 1" = 1'-0"

BAR SIZE	2500 PSI					3000 PSI					4000 PSI AND HIGHER				
	BOTTOM		TOP			BOTTOM		TOP			BOTTOM		TOP		
	ℓd	ℓs	ℓd	ℓs	ℓdh	ℓd	ℓs	ℓd	ℓs	ℓdh	ℓd	ℓs	ℓd	ℓs	ℓdh
#3	18	24	24	31	7	17	22	22	28	6	15	19	19	24	5
#4	24	32	32	41	9	22	29	29	37	8	19	25	25	33	7
#5	30	39	40	51	11	28	36	36	47	10	24	31	31	41	9
#6	37	47	47	61	13	33	43	43	56	12	29	37	37	49	10
#7	53	69	69	89	15	48	63	63	81	14	42	54	54	71	12
#8	60	78	78	102	17	55	72	72	93	16	48	62	62	81	14
#9	68	88	88	115	19	62	81	81	105	18	54	70	70	91	15
#10	77	100	100	129	22	70	91	91	118	20	61	79	79	102	17
#11	85	110	110	143	24	78	101	101	131	22	77	87	87	113	19

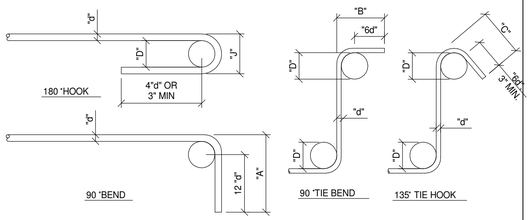


1. ℓs INDICATES LAP SPLICE.
2. ℓd INDICATES DEVELOPMENT LENGTH.
3. ℓdh INDICATES HOOK DEVELOPMENT LENGTH.
4. ALL LENGTHS ARE IN INCHES U.N.O.
5. ALL TABLE VALUES ARE BASED ON GRADE 60 REBAR
6. ALL HORIZONTAL BARS WITH 12" OR MORE OF FRESH CONCRETE BELOW THEM SHALL BE CONSIDERED TOP BARS.
7. SPLICE LENGTHS ARE FOR CLASS B. FOR CLASS A USE VALUES FOR DEVELOPMENT LENGTH.
8. LAP SPLICES ARE NOT PERMITTED FOR #14 AND LARGER BARS
9. dh VALUES ASSUME 2" AND 2 1/2" MIN. CLEAR COVER AS SHOWN IN THE DIAGRAM. IF CLEAR COVER IS LESS, VALUES SHALL BE MULTIPLIED BY 1.5.
10. FOR EPOXY COATED REINFORCING, MULTIPLY TABLE VALUES BY 1.5
11. FOR CMU, USE 72 BAR DIA. LAP



Reinforcement Lap Splice and Development Length Schedule 8

Scale 1" = 1'-0"



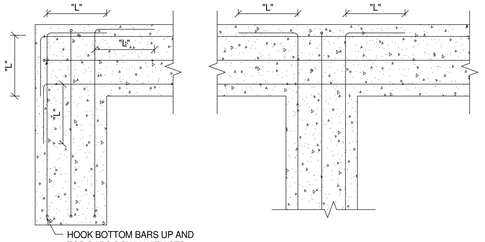
BAR SIZE	PRINCIPAL REINFRCING			STIRRUPS OR TIES		
	D	180° HOOKS	90° HOOKS	D	90° HOOKS	135° HOOKS
		"J"	"A"		"B"	"C"
#3	2 1/4"	3"	6"	1 1/2"	4"	5"
#4	3"	4"	8"	2"	4 1/2"	5 1/2"
#5	3 3/4"	5"	10"	2 1/2"	6"	6 1/4"
#6	4 1/2"	6"	1'-0"			
#7	5 1/4"	7"	1'-2"			
#8	6"	8"	1'-4"			
#9	9 1/2"	11 3/4"	1'-7"			
#10	10 3/4"	1'-1 1/4"	1'-10"			
#11	12"	1'-2 3/4"	2'-0"			
#14	18 1/4"	1'-9 3/4"	2'-7"			
#18	24"	2'-4 1/2"	3'-5"			

NOTES:

1. ALL BENDS SHALL BE MADE COLD
2. MAX. OFFSET BEND = 1 : 6

Bar Bends, typ. 7

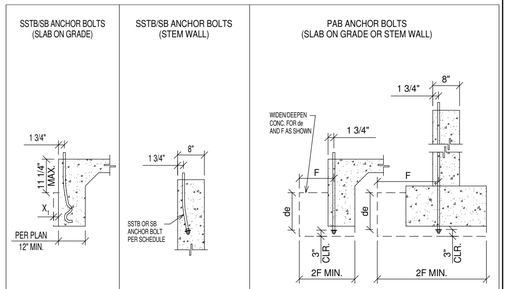
Scale 1" = 1'-0"



"L" INDICATES ℓd OR s PER LAP SPLICE SCHEDULE, TYP.

Typical Footing Reinforcement at Corners, Intersections and Ends 5

Scale 1" = 1'-0"



	SSTB/SB A.B. @ SLAB ON GRADE	X_1	SSTB/SB A.B. @ STEM WALL (OR GARAGE FOOTING w/ CURB)	PAB ANCHOR BOLT	de	F
HDU2	SSTB16	1 1/2"	SSTB24	PAB5	7"	10"
HDU4	SSTB20	1 1/2"	SB5/8x24	PAB5	7"	10"
HDU5	SSTB24	1 1/2"	SB5/8x24	PAB5	7"	10"
HDU8	SSTB28	1 1/2"	SB7/8x24	PAB7	10"	15"
HDU11	SB1x30	1 1/2"	NOT PERMITTED USE PAB A.B.	PAB8	12"	18"
HDU14	SB1x30	6"		PAB8	12"	18"
HDU19	NOT PERMITTED USE PAB A.B.	-		PAB10	15"	23"

1. #4 CONT. HORIZ. BAR REQUIRED 3"-5" FROM TOP OF CONCRETE MIN.
2. X_1 TO EXTEND 24" MIN. ALONG LENGTH OF FOOTING AND BE CENTERED w/ A.B.
3. PAB5 AND PAB7 ANCHOR BOLTS w/ 24" AND 30" MIN. CONC. EMBEDMENT RESPECTIVELY MAY BE USED AT THE STEM WALL CONDITION AND ARE NOT REQUIRED TO EXTEND TO THE BASE OF FOOTING.
4. CONC. = 2500psi MIN.
5. A307 THREADED ROD w/ PLATE WASHER AND DBL. NUTS TO MATCH PAB BOLTS MAY BE USED IN LIEU OF PAB BOLTS.

Typical Holdowns at Foundation 6

Scale 1" = 1'-0"

Expansion

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REGISTERED PROFESSIONAL ENGINEER PAUL A. BORANIAN No.59 CIVIL STATE OF CALIFORNIA

Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Found Details

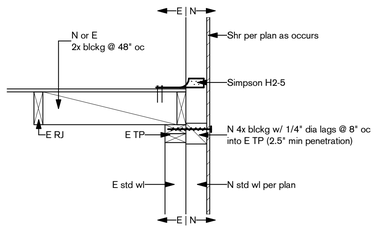
Drawn by Paul Boranian, Egor Shpak

Date 04.02.2020

S3.0

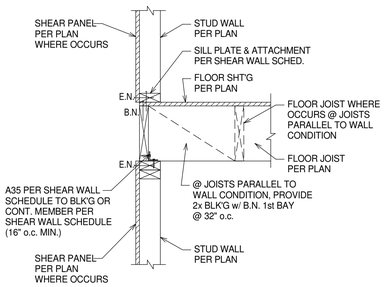
Scale As indicated

6/23/2020 5:09:53 AM



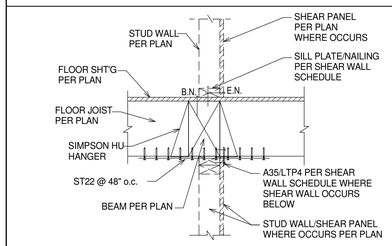
N Ext. Wl to E 4

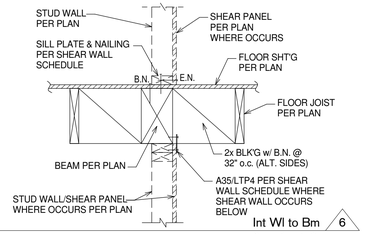
Scale 1" = 1'-0"



