



Design and Construction Standards Exhibit

Kitchen:

- Granite Counters (kitchen)
- Stainless Steel Appliances
 - Stove/dishwasher/microwave
- Oversized Island
- Pendant Lights
- Shaker Style Cabinets
 - 42" Uppers w/Crown Molding
- Stained Finish Cabinets
- Pull-down Faucet
- Undermount Sink

Baths:

- Dual Vanity in Master
- Comfort Height Counters in Master
- Moen Fixtures
- Solid Surface Surround in Master
- Pedestal Sink (main floor)
- Stained Finish Cabinet
- Chrome finishes

Interior:

- Vinyl and Carpet Flooring
- Modern 5" mission style Baseboards
- One Tone Paint
- Custom Shelving in Closets
- Wooden Handrail (on stairs)
- LED Can Lights throughout
- 3 coax jacks (in living room, master, and bonus room)
- 3 Cat 6 jacks (in living room, master, and bonus room)
- USB outlets in kitchen and master
- Vaulted Ceilings in master and second bedroom
- Round Interior Door Knobs
- Ceiling Fans in the master, second bedroom

Exterior:

- Stucco, Hardi-board, and Stone Exteriors
- Rain Gutters
- Roofing -- 30 year Composition Shingles
- Craftsman Front Door (with window)
- Garage Door (Oversized 18'x7')
- Garage Entry -- keyless
- Fully Landscaped
- Perimeter Privacy Fence

Construction:

- 2 Stage Furnace
- LED Can Lights
- 2x6 Exterior Framing
- Ceiling Insulation to be R38
- Interior Wall Insulation R21 (blown in)
- Common Wall Insulation R19
- Low E Vinyl windows
- Pex Plumbing
- Professional Home Cleaning
- Builder Warranty (1 Year)
- Water Heater (50 gallon)
- Elongated Toilet Bowls

HOA:

- Landscaping and Park Maintenance
- Garbage Removal
- Splash Pad Maintenance
- Snow Removal
- Exterior Water (landscaping)
- Insurance
- Site/HOA management

Project: Spring Creek Townhomes

Utah County Tax Parcel 22:036:0068

Building Code Information:

International Residential Code, 2015 edition (IRC)
International Fire Code, 2015 edition (IFC)
International Fuel Gas Code, 2015 edition (IFC)
International Plumbing Code, 2015 edition (IPC)
International Mechanical Code, 2015 edition (IMC)
National Electric Code, 2014 edition (NEC)
International Energy Conservation Code, 2015 edition (IECC)

Code Analysis:

Occupancy: Townhouse (IRC 101.2)
Construction Type: V-B (IBC 506.2)
Fire Rated Assemblies: 2Hr. Common Walls (IRC 302.2 (2))
Fire Protection System: Not required (IRC 302.2.2)
Provide 2-Hour common wall assembly to meet ASTM E119 or UL263

Unit Area Calculation:

Level 1 Garage: 495 Square Feet
Living Area: 272 Square Feet
Level 2 Living Area: 815 Square Feet
Level 3 Living Area: 833 Square Feet

(Area calculations are nominal with slight variations possible)

Spring Creek Townhomes

Provo, Utah

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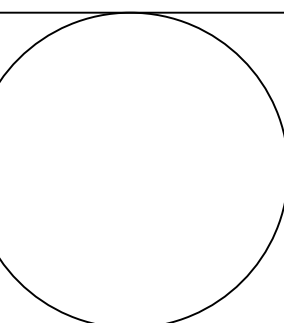
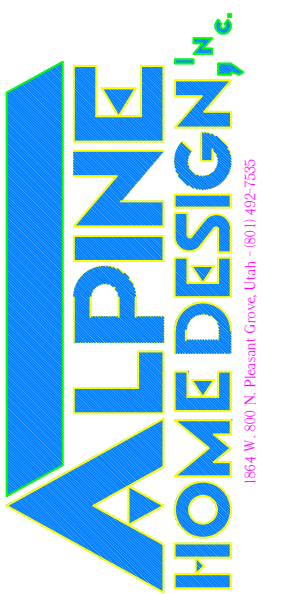
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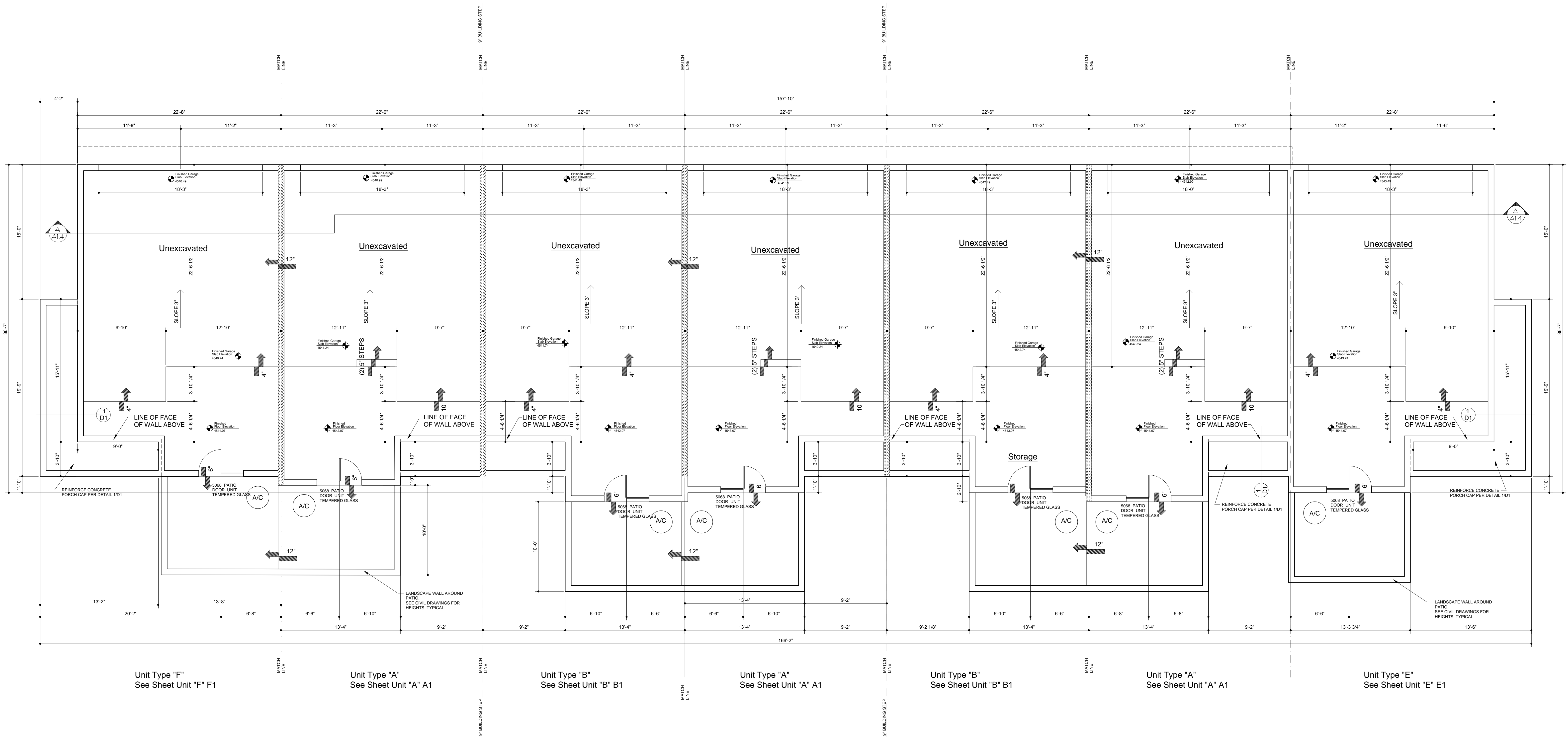
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Revisions



Spring Creek Development
Building Number 9 Units 40-46 - 7-Plex
Address: 1000 E 1060 S
Provo, Utah 84606
PRINT DATE: 05-19-2020





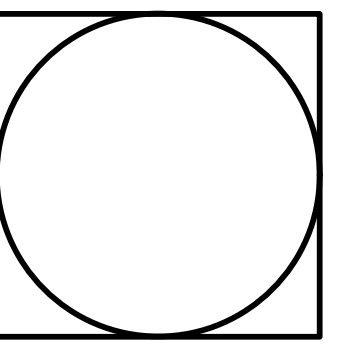
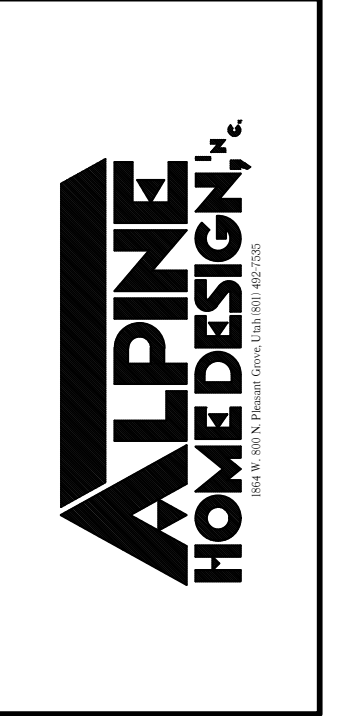
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SCALE: 3/16" = 1'-0" See Individual Plans

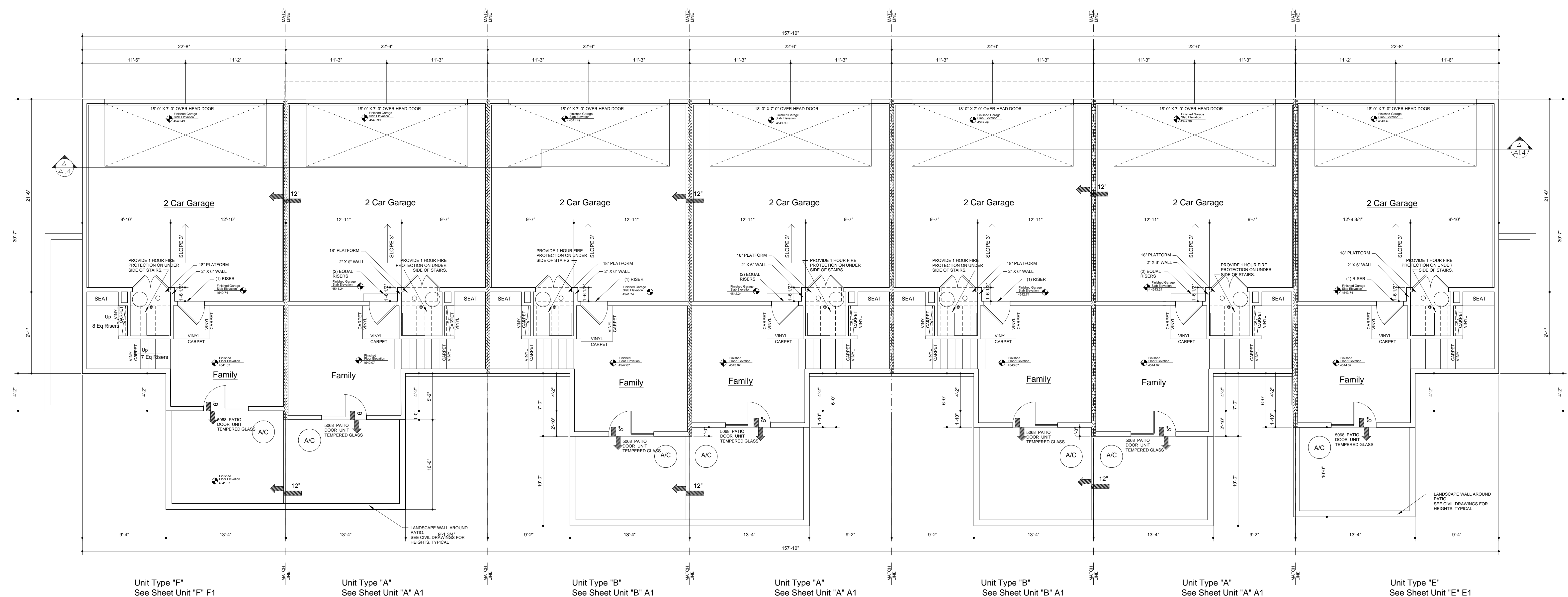
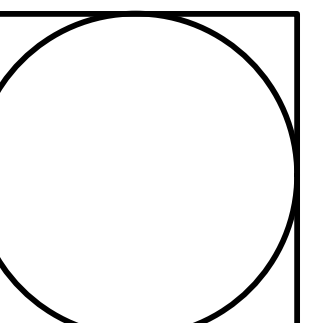
Revisions	



Spring Creek Development - 7 Plex
 Building Number #9 Foundation Massing Plan
 Address: 1000 E 1060 S
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 9-A1.0
 SCALE = 3/16" = 1'-0"
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Ground Level Massing Floor Plan

SCALE: 3/16" = 1'-0" See Individual Plans

Unit Type "F"
See Sheet Unit "F" F1

Unit Type "A"
See Sheet Unit "A" A1

Unit Type "B"
See Sheet Unit "B" A1

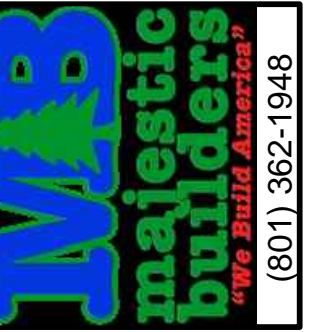
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Unit Type "B"
See Sheet Unit "B" A1

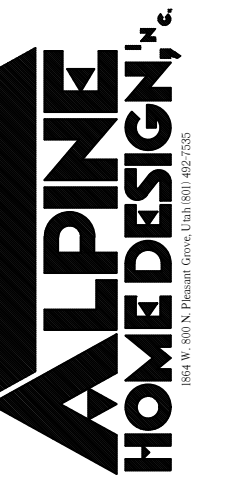
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Unit Type "E"
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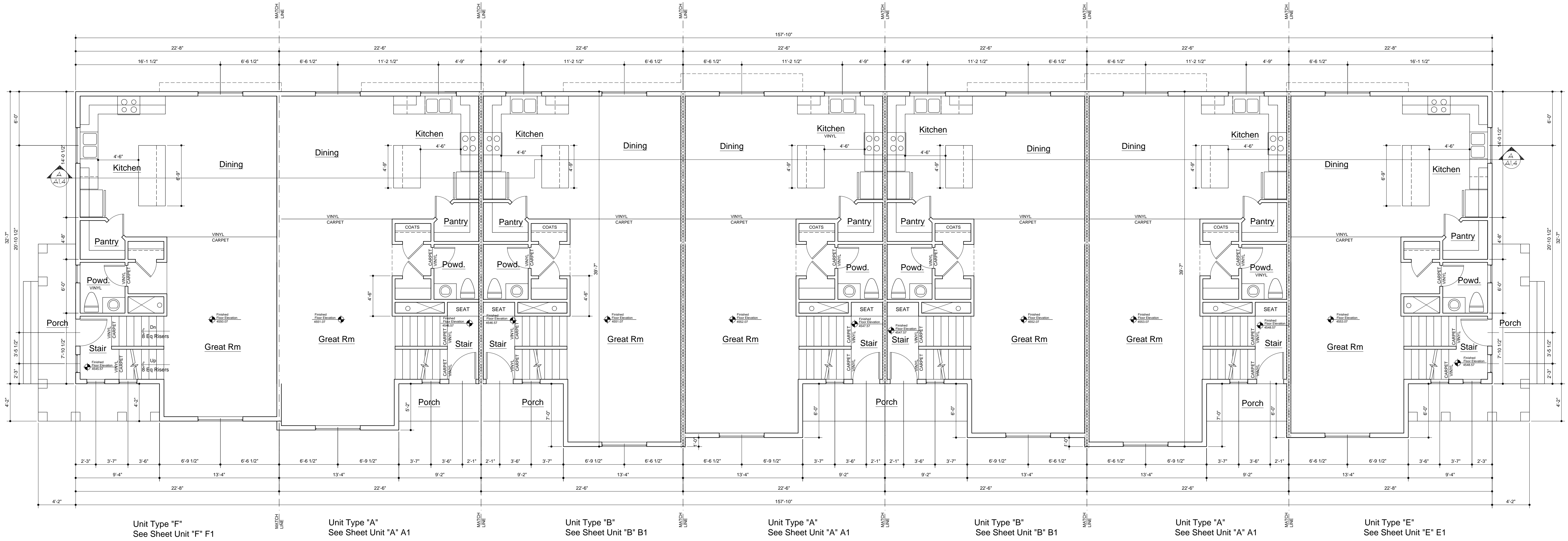
Revisions



Spring Creek Development - 7 Plex
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Address: 1000 E 1060 S
Provo, Utah 84606



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9-A1.2
SCALE = 3/16" = 1'-0"
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Second Level Massing Floor Plan

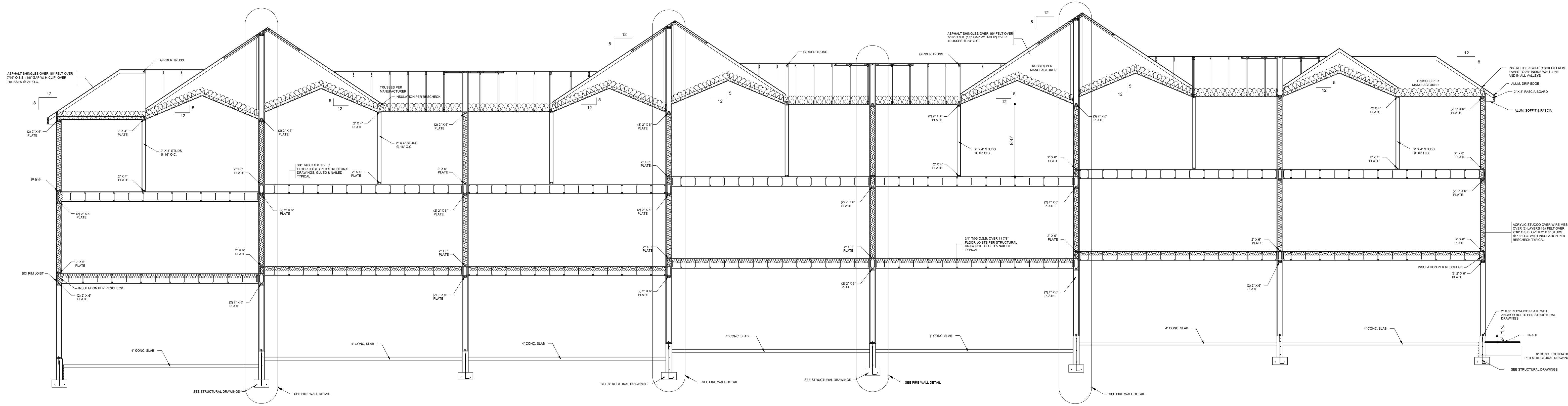
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See Individual Plans



Third Level Massing Floor Plan

SCALE: 3/16" = 1'-0" See Individual Plans



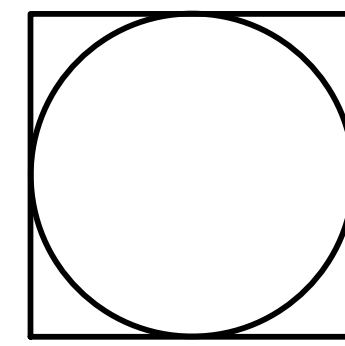
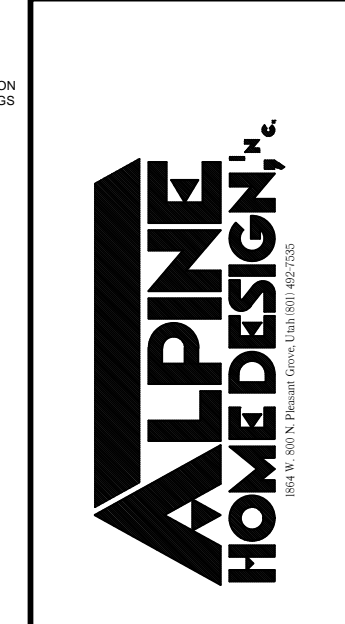
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A3.1 SECTION
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Revisions

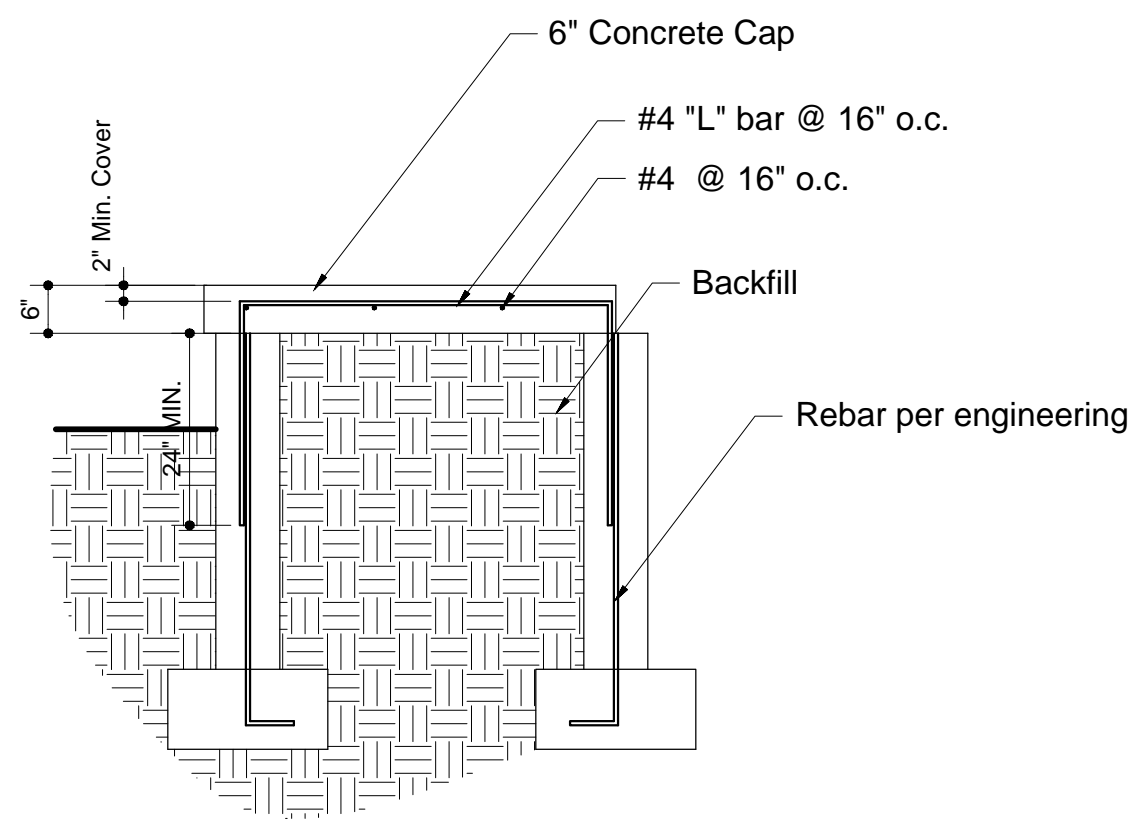


Spring Creek Development - 7 Plex
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 Provo, Utah 84606

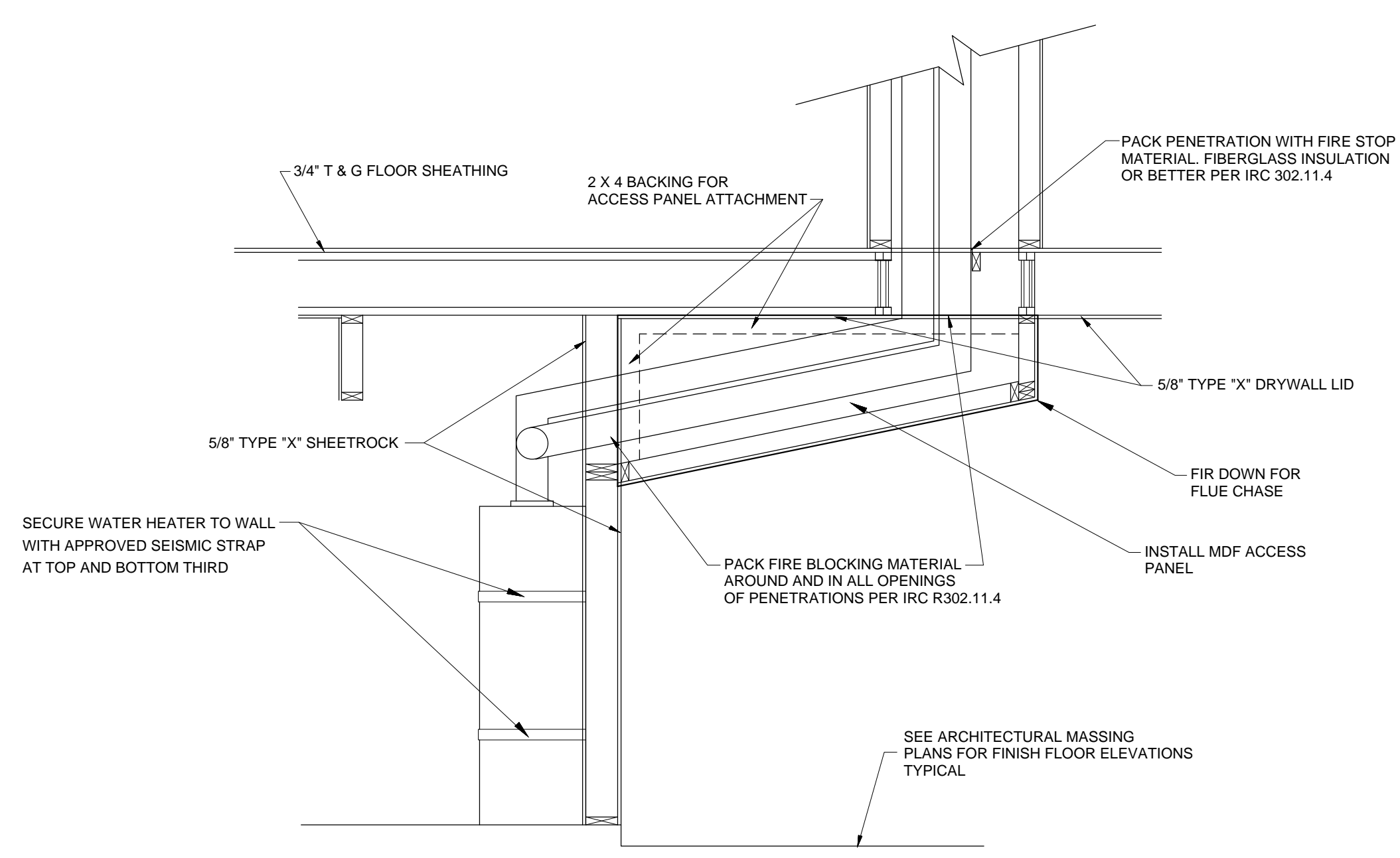
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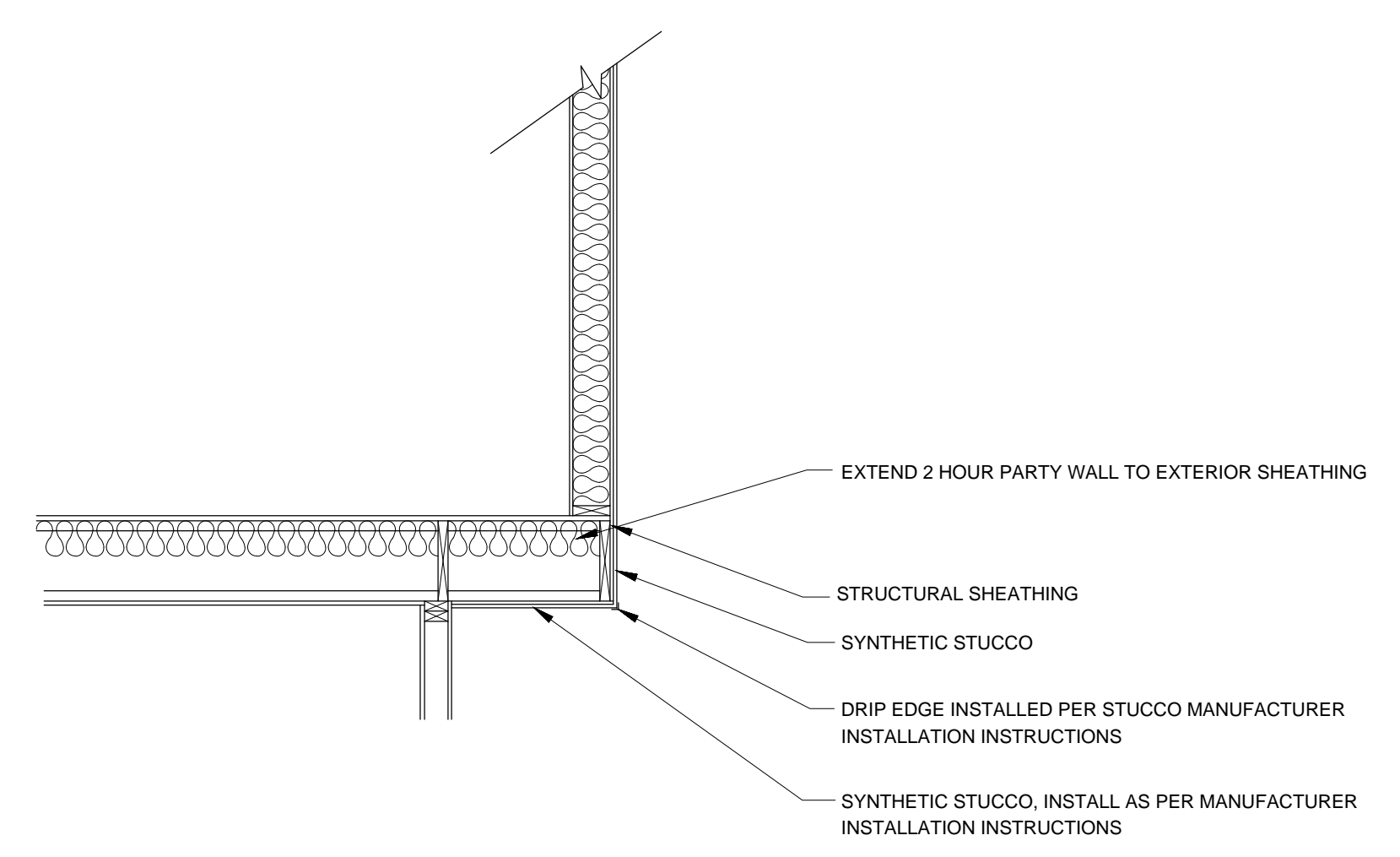
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 SCALE = 3/16" = 1'-0"
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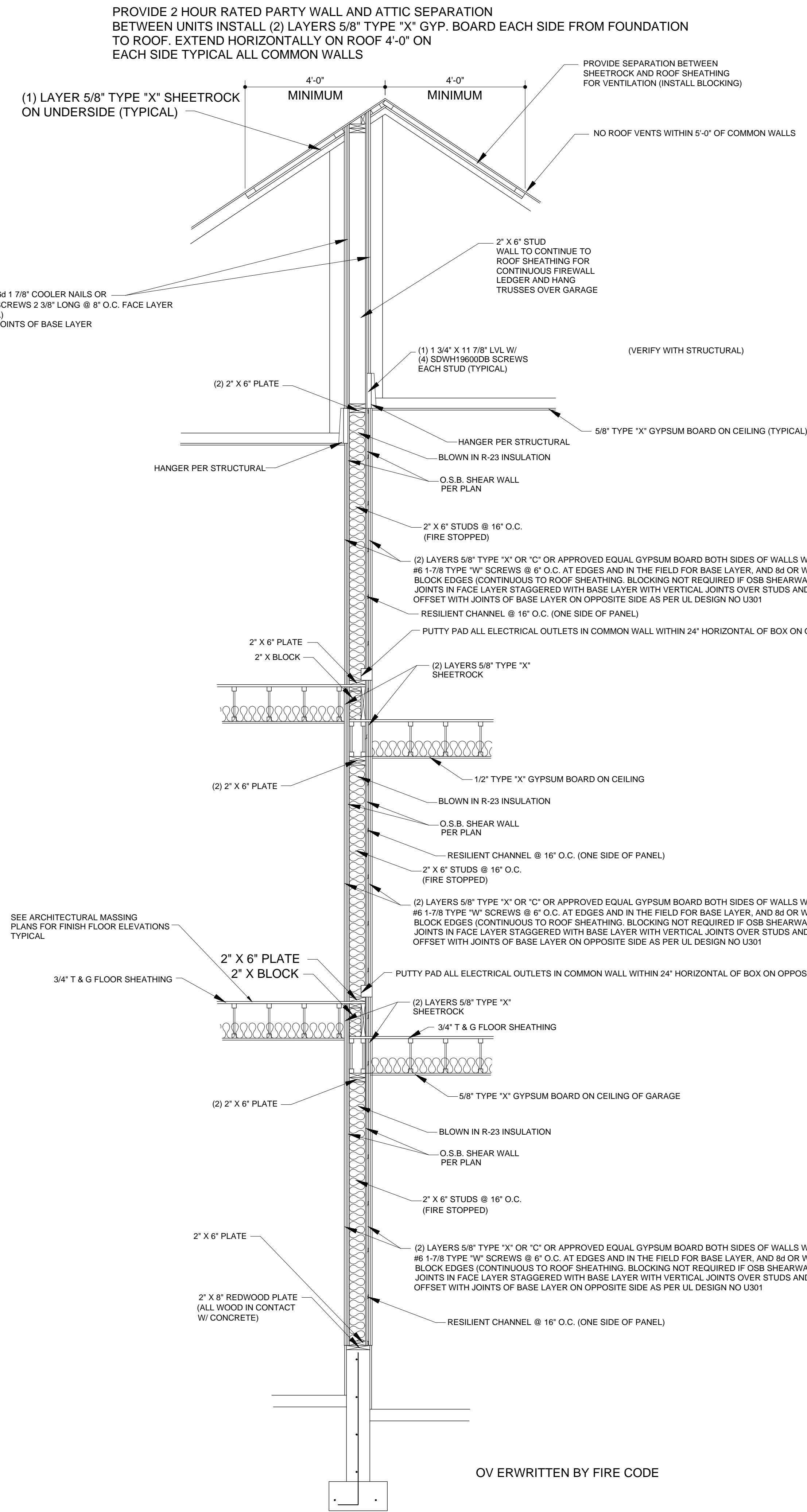
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CAP DETAIL
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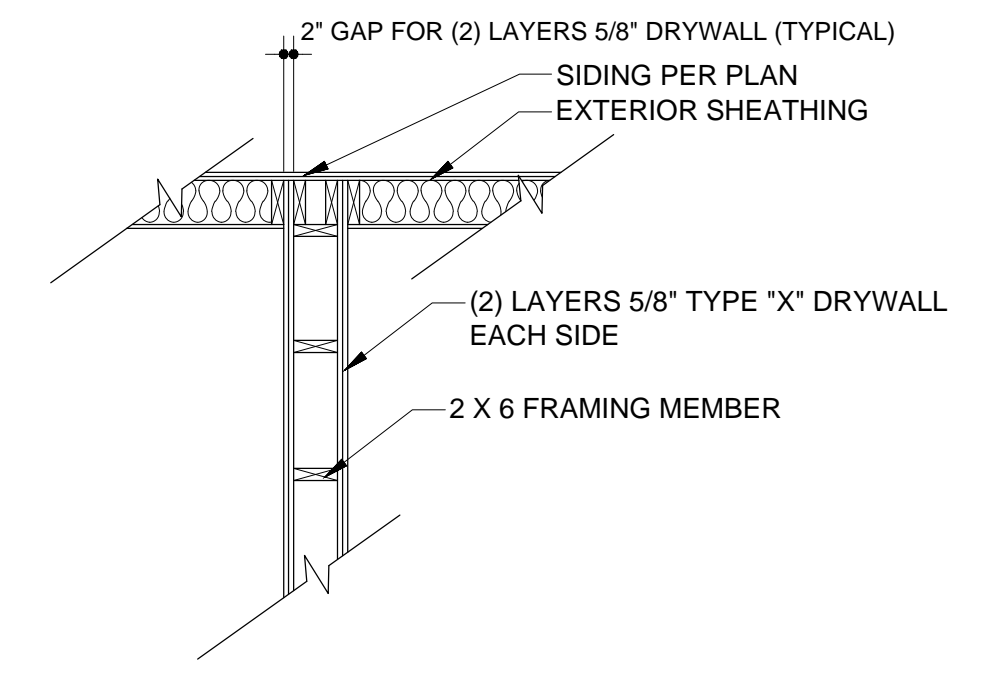
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FIR DOWN AT FLUES DETAIL
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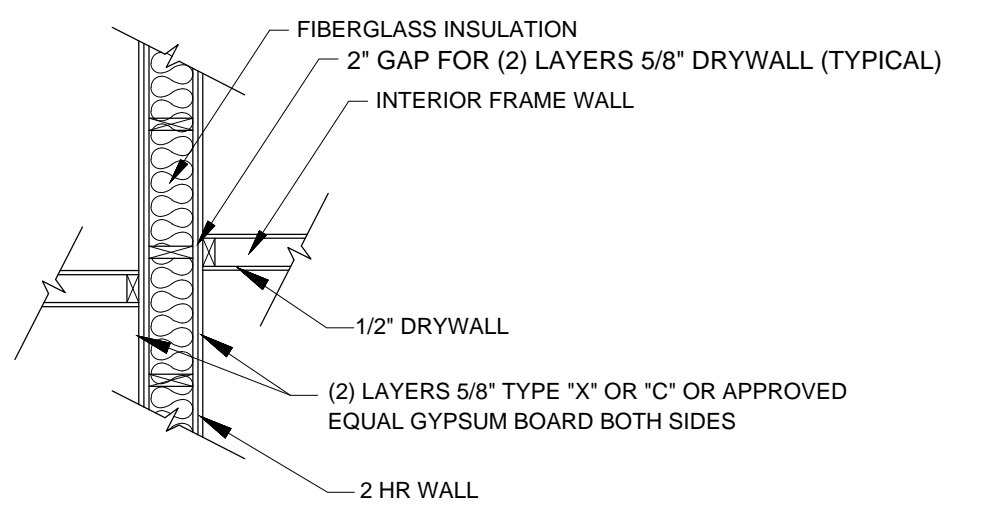
4
D1
CANTILEVER DETAIL
SCALE: 1/2" = 1'-0"