Flr Frmng 2 3

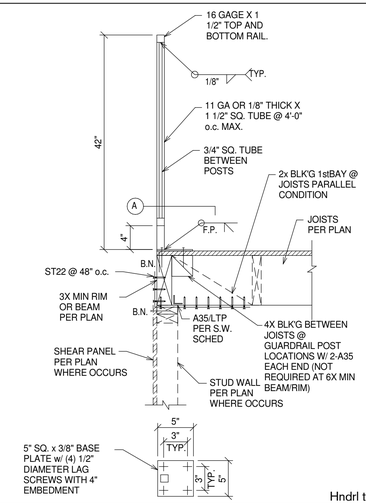
Scale 1" = 1'-0"





Int Wl to Bm 6

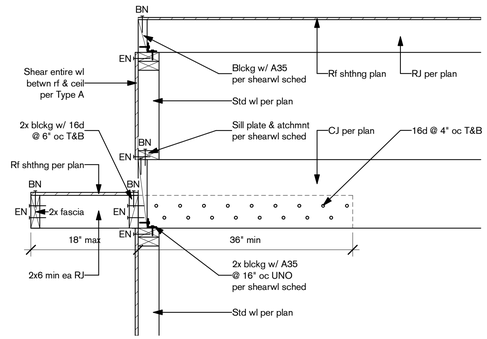
Scale 1" = 1'-0"



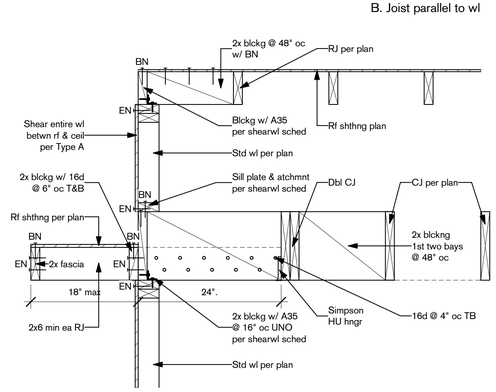
Hndrl to Flr 5

Scale 1" = 1'-0"

A. Joist perpendicular to wl



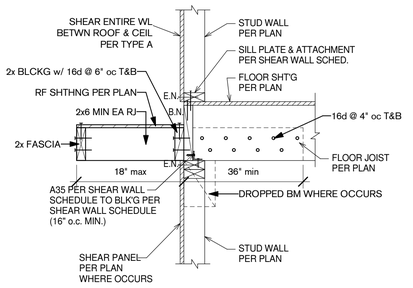
B. Joist parallel to wl



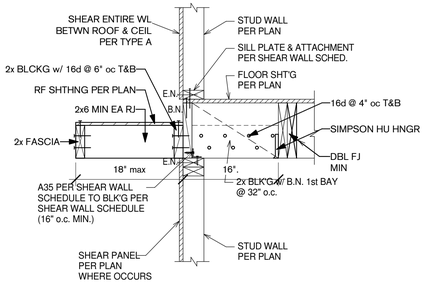
Rf Frmng w/ Overhang 2

Scale 1" = 1'-0"

A. FJ perpendicular to wl

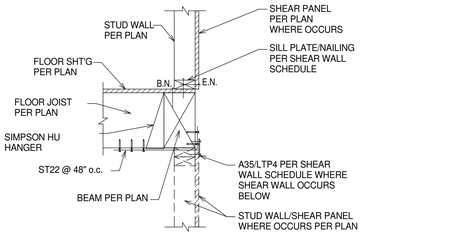


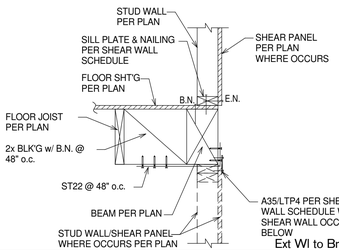
B. FJ parallel to wl



Flr Frmng w/ Overhang 1

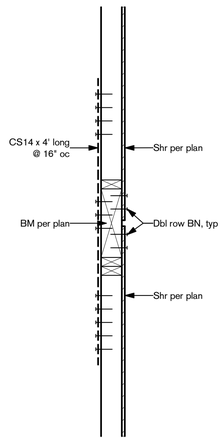
Scale 1" = 1'-0"





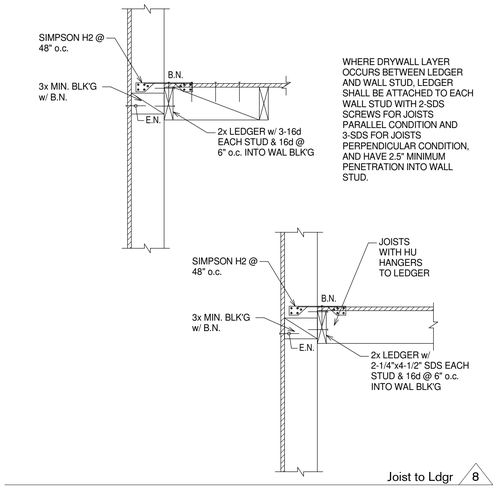
Ext Wl to Bm 10

Scale 1" = 1'-0"



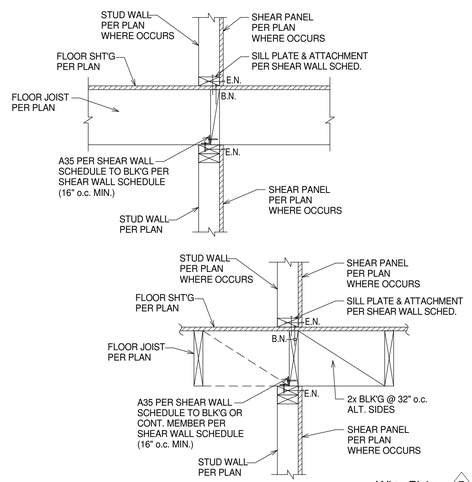
Bm in Multi-Story Opnng 9

Scale 1" = 1'-0"



Joist to Ldgr 8

Scale 1" = 1'-0"



Wl to Blckg 7

Scale 1" = 1'-0"

Expansion

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Los Angeles, CA 90044

Revisions

No.	Description	Date

Framing Details

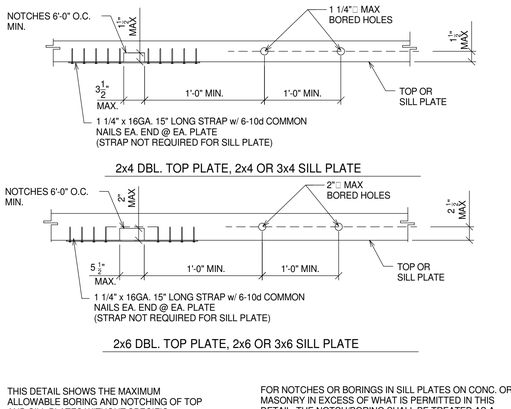
Drawn by Paul Boranian, Egor Shpak

Date 04.02.2020

S3.1

Scale 1" = 1'-0"

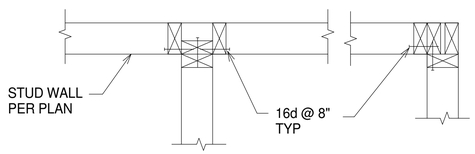
6/23/2020 5:08:54 AM



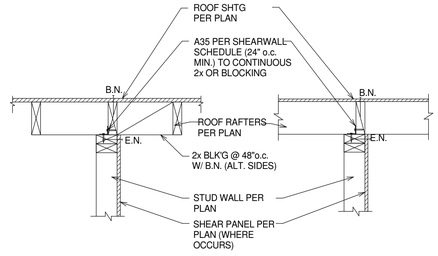
THIS DETAIL SHOWS THE MAXIMUM ALLOWABLE BORING AND NOTCHING OF TOP AND SILL PLATES WITHOUT SPECIFIC DETAILING BY THE ENGINEER. NOTIFY THE ENGINEER FOR CONDITIONS IN EXCESS OF WHAT IS PERMITTED IN THIS DETAIL.