2
D1
COMMON WALL DETAIL
SCALE: 1/2" = 1'-0"
CONSTRUCT TWO HOUR FIRE WALL PER DETAIL



5
D1
FIREWALL DETAIL
SCALE: 1/2" = 1'-0"

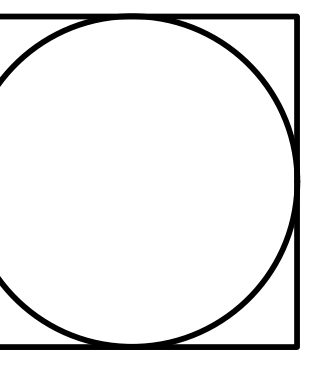
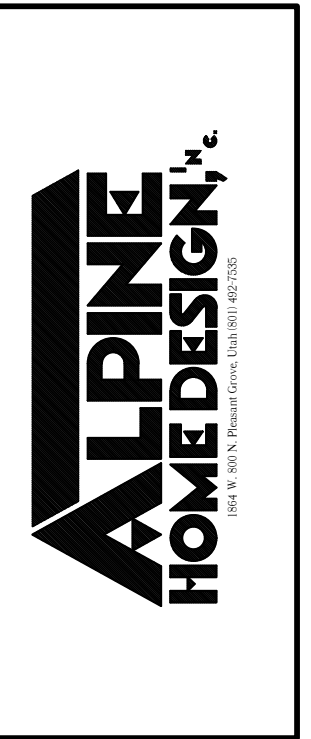


6
D1
FIREWALL DETAIL
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Revisions



Spring Creek Development - 7 Plex
Building Number #9 Details
Address: 1000 E 1060 S
Provo, Utah 84606
PRINT DATE: 05-19-2020



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9-A3.2
SCALE = AS NOTED
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NOTE

CONCRETE NOTES

1. CONCRETE MATERIAL PROPERTIES FOR FOOTING, GRADE BEAMS AND WALLS: 28 DAY COMPRESSIVE STRENGTHS ARE TO BE 3000 PSI. STRUCTURAL DESIGN IS BASED ON 2500 PSI.
2. CONCRETE MATERIAL PROPERTIES FOR ALL EXTERIOR FLATWORK, INCLUDING GARAGE FLOORS TO BE 4000 PSI.
3. CONCRETE MATERIAL PROPERTIES FOR SUSPENDED SLABS AND CANTILEVER SLABS 28 DAY COMPRESSIVE STRENGTH TO BE 4000 PSI.
4. PROVIDE ISOLATION JOINTS AROUND ALL COLUMNS AT ALL EXPOSED SLAB ON GRADE AREAS.
5. ALL HOLDOWNS ARE PER SIMPSON STRONGTIE OR APPROVED IRC EQUAL.
6. ALL STHD STRAP HOLDOWNS SHALL HAVE (1) #4 X 30" LONG PER MANUFACTURER'S DESIGN RECOMMENDATIONS.
7. SHEARWALL EDGE NAILING SHALL BE INSTALLED TO THE SAME POSTS ON WHICH THE HOLDOWNS ARE ATTACHED.
8. HOLDOWNS W/ "RJ" DESIGNATION TO BE USED AT ALL RIM JOIST APPLICATIONS.
9. HOLDOWN LOCATIONS ARE APPROXIMATE REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION FOR ACCURATE PLACEMENT.
10. FOOTING STEP LOCATIONS AND ELEVATIONS ARE ASSUMED. ADJUST AS REQUIRED ON SITE TO BRING FOOTING TO BEAR ON NATURAL UNDISTURBED SOIL.
11. BEFORE CONCRETE IS POURED VERIFY WITH ALL TRADES TO INSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, HOLD DOWNS, ETC., RELATIVE TO WORK.
12. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING AND FORM WORK.
13. ALL REINFORCEMENT SHALL BE ASTM A-615 GRADE-60 OR BETTER.
14. REINFORCEMENT SHALL BE FREE FROM MUD, OIL, OR OTHER NONMETALLIC COATINGS THAT ADVERSELY EFFECT BONDING CAPACITY.
15. ALL EXTERIOR FOOTINGS SHALL BE CONTINUOUS AND POURED MONOLITHICALLY.
16. ALL CHANGES IN VERTICAL FOOTING ELEVATION SHALL BE STEPPED. THE MINIMUM DISTANCE OF THE VERTICAL STEP SHALL BE NO LESS THAN 6"
17. MINIMUM FOOTING THICKNESS SHALL BE NOT LESS THAN 10"
18. USE 5/8" DIA. ANCHOR BOLTS @ 32" O.C. W/ 3" X 3" X 1/4" PLATE WASHERS, AND STANDARD CUT WASHER 7" MIN. EMBED (U.N.O.) PROVIDE PRESSURE TREATED PLATE @ ALL SILL PLATES (U.N.O. PER SHEAR WALL REQ.) SEE SHEAR WALL SCHEDULE FOR SIZE AND SPACING @ SHEARWALL LOCATIONS.
19. SOIL BEARING PRESSURE = 1,200 P.S.F. CONTRACTOR SHALL BE RESPONSIBLE FOR EVALUATING SOIL CONDITIONS AND SUITABILITY AFTER EXCAVATION.
20. PROVIDE (2) COATS OF ASPHALT EMULSION DAMP-PROOFING CONTINUOUS OVER TOP OF FOOTING AND EXTERIOR OF FOUNDATION WALLS TO FINISHED GRADE. PLASTER (PARDGE) EXPOSED FOUNDATIONS WALLS ABOVE FINISHED GRADE.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR LATERALLY SUPPORTING FOUNDATION WALLS WHILE BACK-FILLING AND UNTIL ALL SUPPORTING MEMBERS HAVE BEEN PLACED. (SUCH AS FLOORS)
22. BACK FILL FOUNDATIONS IN 8" LIFTS TO 98% MAX. DENSITY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CONCRETE SLAB PLACEMENT FOR GARAGE AND DRIVEWAYS OVER ADEQUATE COMPACTED BACK FILL MATERIAL (4" FREE DRAINING GRAVEL OVER EXISTING GRADE OR APPROVED FILL.)
23. ALL FOOTINGS SHALL BE PLACED 12" BELOW EXISTING GRADE AND MINIMUM OF 30" BELOW FINISHED GRADE OR PER LOCAL CODE FOR FROST DEPTH.
24. FOUNDATION WALLS SHALL HAVE A MINIMUM EXPOSURE OF 6" ABOVE FINISHED GRADE.
25. THE LOCAL BUILDING OFFICIAL IS TO ASSURE COMPLIANCE WITH CODE AND CONSTRUCTION REQUIREMENTS.
26. CONCRETE FLOOR SLABS, EXCEPT FOR THOSE IN UNHEATED ACCESSORY STRUCTURES, SHALL HAVE A VAPOR RETARDER CONSISTING OF A 6 MIL (.006 INCH) POLYETHYLENE OR APPROVED VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" PLACED BETWEEN THE CONCRETE FLOOR SLAB AND THE BASE COURSE OR THE PREPARED SUB-GRADE WHERE NO BASE COURSE EXISTS.

NOTE

FOUNDATION CREW, PLEASE MARK LOCATION OF UFER GROUND WITH HIGHLY VISIBLE SPRAY PAINT ON INTERIOR OF FOUNDATION WALL

SPACE ANCHOR BOLTS BETWEEN FLOOR JOISTS

ALL FOUNDATION STRAPS MUST BE NAILED WITH A 0.148 MINIMUM DIAMETER NAIL.

ALL CONCRETE OPENINGS TO HAVE (2) #5 HORIZONTAL IN BOTTOM OF LINTEL ABOVE OPENING EXTENDING 2'-0" PAST OPENING
 (1) #4 BAR ON EACH SIDE OF OPENING TERMINATING 3' FROM TOP OF CONCRETE
 (1) #4 HORIZONTAL BAR BELOW OPENING EXTENDING 2'-0" PAST

NOTE

8' TALL WALLS FRAMED WITH STUDS @ 16" O.C. 10' AND TALLER WALLS SEE ENGINEERING.

DIMENSIONS ON FLOOR PLANS ARE TO ROUGH FRAMING UNLESS NOTED OTHERWISE.

2' X 4" STUD WALLS ASSUMED TO BE 3 1/2" WIDE.

2' X 6" STUD WALLS ASSUMED TO BE 5 1/2" WIDE.

WINDOW HEAD HEIGHT @ 6'-8" U.N.O.

LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 1/2" LOWER THAN THE TOP OF THE THRESHOLD. THE LANDING OF FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 7 3/4" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OF FLOOR

BACKFLOW PREVENTERS OR VACUUM BREAKERS FOR PROTECTION OF POTABLE WATER ON HOSE BIBS, IRRIGATION OR SPRINKLER SYSTEM, BOILERS AND HEAT EXCHANGERS

A BACKWATER VALVE IS REQUIRED TO PROTECT PLUMBING FIXTURES THAT ARE LOCATED BELOW THE ELEVATION LEVEL OF THE NEAREST UPSTREAM MAN HOLE COVER. FIXTURES THAT ARE ABOVE THE ELEVATION OF THE MAN HOLE COVER SHALL NOT DISCHARGE THROUGH THE BACK WATER VALVE

FLOOR DRAINS MUST HAVE TRAP PRIMERS OR DEEP SEAL TRAPS

Revisions

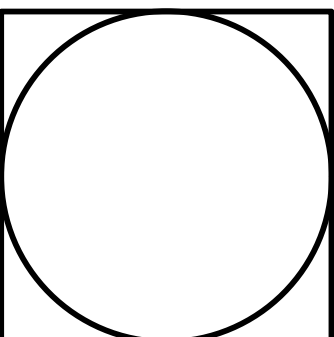
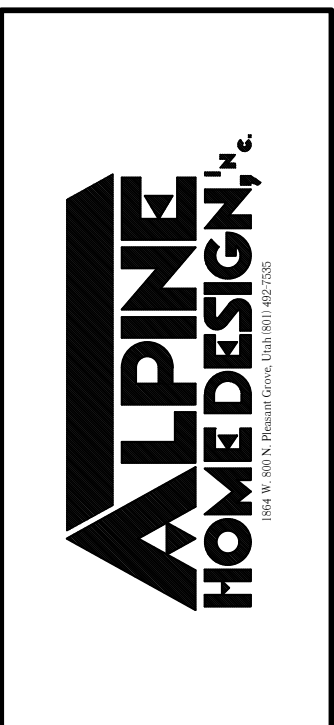


Spring Creek Development - 7 Plex

Building Number #9 Notes

Address: 1000 E 1060 S
 Provo, Utah 84606

PRINT DATE: 05-19-2020

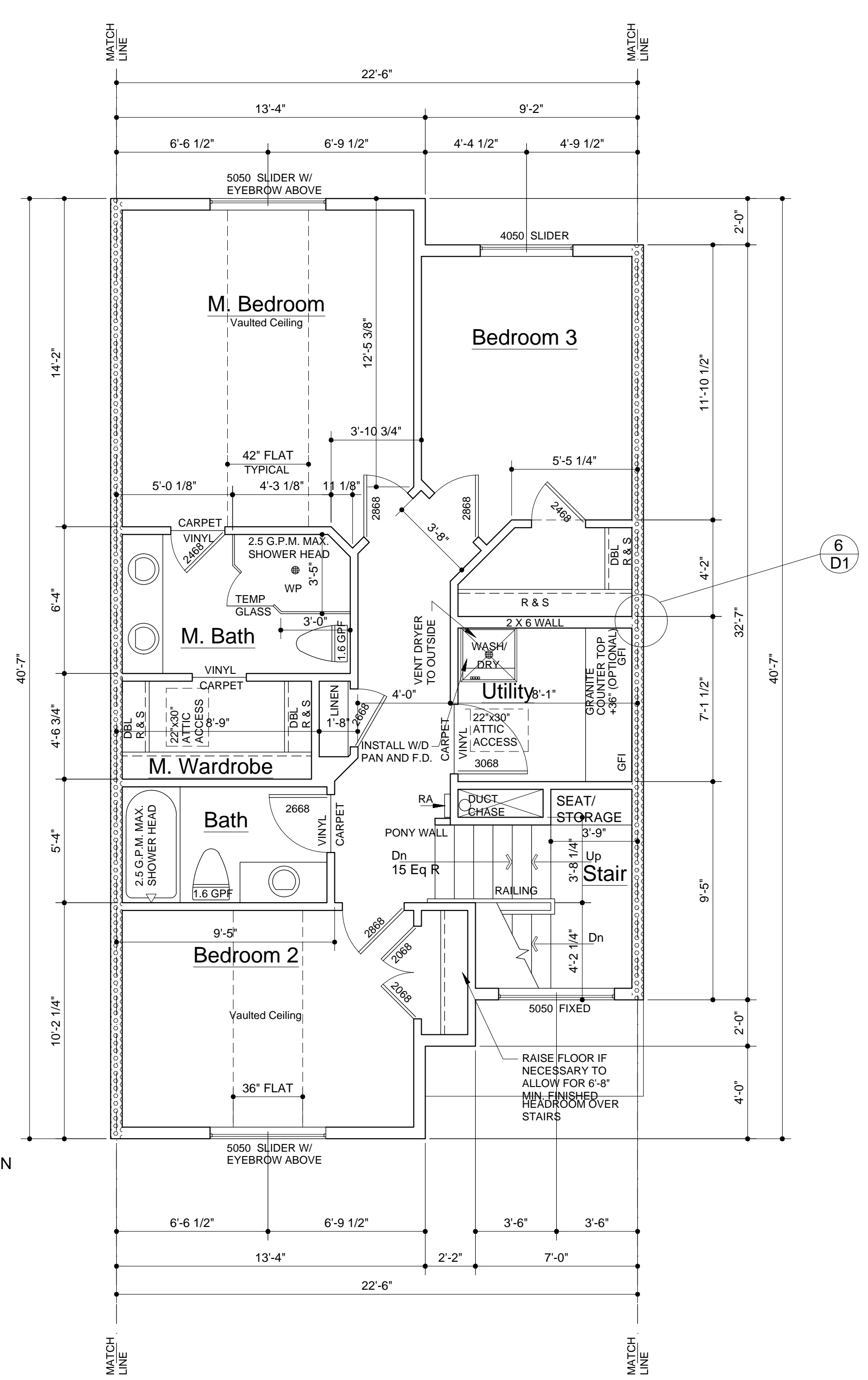
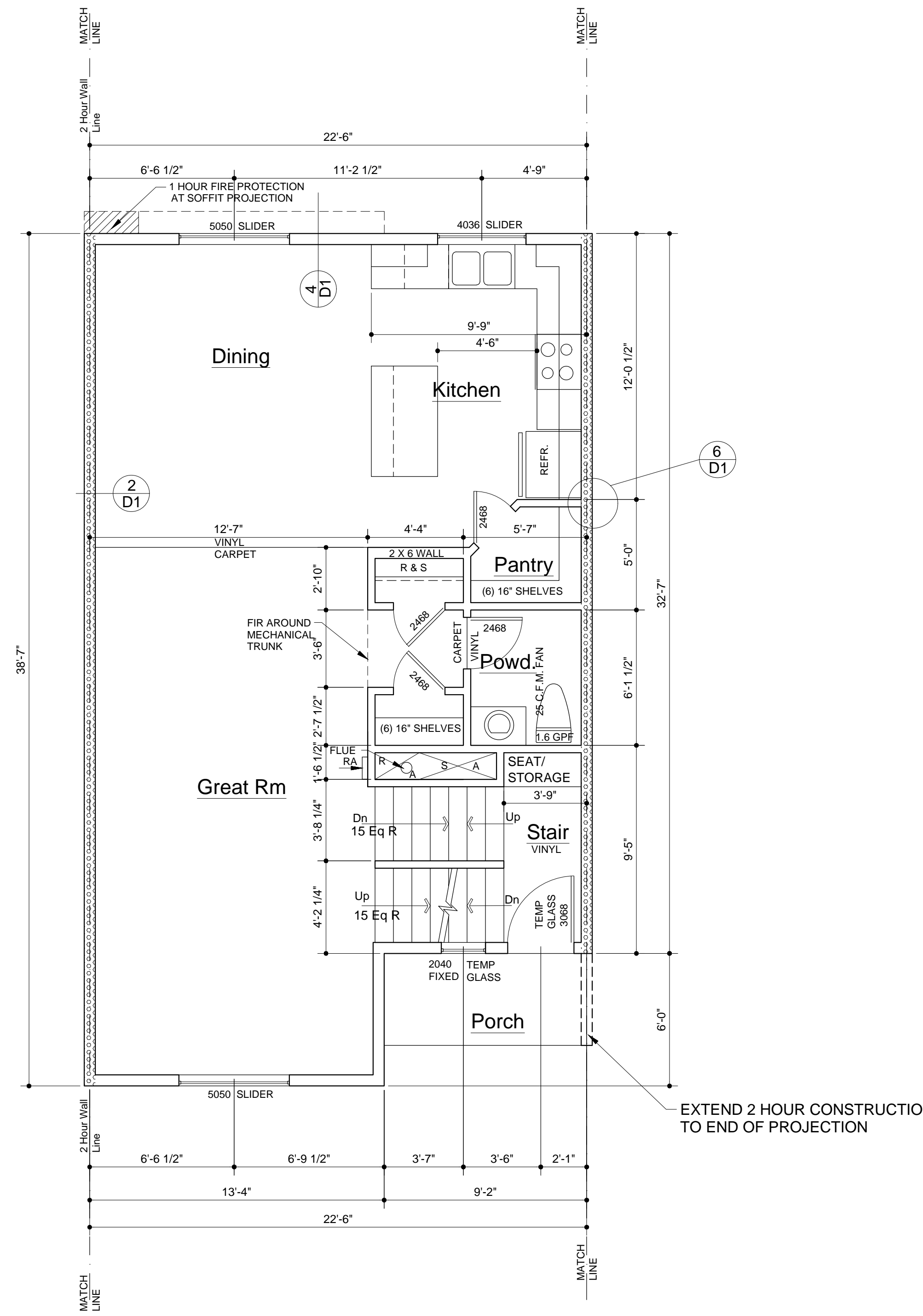
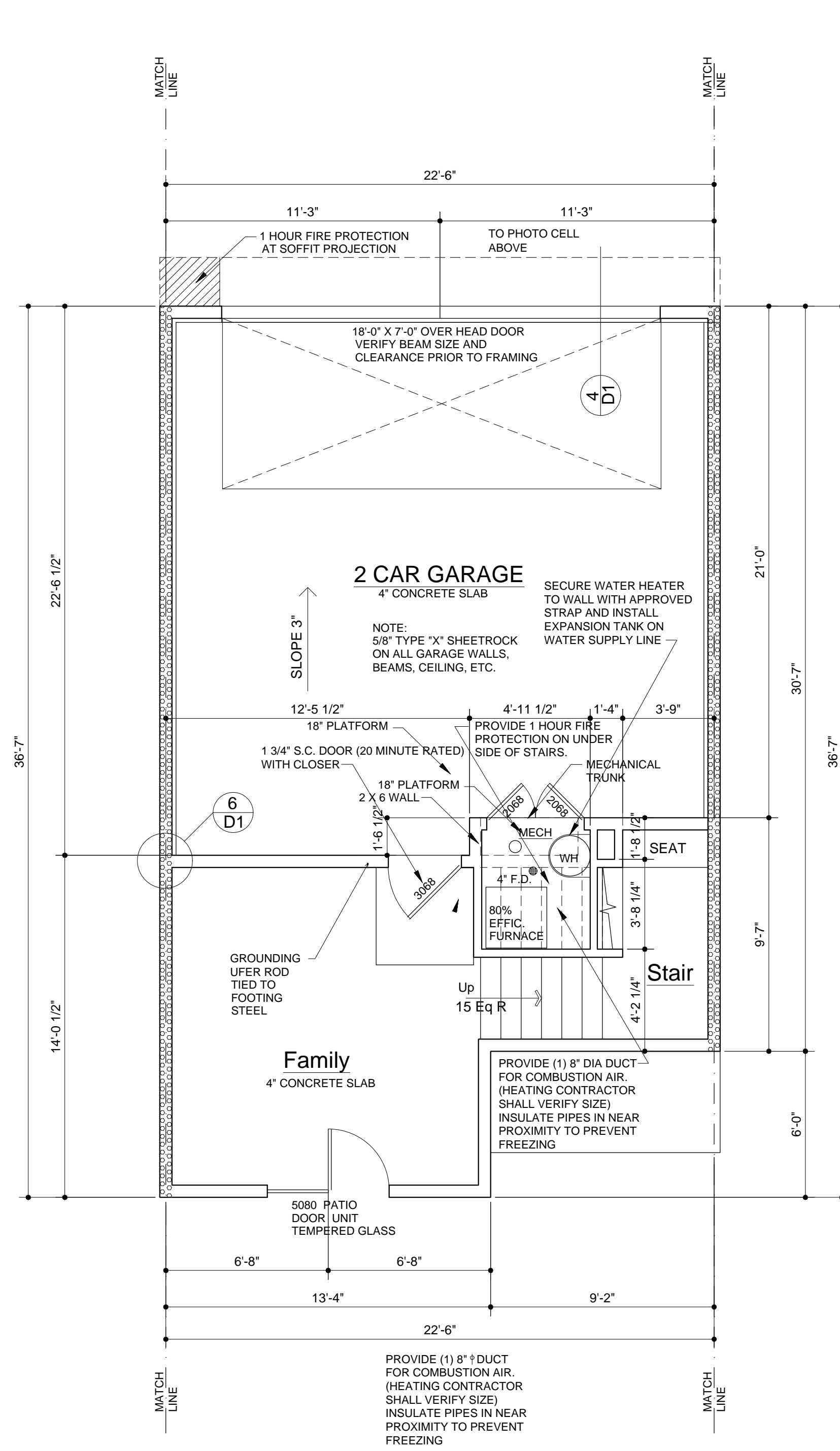


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9-A3.3

SCALE = N.T.S.

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UNIT TYPE "A"

Revisions
9/7/2018

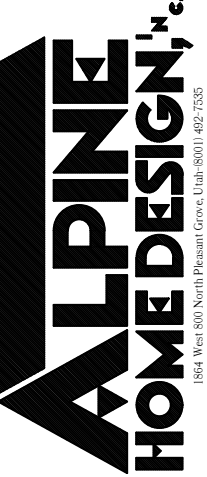


(801) 362-1948

Spring Creek Development - 7 Plex
Building Number #9 Unit A

Address: 1000 E 1060 S
Provo, Utah 84606

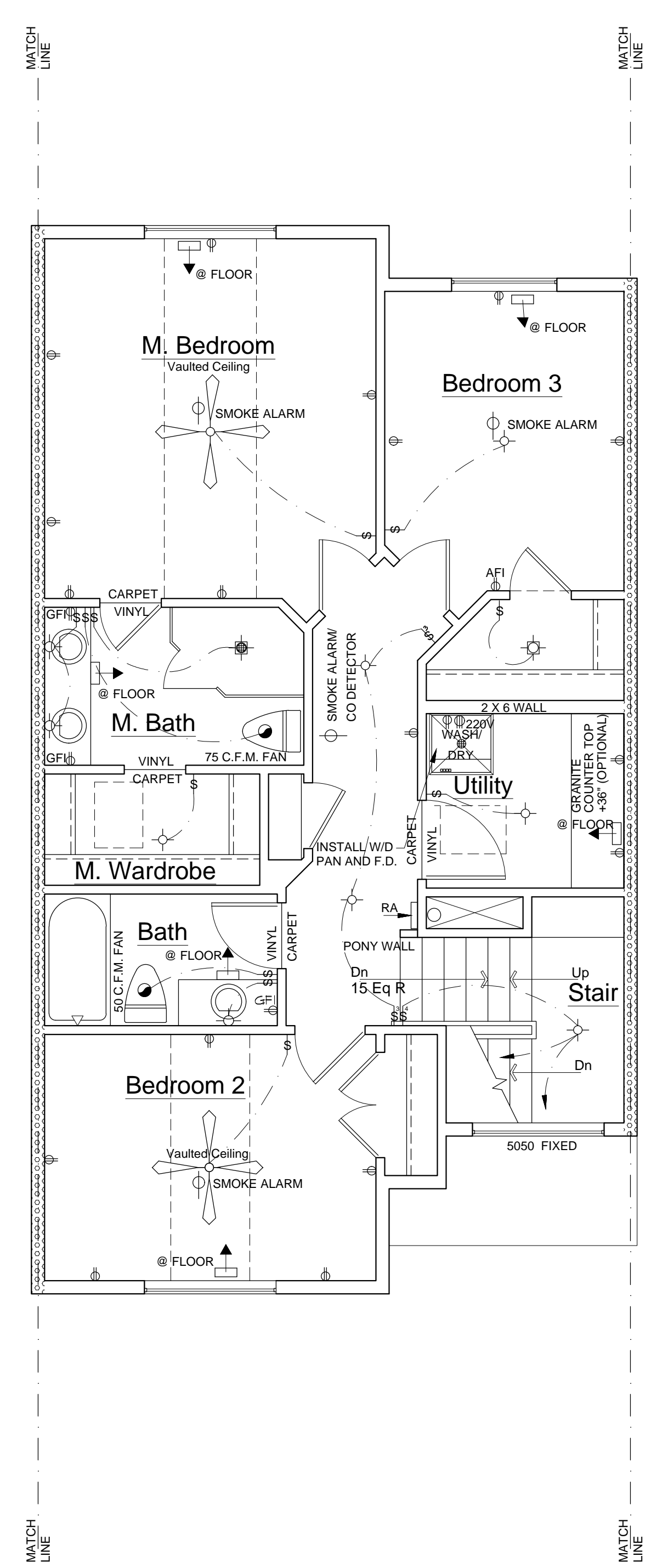
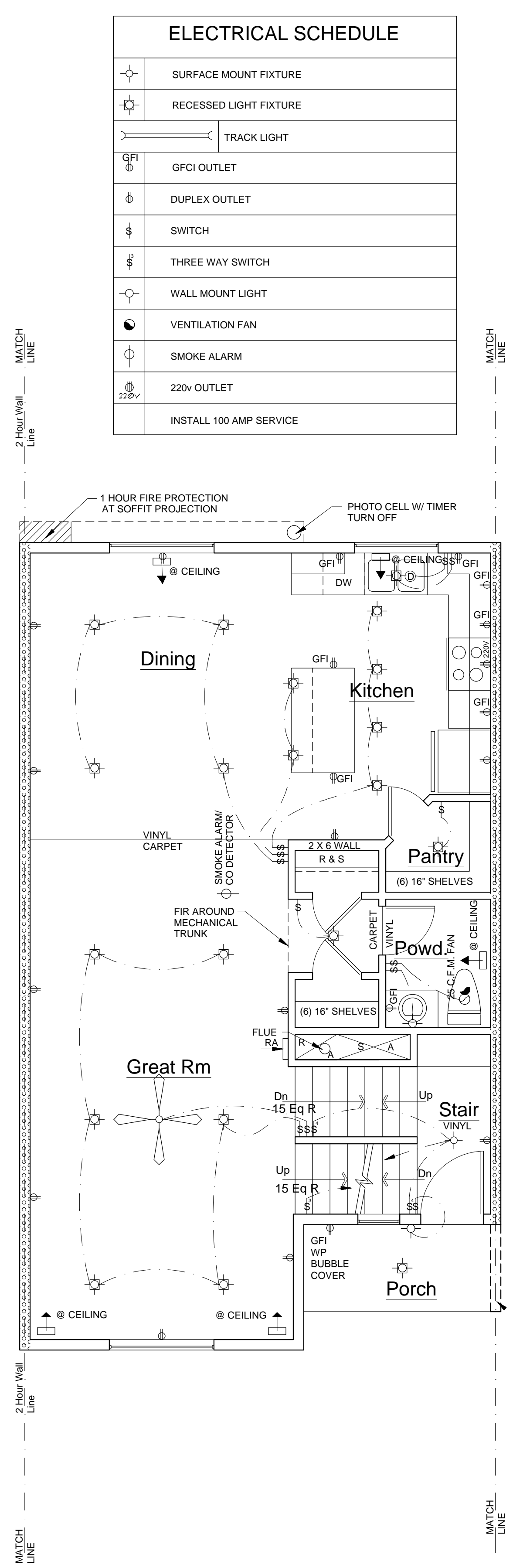
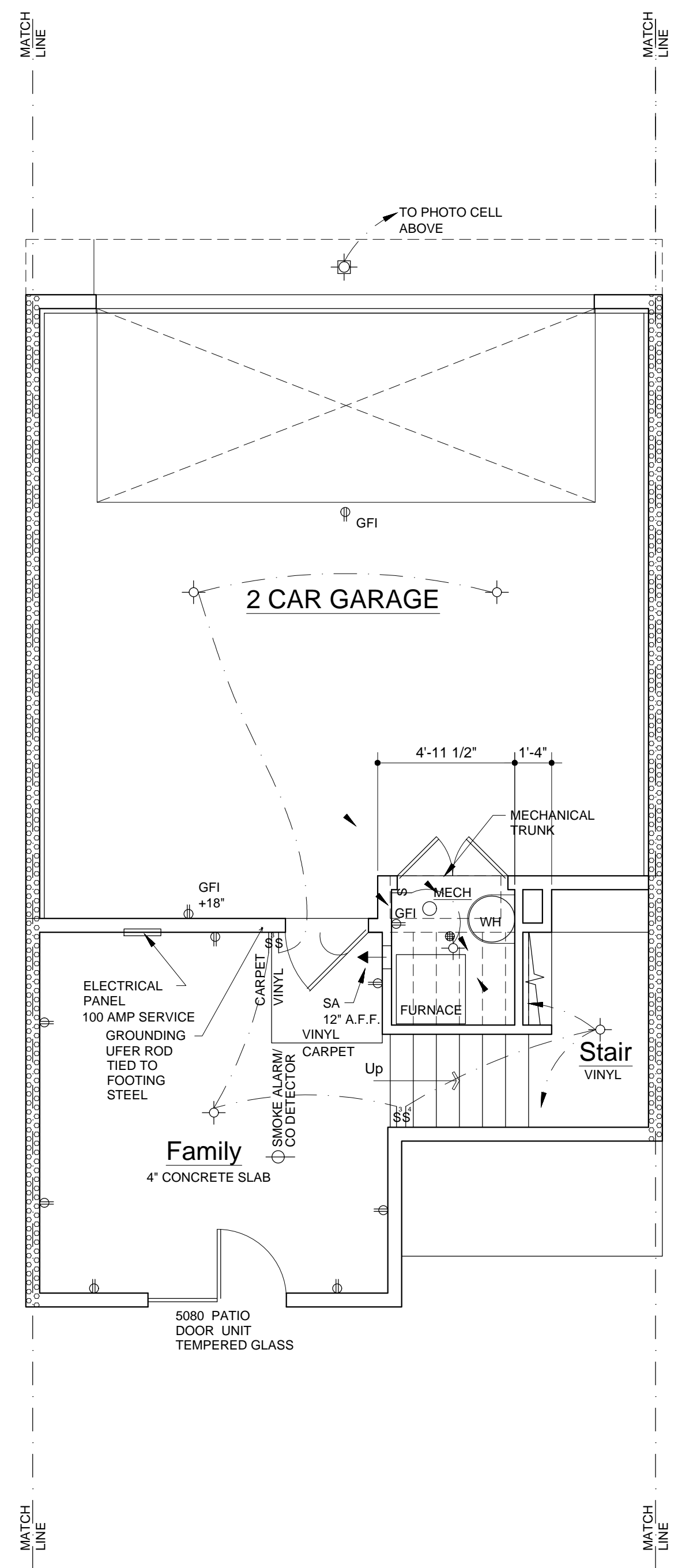
PRINT DATE: 05-19-2020



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A-A1

SCALE = 1/4" = 1'-0"

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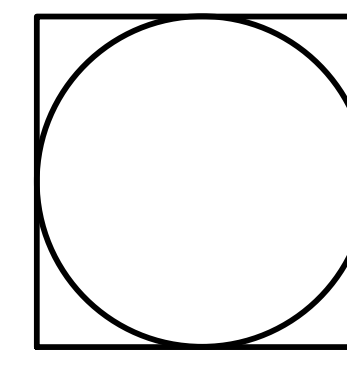
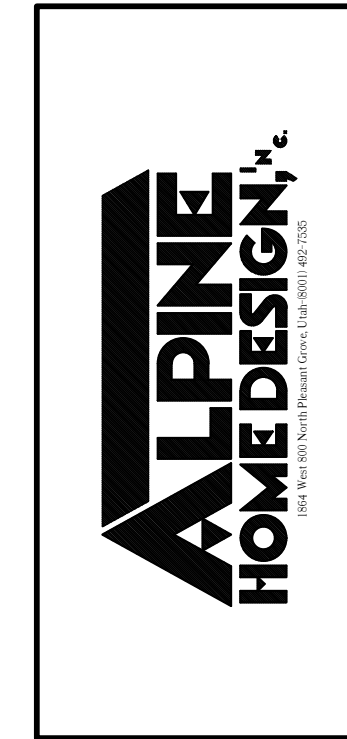