FOR NOTCHES OR BORINGS IN SILL PLATES ON CONC. OR MASONRY IN EXCESS OF WHAT IS PERMITTED IN THIS DETAIL, THE NOTCH/BORING SHALL BE TREATED AS A SPLICE/END OF THE SILL PLATE AND AN ANCHOR BOLT SHALL BE PROVIDED 6" FROM EACH END OF THE BORE/NOTCH.

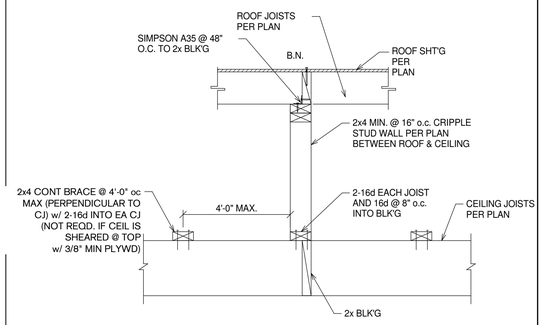
Allowable Notching of Top and Sill Plates 4
Scale 1" = 1'-0"



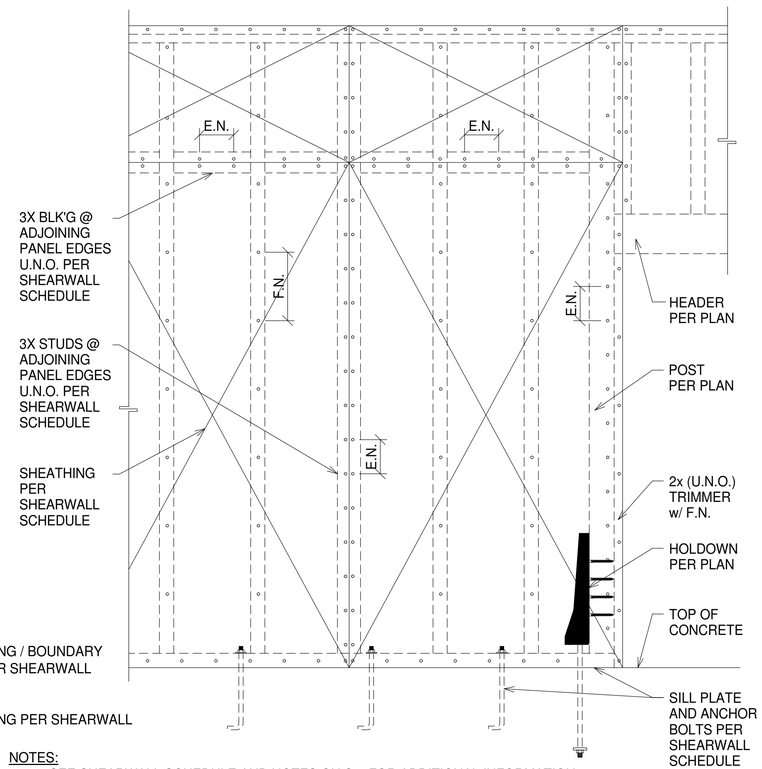
2x Stud Wall Framing Channels at Corners and Intersections 3
Scale 1 1/2" = 1'-0"



Shr Trnsfr to Rf Frmng 2
Scale 1" = 1'-0"



RJ Cripl Wl Support 1
Scale 1" = 1'-0"

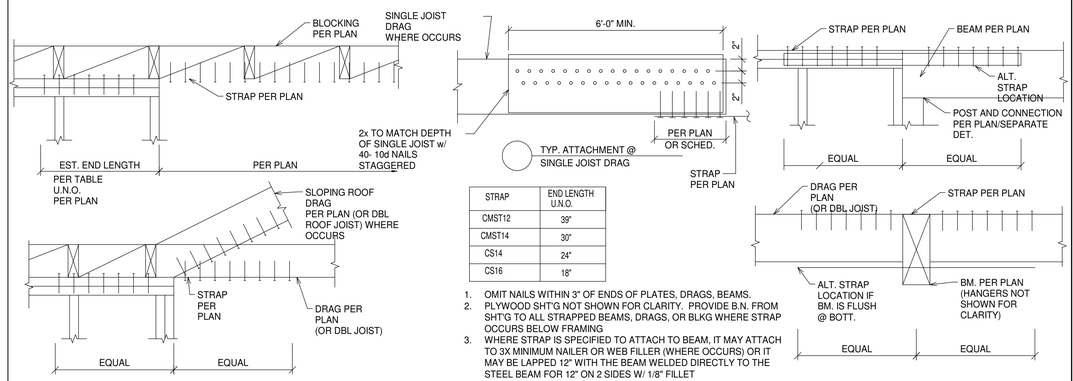


E.N. EDGE NAILING / BOUNDARY NAILING PER SHEARWALL SCHEDULE.

F.N. FIELD NAILING PER SHEARWALL SCHEDULE.

NOTES:
1. SEE SHEARWALL SCHEDULE AND NOTES ON S-1 FOR ADDITIONAL INFORMATION
2. PROVIDE PROVIDE BLOCKING OR SOLID WOOD MEMBER TO MATCH WIDTH OF POST ABOVE BELOW HOLDOWN POSTS WITHIN JOIST BAY.
3. FOR NOTCHES OR BORINGS IN SILL PLATES ON CONC. OR MASONRY IN EXCESS OF WHAT IS PERMITTED IN THIS DETAIL, THE NOTCH/BORING SHALL BE TREATED AS A SPLICE/END OF THE SILL PLATE AND AN ANCHOR BOLT SHALL BE PROVIDED 6" FROM EACH END OF THE BORE/NOTCH.
4. ANCHOR BOLTS AND HOLDOWN BOLTS SHALL BE HELD IN PLACE BY TEMPLATE PRIOR TO POURING CONCRETE. STABBING OR PUSHING OF ANCHOR BOLTS INTO WET CONCRETE IS NOT PERMITTED.
5. ANCHOR BOLTS TO PROJECT 4" MINIMUM ABOVE TOP OF CONCRETE FOR 3X PLATES AND 3" ABOVE CONCRETE FOR 2X PLATES.
6. AT PARTIALLY SHEATHED WALL FACES, PROVIDE FURRING STRIPS OR PLYWOOD TO MATCH SHEAR WALL PANEL THICKNESS TO PROVIDE A COMMON PLANE FOR FINISH MATERIAL ATTACHMENT.