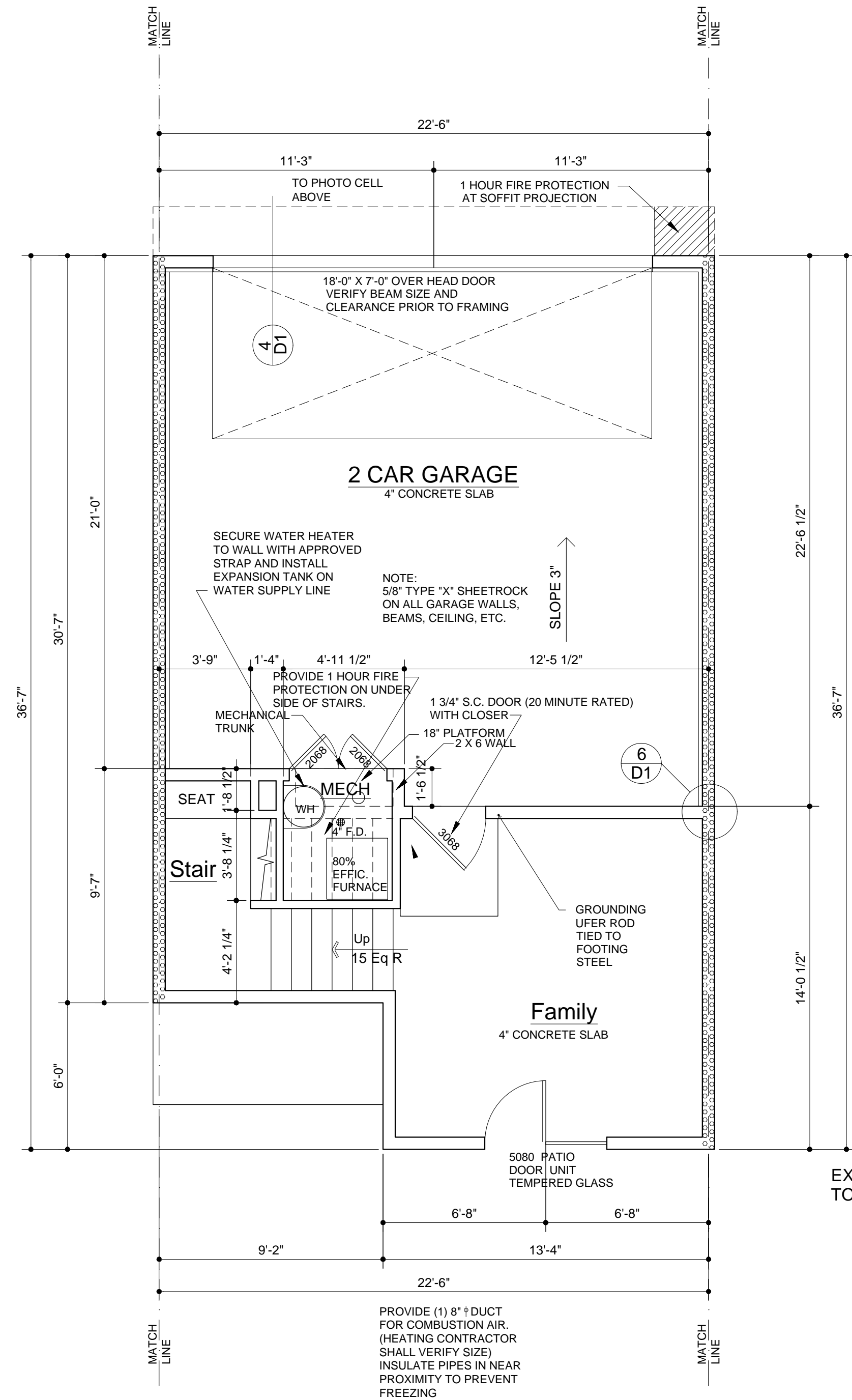
UNIT TYPE "A"

Revisions	Date	Description
	9/7/2018	



Spring Creek Development - 7 Plex
 Building Number #9 Unit A
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020

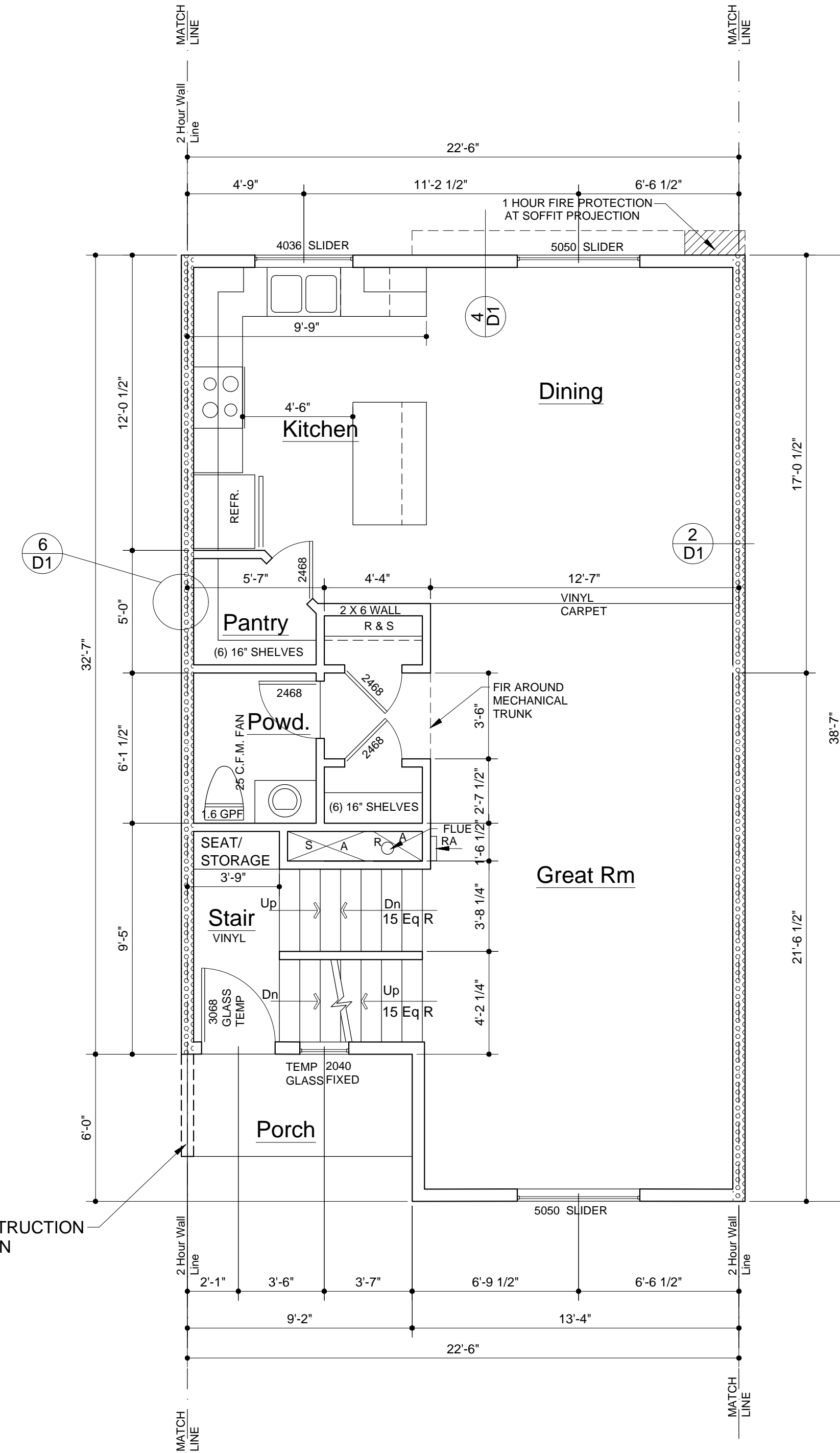




GROUND LEVEL FLOOR PLAN

GROUND LEVEL 276 SQUARE FEET OF FINISHED AREA
(GARAGE 492 SQUARE FEET)

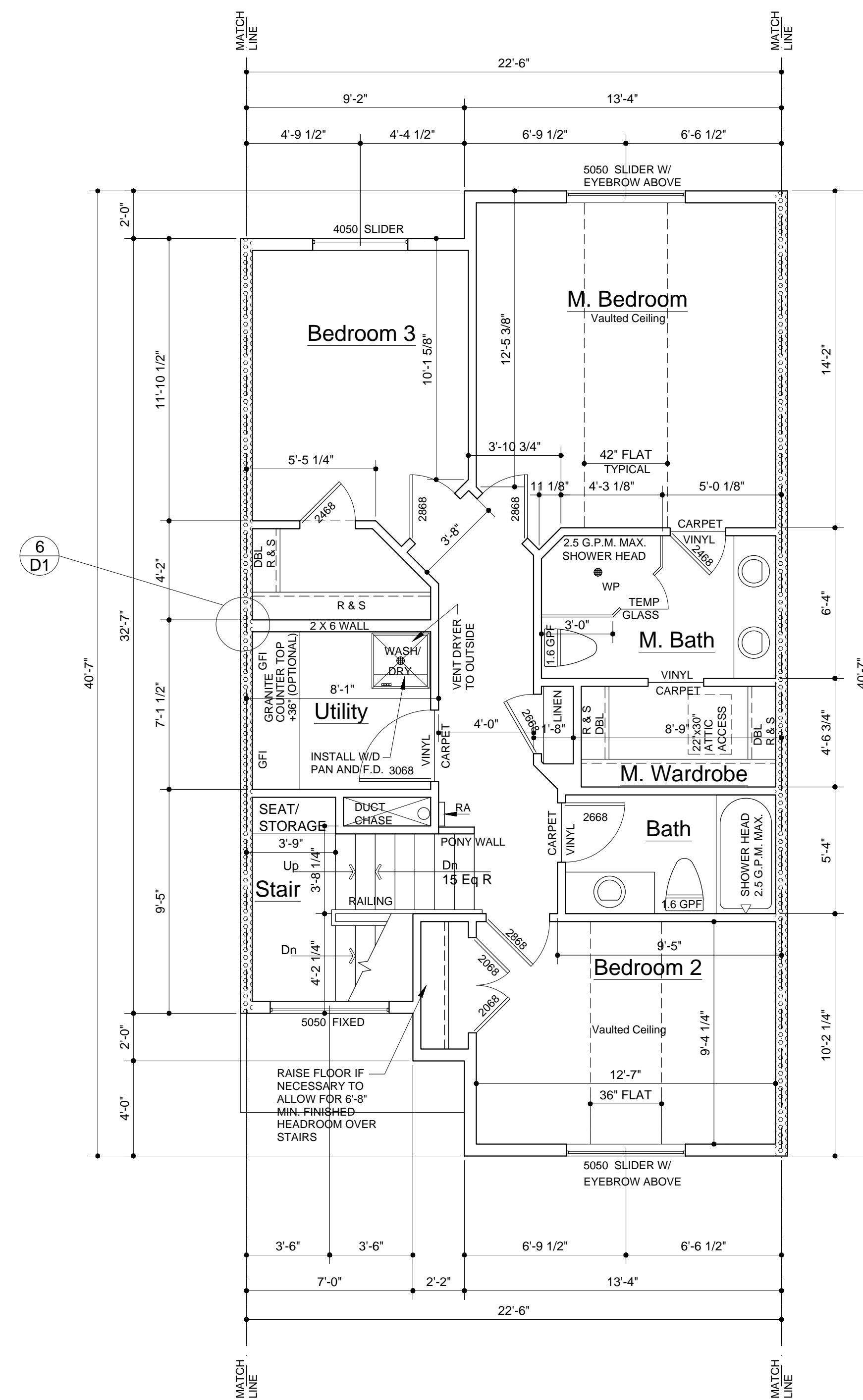
SCALE: 1/4" = 1'-0"



SECOND LEVEL FLOOR PLAN

SECOND LEVEL 815 SQUARE FEET OF FINISHED AREA

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



THIRD LEVEL FLOOR PLAN

THIRD LEVEL 846 SQUARE FEET OF FINISHED AREA

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

UNIT TYPE "B"

Revisions
9/7/2018

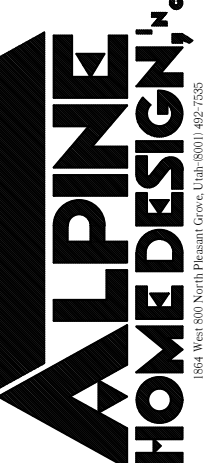


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Spring Creek Development - 7 Plex
Building Number #9 Unit B

Address: 1000 E 1060 S
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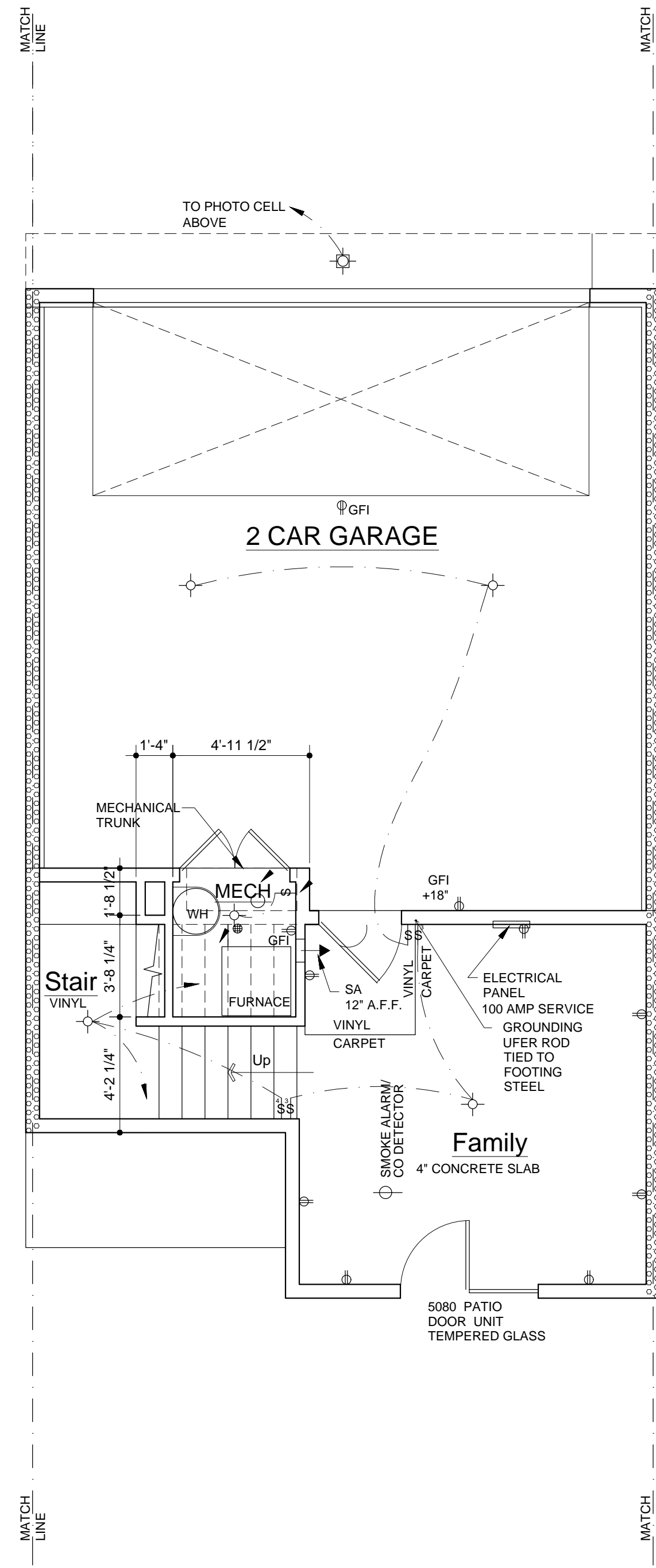
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B-A1

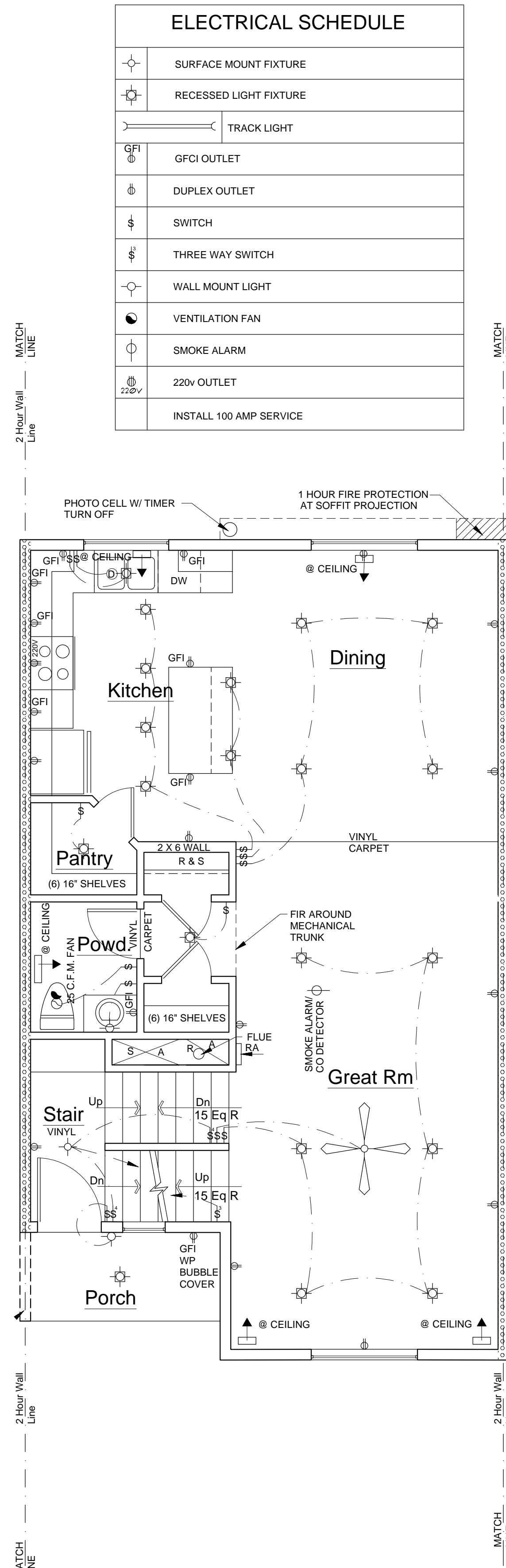
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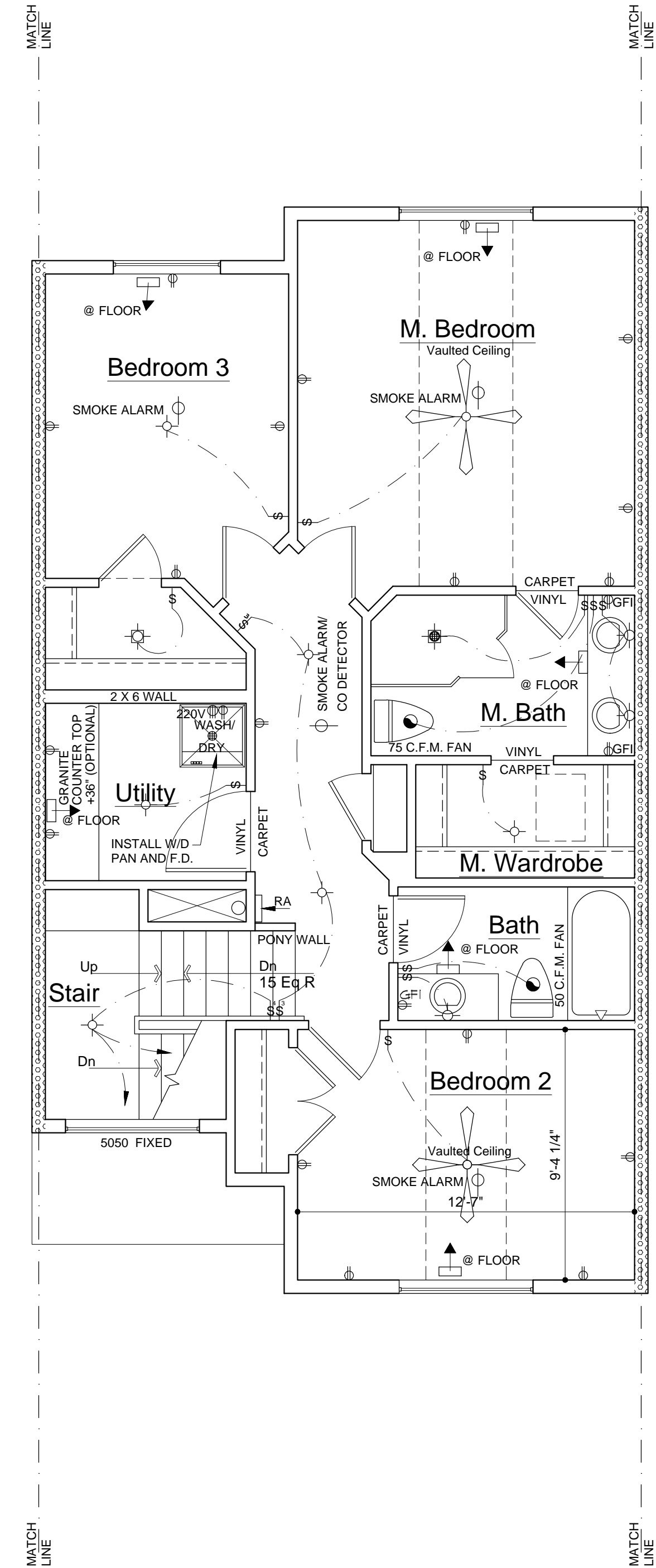
GROUND LEVEL ELECTRICAL PLAN

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SECOND LEVEL ELECTRICAL PLAN

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



THIRD LEVEL ELECTRICAL PLAN

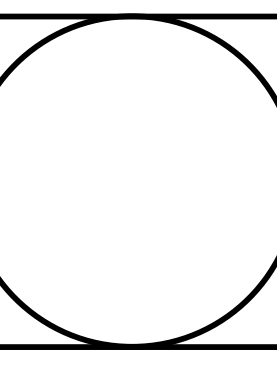
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UNIT TYPE "B"

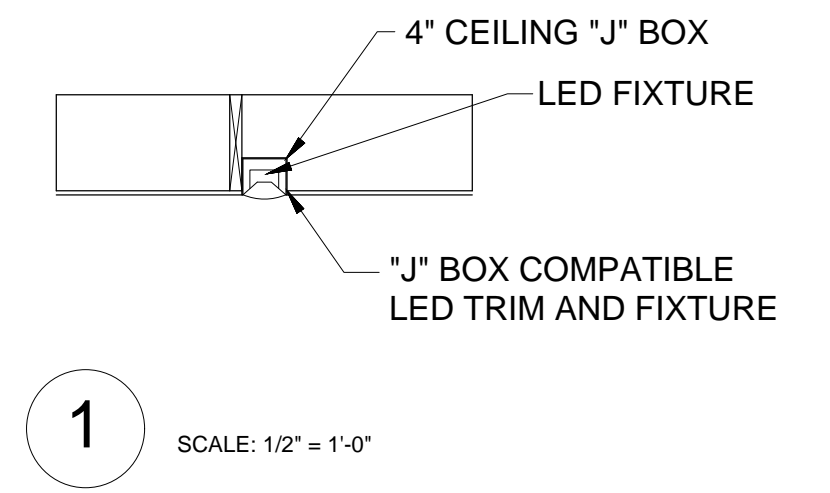
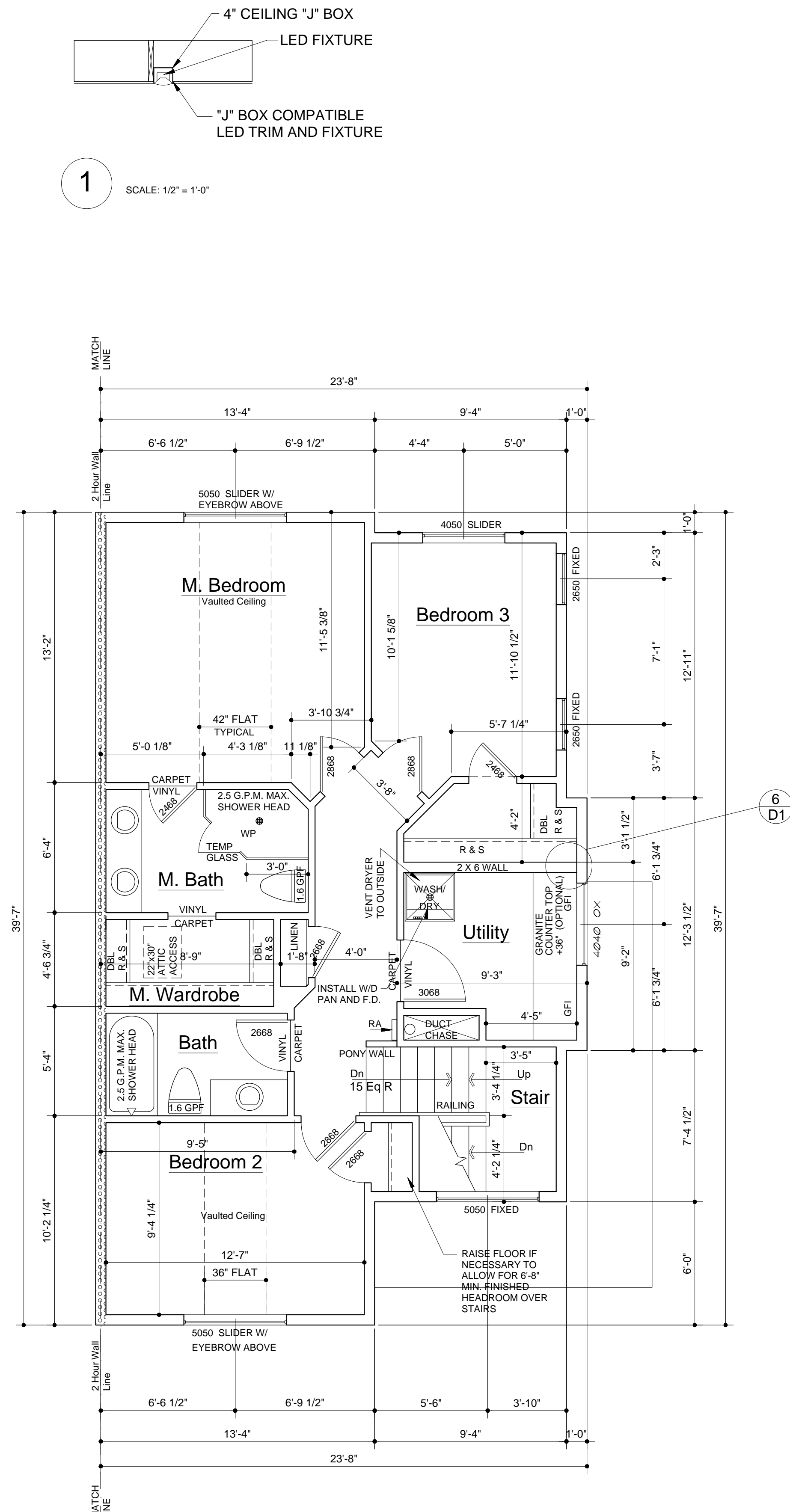
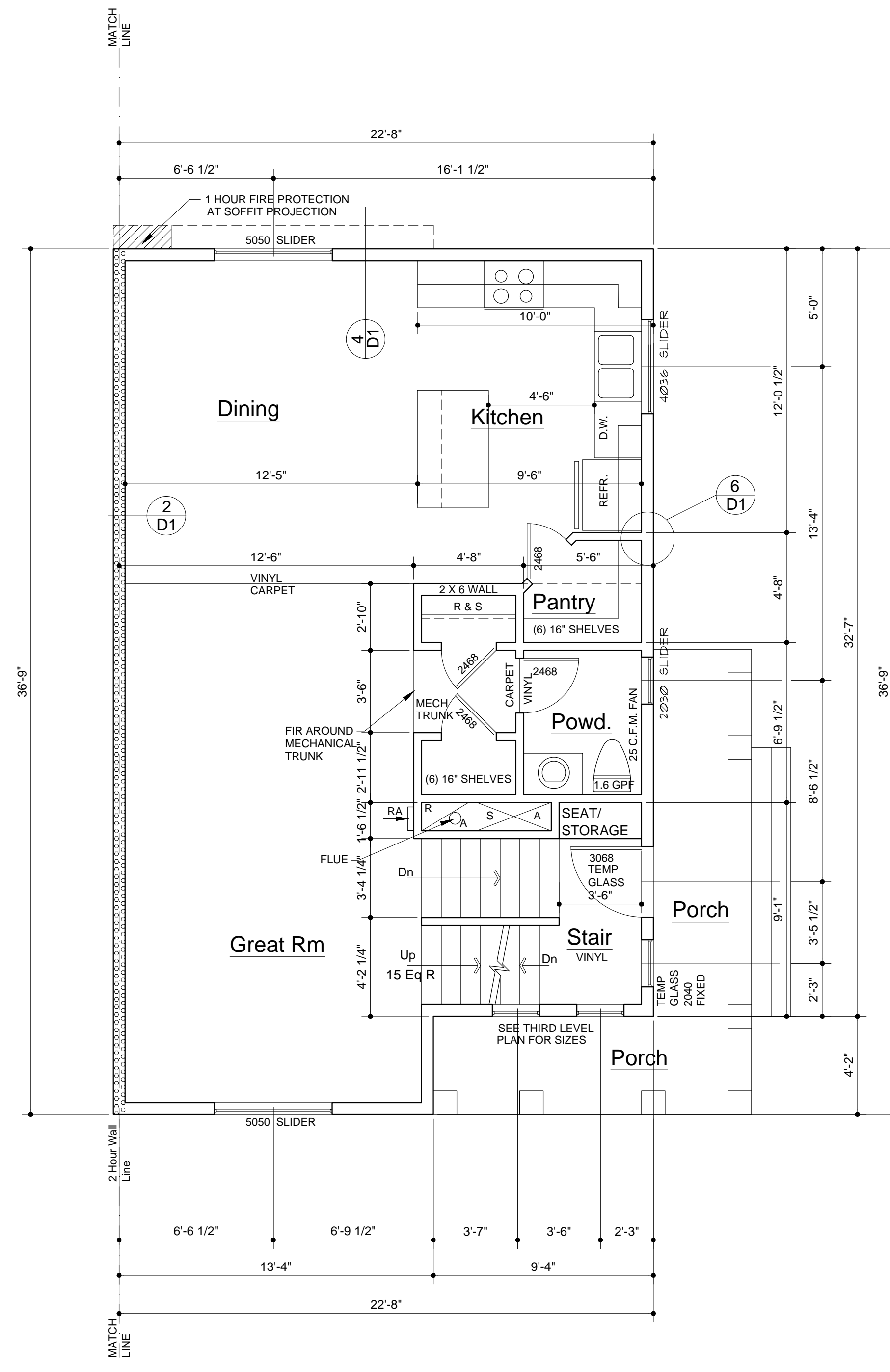
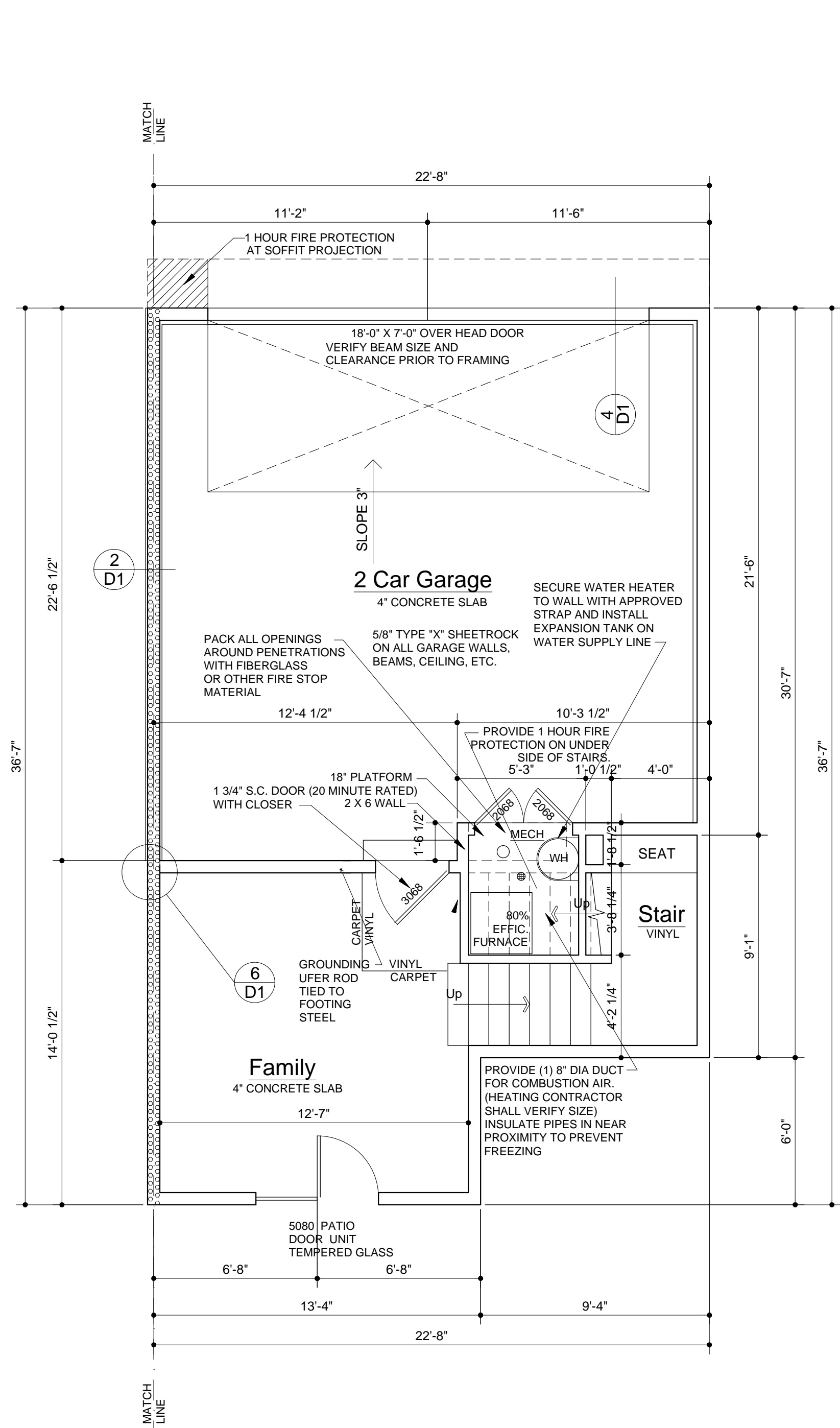
Revisions	Date	Description



Spring Creek Development - 7 Plex
 Building Number #9 Unit B
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020



Jacobson Architecture
B-E1.2
 SCALE = 1/4" = 1'-0"
 P.O. Box 1114 American Fork, UT 84403 801.597.5900



UNIT TYPE "E"

Revisions



Spring Creek Development - 7 Plex
 Building Number #9 Unit E
 Address: 1000 E 1060 S
 Provo, Utah 84606

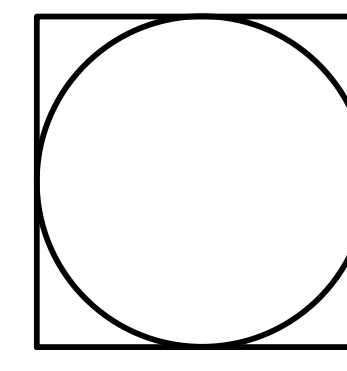
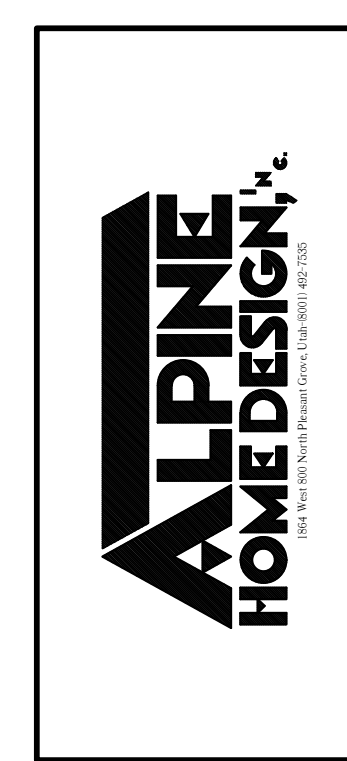
PRINT DATE: 05-19-2020



NO.	DATE	REVISIONS



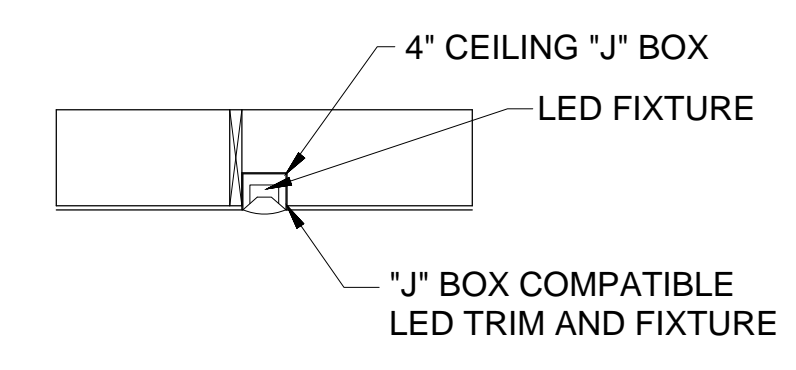
Spring Creek Development - 7 Plex
 Building Number #9 Unit E
 Address: 1000 E 1060 S
 Provo, Utah 84606