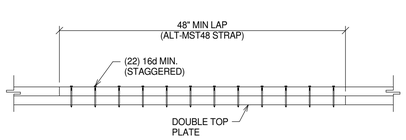
Typical Plywood Shearwall Layout 8
Scale 1 1/2" = 1'-0"



STRAP	END LENGTH U.N.O.
CMST12	39"
CMST14	30"
CS14	24"
CS16	18"

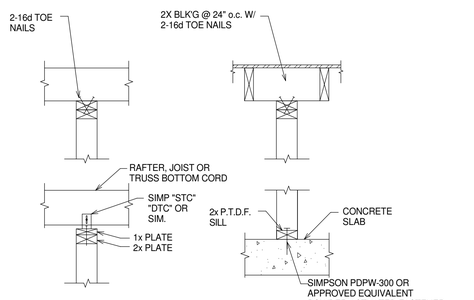
1. OMIT NAILS WITHIN 3" OF ENDS OF PLATES, DRAGS, BEAMS.
2. PLYWOOD SHT'G NOT SHOWN FOR CLARITY. PROVIDE B.N. FROM SHT'G TO ALL STRAPPED BEAMS, DRAGS, OR BLKG WHERE STRAP OCCURS BELOW FRAMING
3. WHERE STRAP IS SPECIFIED TO ATTACH TO BEAM, IT MAY ATTACH TO 3X MINIMUM NAILER OR WEB FILLER (WHERE OCCURS) OR IT MAY BE LAPPED 12" WITH THE BEAM WELDED DIRECTLY TO THE STEEL BEAM FOR 12" ON 2 SIDES W/ 1/8" FILLET

Typical Drag Straps 5
Scale 1" = 1'-0"



NOTES:
1.SPLICES NOT PERMITTED WITHIN SHEAR WALL PANELS WITH EDGE NAILING CLOSER THAN 6"o.c. OR DOUBLE SIDED SHEARWALLS.
2.SPLICE NOT PERMITTED WITHIN LENGTH OF ANY STEEL STRAP CONNECTION.

Typical Top Plate Splice 7
Scale 1" = 1'-0"



Typical Non-Bearing Partition Stud Walls 6
Scale 1" = 1'-0"

Expansion

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REGISTERED PROFESSIONAL ENGINEER PAUL O. BORANIAN No.59 CIVIL STATE OF CALIFORNIA

Owner:

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Project:

New 3-story Duplex
6032 S Vermont Ave
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Revisions

No.	Description	Date

Framing & Typical Details

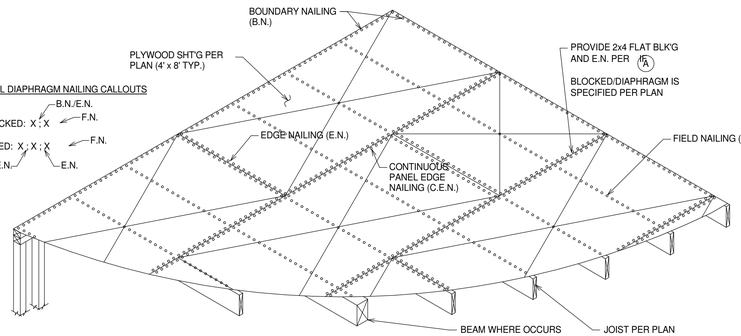
Drawn by Paul Boranian, Egor Shpak

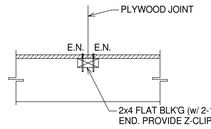
Date 04.02.2020

S3.2

Scale As indicated

6/23/2020 5:08:55 AM

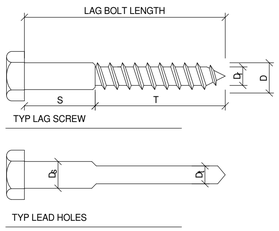




A TYPICAL BLK'G OF UNSUPPORTED PLYWOOD EDGE

NOTES:
1. NAILS TO HAVE 3/8" MIN. EDGE DISTANCE.
2. PROVIDE 3x MIN. w/ STAGGERED NAILS @ ADJOINING PANEL EDGES w/ NAILING CLOSER THAN 2 1/2"
3. USE TONGUE AND GROOVE PLYWOOD @ FLOORS (USE SIMPSON PLYWOOD CLIPS FOR UNBLOCKED ROOFS w/ GREATER THAN 24" o.c. JOIST SPACING)
4. RUN LONG DIRECTION OF PLYWOOD PERPENDICULAR TO JOISTS AND STAGGER PLYWOOD AS SHOWN (4' TYP. STAGGER)
5. MIN. SIZE OF ANY PIECE TO BE 24" x 48".
6. PROVIDE B.N. OVER ALL BEARING WALLS, SHEAR WALLS, BEAMS, AND DRAGS.

Diaphragm Nailing 2
Scale 1" = 1'-0"

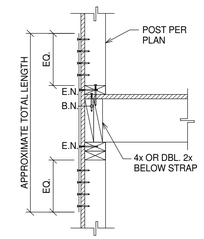


D = LAG DIAMETER
D_r = ROOT DIAMETER
T = THREAD LENGTH
S = UNTHREADED SHANK LENGTH
D_s = LEAD HOLE DIA. @ SHANK
D_t = LEAD HOLE DIA. @ THREADS

LAG DIA. "D"	D_r	LEAD HOLE	
		D_S	D_t
3/8"	.265"	3/8"	15/64"
7/16"	.328"	7/16"	9/32"
1/2"	.371"	1/2"	5/16"
5/8"	.471"	5/8"	13/32"
3/4"	..579"	3/4"	1/2"
7/8"	.683"	7/8"	39/64"

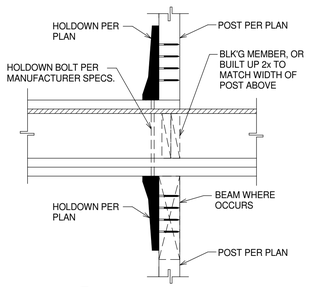
NOTES:
1. INSTALL ALL LAGS LARGER THAN 1/4" DIAMETER INTO PRE-DRILLED LEAD HOLES (SEE SCHEDULE).
2. PROVIDE STANDARD WASHER WHERE LAG HEAD IS BEARING ON WOOD.
3. LAGS SHALL BE TURNED WITH A HAND WRENCH OR POWER TORQUE DRIVER (DO NOT HAMMER LAGS INTO PLACE)
4. U.N.O. LAGS SHOULD BE FULLY THREADED FOR PORTION INTO THE SUPPORTING MEMBER.
5. FOR FULLY THREADED LAGS, PROVIDE THE LEAD HOLE DIAMETER SPECIFIED @ THREADS FOR THE ENTIRE LENGTH.
6. LEAD HOLE DIAMETER @ THREADS SPECIFIED IN THE TABLE IS THE RECOMMENDED LEAD HOLE DIAMETER. ACTUAL DIAMETER MAY BE 40% TO 70% OF THREADED SHANK DIAMETER.

Lag Bolts 3
Scale 1" = 1'-0"



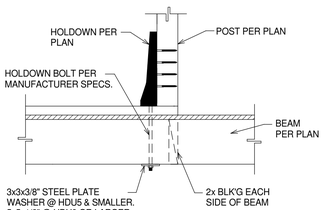
A FLOOR TO FLOOR STRAP

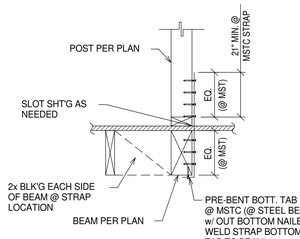
STRAP	END LENGTH U.N.O. (EQ.)	MIN 16D (.162) NAILS EA END LENGTH
CMST12	39"	33
CMST14	30"	43
MST60	19"	18
MST48	13"	15



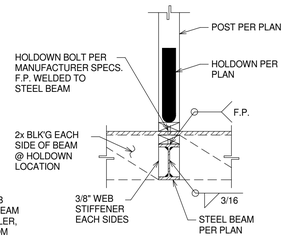
B HD TO HD

1. OMIT NAILS WITHIN 2.5" OF ENDS OF POSTS.
2. PLYWOOD SHT'G NOT SHOWN FOR CLARITY. PROVIDE B.N. FROM SHT'G TO ALL STRAPPED BEAMS, DRAGS, OR BLKG WHERE STRAP OCCURS BELOW FRAMING
3. IF STRAP SIZE SPECIFIED IS NOT ABLE TO ACHIEVE THE SPECIFIED NAILS, USE THE NEXT SIZE LARGER STRAP