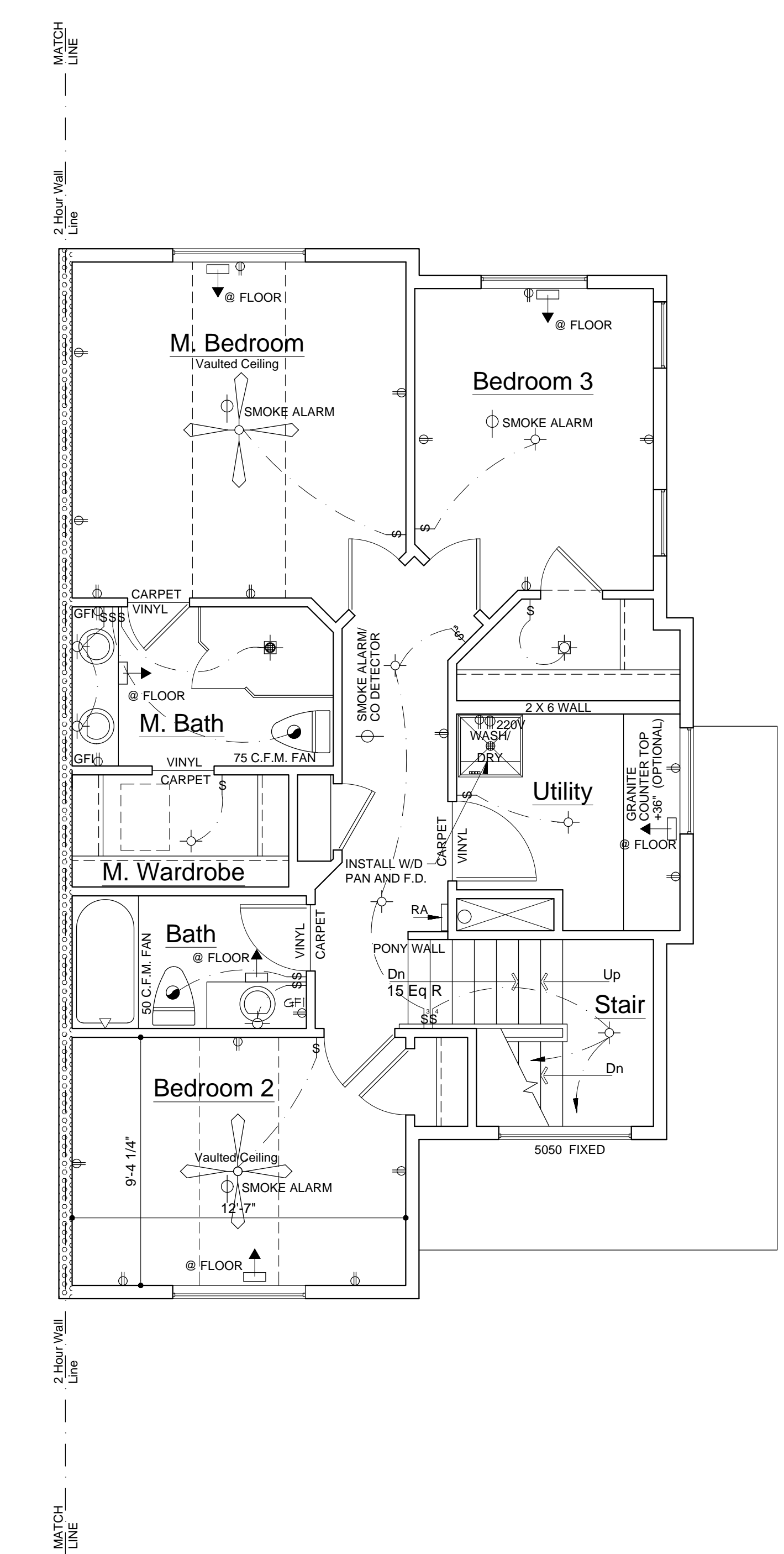
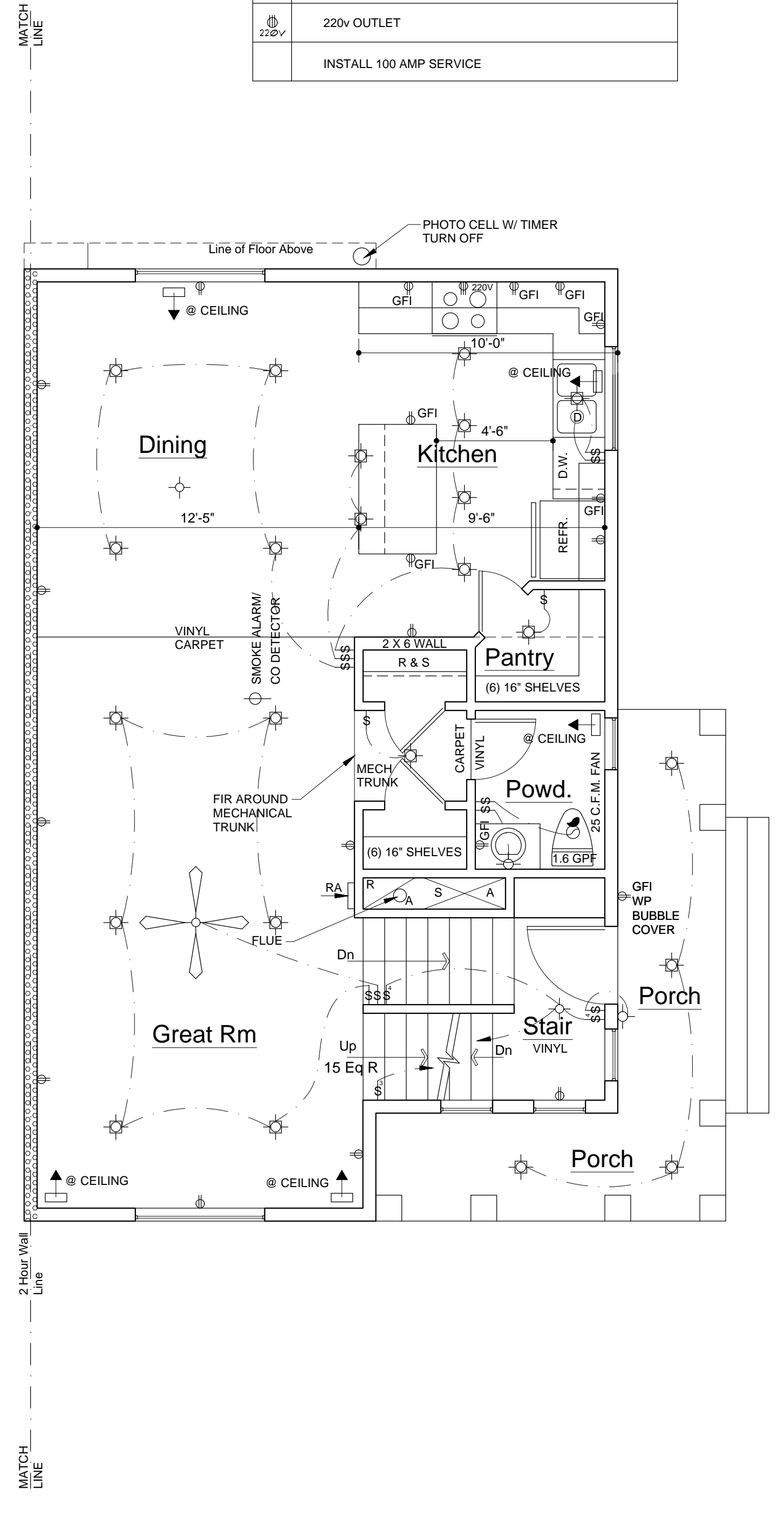
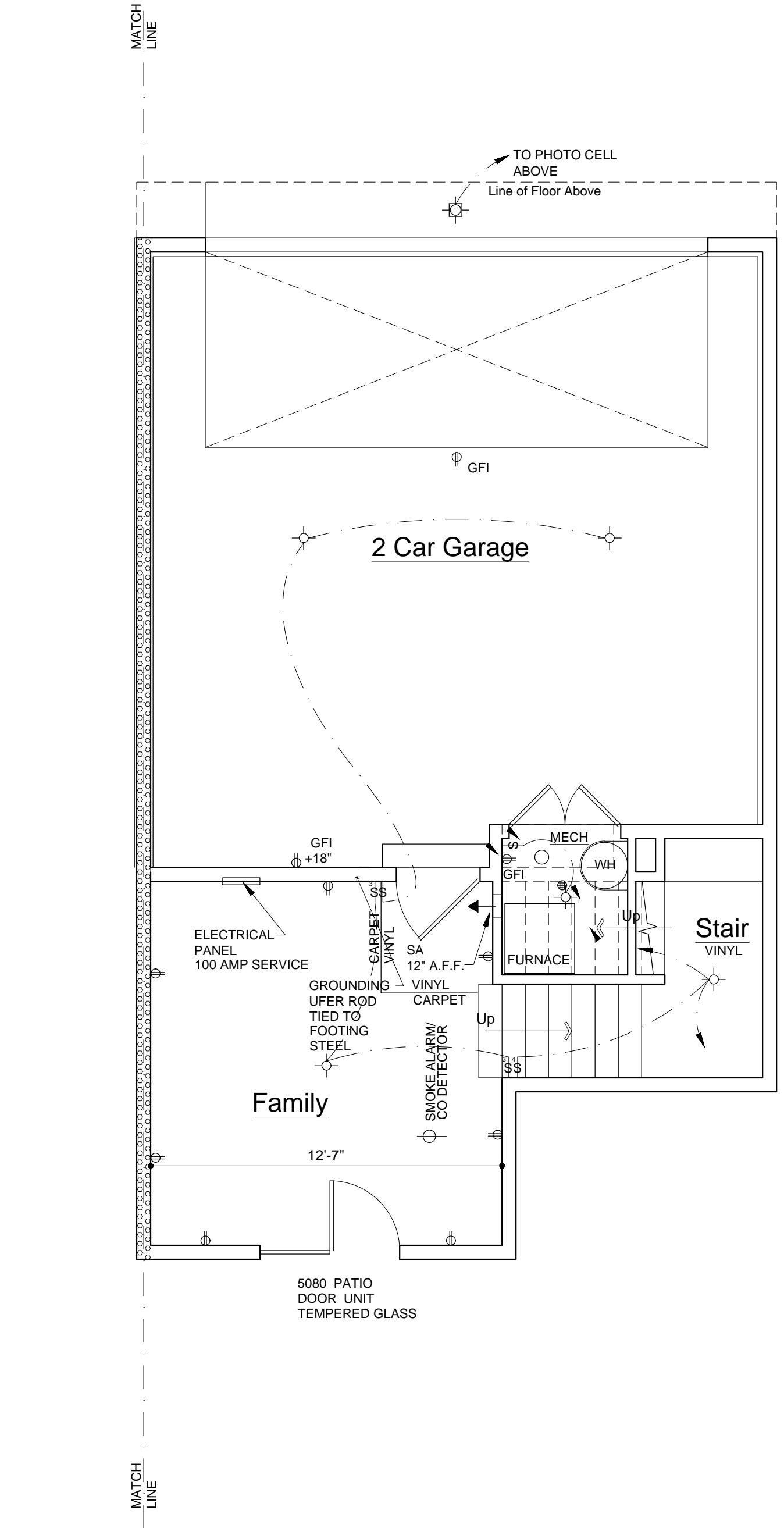
Jacobson Architecture
 E-1.3
 SCALE = 1/4" = 1'-0"
 P.O. Box 1114 American Fork, UT 84403 801.597.5800

ELECTRICAL SCHEDULE

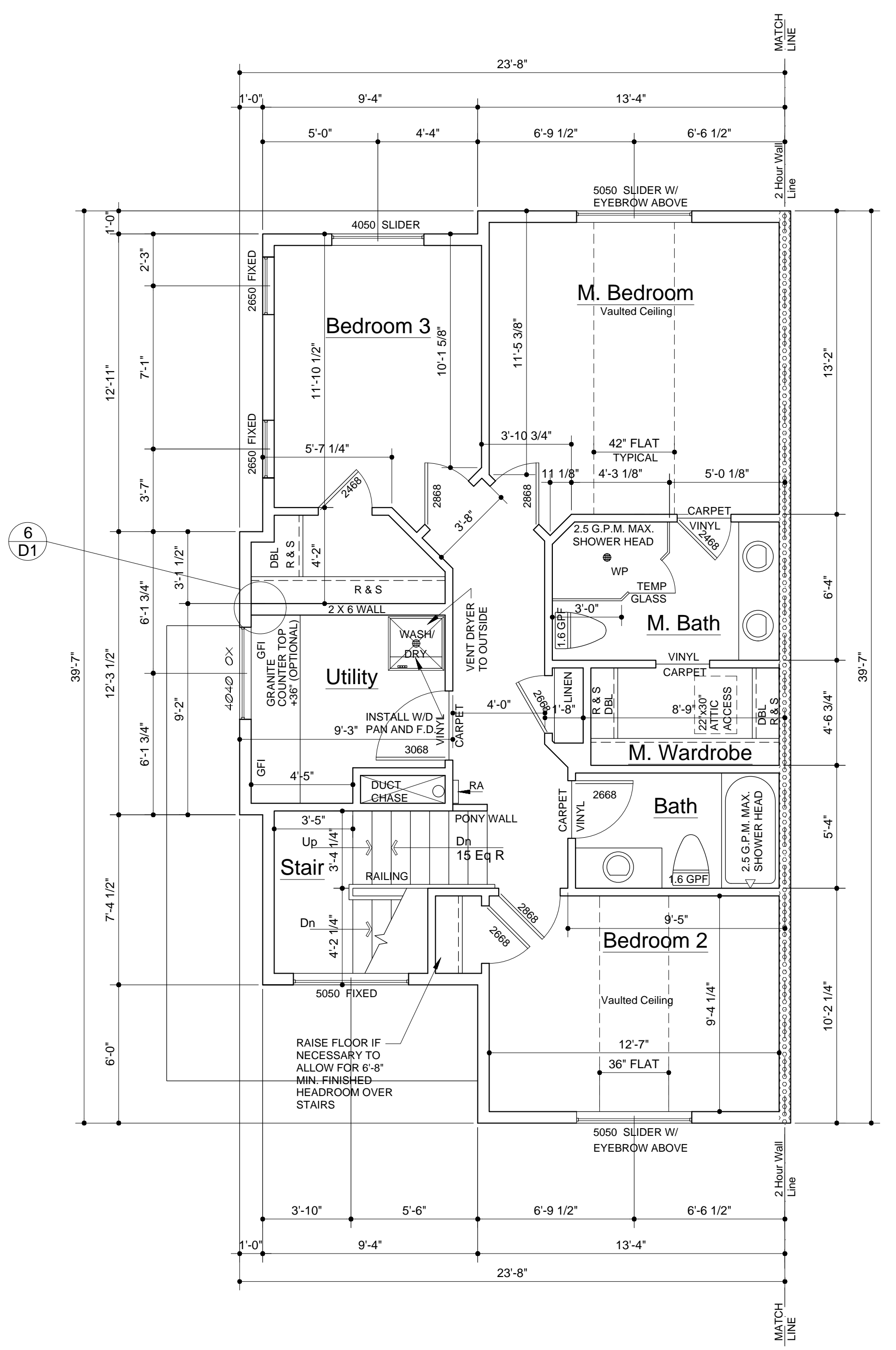
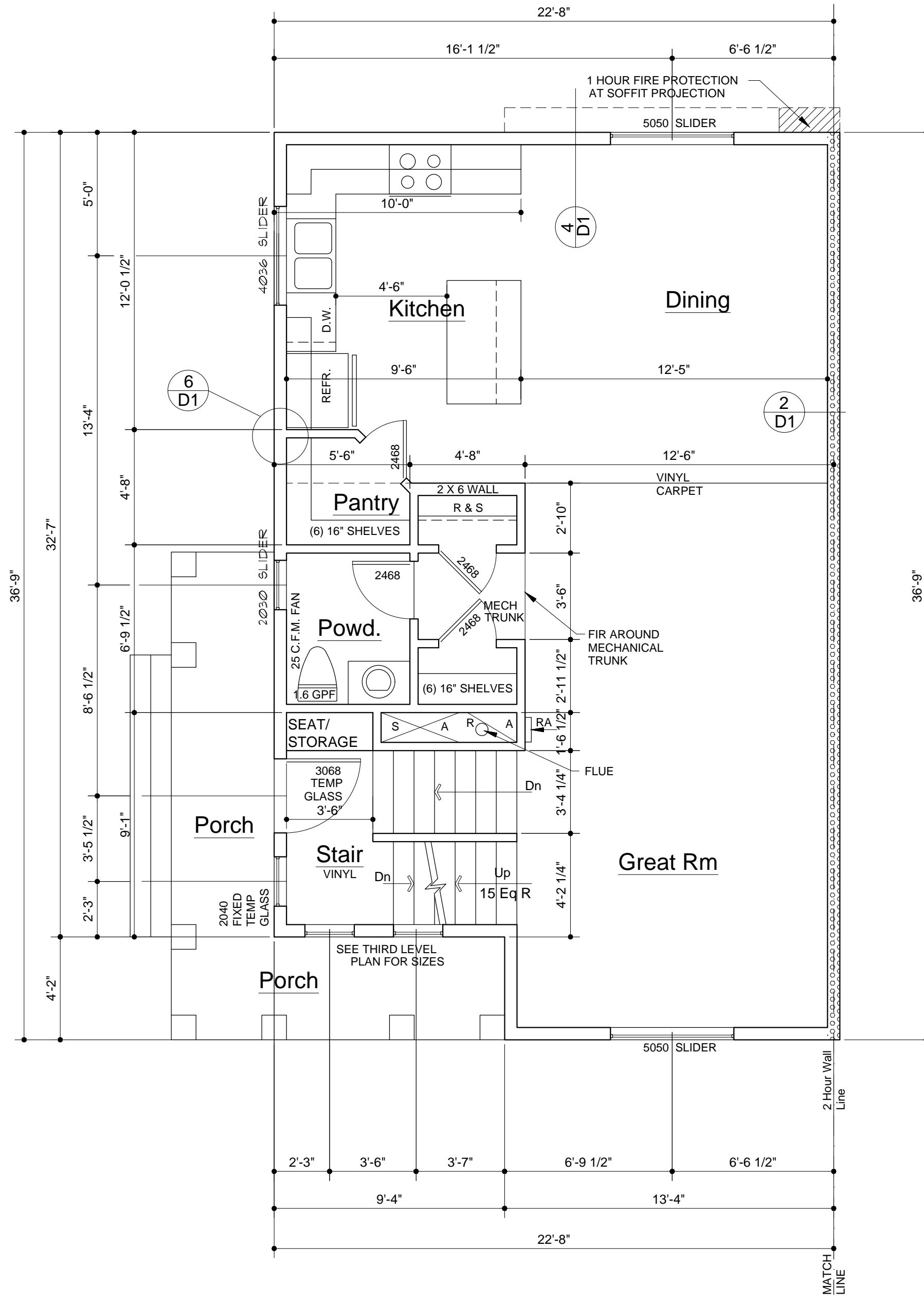
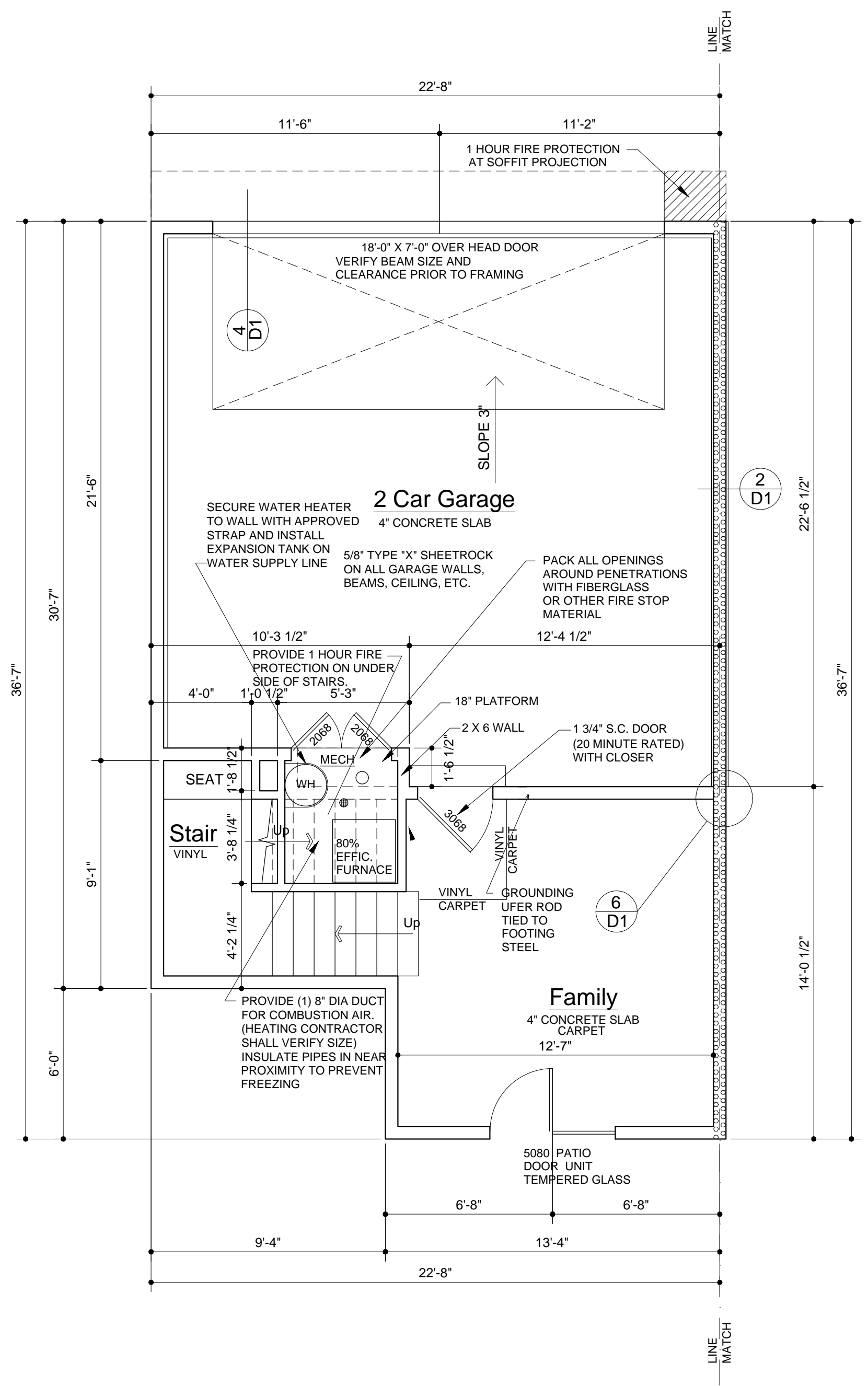
	SURFACE MOUNT FIXTURE
	RECESSED LIGHT FIXTURE
	TRACK LIGHT
	GFCI OUTLET
	DUPLEX OUTLET
	SWITCH
	THREE WAY SWITCH
	WALL MOUNT LIGHT
	VENTILATION FAN
	SMOKE ALARM
	220V OUTLET
	INSTALL 100 AMP SERVICE



1 PREFERRED RECESSED LIGHT DETAIL
 SCALE: 1/2" = 1'-0"



UNIT TYPE "E"

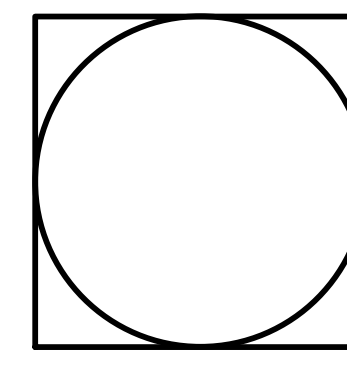
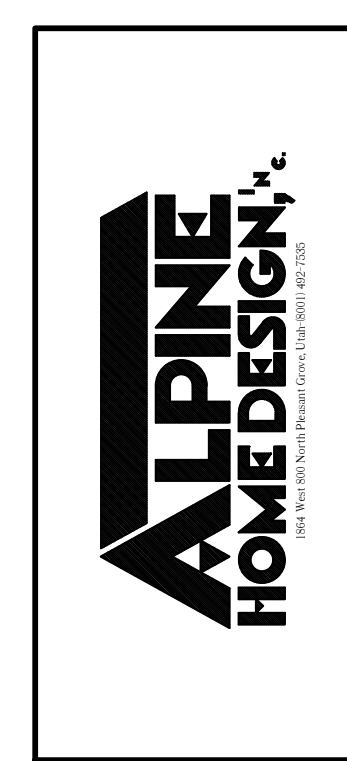


UNIT TYPE "F"

Revisions

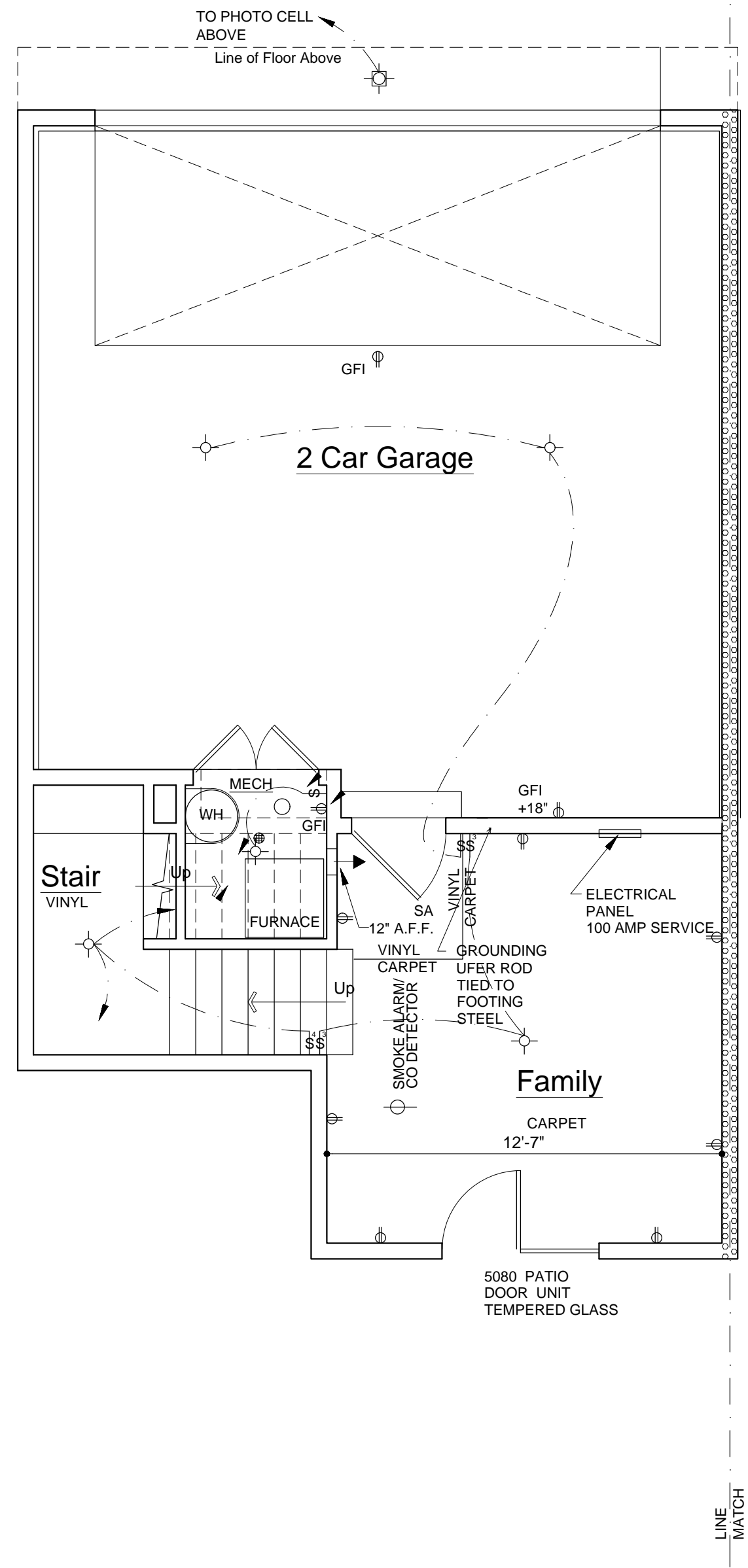


Spring Creek Development - 7 Plex
 Building Number #9 Unit F
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020



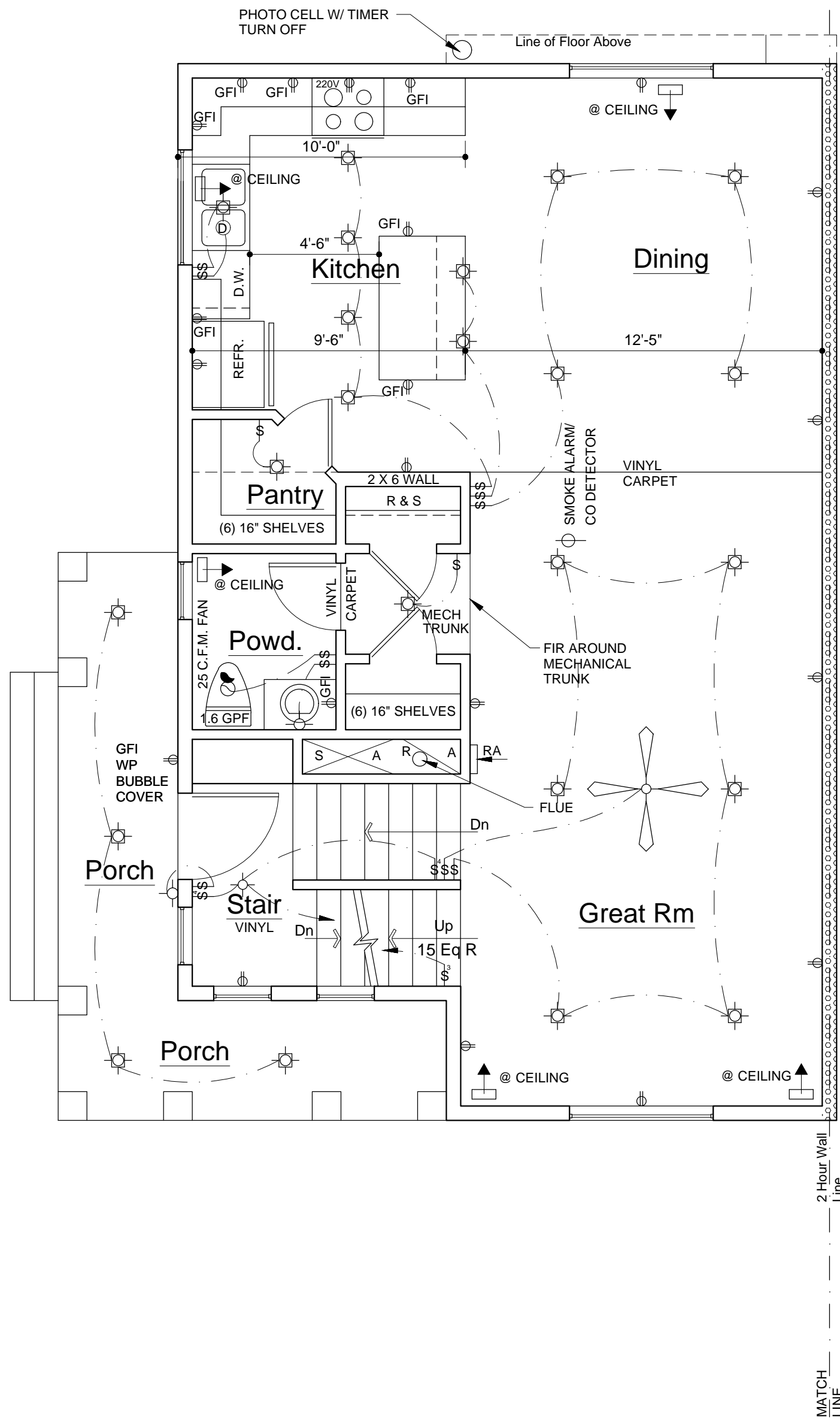
Jacobson Architecture
F-A1
 SCALE = 1/4" = 1'-0"
 P.O. Box 1114 American Fork, UT 84403 801.597.5500

ELECTRICAL SCHEDULE	
	SURFACE MOUNT FIXTURE
	RECESSED LIGHT FIXTURE
	TRACK LIGHT
	GFCI OUTLET
	DUPLEX OUTLET
	SWITCH
	THREE WAY SWITCH
	WALL MOUNT LIGHT
	VENTILATION FAN
	SMOKE ALARM
	220v OUTLET
	INSTALL 100 AMP SERVICE



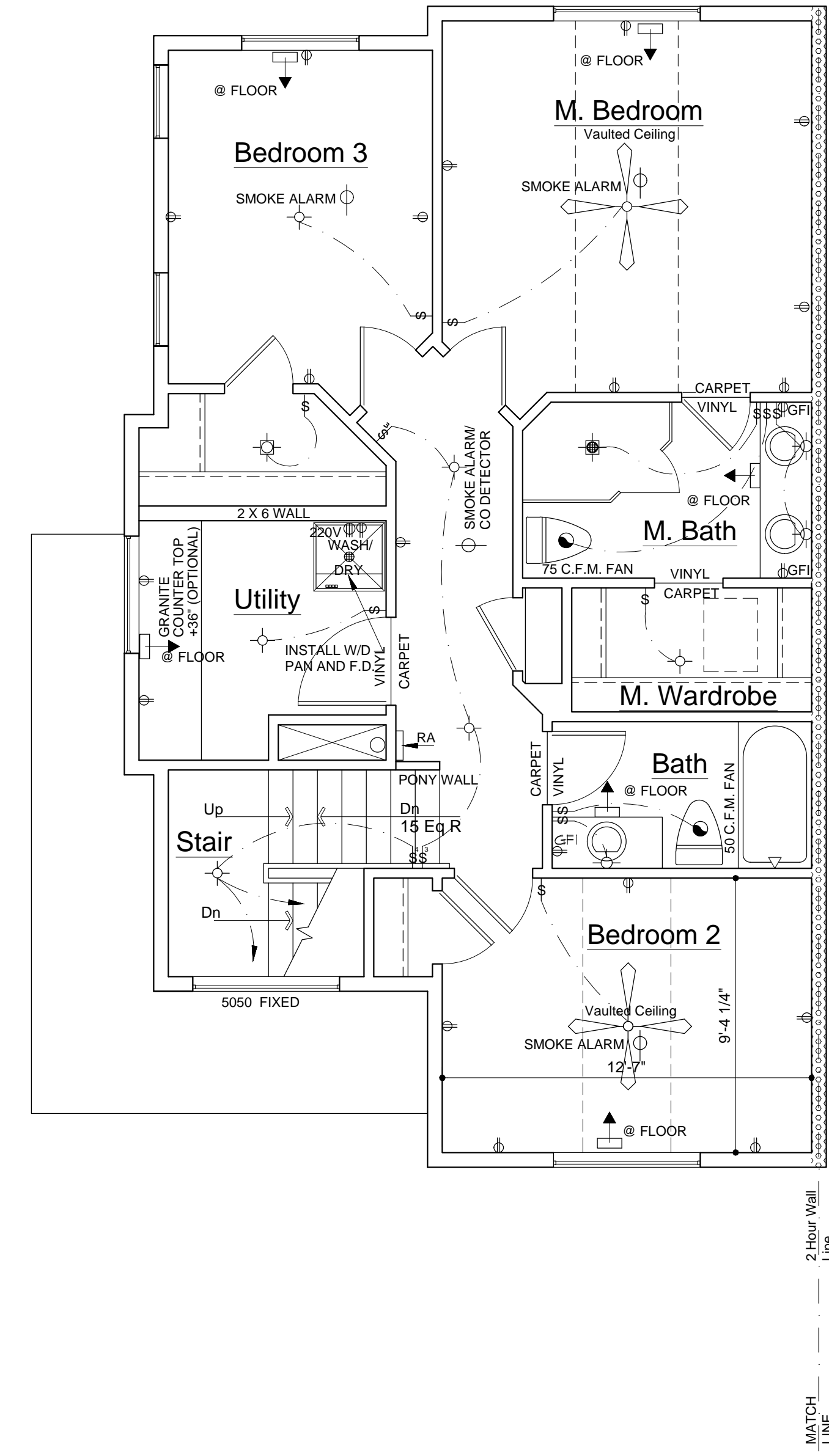
GROUND LEVEL ELECTRICAL PLAN

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



SECOND LEVEL ELECTRICAL PLAN

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



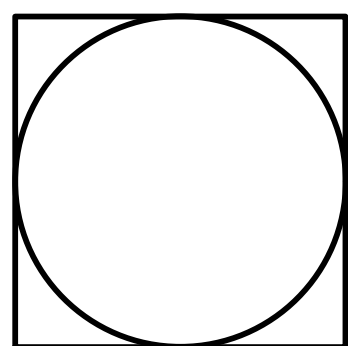
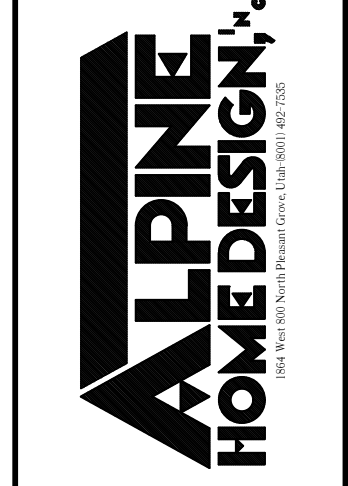
THIRD LEVEL ELECTRICAL PLAN

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

Revisions



Spring Creek Development - 7 Plex
 Building Number #9 Unit F
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020



UNIT TYPE "F"



South Elevation

Scale: 3/16" = 1'-0"



North Elevation

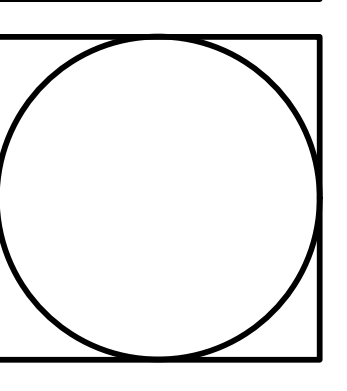
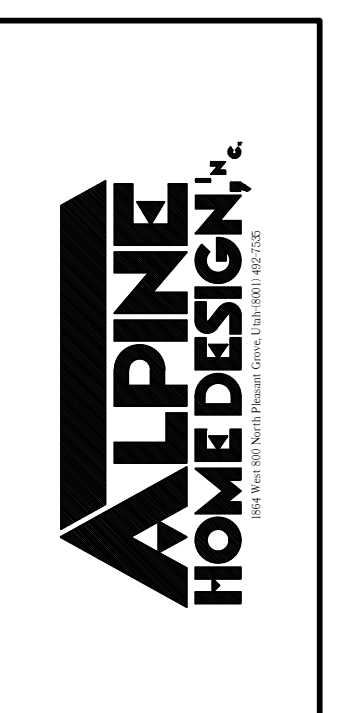
Scale: 3/16" = 1'-0"

- COLOR KEY**
- ① SYNTHETIC STUCCO PROJECT BASE COLOR
 - ② PAINTED FIBER CEMENT ACCENT COLOR BY OWNER
 - ③ SYNTHETIC STUCCO ACCENT COLOR PRIMARY
 - ④ SYNTHETIC STUCCO ACCENT COLOR SECONDARY
 - ⑤ EMBOSSED STEEL OVER HEAD DOOR COLOR GD #1
 - ⑥ STONE
- NOTE: BASE AND ACCENT COLORS TO BE COORDINATED BY OWNERS REP. SEE OWNER FOR COLOR CHART FOR EACH BUILDING.