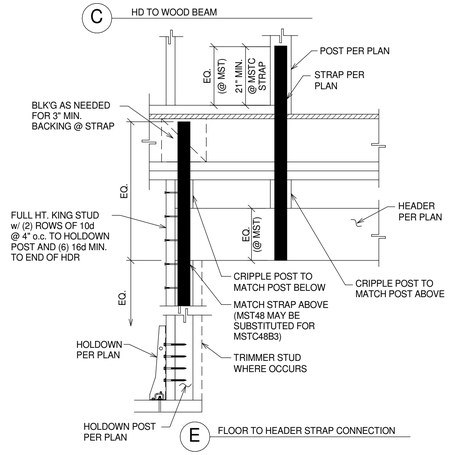




D STRAP TO FLUSH BEAM



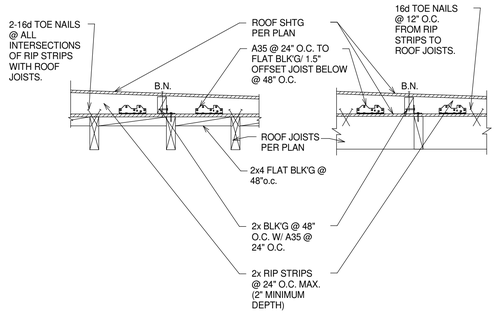
D HD TO STEEL BEAM



C HD TO WOOD BEAM

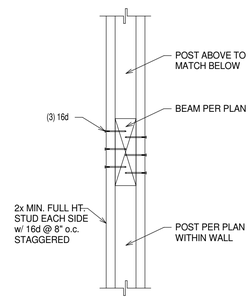
E FLOOR TO HEADER STRAP CONNECTION

Floor-to-Floor HD Straps 1
Scale 1" = 1'-0"

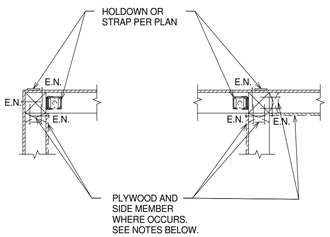


TIGHTEN A35 SPACING PER SHEARWALL SCHEDULE WHERE OVER SHEAR WALL.

Rf Rip Strip 6
Scale 1" = 1'-0"



Beam Pocket 5
Scale 1" = 1'-0"



NOTES:
1. PROVIDE SIDE MEMBERS AS SHOWN ABOVE IN ALL CONDITIONS WHERE PLYWOOD IS NOT ATTACHED DIRECTLY TO STRAP/HOLDOWN POST. SIDE MEMBER SHALL ATTACH TO THE HOLDOWN/STRAP POST AND SHALL MATCH THE SIZE AND ATTACHMENT METHOD SPECIFIED FOR SILL PLATES ON WOOD AS SPECIFIED IN THE SHEARWALL SCHEDULE. NOTE THAT 16d IS ONLY PERMITTED FOR 2x SIDE MEMBERS AND 3x REQUIRES SDS SCREWS OR LAGS.
2. WHERE SHEAR PANELS ATTACH DIRECTLY TO STRAP/HOLDOWN POST, SIDE MEMBER IS NOT REQUIRED.
3. AT CONDITIONS WITH DIFFERENT SHEARWALL TYPES, USE THE REQUIREMENTS FOR THE HEAVIER WALL U.N.O.

Shear Transfer to HDs / Posts 4
Scale 1" = 1'-0"

Expansion
Георгий Шпак | Проектировщик
415.858.4218 | 1egorshpak@gmail.com

REGISTERED PROFESSIONAL ENGINEER No.59 CIVIL STATE OF CALIFORNIA

Owner:

Mike Miller

Project:

New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Typical Details

Drawn by Paul Boranian, Egor Shpak

Date 04.02.2020

S3.3

Scale 1" = 1'-0"

6/23/2020 5:09:55 AM

GENERAL REQUIREMENTS

1. Materials and workmanship shall comply with the 2019 version of the California Building Code (CBC), the most current amendments by the governing agency, and the most current UMC, UPC, NEC codes and their referenced standards.
2. Details noted as "Typical" or "Typ." apply to all parts of the work. Typical details may not be specifically referenced in the drawings.
3. The general contractor shall coordinate all work between the trades and coordinate all field conditions, dimensions, elevations, etc. and notify the owner or owners representative regarding any discrepancies prior to proceeding.
4. The structural drawings shall be used along with the architectural, mechanical, grading, electrical, and plumbing plans.
5. Any discrepancy between the structural and any other discipline shall have the intent interpreted by the architect.
6. Written dimensions shall take priority over scaled dimensions. Do not scale the structural drawings.
7. The contractor is responsible for all shoring/bracing during construction. The structure is engineered to be stable once all components are in place.
8. Specifications relating to waterproofing are outside the scope of these drawings and should be specified by the by the project architect or water proofing consultant.
9. These drawings are intended to be utilized in conjunction with a licensed contractor with adequate experience and knowledge in this specific type of construction, and the ability to properly read and understand these drawings.

DESIGN CRITERIA

DESIGN LOADS

Roof Dead Load:	18 psf
Roof Live Load:	20 psf
3rd Floor Dead Load:	16 psf
2nd Floor Dead Load:	20 psf

WIND CRITERIA

Ult. Wind Speed:	110 mph
Risk Category:	2
Wind Exposure:	B
Gcpi:	.85
C&C PSF:	18.5

SEISMIC CRITERIA

Occupancy Category:	2
Importance Factor:	1
Site Class:	D
Latitude (deg. North):	33.984
Longitude (deg. East):	-118.292
Mapped Spectral Resp. Param	Ss = 1.865 S1 = .658
Design Spectral Resp. Param:	SDS = 1.492 SD1 = .746
Seismic Design Category	E
Redundancy Factor, ρ:	1.0
Seismic Force Resisting System:	Wood Shear Walls
Design Base Shear V=Cs*W: (strength level)	V=.230 W
Response Mofification Factor, R:	6.5
Analysis Procedure Used:	Equiv. Lat. Force

FOUNDATION DESIGN

1. The foundation design is based on the 2019 CBC code minimum, Bearing = 1,500 psf
2. The soils report (if there is one) shall be followed and a copy shall be available on site at all times.
3. All foundation excavations (if there is a soils report) shall be observed and approved by the project engineering geologist and project geotechnical engineer prior to placement of reinforcing steel. The approval shall be left on site for the building inspector at foundation inspection.
4. The building inspector shall inspect and approve excavations prior to placement of reinforcing steel.
5. Excavation methods are the responsibility of the contractor and shall be implemented in a safe manner and to not to undermine any existing structures.
6. All holdowns and anchor bolts shall be set in place by template prior to foundation inspection.
7. All holdown anchor nuts shall be tightened just prior to covering.

DEPUTY INSPECTIONS

1. Special inspections, corresponding reports and testing shall be provided in accordance with chapter 17 of the CBC/LABC.
2. The individual/agency performing the inspection shall be authorized by the applicable building department in the specific component being inspected.
3. Special inspections (performed by a deputy/special inspector) are different than and in addition to Structural Observations (which are performed by the engineer) and Building inspections (performed by the city, county or governing agency building inspector)
4. Copies of the special inspection reports shall be sent to the owner, engineer, and building department within 7 days of the inspection and a copy of the report shall be available on site for any corresponding structural observations.
5. The following work shall be performed in the presence of a special inspector and shall comply with the requirements of section 1705 of the CBC/LABC regarding specific requirements and whether the required inspection is periodic or continuous.
   - A. Placement of concrete with specified f'c >2500 psi
   - B. Field welding
   - C. All Masonry
   - D. Epoxied reinforcing or rods.
   - E. High strength bolting
   - F. All shotcrete
   - G. Seismic force resisting systems, i.e. moment frames, brace frames, hardy frames, cantilever columns, wood shear walls and diaphragms with specified nailing 4" o.c. or closer.