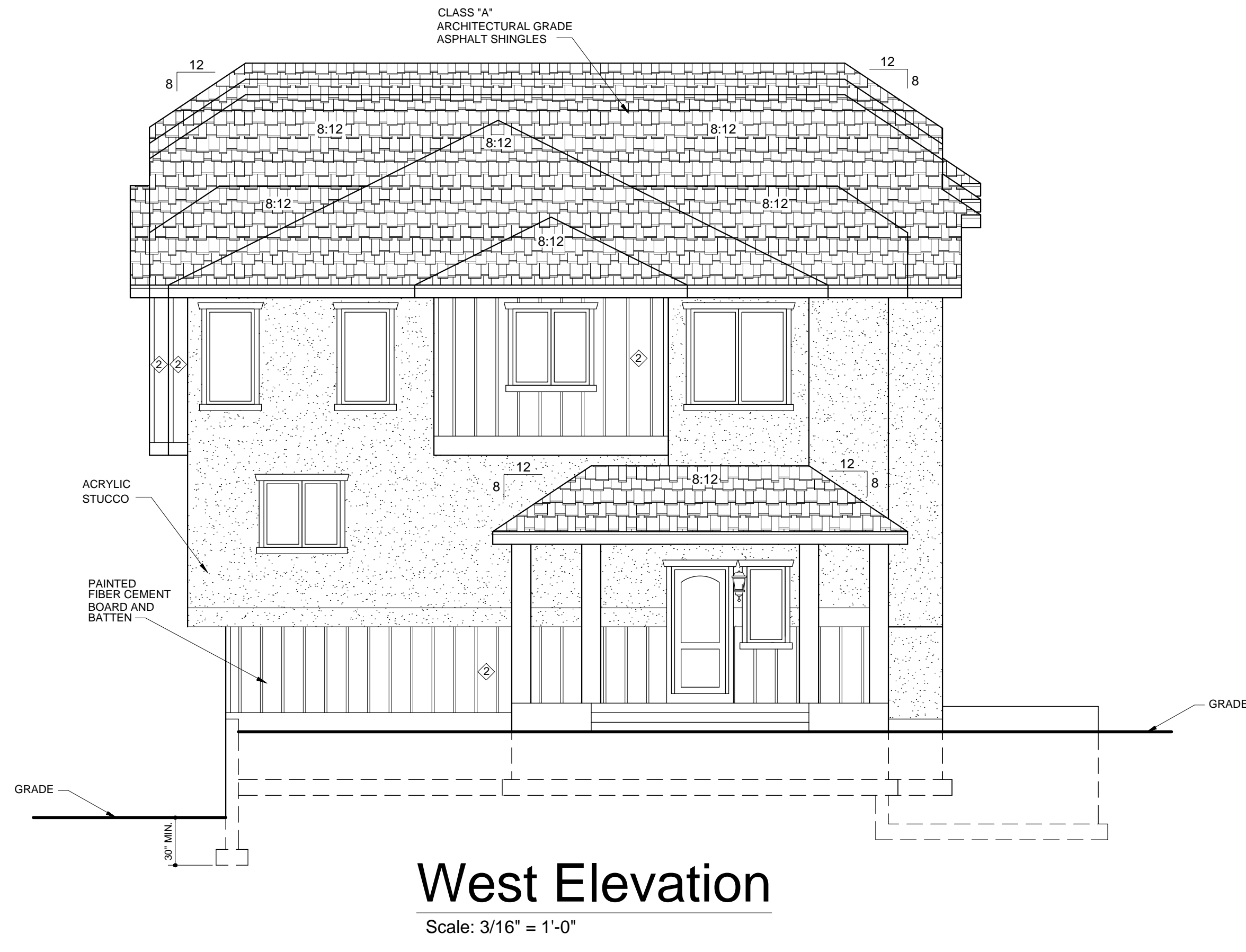
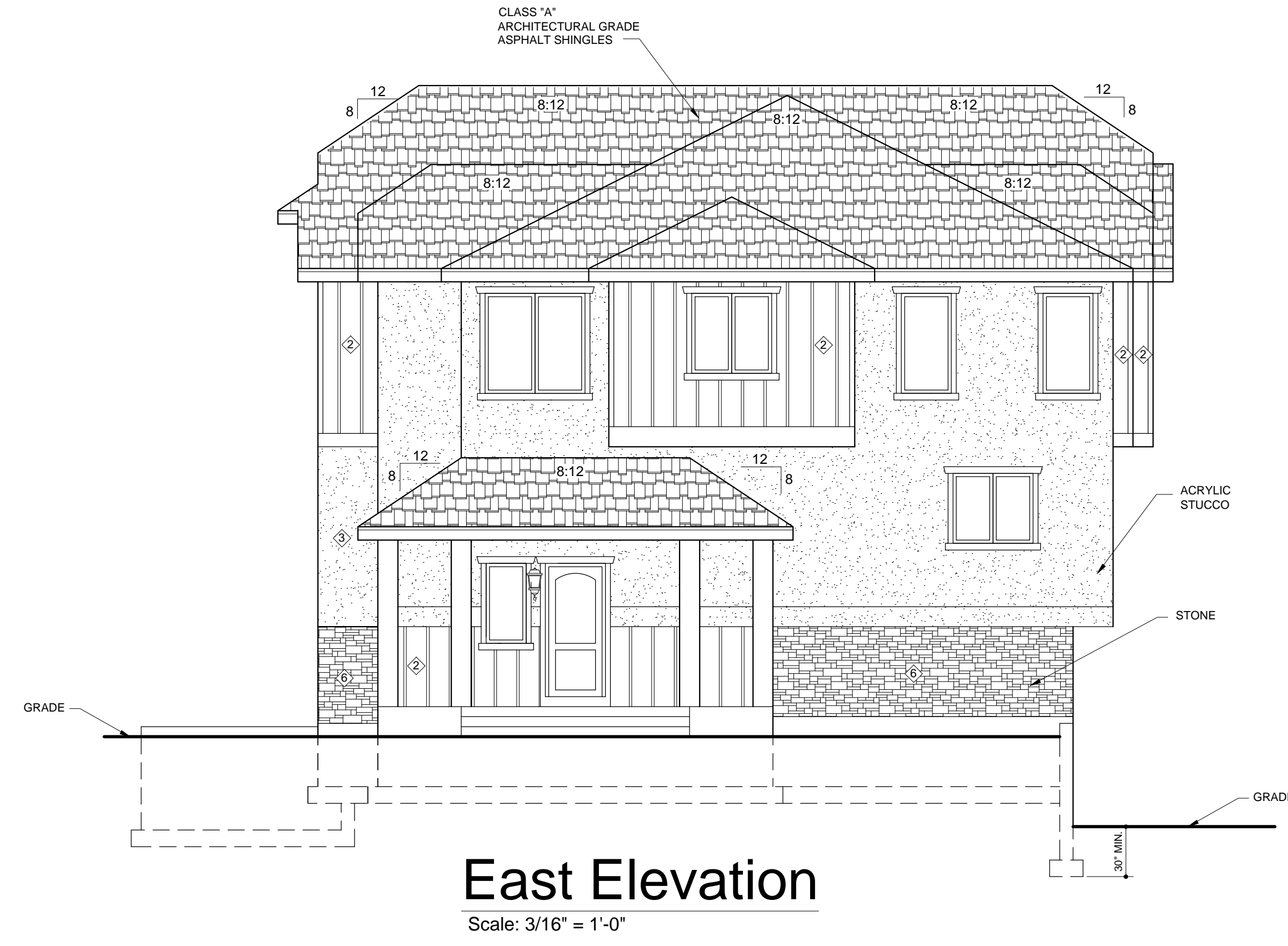
Revisions



Spring Creek Development - 7 Plex
 Building Number #9 Front & Rear Elevation Massing Plan
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020



Jacobson Architecture
 9-A2.1
 SCALE = 3/16" = 1'-0"
 P.O. Box 1114 American Fork, UT 84003 801.597.5500

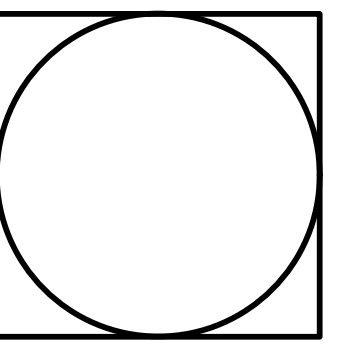
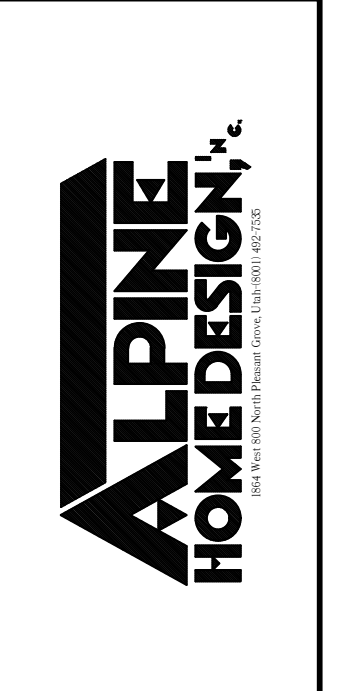


- COLOR KEY**
- ① SYNTHETIC STUCCO PROJECT BASE COLOR
 - ② PAINTED FIBER CEMENT ACCENT COLOR BY OWNER
 - ③ SYNTHETIC STUCCO ACCENT COLOR PRIMARY
 - ④ SYNTHETIC STUCCO ACCENT COLOR SECONDARY
 - ⑤ EMBOSSED STEEL OVER HEAD DOOR COLOR GD #1
 - ⑥ STONE
- NOTE: BASE AND ACCENT COLORS TO BE COORDINATED BY OWNERS REP. SEE OWNER FOR COLOR CHART FOR EACH BUILDING

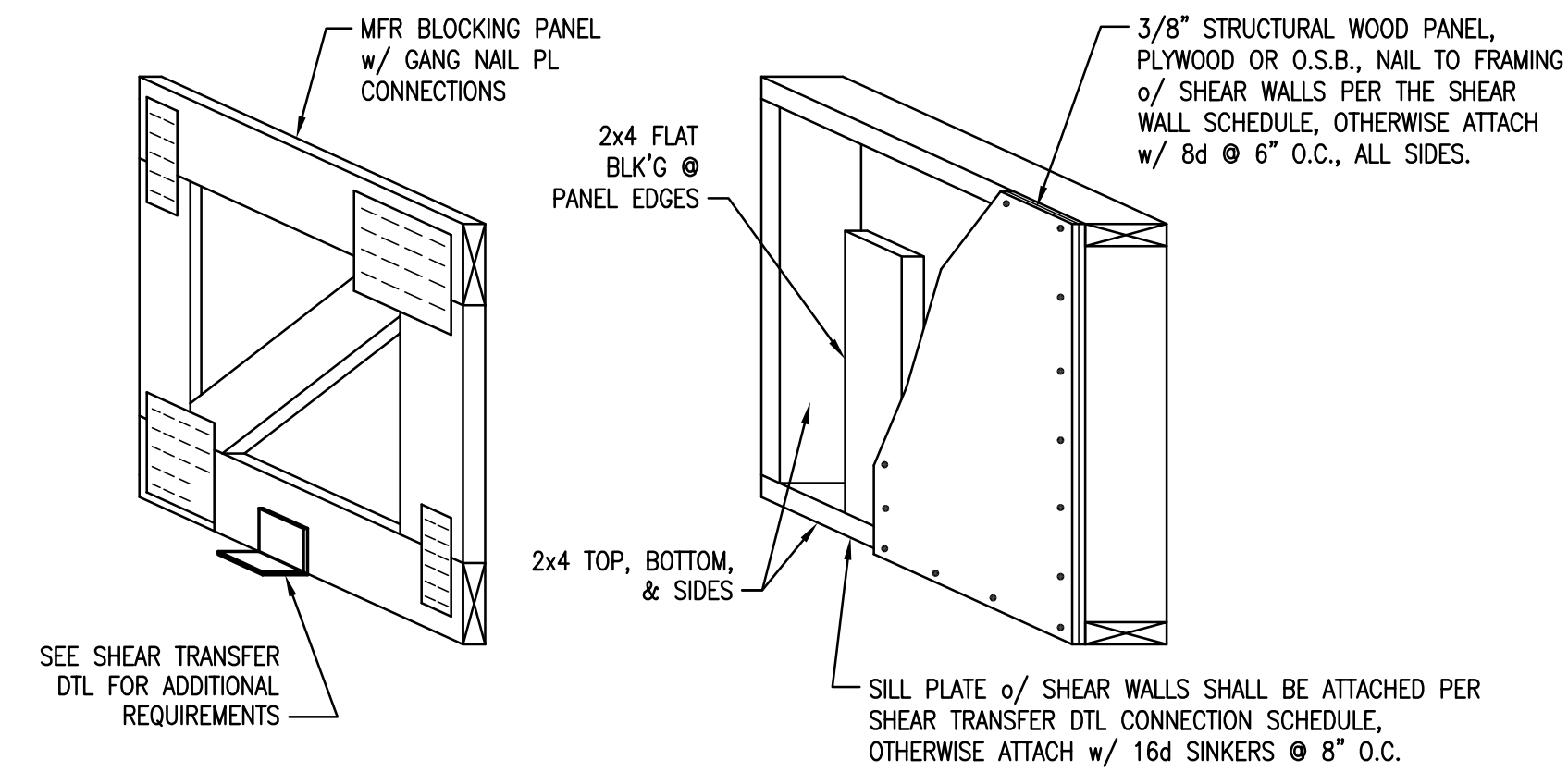
Revisions



Spring Creek Development - 7 Plex
 Building Number #9 Front & Rear Elevation Massing Plan
 Address: 1000 E 1060 S
 Provo, Utah 84606
 PRINT DATE: 05-19-2020



Jacobson Architecture
 9-A2.2
 SCALE = 3/16" = 1'-0"
 P.O. Box 1114 American Fork, UT 84003 801.597.5500

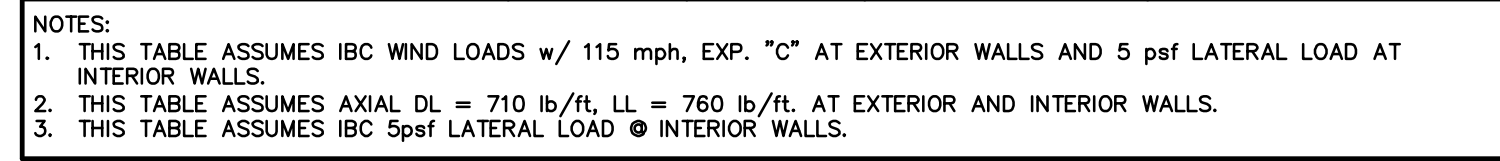


TYPICAL BLOCKING PANEL

N.T.S.

7

STUD WALL TYPE	STUD HEIGHT TABLE		
	BEARING AND/OR SHEAR WALLS (MAX. HEIGHT)		NON-BEARING AND NON-SHEAR WALLS (MAX. HEIGHT)
	EXTERIOR	INTERIOR	INTERIOR ONLY
2x4 STUD @ 16" O.C.	8'-6"	10'-0"	13'-0"
2x4 STUD @ 12" O.C.	9'-6"	11'-6"	14'-0"
(2) 2x4 STUD @ 16" O.C.	12'-0"	13'-6"	14'-0"
2x4 DFL #2 @ 16" O.C.	9'-0"	11'-0"	13'-0"
2x4 DFL #2 @ 12" O.C.	10'-6"	13'-0"	14'-0"
(2) 2x4 DFL #2 @ 16" O.C.	13'-0"	13'-6"	14'-0"
2x6 STUD @ 16" O.C.	14'-6"	19'-0"	20'-0"
2x6 STUD @ 12" O.C.	17'-0"	21'-0"	22'-0"
(2) 2x6 STUD @ 16" O.C.	21'-0"	22'-0"	22'-6"
2x6 DFL #2 @ 16" O.C.	16'-6"	19'-6"	20'-0"
2x6 DFL #2 @ 12" O.C.	18'-6"	21'-6"	22'-0"
(2) 2x6 DFL #2 @ 16" O.C.	22'-6"	22'-6"	22'-6"
2x8 DFL #2 @ 16" O.C.	22'-0"	26'-6"	27'-0"
2x8 DFL #2 @ 12" O.C.	25'-6"	28'-0"	30'-0"
(2) 2x8 DFL #2 @ 16" O.C.	29'-6"	29'-6"	30'-0"
1-3/4 x 7-1/4 LVL STUDS @ 16" O.C.	27'-0"	30'-0"	30'-0"
1-3/4 x 5-1/2 LVL STUDS @ 16" O.C.	20'-6"	21'-6"	22'-0"



STANDARD STUD TABLE

N.T.S.

4

SHEAR WALL SCHEDULE						
MARK	MIN. BLOCKED MATERIAL	EDGE / BOUNDARY NAILING	FIELD NAILING	SOLE PL NAILING, WHERE OCCURS	SHEAR WALL CAPACITY	DEFAULT SILL ANCHORAGE, U.N.O.
PA1	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 6" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 6" O.C.	260 pif	SA1
PA2	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 4" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 4" O.C.	350 pif	SA2
PA3	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 3" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 3" O.C.	490 pif	SA3
PA4	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 2" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 2" O.C.	640 pif	SA4

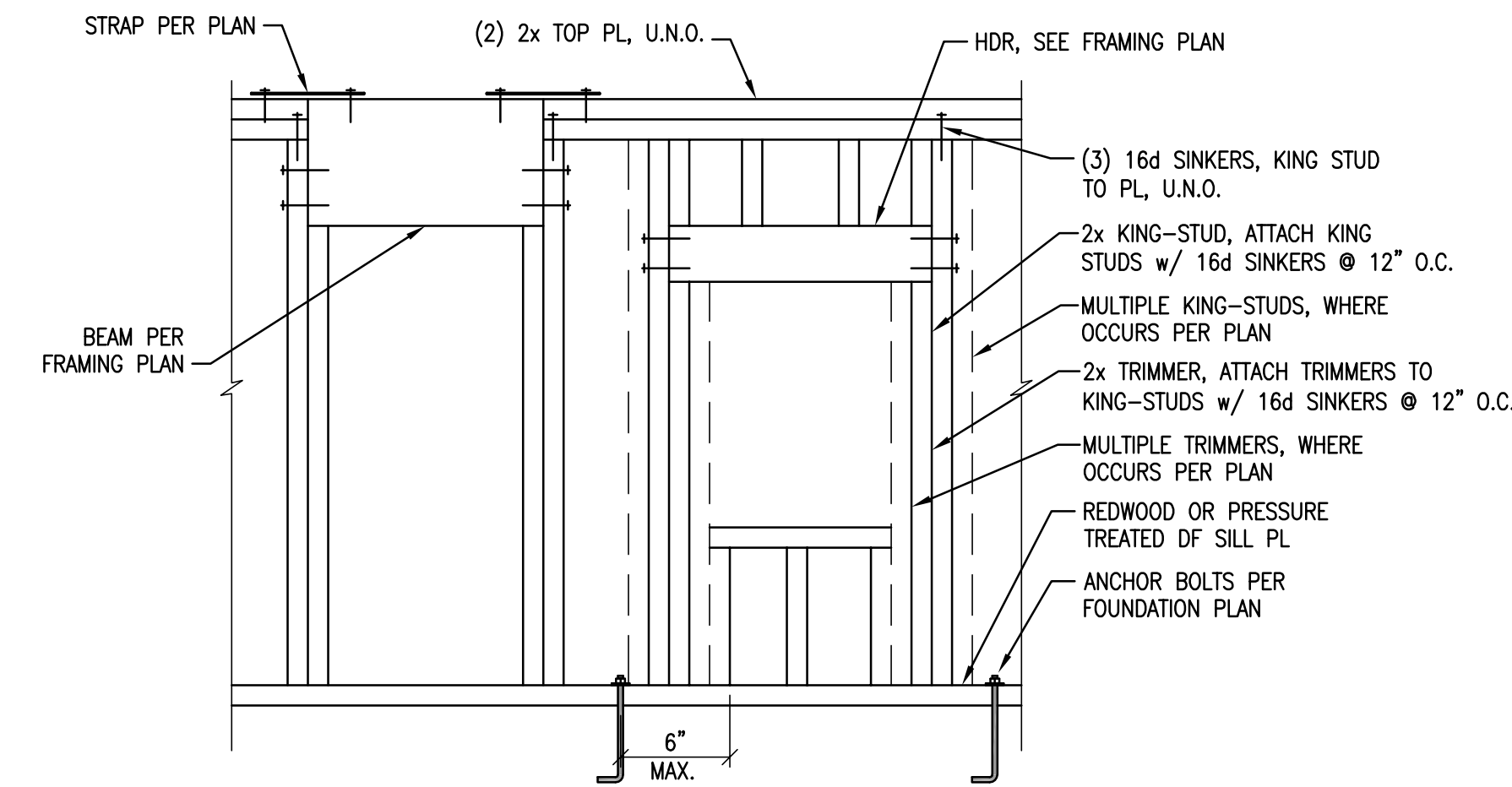
SILL ANCHORAGE SCHEDULE				SHEAR WALL LENGTH TOLERANCES	
MARK	NOMINAL SILL PL THICKNESS	1/2" A.B. SPACING	5/8" A.B. SPACING	CAPACITY	
SA1	2x	32" O.C.	48" O.C.	370 pif	
SA2	2x	24" O.C.	32" O.C.	520 pif	
SA3	2x	16" O.C.	24" O.C.	740 pif	
SA4	2x	12" O.C.	16" O.C.	1040 pif	

- ALL SHEAR WALLS SHALL BE FRAMED TO THE MINIMUM LENGTHS SHOWN ON THE PLANS WITH THE TOLERANCES INDICATED ON THE TABLE ABOVE, U.N.O. ON PLAN W/ MINIMUM WALL LENGTH.
- ALL SHEAR WALLS SHALL TERMINATE ON AT LEAST (1) FULL HEIGHT STUD. ADDITIONAL STUDS OR SOLID POSTS SHALL BE INSTALLED AS REQUIRED FOR HOLDDOWNS WHERE THEY OCCUR.
- 8d COMMON NAIL SHANK DIAMETER = .131", 16d SINKER SHANK DIAMETER = .148"
- 3-INCH NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED. AS AN ALTERNATE, (2) 2x STUDS MAY BE USED PROVIDED THEY ARE NAILED TOGETHER W/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT.
- FOR "P2", "P3" AND "P4" DOUBLE-SIDED SHEAR WALLS, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, OR FRAMING SHALL BE 3-INCH NOMINAL OR WIDER AT ADJOINING PANEL EDGES AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- ALL ANCHOR BOLTS SHALL HAVE 7" MINIMUM EMBEDMENT.
- ALL SHEAR WALL ANCHOR BOLTS SHALL INCLUDE A STEEL 3"x3"x0.229" PLATE WASHER BETWEEN THE SILL PL & NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 1/4" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 1/2". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. ANCHOR BOLTS & PLATE WASHERS ARE TO BE OFFSET TOWARD THE SHEATHED WALL EDGE TO LIMIT THE GAP BETWEEN THE EDGE OF WASHER TO SHEATHING TO A MAXIMUM OF 1/2". WHERE BOTH SIDES OF A 2x6 WALL IS SHEATHED A STEEL 4-1/2"x3"x0.229" PLATE WASHER SHALL BE CENTERED ON THE SILL PLATE, PER DTL 2/-.

STANDARD SHEAR WALL SCHEDULE

N.T.S.

1



TYPICAL WALL FRAMING

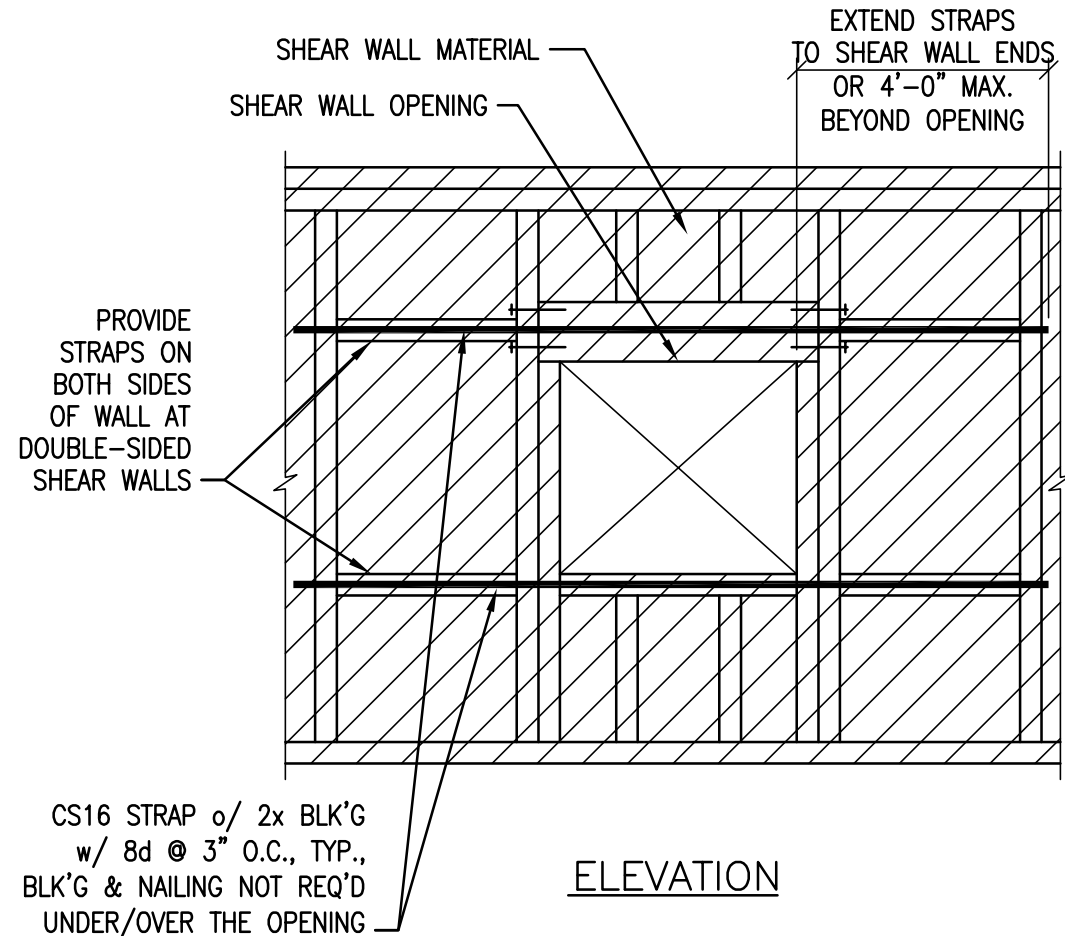
N.T.S.

8

NOT USED

N.T.S.

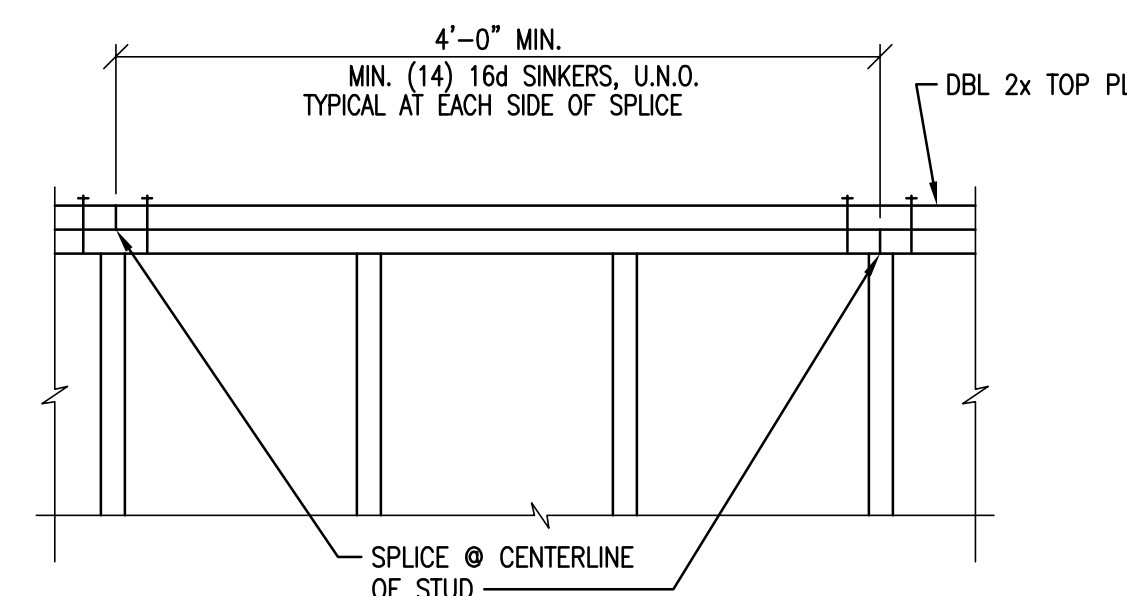
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FORCE TRANSFER AROUND OPENING

N.T.S.

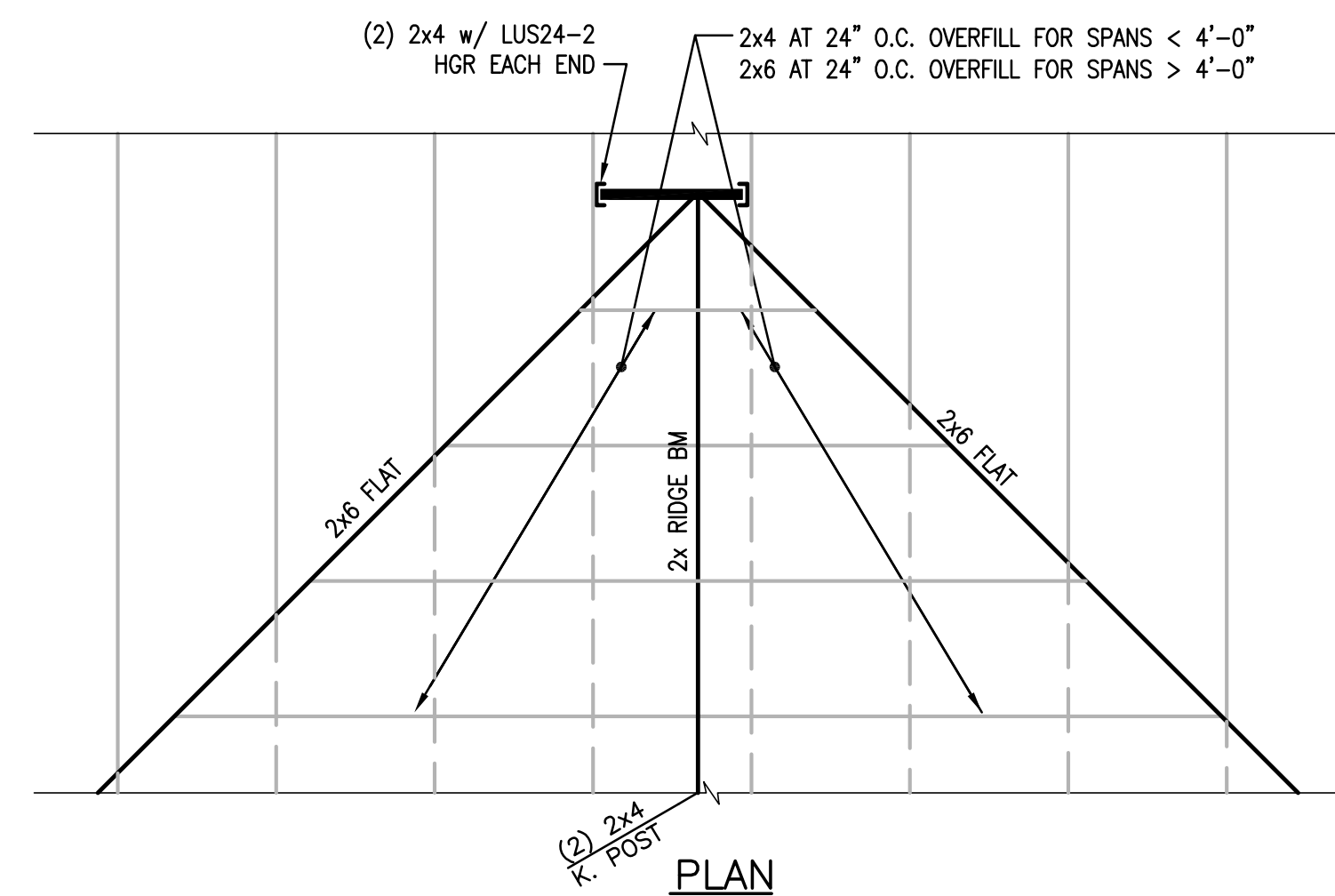
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TYPICAL TOP PLATE SPLICE

N.T.S.

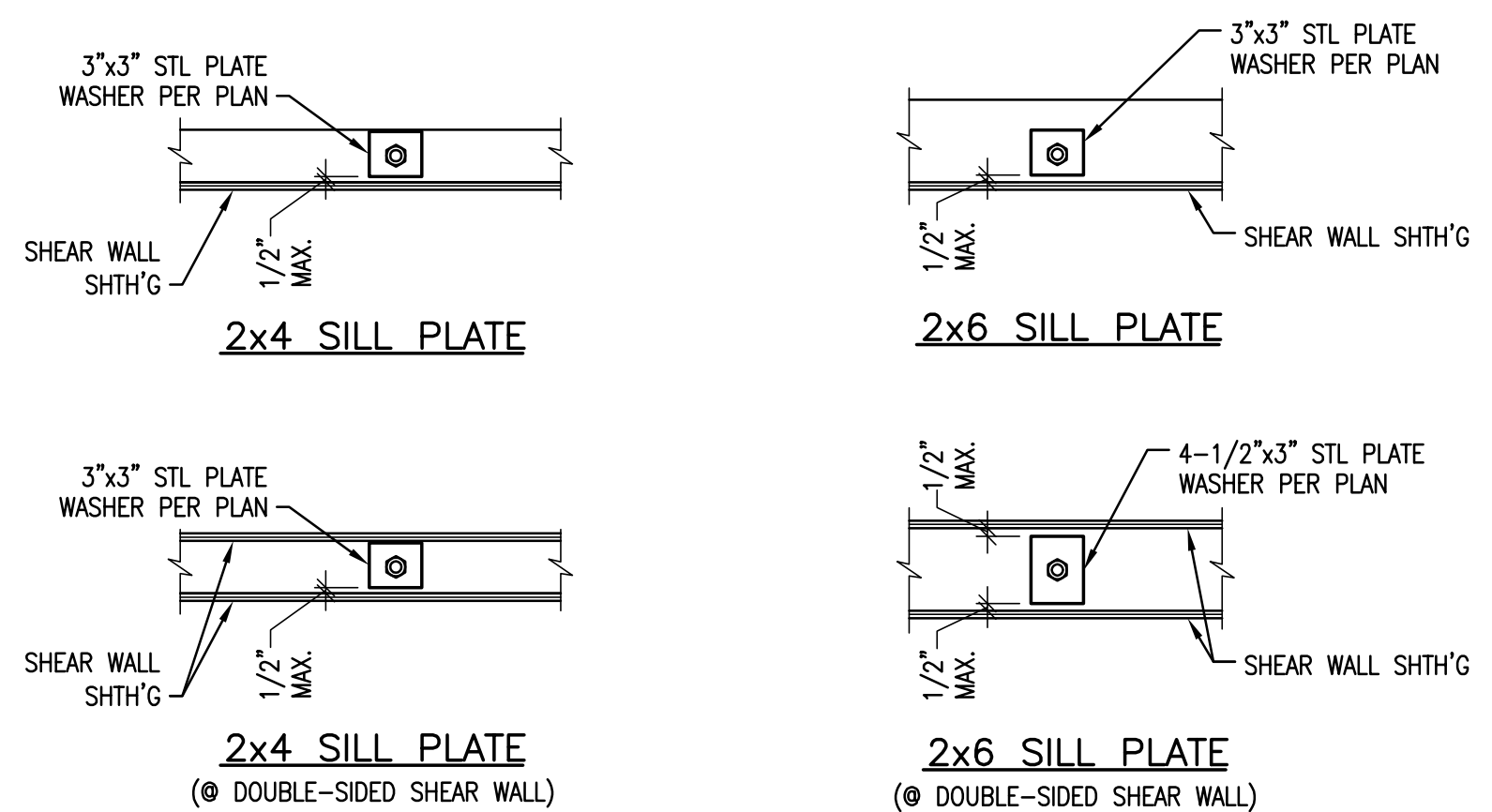
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TYPICAL OVERBUILD

N.T.S.

6



TYP. SHEAR WALL WASHERS

N.T.S.

2

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING, BOTTOM
F2.0	2'-0" SQ. x 12" THICK	(3) #4 EACH WAY
F2.5	2'-6" SQ. x 12" THICK	(4) #4 EACH WAY
F3.0	3'-0" SQ. x 12" THICK	(4) #4 EACH WAY
F3.5	3'-6" SQ. x 12" THICK	(5) #4 EACH WAY
F4.0	4'-0" SQ. x 12" THICK	(6) #4 EACH WAY
F4.5	4'-6" SQ. x 12" THICK	(6) #4 EACH WAY
F5.0	5'-0" SQ. x 12" THICK	(7) #4 EACH WAY
F5.5	5'-6" SQ. x 12" THICK	(8) #4 EACH WAY
TYP. STRIP FTG	24" x 12" THICK	(3) #4 CONTINUOUS

STANDARD FOOTING SCHEDULE

N.T.S.

3

NOT USED

N.T.S.

10

DATE	REV. #	DATE	BY	DESCRIPTION
1-29-2020	ENG. BSA			

VECTOR ENGINEERS
SANDY, UTAH
LAYTON, UTAH
(801) 990-1775
(801) 990-1776 FAX
(801) 927-2054

STEVE TURLEY
1050 S. 1000 E.
PROVO, UTAH
STANDARD DETAILS & SCHEDULES

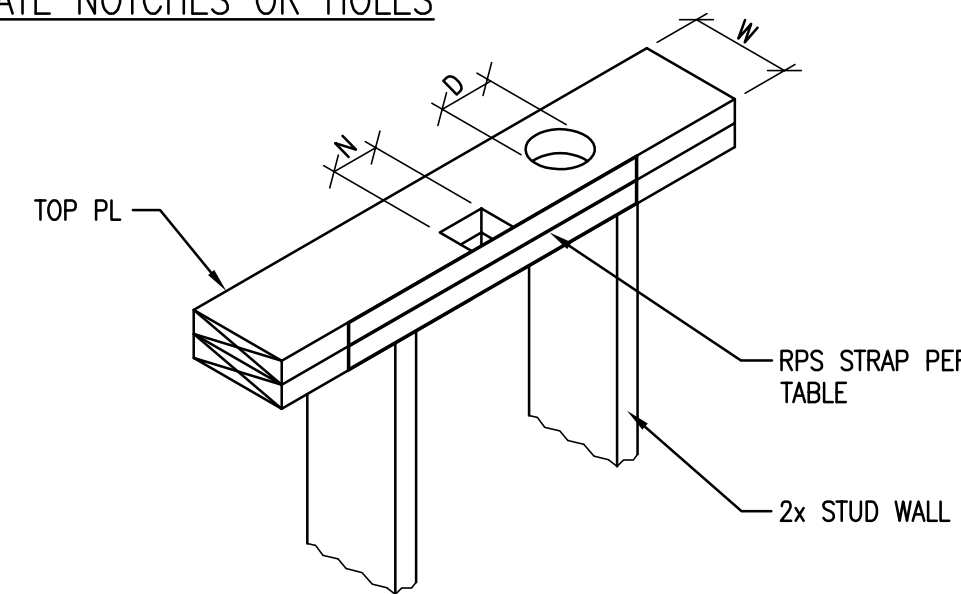
PROFESSIONAL STRUCTURAL ENGINEER
No. 376983-2203
ROGER T. ALWORTH
STATE OF UTAH
05/19/2020

ROGER T. ALWORTH, S.E.
176983

U3003-002-191

S1.1

PLATE NOTCHES OR HOLES

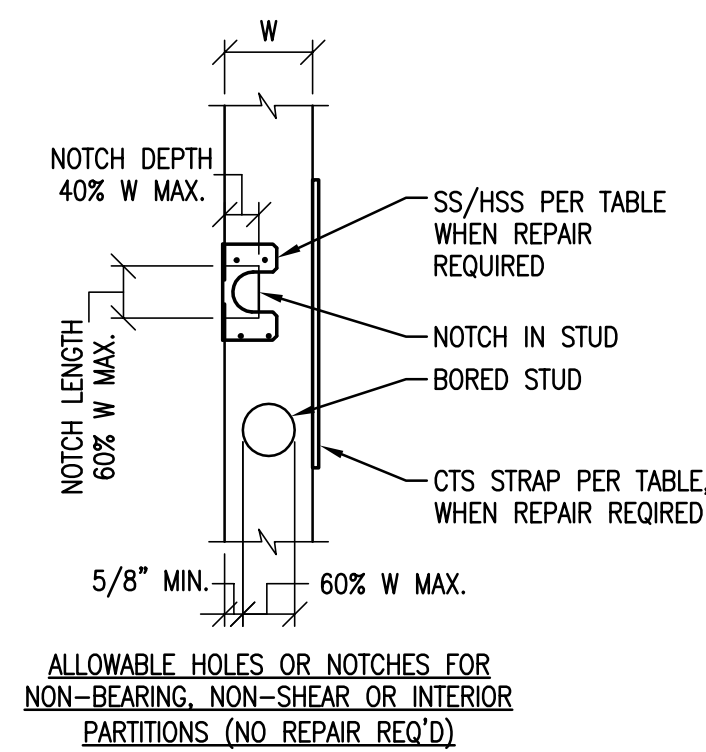


2x4 PLATE HOLE DIA 'd'	2x6 PLATE HOLE DIA 'd'	2x4 & 2x6 PLATE NOTCH WIDTH 'N' (MAX. NOTCH DEPTH = W/2)	RPS STRAP
≤ 7/8"	≤ 1"	≤ 1"	NONE
≤ 1"	≤ 1 3/8"	≤ 2 1/2"	(1) RPS18
≤ 1 3/8"	≤ 2 1/8"	≤ 5 1/2"	(2) RPS18
≤ 2"	≤ 3 1/4"	≤ 12"	(2) RPS28

NOTES:

- USE RPSZ FOR SILL PLATE.
- CENTER STRAPS @ NOTCH OR HOLE.
- WHERE ROOF TRUSS OR FLOOR JOIST IS BEARING WITHIN STUD BAY OF THE HOLE OR NOTCH, INSTALL AN ADDITIONAL STUD DIRECTLY BELOW THE TRUSS OR JOIST UNLESS NO RPS STRAP IS REQUIRED OR WHERE EXISTING STUD FACE IS WITHIN 3" OF TRUSS OR JOIST FACE.
- NOTCHES & HOLES MUST BE SEPARATED BY "2x0" OR "2x1".
- WHERE MULTIPLE HOLES ARE LOCATED ADJACENT TO EACH OTHER, THE STRAP REPAIR MAY BE WITH A CS16 STRAP ON EACH SIDE OF THE UPPER PLATE. THE STRAPS AND NAILING SHALL EXTEND AT LEAST 9" BEYOND EACH END OF THE WHOLE GROUP. NAILING BETWEEN THE HOLES IS NOT REQUIRED. NAILS IN THE CS16 STRAPS MAY BE N8'S OR N10'S.

STUD NOTCHES OR HOLES



ALLOWABLE HOLES OR NOTCHES FOR NON-BEARING, NON-SHEAR OR INTERIOR PARTITIONS (NO REPAIR REQ'D)

HOLE / NOTCH % OF 'W'	2x4 STUD	2x6 STUD
25%	3/4"	1-3/8"
40%	1-3/8"	2-1/8"
60%	2"	3-1/4"

NOTES:

- HOLES & NOTCHES SHALL NOT OCCUR IN THE SAME STUD.
- WHERE HOLES OR NOTCHES EXCEED THOSE SHOWN ABOVE, REPAIR PER TABLE BELOW.
- ALL NOTCHES IN BEARING OR SHEAR OR EXTERIOR WALLS REQUIRE REPAIRS.

	STUD HOLE REPAIR		REPAIR
	2x4 STUD HOLE DIA 'd'	2x6 STUD HOLE DIA 'd'	
NON-BEARING & NON-SHEAR & INTERIOR	≤ 2 3/4"	≤ 4 1/2"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR WALL	≤ 3/4"	≤ 1 3/8"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 3/4"	≤ 4 1/2"	(2) CTS218 TWO-SIDED w/ 10d

	STUD NOTCH REPAIR				REPAIR
	2x4 STUD NOTCH DEPTH	2x4 STUD NOTCH LENGTH	2x6 STUD NOTCH DEPTH	2x6 STUD NOTCH LENGTH	
NON-BEARING & NON-SHEAR & INTERIOR	≤ 2 1/2"	≤ 4 1/2"	≤ 3 3/4"	≤ 4 1/2"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 1/2"	≤ 2 1/2"	≤ 2 1/2"	≤ 2 1/2"	SS w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 3/4"	≤ 4 1/2"	≤ 4 1/2"	≤ 4 1/2"	(2) CTS218 TWO-SIDED w/ 10d

DRILLING & NOTCHING OF PLATES & STUDS

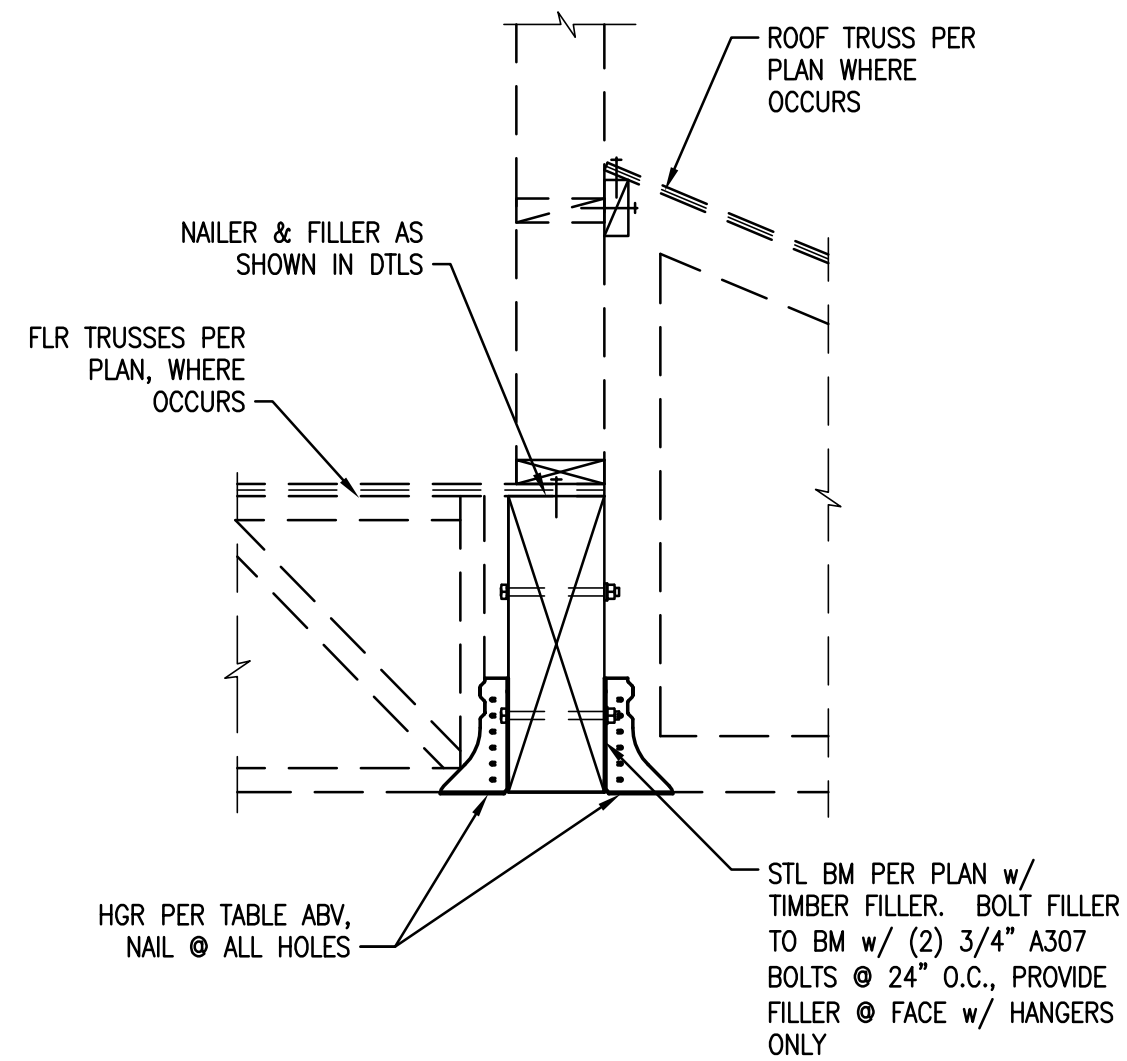
N.T.S.

MFR TRUSS TO BEAM HANGERS

CARRYING MEMBER	CARRIED MBR WIDTH	HANGER TYPE	MAX. REACTION (FROM TRUSS CALCS.) (LBS)	NOTES
STEEL OR TIMBER	1-1/2"	LUS210	1275	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HUS26	2565	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HGUS26	3750	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HGUS28	5720	FACE MOUNT
STEEL OR TIMBER	3"	LUS26-2	1000	FACE MOUNT
STEEL OR TIMBER	3"	HHUS26-2	2580	FACE MOUNT
STEEL OR TIMBER	3"	HGUS26-2	3940	FACE MOUNT
STEEL OR TIMBER	3"	HGUS28-2	6805	FACE MOUNT
STEEL OR TIMBER	3"	HGUS210-2	8650	FACE MOUNT
STEEL OR TIMBER	3-1/2"	LUS46	1000	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HHUS46	2580	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HGUS46	3940	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HGUS48	6805	FACE MOUNT
STEEL OR TIMBER	6"	HGUS26-4	3940	FACE MOUNT
STEEL OR TIMBER	6"	HGUS210-4	8780	FACE MOUNT
STEEL OR TIMBER	6"	HGUS212-4	9155	FACE MOUNT

NOTES:

- FOR STEEL BEAMS CARRYING FLOOR TRUSSES, PROVIDE TIMBER FILLER PER DTL BELOW.
- ALTERNATE HANGERS MAY BE USED AT THE CONTRACTOR'S OPTION. SUBMIT TO ENGINEER OF RECORD FOR APPROVAL.
- HANGERS APPLICABLE FOR TIMBER BEAMS.



TYPICAL BEAM

TYPICAL TRUSS HANGERS

N.T.S.

STANDARD TRUSS TIE-DOWNS

* UPLIFT LOAD PER TRUSS MANUFACTURER	SIMPSON TIE-DOWN	REQ'D ALIGNED HOLDOWN & POST
200 TO 365 LBS	H2.5 OR CS16	NA
< 400 LBS	H1 OR CS16	NA
< 845 LBS	H10 OR H7Z OR CS16	NA
< 1265 LBS	H16 OR CS16	HDU2 & (2) 2x4 POST
< 1785 LBS	LGT2	HDU2 & (2) 2x4 POST
< 6485 LBS	HGT-2	(2) 2x4 POST w/HDU4 @ BASE & (2) HDU2 @ TOP TO HGT-2. AT (1) PLY TRUSS, INSTALL 2x SHAPED FILLER ADJACENT TO TRUSS AT BRN'G

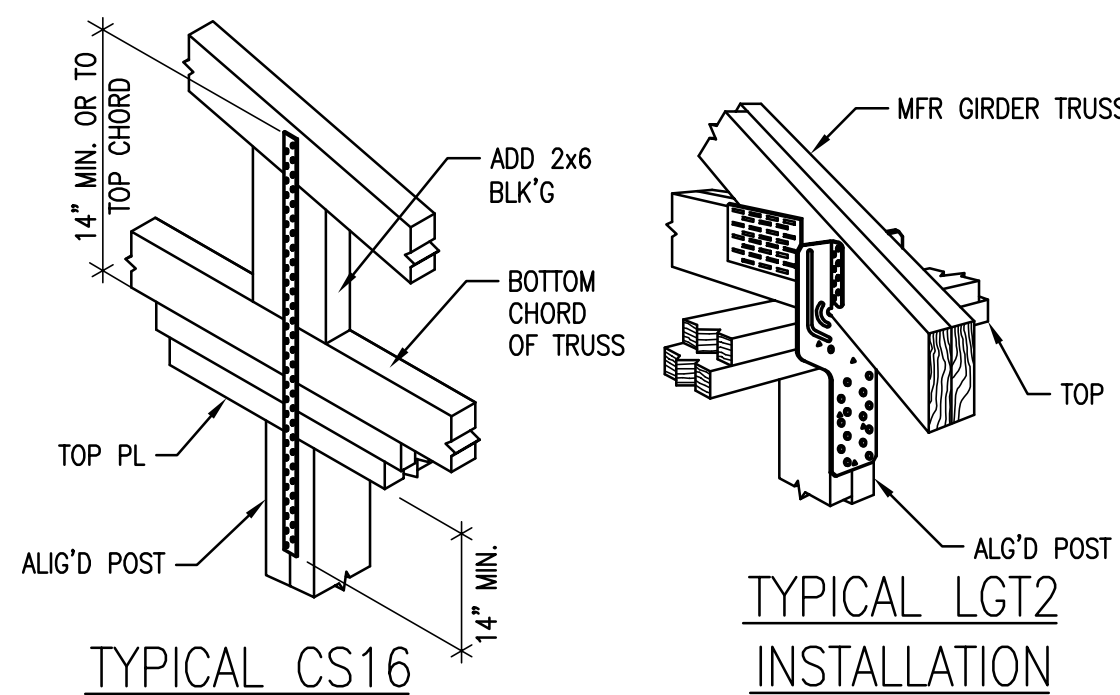
- * TIE-DOWN CAPACITIES ARE BASED ON SPRUCE PINE FIR
 * TRUSS UPLIFT OF LESS THAN 200lbs: NO HOLD DOWN REQUIRED

STANDARD FLOOR-TO-FLOOR STRAPS

* UPLIFT LOAD PER TRUSS MANUFACTURER	SIMPSON TIE-DOWN	REQ'D ALIGNED POST
< 1705 LBS	CS16	2x4 POST
< 3410 LBS	(2) CS16	(2) 2x4 POST

NOTE:

- INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48").
- WHERE UPLIFT OCCURS ABOVE HDR OR BM, PROVIDE STRAP PER SCHEDULE AT EACH TRIMMER OR POST
- FLOOR TO FLOOR STRAPS REQUIRED ALGN'D WITH ROOF TRUSS ABV.

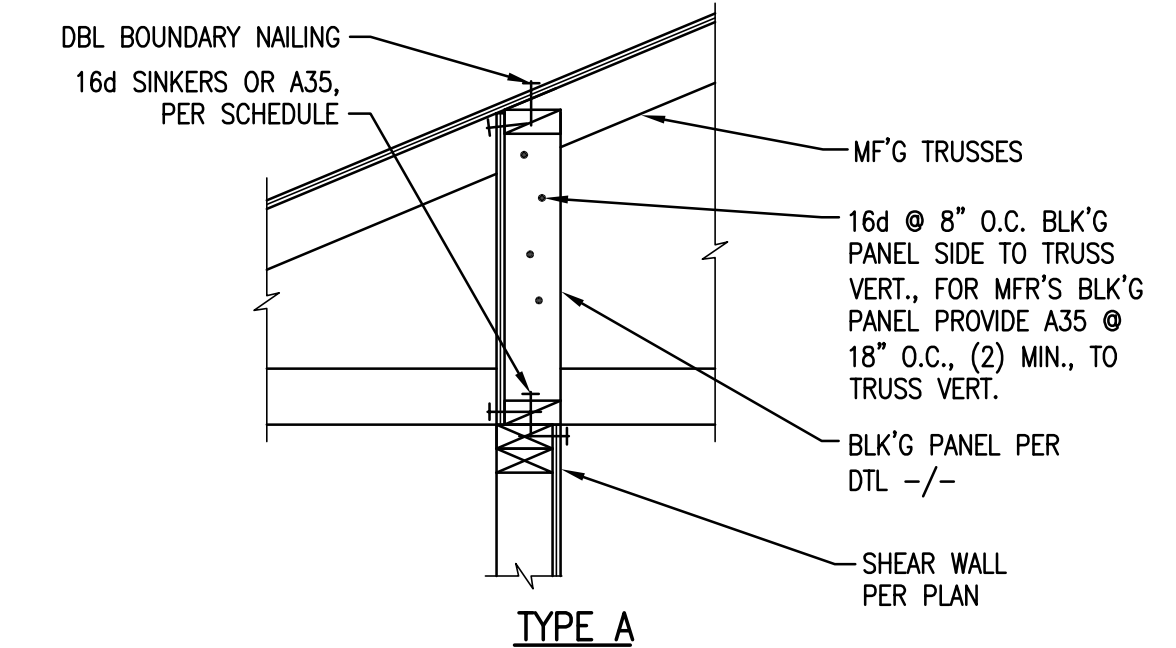


TYPICAL CS16

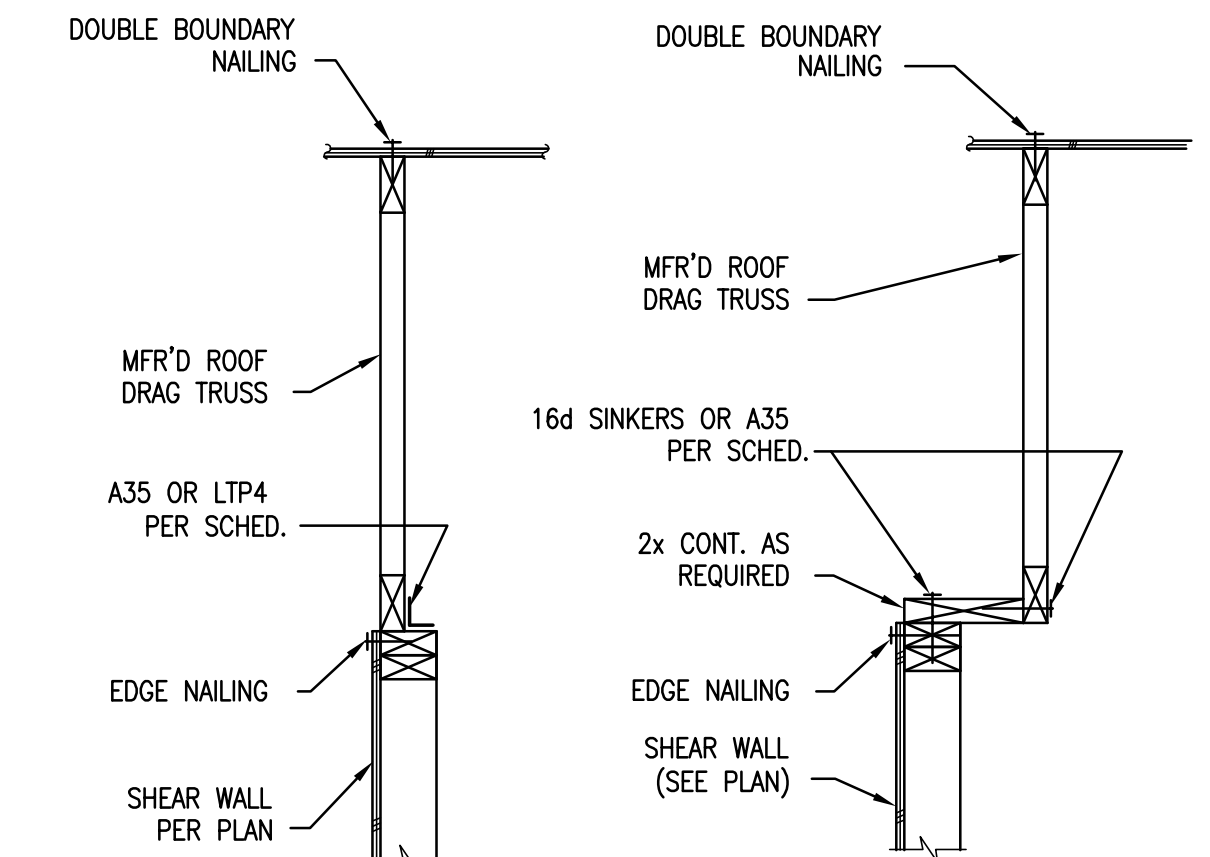
TYPICAL LGT2 INSTALLATION

TYPICAL TRUSS ANCHORAGE

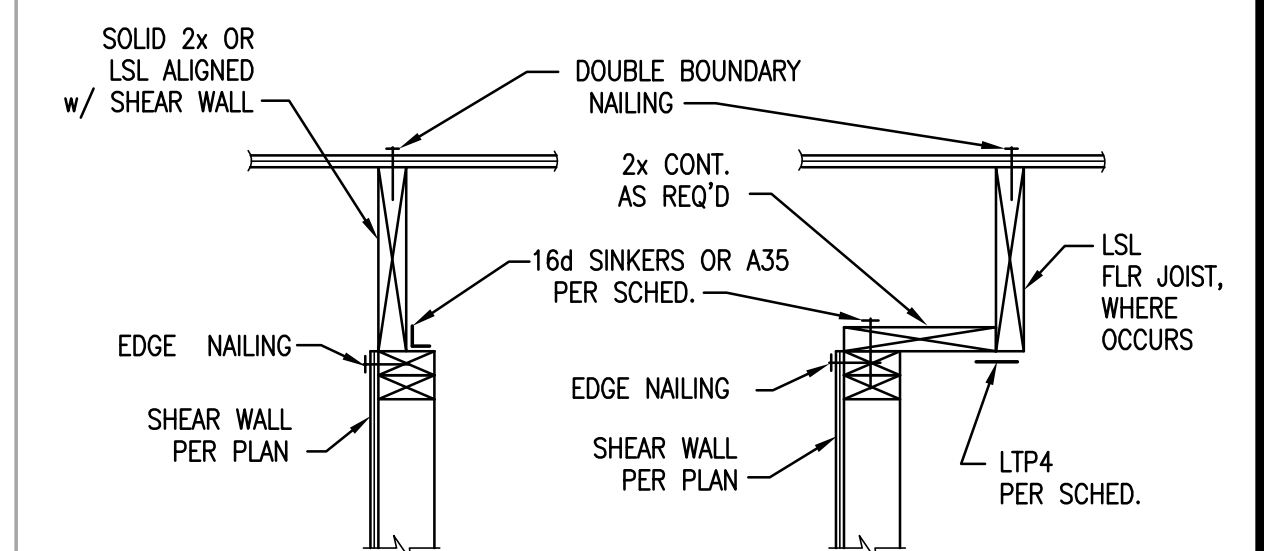
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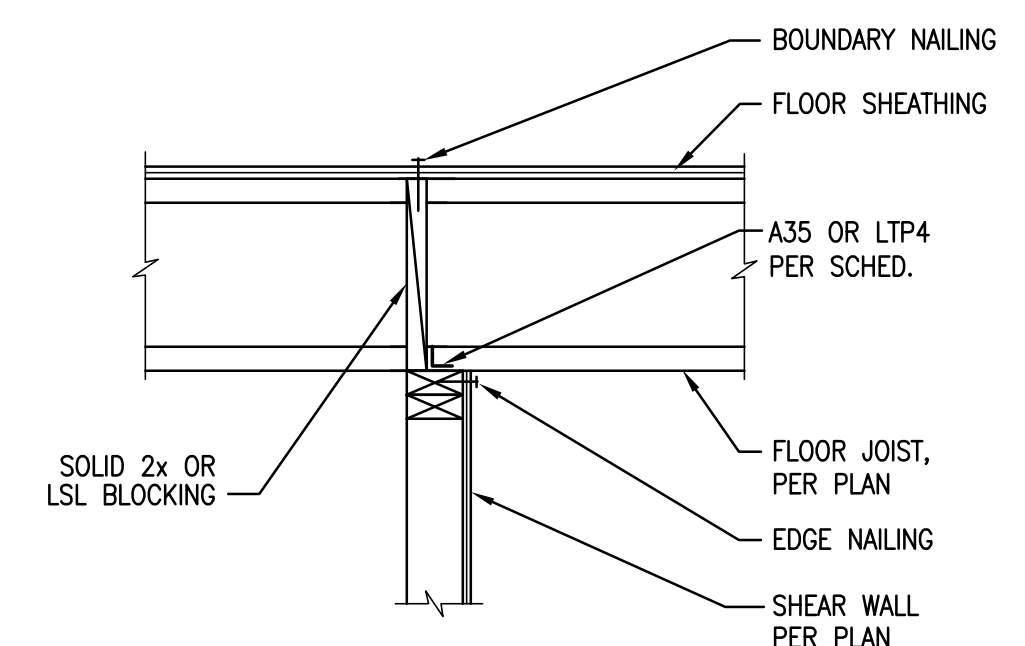
TYPE A



TYPE B



TYPE C



TYPE D

CONNECTION SCHEDULE		
SHEAR WALL	A35 OR LTP4	16d SINKERS
P1	18" O.C.	6" O.C.
P2	12" O.C.	4" O.C.
P3	10" O.C.	3" O.C. (STAGGERED)
P4	8" O.C.	2" O.C. (STAGGERED)

NOTE: DOUBLE-SIDED SHEAR WALLS, SEE PLAN

N.T.S.

REV. #	DATE	BY	DESCRIPTION

VECTOR ENGINEERS
 SANDY, UTAH
 (801) 990-1775
 (801) 990-1776 FAX
 (801) 927-2054
 ST. GEORGE, UTAH
 (435) 628-1224

STEVE TURLEY
 1050 S. 1000 E.
 PROVO, UTAH
STANDARD DETAILS & SCHEDULES

PROFESSIONAL STRUCTURAL ENGINEER
 No. 376983-2203
 ROGER T. ALWORTH
 STATE OF UTAH
 05/19/2020

ROGER T. ALWORTH, S.E.
 176983

U3003-002-191

S1.2

NOT USED

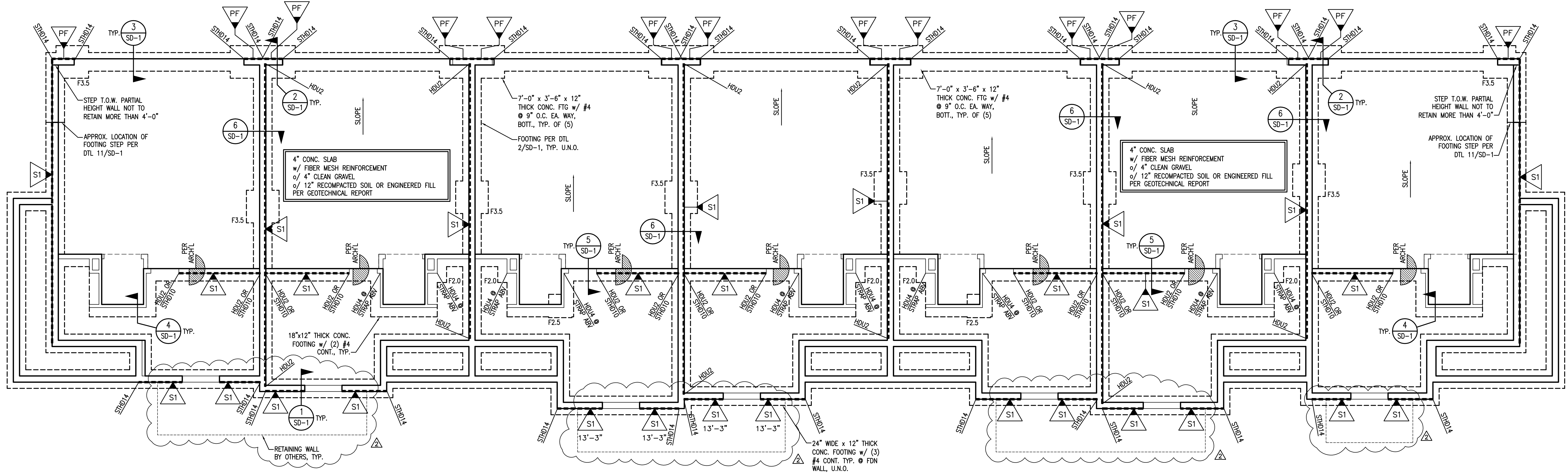
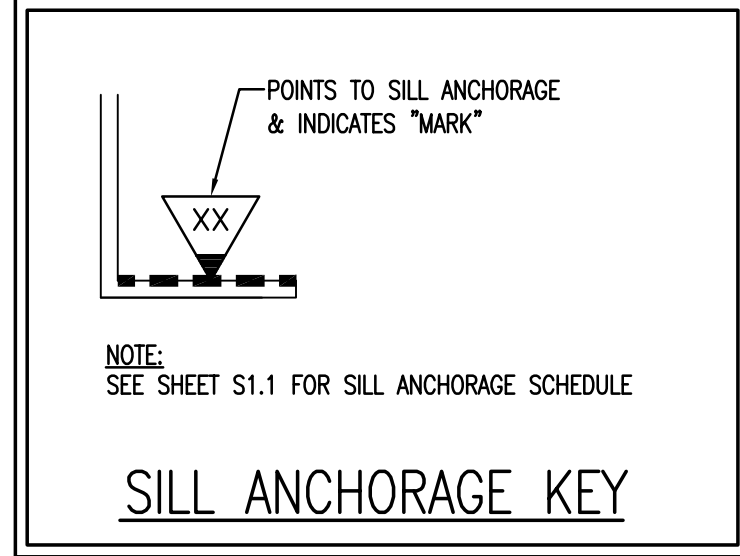
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NOT USED

N.T.S.

N.T.S.

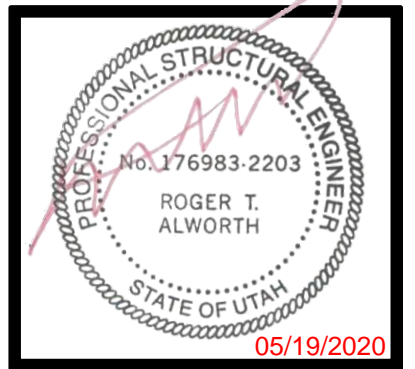
- FOUNDATION NOTES:**
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
 - ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ 1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C., U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "E" IN GENERAL NOTES (S1).
 - ALL HOLDDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 9/SD-1.
 - ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
 - SEE SHEET S1.1 FOR SPOT/ISOLATED FOOTING SCHEDULE.
 - MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
 - PF - INDICATES LOCATION OF PORTAL FRAME PER DTL 10/SD-1.