ADDITIONAL LARR#'S

25712, 25716, 25851, 25878, 25906, 25942, 25952, 25957, 25827, 24682, 25120, 25560, 25625, 25705, 25818, 25818, 25985, 25469, 25643, 25670, 26030, 25185, 25803, 25804, 25279, 25711, 25807, 25801, 25802, 25837, 25489, 25891, 25907, 25946, 25800, 25910, 25917, 25741, 25661, 26009, 26125, 25725, 25828, 25962, 25966, 25965, 25718, 25726, 25950, 25960, 25814, 25714, 25713, 25744, 25293, 25936, 25730

FRAMING NOTES

1. All framing shall be performed in accordance with chapter 23 of the California Building Code, the National Design Specification for Wood Construction (NDS), and details indicated on the drawings.
2. All structural lumber shall be Douglas Fir Larch (DFL) U.N.O. and marked in accordance with the latest edition of the standard grading rules of the West Coast Lumber Inspection Bureau (WCLIB) and conform to the following grades:

1x, 2x, 3x members:	DFL No. 2
4x members:	DFL No. 1 and Better
Larger than 4x Members:	DFL No. 1

3. The moisture content for structural lumber at the time of installation shall not exceed 16% for 6x and larger members and shall not exceed 19% for all other members.
4. Laminated Veneer Lumber (Microlam LVL) and Parallel Strand Lumber (Parallam PSL) and Laminated Strand Lumber (Timberstrand LSL) shall be per Weyerhaeuser (LARR #25202) in accordance with the following properties:

	LVL	PSL	LSL
E (ksi)	2000	2200	1300
Fb (psi)	2600	2900	1900
Fv (psi)	285	290	425

LVL, PSL, and LSL members shall not be used in exposed exterior applications unless fully protected from moisture. Members specified on the drawings which are intended to be used in an exposed exterior condition may use "Parallam Plus PSL" or an alternative subject to approval by the engineer.

5. Glue-Laminated members shall be fabricated and inspected in accordance with all requirements of the building department and shall be Douglas Fir grade 24F-V4 U.N.O.
6. Prefabricated wood I-joists shall be TJI by Weyerhaeuser (LARR #25538)
7. Hardy frames (where occur) shall be per LARR #25391 and attached HFX sheets
8. All sill plates, sleepers, that sit on concrete slabs in contact with the earth, or concrete or masonry foundations or walls and all wood members within 8" of earth, shall be naturally durable or pressure treated.
9. All lumber shall be free of splits, checks, shakes, or other objectionable defects.
10. Provide double joists below all parallel partitions and bathtubs/jacuzzi tubs u.n.o.
11. Joists and rafters shall have 1 1/2" minimum bearing length on supports or shall be supported by approved hangers.
12. Provide solid 2x blocking (same depth as joists) between joists at 8' o.c. maximum, and below perpendicular partitions, and where specified otherwise by these drawings. Refer to LARR # 25539 for blocking requirements for TJI joists.
13. Fire stops shall be provided in accordance with the architectural drawings and chapter 7 of the CBC.
14. Framing surrounding metal box type fireplaces shall be continuous 2x4 minimum studs at 12" o.c. fully sheated and nailed per shearwall type "A" (see shearwall schedule). Where framing extends outward past the exterior wall of the building, a continuous horizontal Simpson CS14 strap into 2x blocking between studs shall be provided around the fireplace framing at the floor and roof levels which ties into a parallel floor/roof joist 24" minimum or ties into 2x blocking between joists at perpendicular framing for 6' minimum.
15. Bored holes, cutting, notching is not permitted in beams unless specifically approved by the engineer.
16. Unless approved by the engineer, Bored holes in joists or rafters shall not exceed 1/6 of the member depth and shall not be located within the middle third of the span, within 18" from the face of support of the member, within 2" from the top or bottom of the member, outside the middle third of the members depth, or spaced closer than 6 diameters on center.
17. Bolts and threaded rods for wood members to be ASTM A307 / ASTM A36 / ASTM F1554 GR.36 u.n.o.
18. All bolts and lags shall use standard steel cut washers u.n.o. so the bolt head does not bear directly against wood.
21. Fasteners including nuts and washers in contact with preservative treated wood shall be of hot-dipped galvanized steel. Plain carbon steel fasteners may be used in SBX/DOT and zinc borate preservative treated wood for interior, dry conditions.
24. Wood Structural panels shall conform to the requirements for their type in DOC PS 1 or PS 2 and each panel shall bear the APA grade stamp.
25. All structural panels used for floors and roofs shall conform to the thickness and panel span rating specified per the plan.
26. Structural plywood panels shall be 4 ply minimum for walls and 5 ply minimum for floors and roofs.
27. Structural panel sheathing shall be manufactured with exterior glue (exposure 1 or exterior) and if permanently exposed to the weather shall have an exterior exposure durability classification.
28. Nails into structural panels shall be placed 3/8" minimum from the edge of the panels and shall not be overdriven.
29. Provide 1/8" minimum gap between plywood sheets. U.n.o, where plywood panels run past the top and bottom plates and over the blocking or rim at floor levels, provide 3/8" minimum horizontal gap between the plywood edges at that location.
30. U.N.O., plywood shall be oriented with the face grain perpendicular to the framing members for floors and roofs.
31. Structural panels for diaphragms and shear walls shall not be cut less than 2' in the smaller dimension and shall not be less than 8 square feet in area.
32. Nails shall be wire nails in accordance with the NDS and all nails unless specified otherwise shall be common nails. Nails with smaller heads, lengths, or diameters than the specified nail are not permitted.

STRUCTURAL STEEL

1. Fabrication and erection of steel shall be per the California Building Code chapter 22 and AISC 360.
2. Structural steel U.N.O. shall conform to the following ATSM specifications:
   Wide Flanges: A992 grade 50 (50 ksi yield)
   Pipe: A53 grade B (35 ksi yield)
   HSS Tube (square, rectangular, round): A500 grade B (46 ksi yield)
   Channels: A36-(36 ksi yield)
   Plate: A36 (36 ksi yield), except at moment frames plates shall match moment frame steel type.
3. All bolts, nuts, washers for structural steel members to be per ASTM A325 u.n.o.
4. All structural steel shall be primed and painted except steel left permanently exposed to weather should be galvanized, and steel encased in concrete shall be left unpainted.
5. Submit shop drawings to engineer prior to fabrication.
6. Welding shall be per the latest edition of AISC/AWS and use E70xx electrodes u.n.o.
7. Any welds not specified shall be continuous fillet welds not less than the thinner piece joined but not less than 3/16"
8. Steel shall be fabricated in a licensed fabrication shop certified by the governing building department.
9. All field welding, high strength bolting, requires deputy inspection.