REV. #	DATE	BY	DESCRIPTION
1	12-29-2020	JBA/MGP	CHK. RTA
2	3-30-20	JBA/MGP	AS SHOWN
3	05-20-2020	JBA/LSB	AS SHOWN

VECTOR ENGINEERS
 SANDY, UTAH
 (801) 990-1775
 (801) 990-1776 FAX
 (801) 927-2054
 LAYTON, UTAH
 ST. GEORGE, UTAH
 (435) 628-5122

STEVE TURLEY
SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
 1050 S. 1000 E.
 PROVO, UTAH
FOUNDATION PLAN



ROGER T. ALWORTH, S.E.
 176983

U3003-002-191

S2

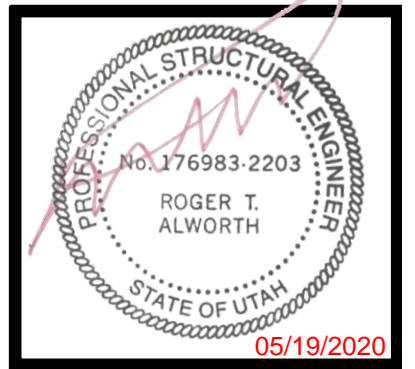
FOUNDATION PLAN
 SECTION 1
 3/16" = 1'-0"

- FRAMING NOTES:**
- ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
 - FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
 - SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
 - INTERIOR BEARING WALLS
 - ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
 - PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
 - BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
 - CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.

REV. #	DATE	BY	DESCRIPTION
1	1-29-2020	ENG. BSA	DKW-MGP CHK. RTA
2	3-30-20	JBA/MGP	AS SHOWN

VECTOR ENGINEERS
SANDY, UTAH
LAYTON, UTAH
ST. GEORGE, UTAH
(801) 990-1775
(801) 990-1776 FAX
(435) 626-5122

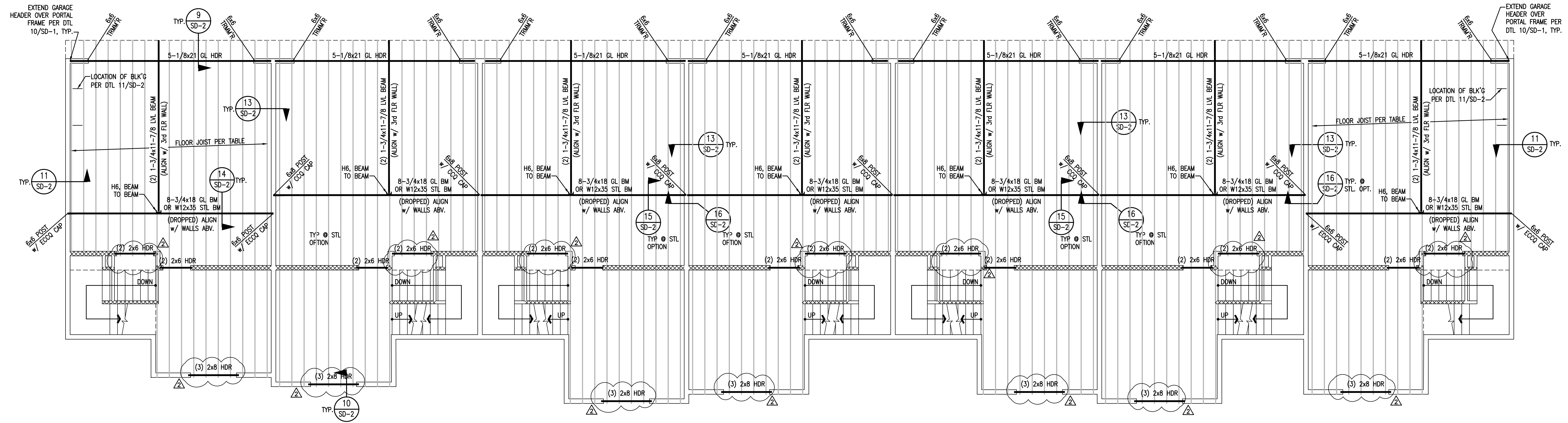
STEVE TURLEY
SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
1050 S. 1000 E.
PROVO, UTAH
MAIN FLOOR FRAMING PLAN



ROGER T. ALWORTH, S.E.
176983

U3003-002-191

S3



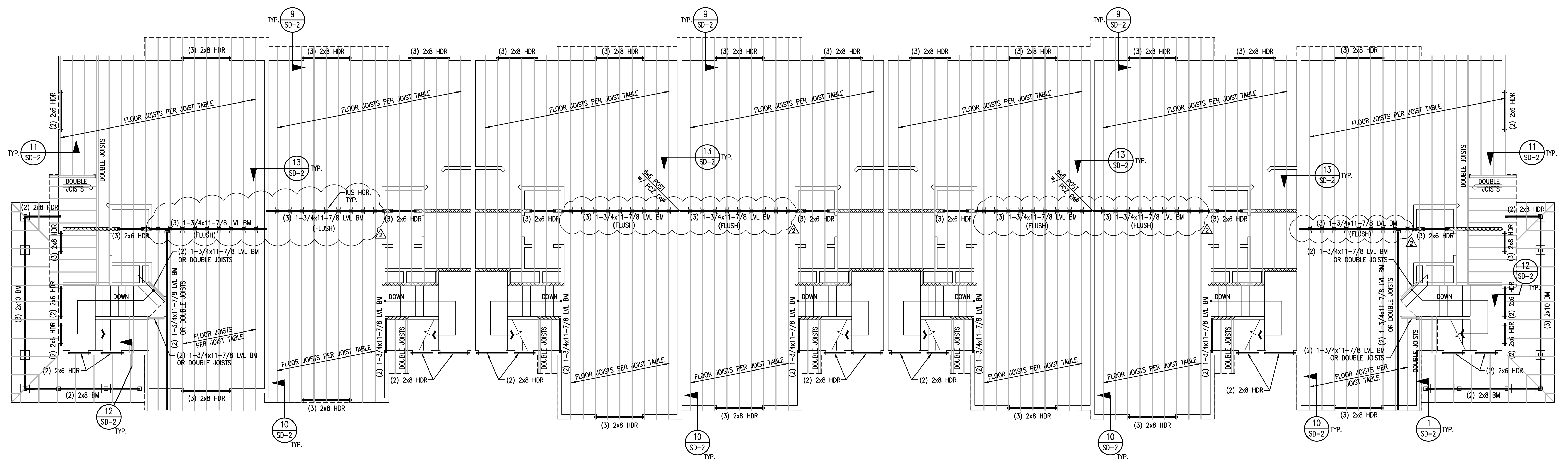
SPAN	FLOOR JOIST	CANT'L
16'-6"	11-7/8" TJI 210 @ 16" O.C.	2'-0"
16'-6"	11-7/8" TJI 230 @ 19.2" O.C.	2'-0"
20'-4"	11-7/8" TJI 360 @ 16" O.C.	0'-0"
22'-0"	11-7/8" TJI 560 @ 19.2" O.C.	0'-0"

NOTE: FLOOR JOIST TABLE DESIGNED FOR L/480 LIVE LOAD DEFLECTION. CONSULT JOIST SUPPLIER IF STIFFER PERFORMANCE IS DESIRED.

MAIN FLOOR FRAMING PLAN

3/16" = 1'-0"

- FRAMING NOTES:**
- ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
 - FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM).
 - FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM).
 - FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM).
 - FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
 - SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
 - INTERIOR BEARING WALLS
 - ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
 - PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
 - BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
 - CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



FLOOR JOIST TABLE		
SPAN	FLOOR JOIST	CANTL
16'-6"	11-7/8" TJI 210 @ 16" O.C.	2'-0"
16'-6"	11-7/8" TJI 230 @ 19.2" O.C.	2'-0"
20'-4"	11-7/8" TJI 360 @ 16" O.C.	0'-0"
22'-0"	11-7/8" TJI 560 @ 19.2" O.C.	0'-0"

NOTE: FLOOR JOIST TABLE DESIGNED FOR L/480 LIVE LOAD DEFLECTION. CONSULT JOIST SUPPLIER IF STIFFER PERFORMANCE IS DESIRED.

UPPER FLOOR FRAMING PLAN

3/16" = 1'-0"

REV. #	DATE	BY	DESCRIPTION
1	05-20-2020	JBA/MP	AS SHOWN
2	05-20-2020	JBA/ASB	AS SHOWN

VECTOR ENGINEERS
SANDY, UTAH
LAYTON, UTAH
(801) 990-1775
(801) 990-1776
(801) 927-2054

STEVE TURLEY
SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
1050 S. 1000 E.
PROVO, UTAH
UPPER FLOOR FRAMING PLAN

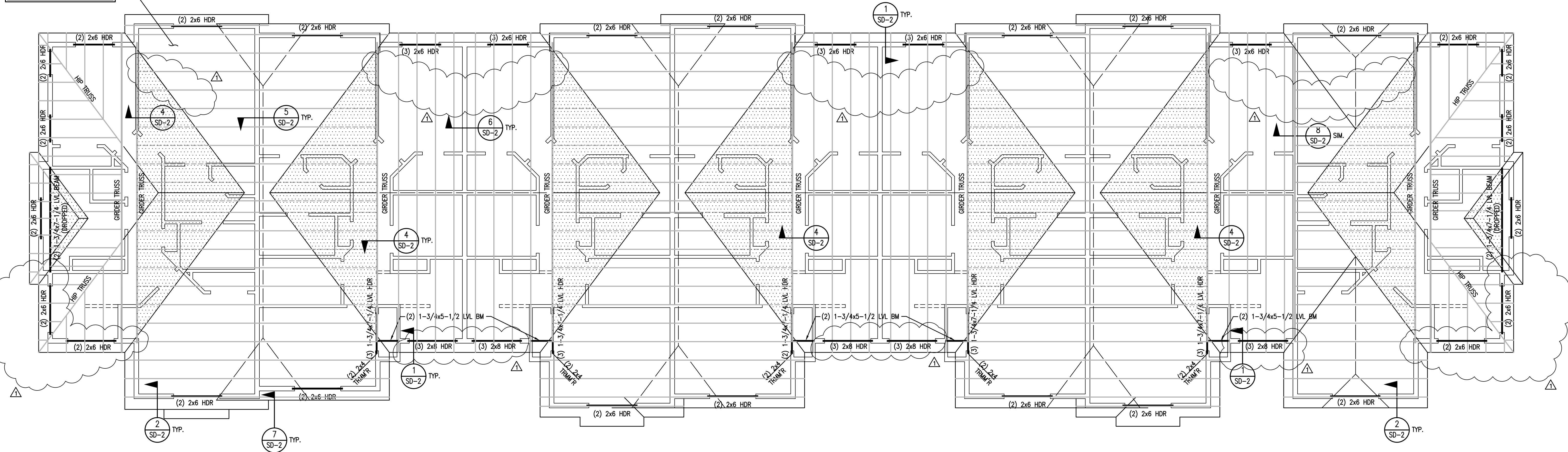
PROFESSIONAL STRUCTURAL ENGINEER
No. 376983-2203
ROGER T. ALWORTH
STATE OF UTAH
05/19/2020

ROGER T. ALWORTH, S.E.
176983

U3003-002-191

S4

ROOF SHEATHING, TYP.
SEE STRUCTURAL GENERAL NOTES
SHEET S1

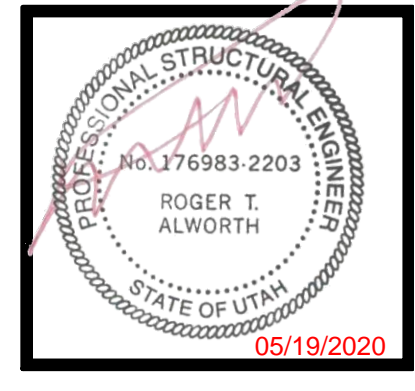


- FRAMING NOTES:**
- ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
 - FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
 - PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
 - PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
 - PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O. NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
 - FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
 - SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
 - INTERIOR BEARING WALLS
 - ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
 - PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
 - BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
 - CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF S16224 STRAP FROM BEAM TO PLATE.

DATE	REV. #	ENG. BY	DWN. MGR	CHK. RY	DESCRIPTION
1-29-2020		JBA/MGP			AS SHOWN
3-30-20		JBA/MGP			

VECTOR ENGINEERS
SANDY, UTAH
(801) 990-1775
LAYTON, UTAH (801) 997-2054
ST. GEORGE, UTAH (435) 628-5122

STEVE TURLEY
SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
1050 S. 1000 E.
PROVO, UTAH
ROOF FRAMING PLAN



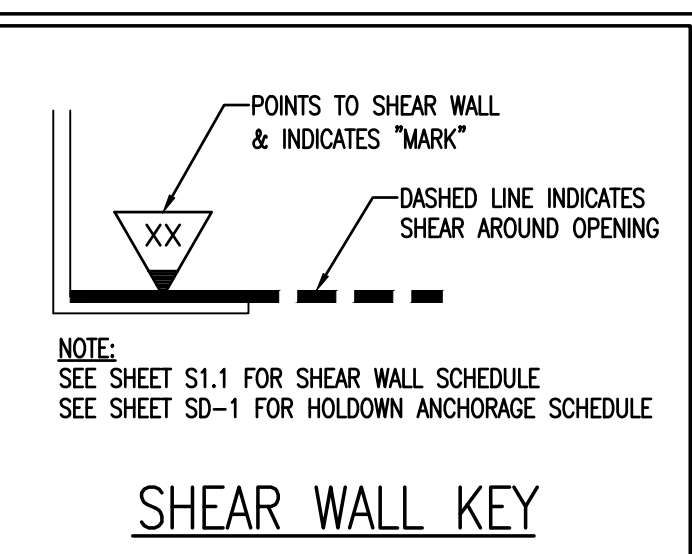
ROGER T. ALWORTH, S.E.
176983

U3003-002-191

S5

ROOF FRAMING PLAN

3/16" = 1'-0"



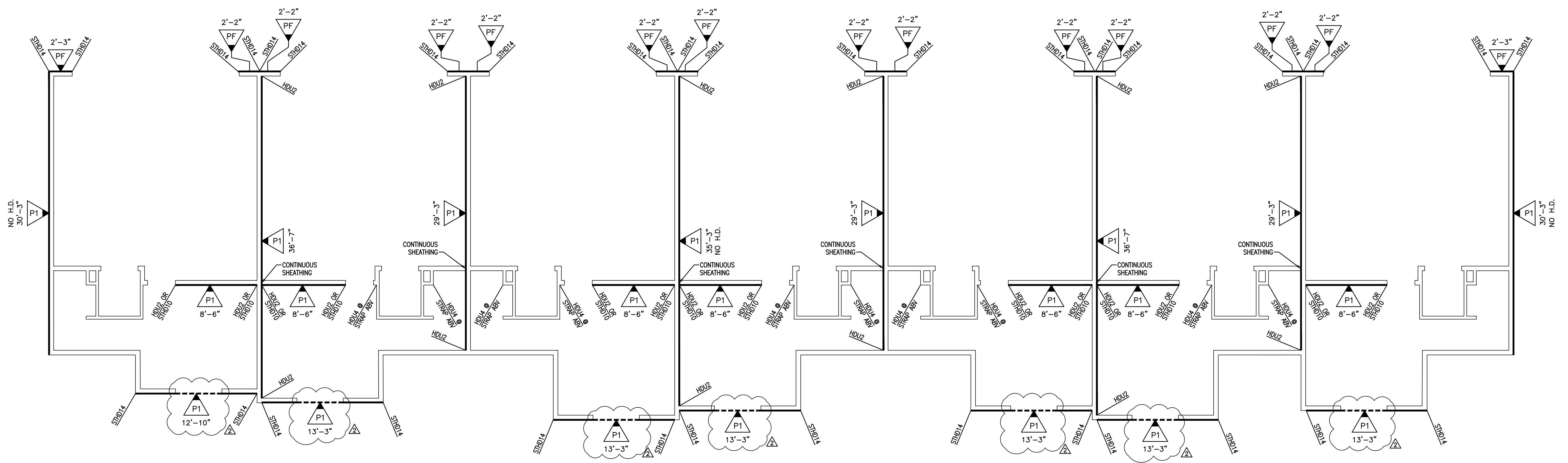
NOTE:
 WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
 INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (1) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

NOTE:
 INSTALL M560 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (2) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
 SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

PF NOTE:
 INDICATE PORTAL FRAME PER DTL 10/SD-1



MAIN LEVEL SHEAR WALL PLAN
 3/16" = 1'-0"

REV #	DATE	BY	DESCRIPTION
A	05-20-2020	JBA/LSB	AS SHOWN

VECTOR ENGINEERS
 SANDY, UTAH
 (801) 990-1775
 LAYTON, UTAH (801) 927-2054
 ST. GEORGE, UTAH (435) 628-5122

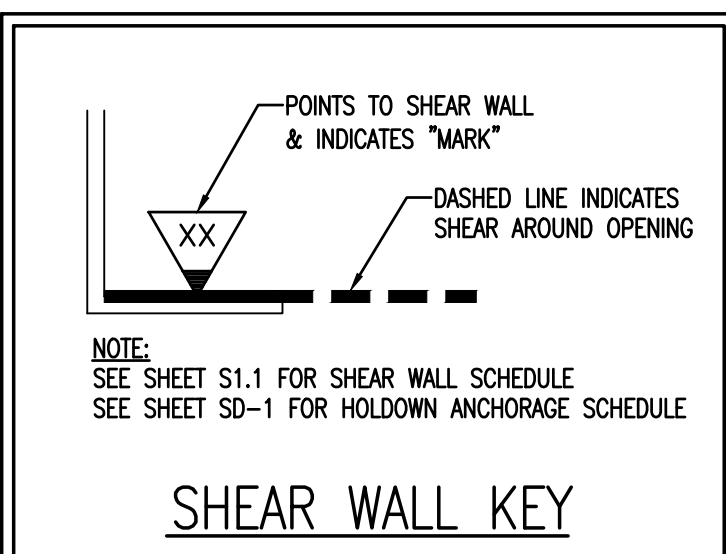
STEVE TURLEY
SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
 1050 S. 1000 E.
 PROVO, UTAH
MAIN LEVEL SHEAR WALL PLAN



ROGER T. ALWORTH, S.E.
 176983

U3003-002-191

S6



NOTE:
 WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
 INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (1) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

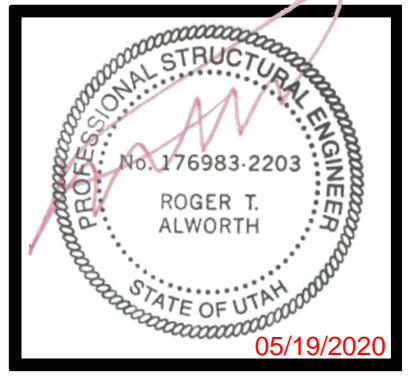
NOTE:
 INSTALL MST60 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (2) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
 SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

REV. #	DATE	BY	DESCRIPTION

VECTOR
 ENGINEERS
 SANDY, UTAH
 (801) 990-1775
 (801) 990-1776 FAX
 (801) 927-2054
 LAYTON, UTAH
 ST. GEORGE, UTAH
 (435) 628-5122

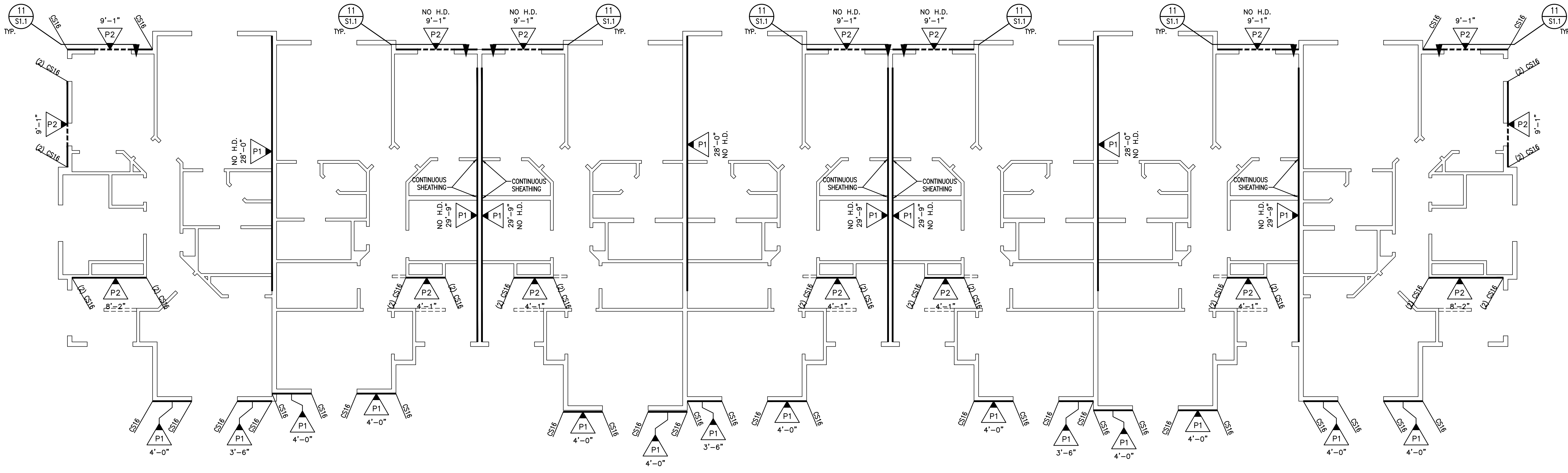
STEVE TURLEY
 SPRING CREEK MULTI-FAMILY HOMES 7-PLEX
 1050 S. 1000 E.
 PROVO, UTAH
3RD LEVEL SHEAR WALL PLAN