STRUCTURAL OBSERVATION NOTES

1. Structural Observation is required for the structural system in accordance with the Information Bulletin No. P/BC 2014-024. 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) requires the use of the engineer or architect, or his/her designee 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 owner's representative, or a copy of the 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 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 listed significant construction stages on either the "Structural Observation/Significant Construction Stages" form or the "Structural Observation Program and Designation of the Structural Observer" form IN/Form.08 (Part 2) require a site visit and an observation report from the Structural Observer.
   The Structural Observer shall be called out at the following stages of construction:
   - Prior to the pouring of foundations, slabs, grade beams: to observe reinforcing, anchor bolts, holdown bolts, reinforcing dowels for concrete/cmu walls abv. where occurs.
   - Prior to placement of pile cages: to observe pile cage reinforcing.
   - Prior to pouring of concrete/cmu walls: to observe reinforcing, anchor bolts, holdown bolts, embeds, etc. (conc. walls taller than 5' will require observation prior to covering the 2nd side form).
   - Prior to covering floor/roof wood diaphragms: to observe plywood nailing (prior to plating), structural connections.
   - Prior to covering wood shearwalls: to observe wall nailing, holdowns, anchor bolts/shear transfers.
   - Final observation: to observe that all previous deficiencies were resolved and structure is in general conformance with plans.
6. The Structural Observer shall prepare a report of the "Structural Observation Report Form" IN/Form.08 (Part 1) for each significant stage of construction observed. 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 copy attached to the plans shall be signed and sealed (wet stamp) by the responsible Structural Observer or their designee. Copies 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 architect of record to verify its completion by the Structural Observer.
7. A final observation report must be submitted which shows that all observed deficiencies 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 the correction of specific deficiencies noted during normal building inspection.
8. The Structural Observer shall provide the original stamped and signed "Structural Observation Report Form" to the City of Los Angeles Department of Building and Safety Building Inspector.
9. When there is a need to replace 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" form 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 new Structural Observer must be designated by the engineer or architect of record.
   The replacement Structural Observer shall approve the correction of the original observed deficiencies unless otherwise approved by plan check supervision. The policy of the Department shall be to correct any properly noted deficiencies 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 the approved plans and specifications.
11. Notify the engineer at least two business days prior to requested observation.
12. Observations to be performed by Paul Boranian, S5944/C75003

CONCRETE NOTES

1. All concrete shall have a minimum 28 day compressive strength as noted below. All concrete with strengths higher than 2500 psi requires continuous deputy inspection during placement.
   Slab-on grade: 2500 psi
   Footings: 2500psi
   Walls: 3000psi
   Grade beams: 4000psi
   Piles: 3000psi
2. All concrete work shall conform to the latest edition of ACI 318.
3. Concrete mix shall contain 6 sacks minimum of cement per cubic yard. and should use 3/4" or larger aggregate as the top aggregate size. max water-to-cement ratio to be .50.
4. maximum slump shall be 5 inches
5. Aggregates shall conform to ASTM C33 for normal weight concrete and ASTM C330 (expanded shale type) for lightweight concrete.
6. Concrete shall use type II/V portland cement conforming to ASTM C150 and may be substituted with up to 15% "type F" fly-ash.
7. Water used in concrete mix to be clean and potable.
8. Concrete mix design shall be prepared by a licensed laboratory and bear the seal of a registered California civil or structural engineer. A copy of the mix design shall be sent to the project engineer for review/approval at least 3 days prior to pour.
9. Concrete-to-concrete or conctete-to-masonry joints to be cleaned and roughened to a 1/4" amplitude u.n.o.
10. Only one type of concrete shall be at the job site at any one time.
11. All concrete shall be mechanically vibrated as it is being placed. Notify engineer regarding any honeycombs, voids, etc.
12. See "Reinforcing Steel" notes for minimum concrete cover.

SHEAR WALL SCHEDULE

Shearwall Type	A	B	C	D	BB	CC	DD
ASD Allowable Shear Capacity (plf)	340	510	665	870	1020	1330	1740
Material	15/32" Struc. I	15/32" Struc. I	15/32" Struc. I	15/32" Struc. I	15/32" Struc. I Both Sides	15/32" Struc. I Both Sides	15/32" Struc. I Both Sides
Panel Edge Nailing	10d @ 6"	10d @ 4"	10d @ 3"	10d @ 2"	10d @ 4"	10d @ 3"	10d @ 2"
Sill Plate	2x	2x (3x @ conc.)	2x (3x @ conc.)	2x (3x @ conc.)	3x	3x	3x
5/8" Anchor Bolt Spacing	32"	32"	24"	16"	16"	12"	10"
Sill Plate Nailing Spacing (16d common nail x 3 1/2")	16d @ 6"	16d @ 4"	16d @ 3"	2-16d @ 4"	Not Permitted	Not Permitted	Not Permitted
Sill Plate SDS (1/4" Simpson SDS)	12"	8"	6"	5"	4"	2"	2 1/2"
Sill Plate Lag Bolts, 3/8" Diameter in Lieu of SDS	10"	6"	5"	4"	3"	2 1/2""	2"
Simpson A35 or LTP4 From Top Plate To Blk'g/Rim	16"	10"	8"	6"	10" Both Sides	8" Both Sides	8" Both Sides

1. Place studs at 16" o.c. maximum and provide 4x minimum post at each end of wall u.n.o.
2. All panel nailing shall be 10d common nails. Panel edge nailing shall be spaced per schedule and panel field nailing shall be at 12" o.c.
3. Anchor bolts shall have 7" minimum concrete embedment u.n.o. and be 5" minimum and 12" maximum from ends/splices and shall have 3"x3"x.229" minimum plate washers.
4. Provide 3x minimum studs at adjoining panel edges for all shearwalls except type "A" walls which may us 2x. (where plywood is not full height, provide full depth 3x blocking at the horizontal panel edge except type "A" walls which may use 2x). Nails shall be staggered into 2 lines into 3x members where spacing is 2" o.c. or less or nail penetration is greater than 1 5/8".
5. Sill nailing to use 16d common nails x 3 1/2" long spaced per schedule. Sill plate nailing is not permitted where sill plate is larger than 2x or plywood is thicker than 3/4" or in any situation where the nail penetration into the solid blocking/wood member below is less than 1 1/2" (SDS screws or lag bolts shall be used in this situation). Nails shall be centered in the 2x blocking/solid wood member below and where 2 rows of nails are specified shall staggered into two rows 1/2" apart and be centered.
6. Sill SDS screws to be 1/4" Simpson SDS and be spaced per schedule, and have 2 1/2" minimum penetration into 3x minimum blocking or solid wood member below and shall be staggered into 2 rows (1/2" apart) where spacing spacing specified is closer than 6" o.c. and 3 rows where specified spacing is closer than 3" o.c. Screws shall not be placed closer than 3" from the ends of the blocking or solid wood member or spaced closer than 6" o.c. in a line.
7. Sill Lag Bolts to be 3/8" diameter and be spaced per schedule, and have 3" minimum penetration into 3x minimum blocking or solid wood member below and shall be staggered into 2 rows (1/2" apart) where spacing spacing specified is closer than 6" o.c. and 3 rows where specified spacing is closer than 3" o.c. Screws shall not be placed closer than 3" from the ends of the blocking or solid wood member or spaced closer than 6" o.c. in a line.
8. TJI blocking is not permitted. Solid sawn lumber ripped to the appropriate depth or solid sawn lumber w/ 3/4" max plywood shim at top should be used.
9. All shear walls to run continuous between horizontal diaphragms (roof-floor, floor-floor, floor-foundation).
10. Nails shall be placed not less than 1/2" from panel edges and 3/8" from edge of connecting members. All wood structural panel joint and sill plate nailing to be staggered at all panel edges.

REINFORCING STEEL

1. All reinforcing steel shall comply with ASTM A615 grade 60. Weldable reinforcing Shall be ASTM A706 grade 60.
2. Reinforcing steel shall comply with the latest version of ACI 318 and CRSI.
3. All reinforcing in concrete should be lapped per the lap splice schedule.
4. All reinforcing in masonry shall be lapped 72 bar diameters minimum u.n.o.
5. All bars shall be bent cold and shall not be field bent unless shown on the drawings or permitted by the engineer.
6. Minimum concrete protection for reinforcement shall be as follows:
   Concrete cast against earth and permanently exposed to soil:......3"
   Concrete permanently exposed to soil or weather:
   #6 thru #18 bars........2"
   #5 and smaller bars........1.5"
   Concrete not exposed to soil or weather:
   #11 and smallerbars........3/4"
   #14 and larger bars........1"
   Concrete beams and columns:........1.5"

CONCRETE NOTES, CONT'D

12. Pipes and conduits embedded in concrete shall be subject to the approval of the structural engineer.
13. Where deputy inspection is required, concrete cylinders shall be prepared and tested per ASTM C 172 and ASTM C 39. A minimum of 2 sets shall be taken of structural concrete elements (each set consisting of 3 cylinders, the first to be tested at 7 days, the second to be tested at 28 days, and the third being a hold).
14. Non-shrink grout shall have a minimum 28 day compressive strength of 5000 psi
15. Addmixtures if used shall be approved by the project engineer and shall be per manufacturer recommendations and in proportions shown in a Los Angeles Research Report or the California Department of Transportation

CITY LADBS
DEPARTMENT OF BUILDING & SAFETY

Los Angeles Regional Uniform Code Program
Committee 1-3: Structural Observation

LARUCP — LOS ANGELES REGIONAL UNIFORM CODE PROGRAM

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: 6032 S Vermont Ave PERMIT APPLICATION No: ______

Description of Work: New Duplex Addition

Owner: Mike Miller Architect: ______ Engineer: PAUL BORANIAN

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or Individuals to be responsible for the Structural Observation:
Name: Paul Boranian Phone: (818) 429-1903 Calif. Registration No: 75003

FOUNDATION	WALL	FRAME	DIAPHRAGM
[X] Footing, Stem Walls, Piers	[ ] Concrete	[ ] Steel Moment Frame	[ ] Concrete
[ ] Mat Foundation	[ ] Masonry	[ ] Steel Braced Frame	[ ] Steel Deck
[ ] Caisson, Piles, Grade Beams	[X] Wood	[ ] Concrete Moment Frame	[X] Wood
[ ] Stepping Retaining Found, Hillside Special Anchors	[ ] Others:	[ ] Masonry Wall Frame	[ ] Others:
[ ] Others: Structural Slab		[ ] Others:	

DECLARATION BY OWNER

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

Signature ______ Date ______

DECLARATION BY ARCHITECT OR ENGINEER OR RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

Signature ______ Date ______

FASTENING SCHEDULE TABLE 2304.9.1

	CONNECTION	FASTENING [a,m]	LOCATION
1	Joist to sill plate	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	16d (3 1/2" x 0.135") at 16"o.c., 3" x 0.131" nails at 8"o.c., 3" 14 gage staples at 12"o.c.	typical face nail
	Sole plate to joist or blocking at braced wall panel	3"-16d (3 1/2" x 0.135") at 16"o.c., 4-3" x 0.131" nails at 16"o.c., 4-3" 14 gage staples per 16"o.c.	braced wall panels
7	Top plate to stud	3-16d 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 - 20d box nails (@3X sill)	toenail
		2-16d common (3 1/2" x 0.162") 3-3" x 0.131" nails 3 - 3" 14 gage staples	end nail
9	Double top plates	16d (3 1/2" x 0.135") at 24" 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	16d (3 1/2" x 0.135") at 16" o.c., 3" x 0.131" nail at 12" o.c., 3" 14 gage staple at 12" o.c.	typical face nail
	Double top plates	8-16d common (3 1/2" x 0.162"), 12-3" x 0.131" nails 12-3", 14 gage staples	lap splice
11	Blocking between joist 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 joist to top plate	8d (2 1/2" x 0.131") 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 places	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	16d common (3 1/2" x 0.162")	toenail
17	Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.14.1)	3-16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1, 4-3"x 0.131" nails, 4-3" 14 ga. staples	face nail
18	Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.14.1)	3-16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1, 4-3"x0.131" nails, 4-3" 14 gage staples	face nail
19	Rafter to plate (see Section 2308.10.1, Table 2308.14.1)	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"x8" shtg to each bearing	3 - 8D common (2 1/2" x 0.131")	face nail
23	Built-up corner studs	16d common (2 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 beam	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.	face nail at t&b stagg. on opposite sides
		2-20d common (4" x 0.192"), 3-3" x 0.131" nails, 3-3" 14 gage staples	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	toenail
		2-16d common (3 1/2" x 0.162"), 3-3" x 0.131" nails, 3-3" 14 gage staples	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	toenail
		2-16d common (3 1/2" x 0.162"), 3-3" x 0.131" nails, 3-3" 14 gage staples	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 1/2" x 0.162"), 4-3" x 0.131" nails, 4-3" 14 gage staples	face nail
31	Wood structural panels and particleboard [b] Subfloor, roof and wall sheathing (to framing)	1/2" and less: 6d [c,l], 2 3/8" x 0.113" nail [n], 1 3/4" 16 gage [o] 19/32" to 3/4": 8d [d] or 6d [e], 2 3/8" x 0.113" nail [p], 2" 16 gage [p] 7/8" to 1": 8d [c] 1 1/8" to 1 1/4": 10d [d] or 8d [d]	
	Single Floor (combination subfloor-underlayment to framing)	3/4" and less: 6d [e] 7/8" to 1": 8d [e] 1 1/8" to 1 1/4": 10d [d] or 8d [e]	
32	Panel siding (to framing)	1/2" or less: 6d [f] 5/8": 8d [f]	
33	Fiberboard sheathing	1/2": No. 11 gage roofing nail [h]; 6d common nail (2" x 0.113"); No. 16 gage staple [i] 25/32": No. 11 gage roofing nail [h]; 8d common nail (2 1/2" x 0.131"); No. 16 gage staple [i]	
34	Interior paneling	1/4": 4d [j] 3/8": 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" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
d. Common (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
e. Deformed shank (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural shtg. 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 1/2 inch length for 1/2 inch sheathing and 1 3/4 inch length for 25/32 inch sheathing.
i. Corrosion-resistant staples with normal 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 1/2" 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" 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.

MASONRY

1. Al l masonry shall have a minimum compressive strength f'm of 1500psi u.n.o. (assembly strength)
2. All masonry work shall conform to the latest edition of the Building Code Requirements for Masonry Structures (TMS-402) and the Specification for Masonry Structures (TMS 602).
3. Concrete masonry units shall be type N (normal weight) units conforming to ASTM C90 with a minimum unit strength of 1900 psi, with testing in accordance with the prism test method or unit strength method.
4. Mortar shall conform to ASTM C270 Type S, 1800 psi minimum compressive strength. (masonry cements or plastic cements are not permitted)
5. Grout shall be course grout and conform to ASTM C476, 2000 psi minimum compressive strength, and grout slump shall be 8-11 inches.
6. Aggregates for masonry grout shall conform to ASTM C404
7. Water used in masonry mix to be clean and potable.
8. Grout mix design shall be prepared by a licensed laboratory and bear the seal of a registered California civil or structural engineer. A copy of the mix design shall be sent to the project engineer for review/approval at least 3 days prior to pour.
9. If grout pour is stopped for more than 1 hour, provide a construction joint by stopping the grout 1 1/2" below the top of block.
10. All masonry shall be laid in a running bond pattern and shall be solid grouted u.n.o.
11. All grout shall be mechanically vibrated as it is being placed.
12. Maximum grout lift height without cleanouts is 5'-4". High lift grout heights in excess of 5'-4" are permitted with cleanouts at the bottom of all cells if complying with all code requirements, and approved by the deputy inspector, engineer, and the building inspector (notify the engineer to request approval for high lift grout).
13. Reinforcing shall be adequately held in place by wire ties or other suitable method prior to pouring of grout at intervals of 200 bar diameters maximum and reinforcing shall not be closer than 1/2" clear to masonry unit.
14. All head and bed joints to be filled solid with mortar and be 3/8" thick and the initial bed joint shall not be less than 1/4" or greater than 3/4".
15. Special inspection is required for all masonry u.n.o.

Expansion
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Owner:
Mike Miller

Project:
New 3-story Duplex
6032 S Vermont Ave
Los Angeles, CA 90044

Revisions

No.	Description	Date

Structural Notes

Drawn by Paul Boranian, Egor Shpak
Date 04.02.2020

S4.0

Scale