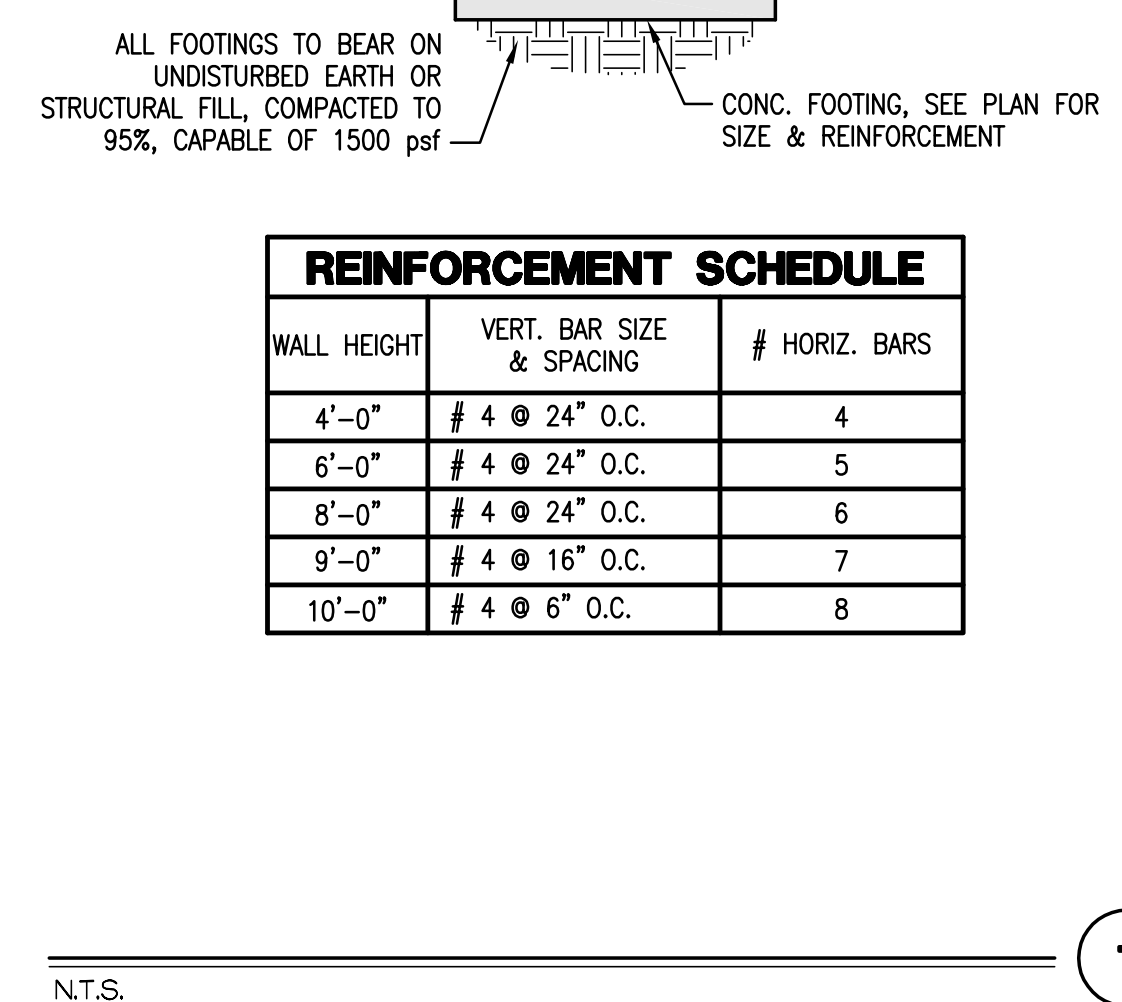
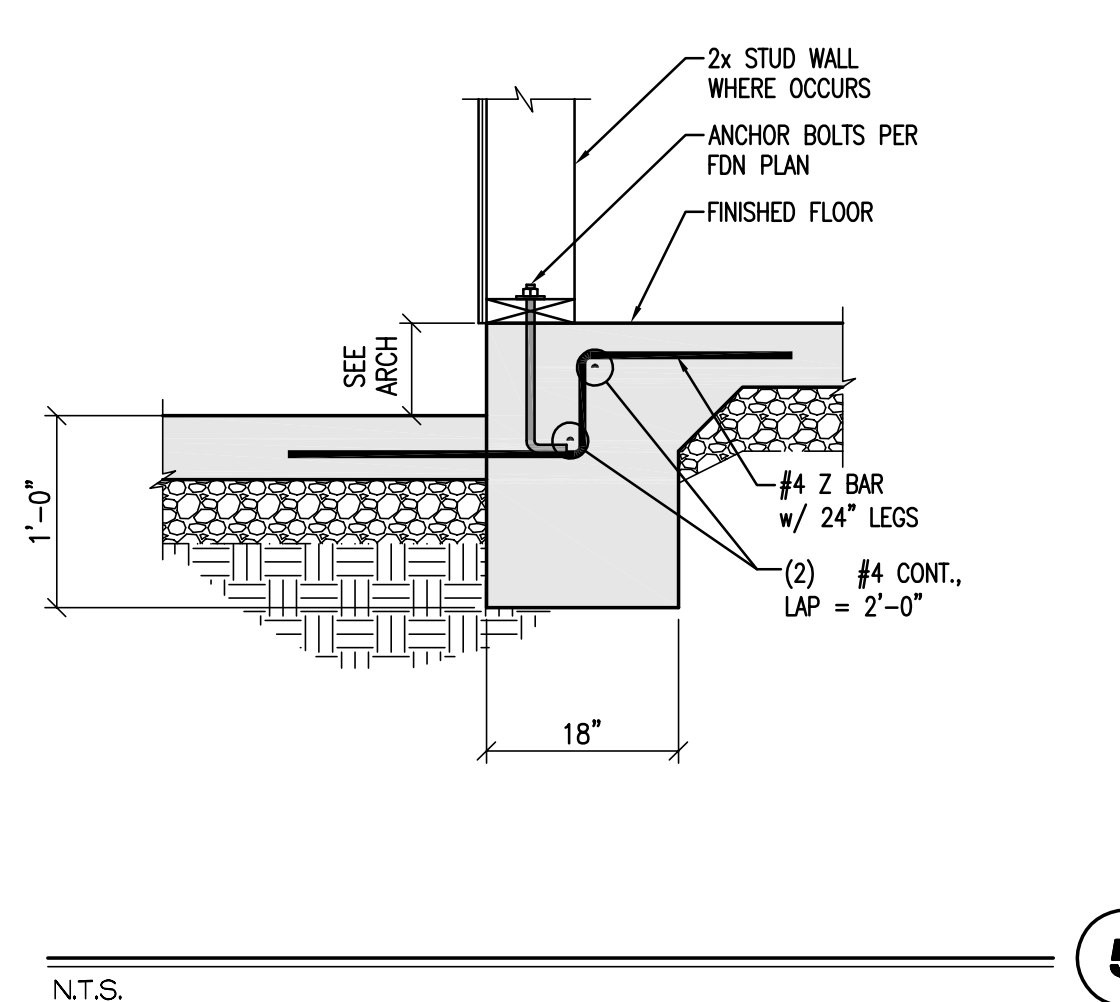
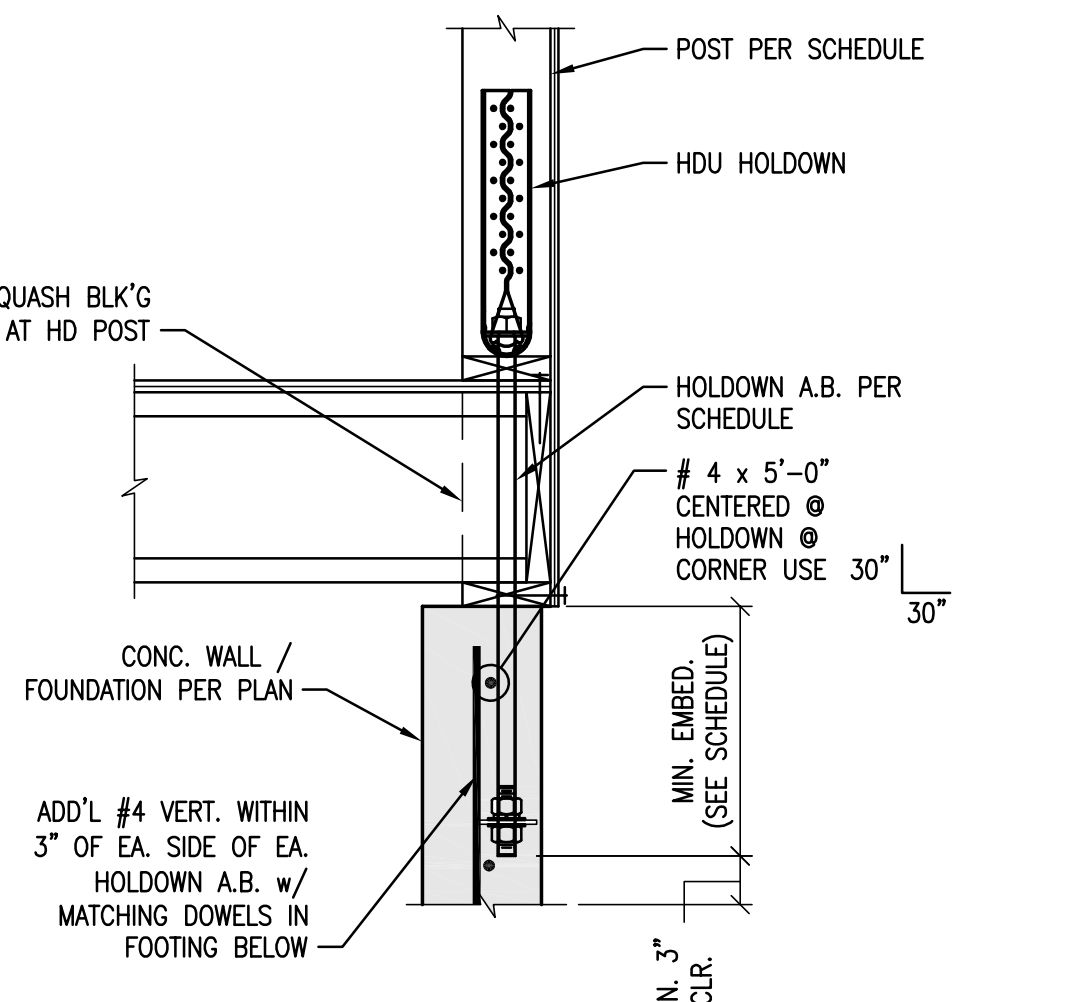
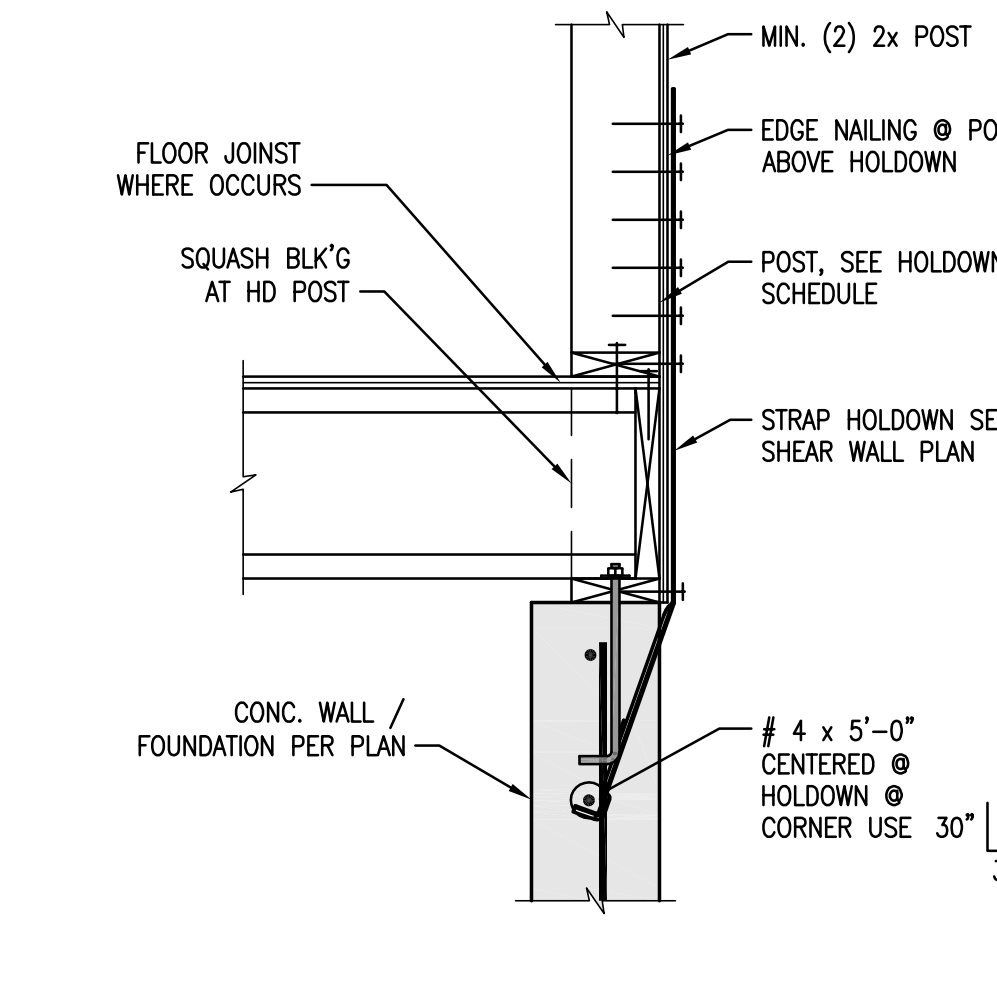
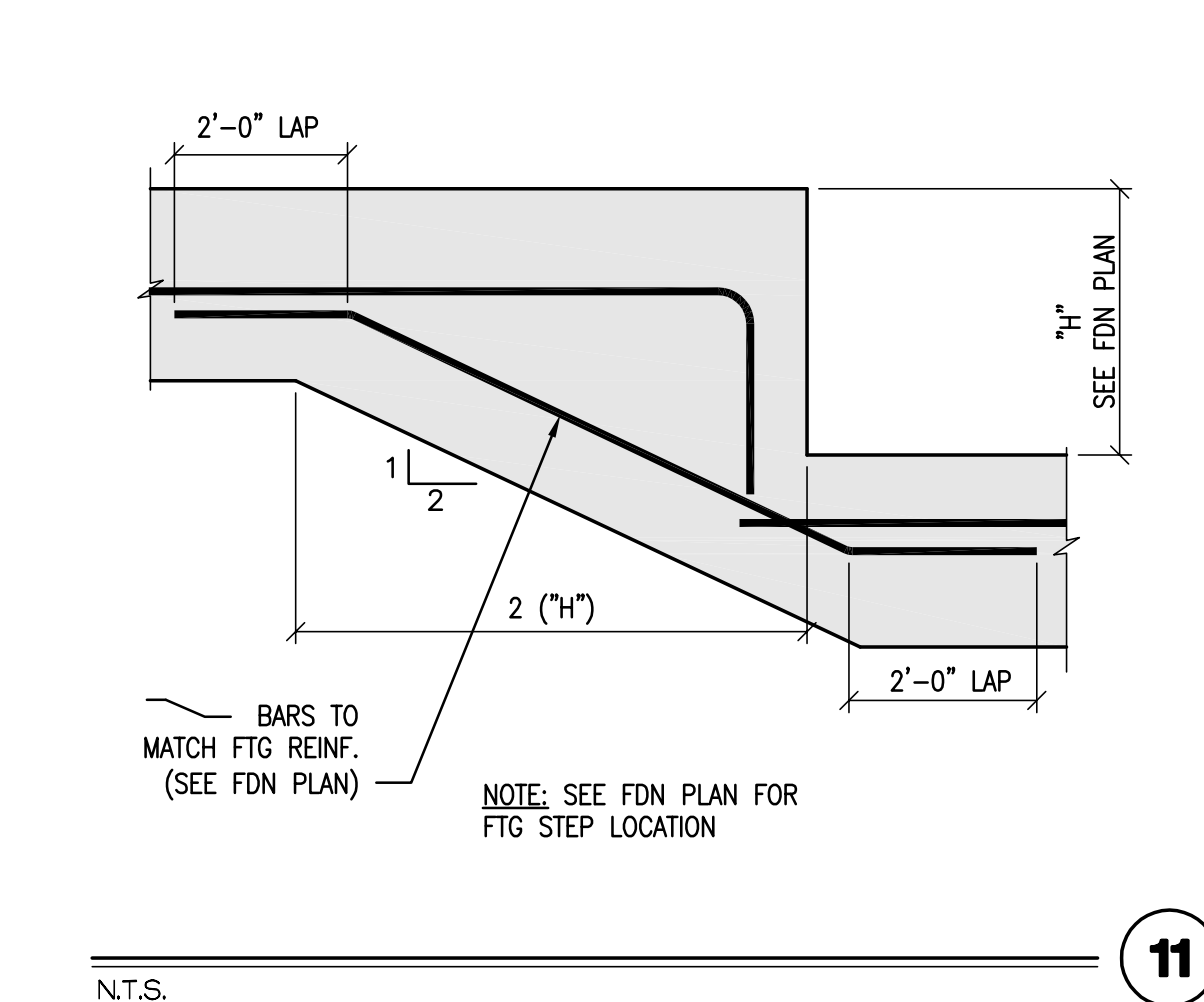
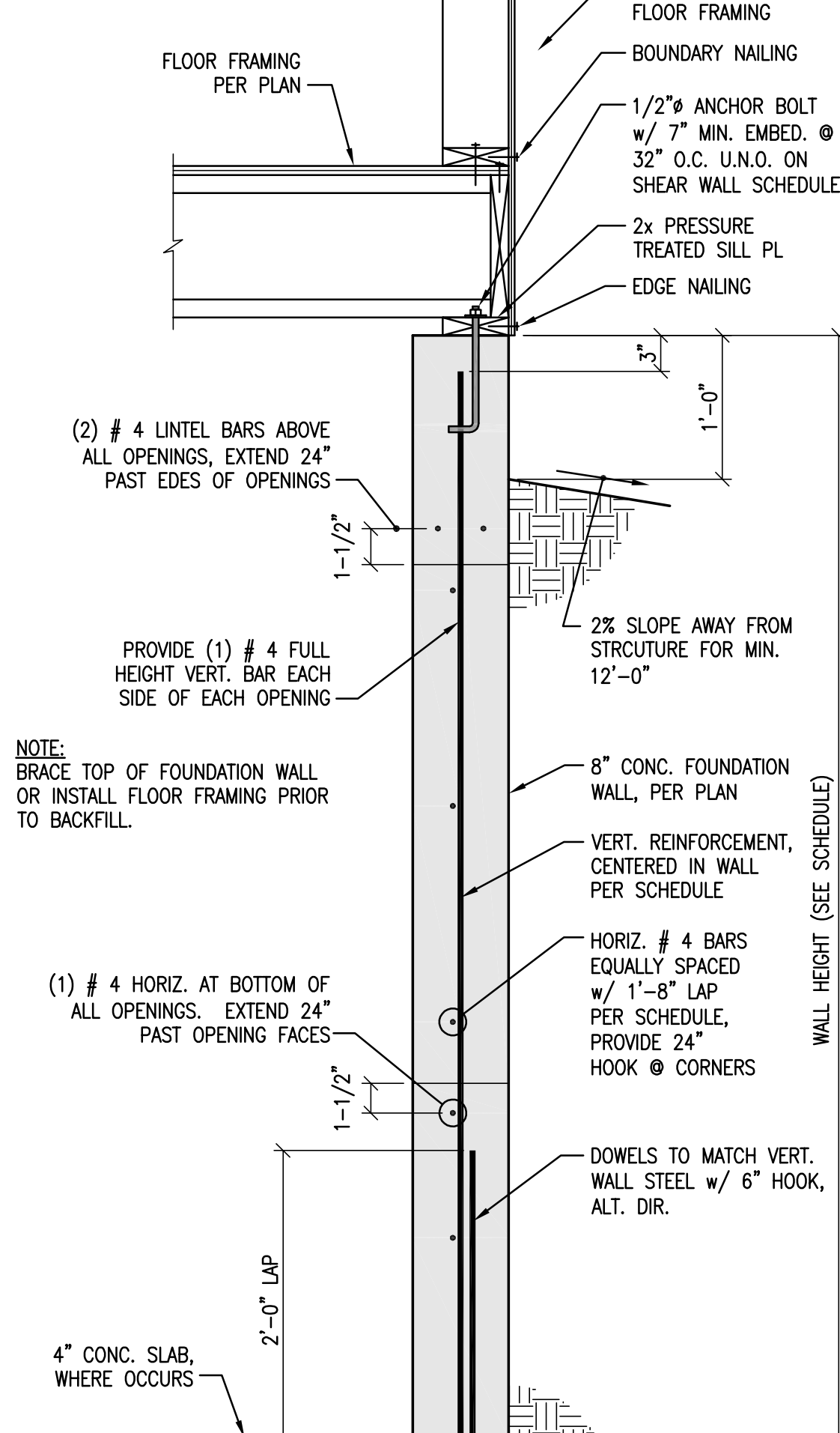
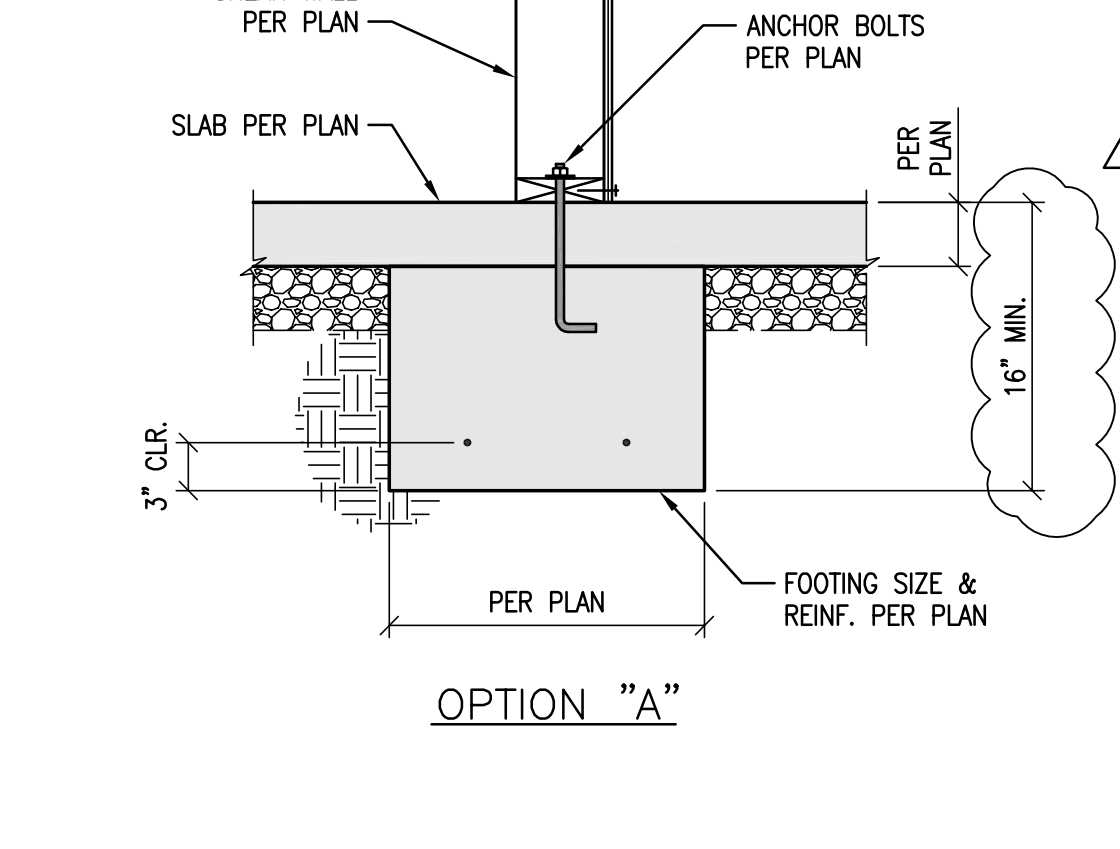
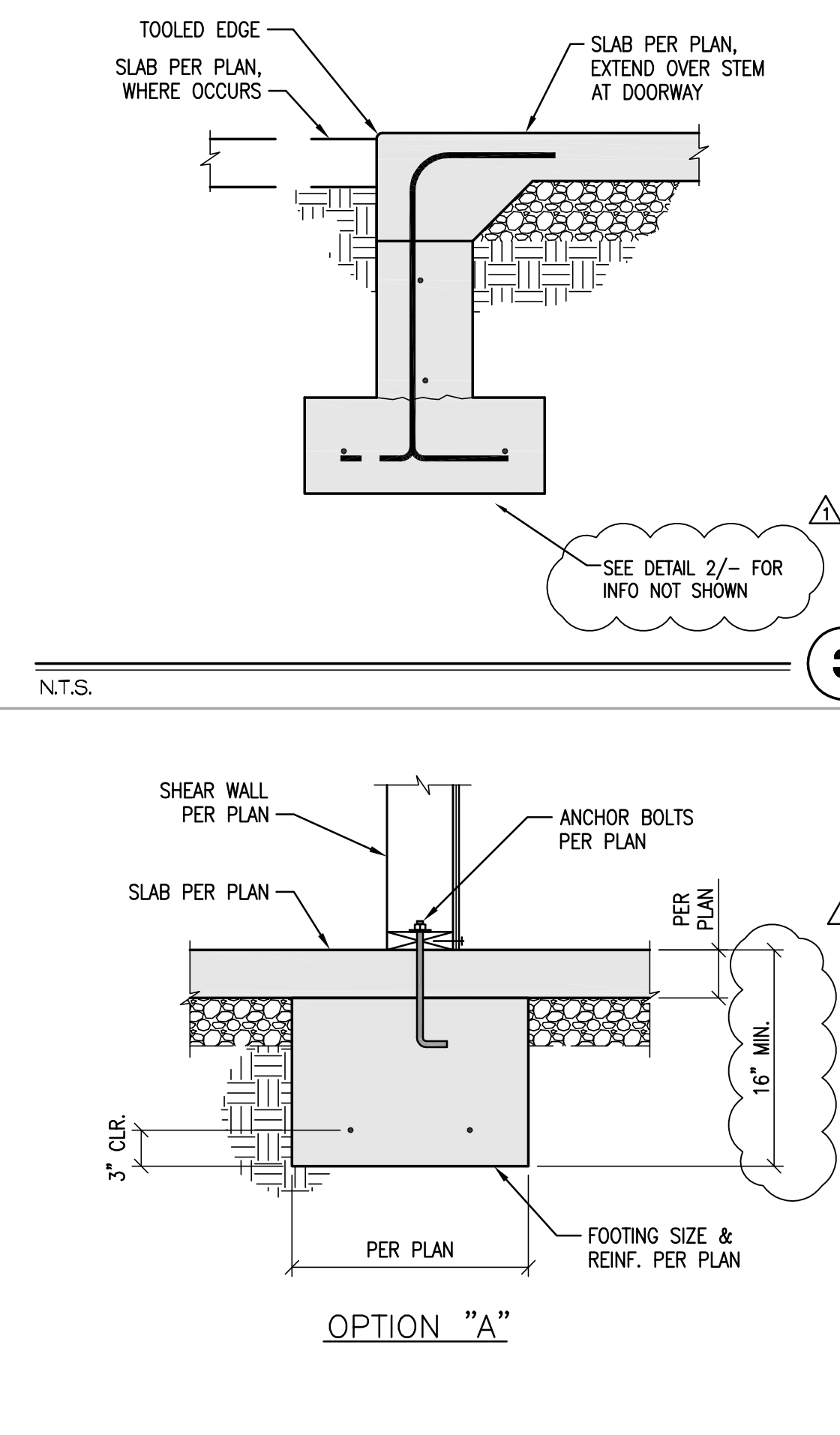
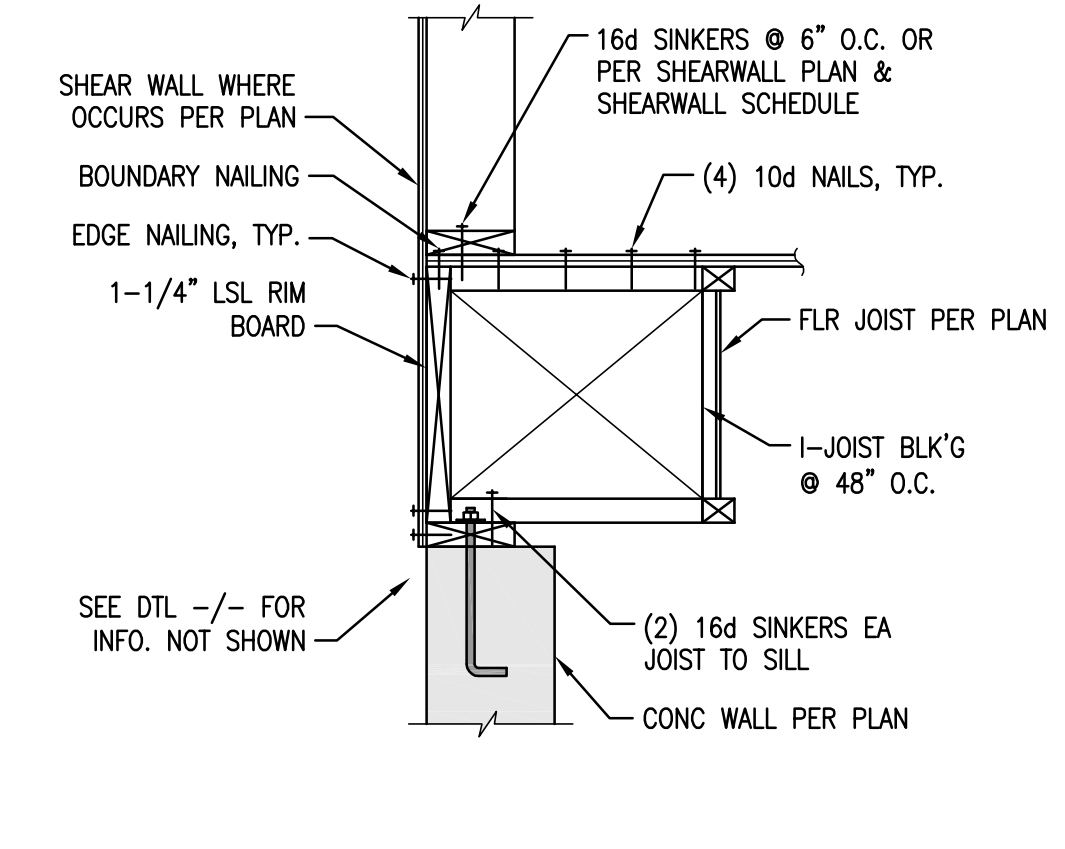
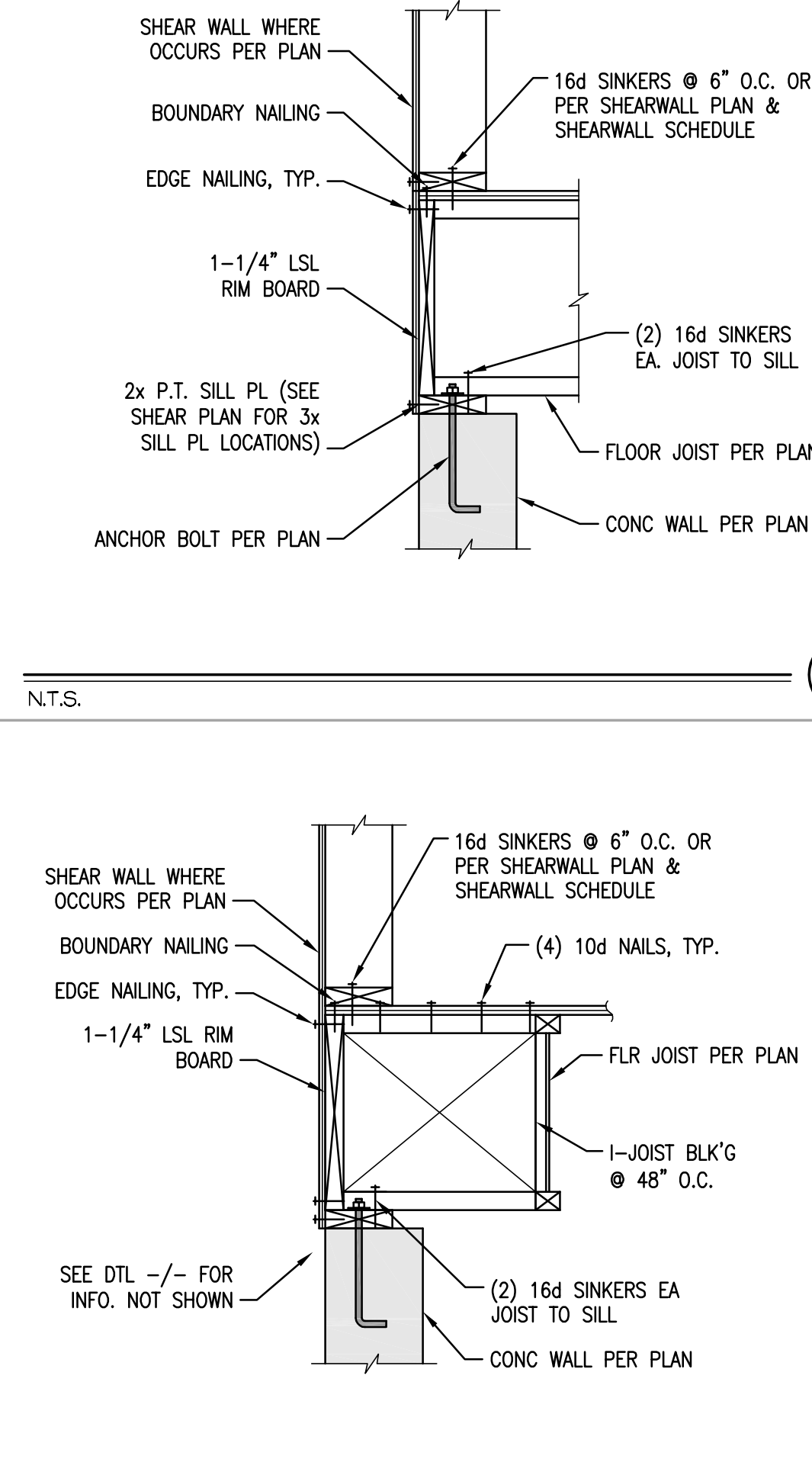
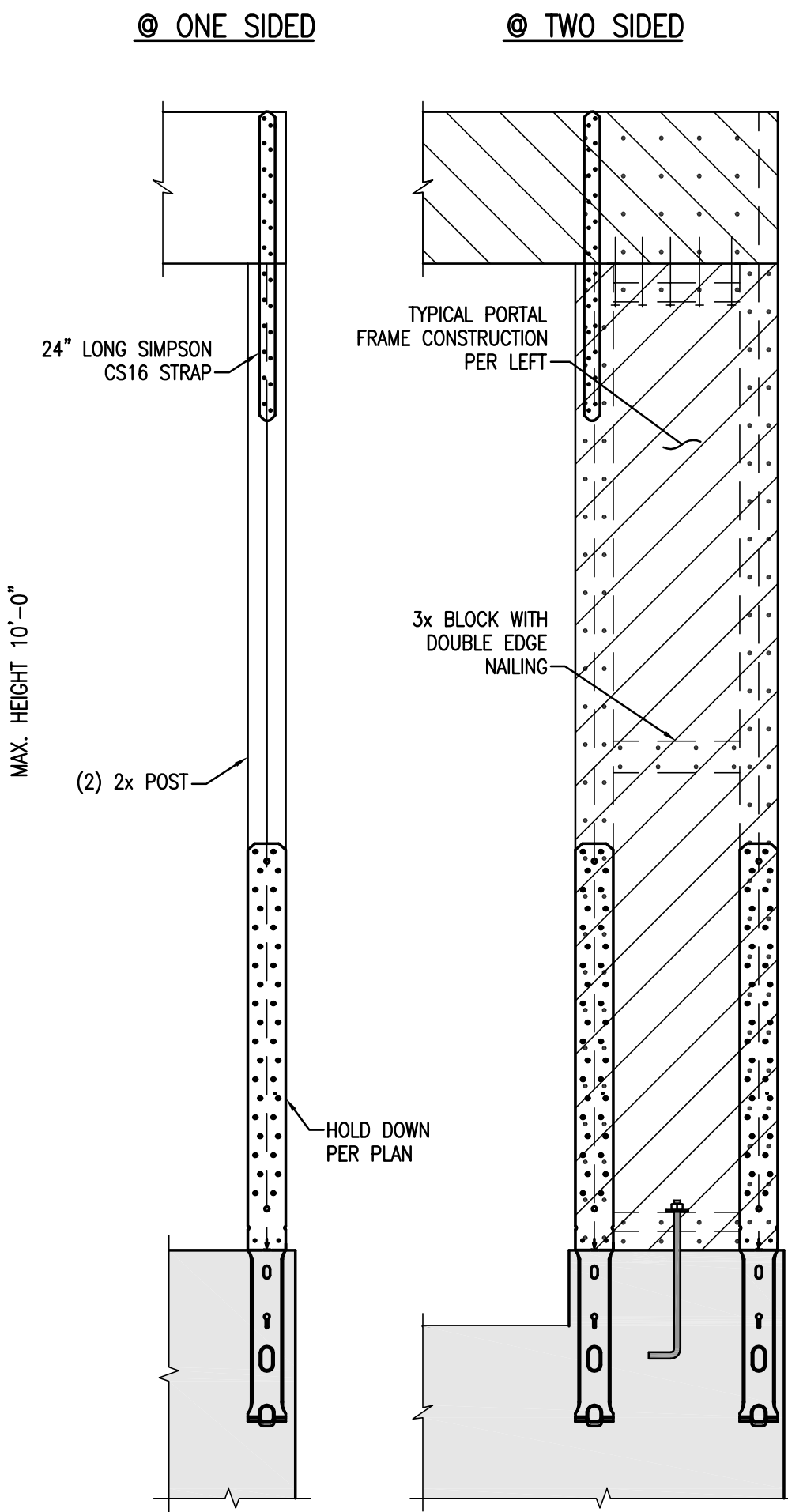
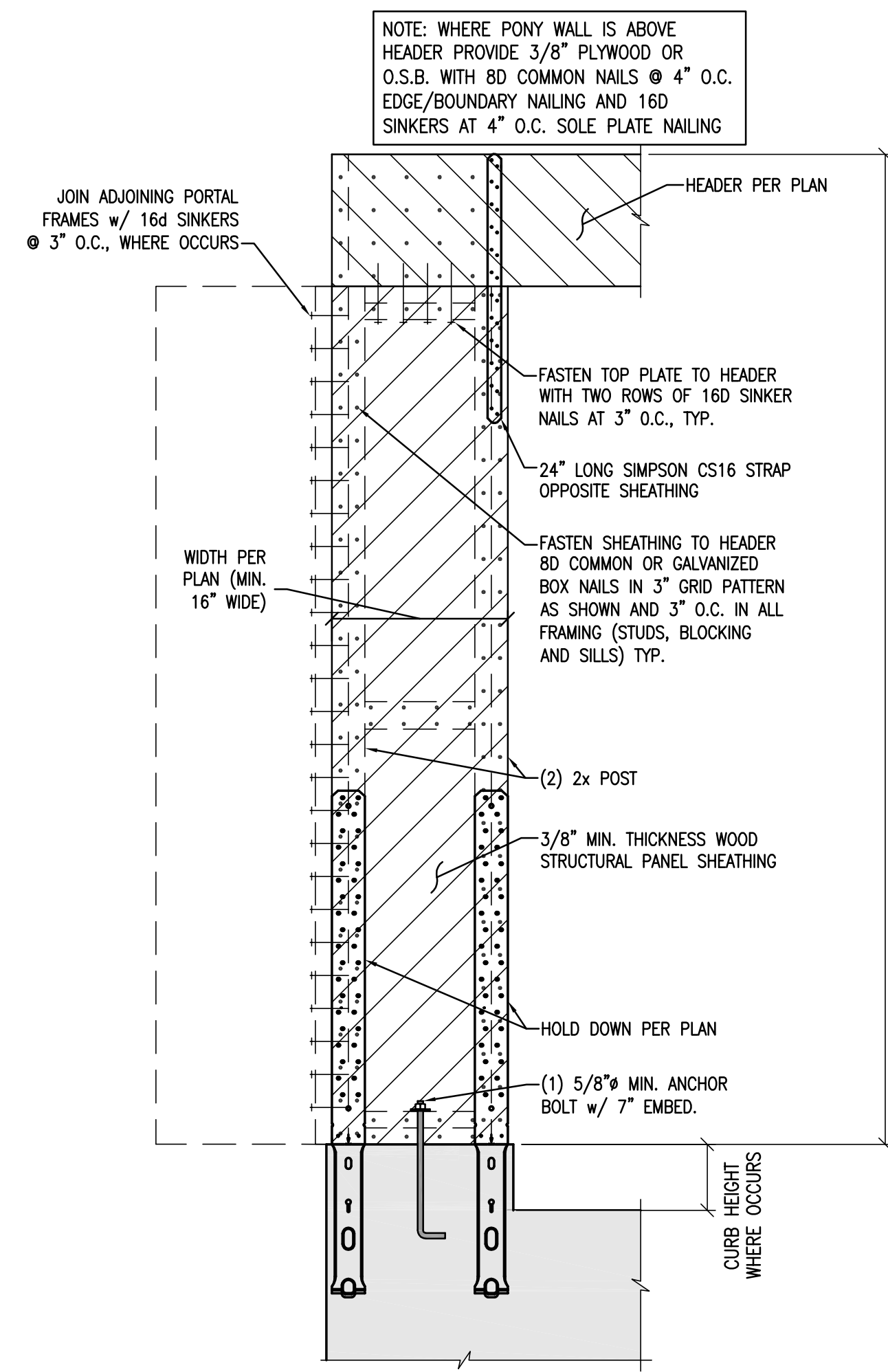
ROGER T. ALWORTH, S.E.
 176983

U3003-002-191

S8

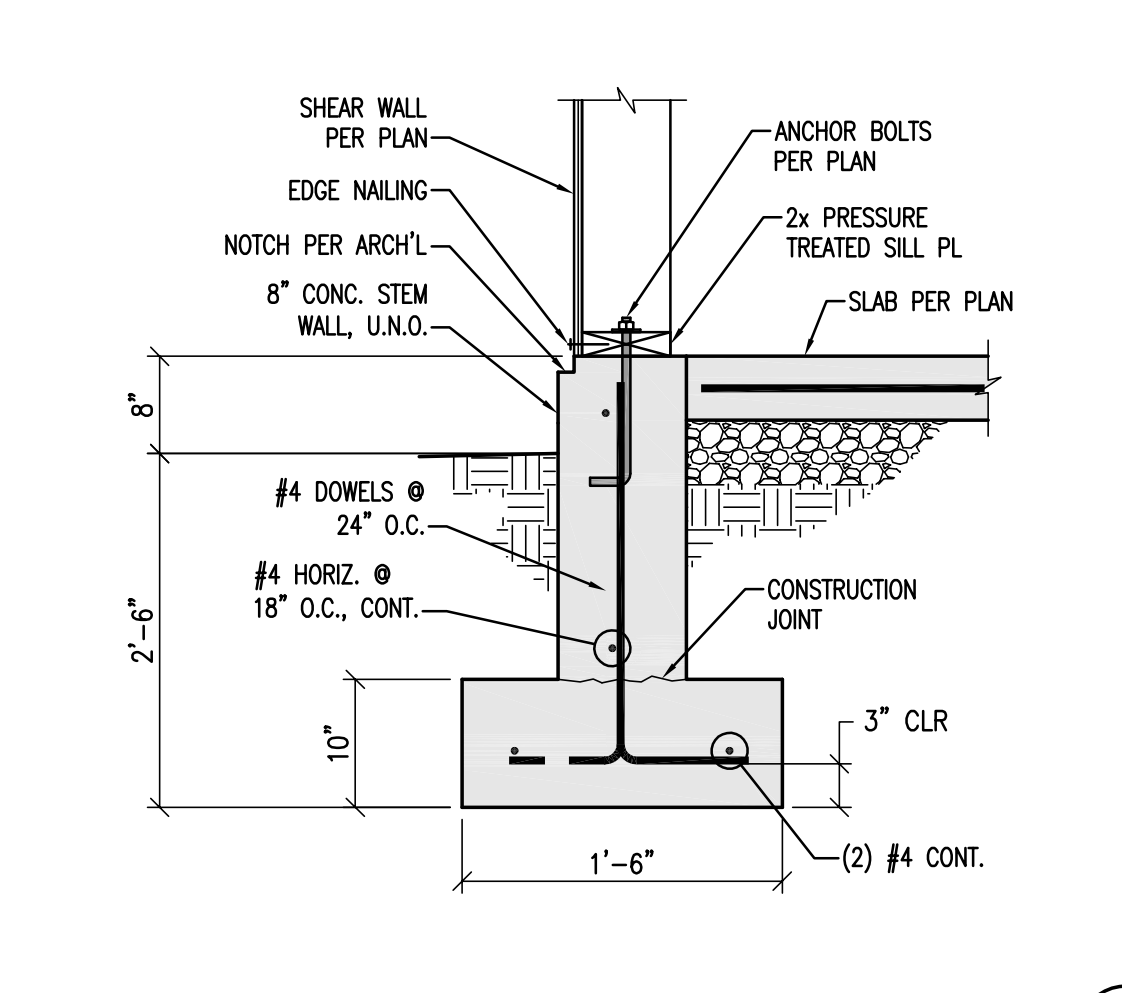
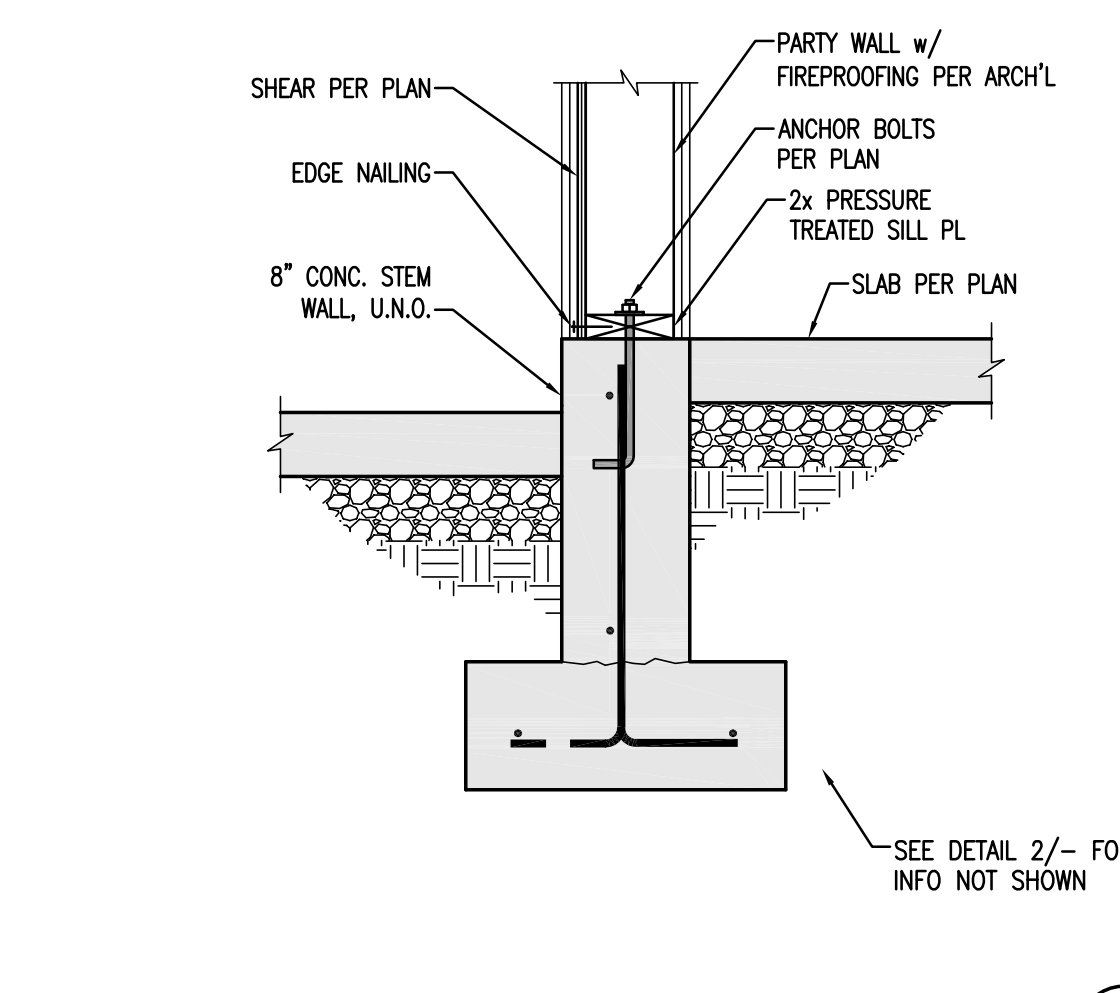


3RD LEVEL SHEAR WALL PLAN
 3/16" = 1'-0"



ANCHORAGE	ANCHORAGE (CAST IN PLACE)		ANCHORAGE (RETROFIT)			
	SSTB	ALL THREAD ROD (NOTE 1)	ALL THREAD ROD (NOTE 2 & 3)	HOLE DIAMETER	EMBEDMENT	POST
HDU2 - SDS2.5	SSTB24	5/8" A307	5/8" A307	3/4"	10"	(2) 2x
HDU4 - SDS2.5	SSTB24	5/8" A307	5/8" A307	3/4"	10"	(2) 2x
HDU5 - SDS2.5	NONE	5/8" A307	5/8" A307	3/4"	13"	(2) 2x
HDU8 - SDS2.5	NONE	7/8" A307	7/8" A307	1"	18"	(3) 2x

- NOTES:
1. PROVIDE 2-1/8"x2-1/8"x3/8" STEEL PLATE w/ (2) NUTS @ CAST IN PLACE ANCHORS.
 2. RETROFIT ALL-THREAD ROD IN HOLES w/ SIMPSON SET-XP EPOXY. PREPARE HOLES & INSTALL EPOXY PER MFR DIRECTIONS w/ EMBEDMENT AND EDGE DISTANCES AS SHOWN.
 3. SIMPSON SET-XP EPOXY PER ICC-ES 2508.
 4. INCREASE FOOTING DEPTH AS REQUIRED FOR 3" MIN. COVER BELOW BOLT & COORDINATE EXACT LOCATIONS WITH THE FRAMING CONTRACTOR.
 5. HOLD-DOWNS MAY BE INSTALLED 4" MAX. FROM SHEAR WALL EDGE. BOUNDARY NAILING MUST BE PROVIDED @ STUDS ALIGNED WITH HOLD-DOWNS.
 6. SEE DETAIL 9/S1.1 FOR INTERIOR HDU HOLD-DOWN ANCHORAGE AND CONCRETE COVER REQUIREMENTS.



REV. #	DATE	BY	DESCRIPTION
1	3-30-20	JBA/MGP	AS SHOWN

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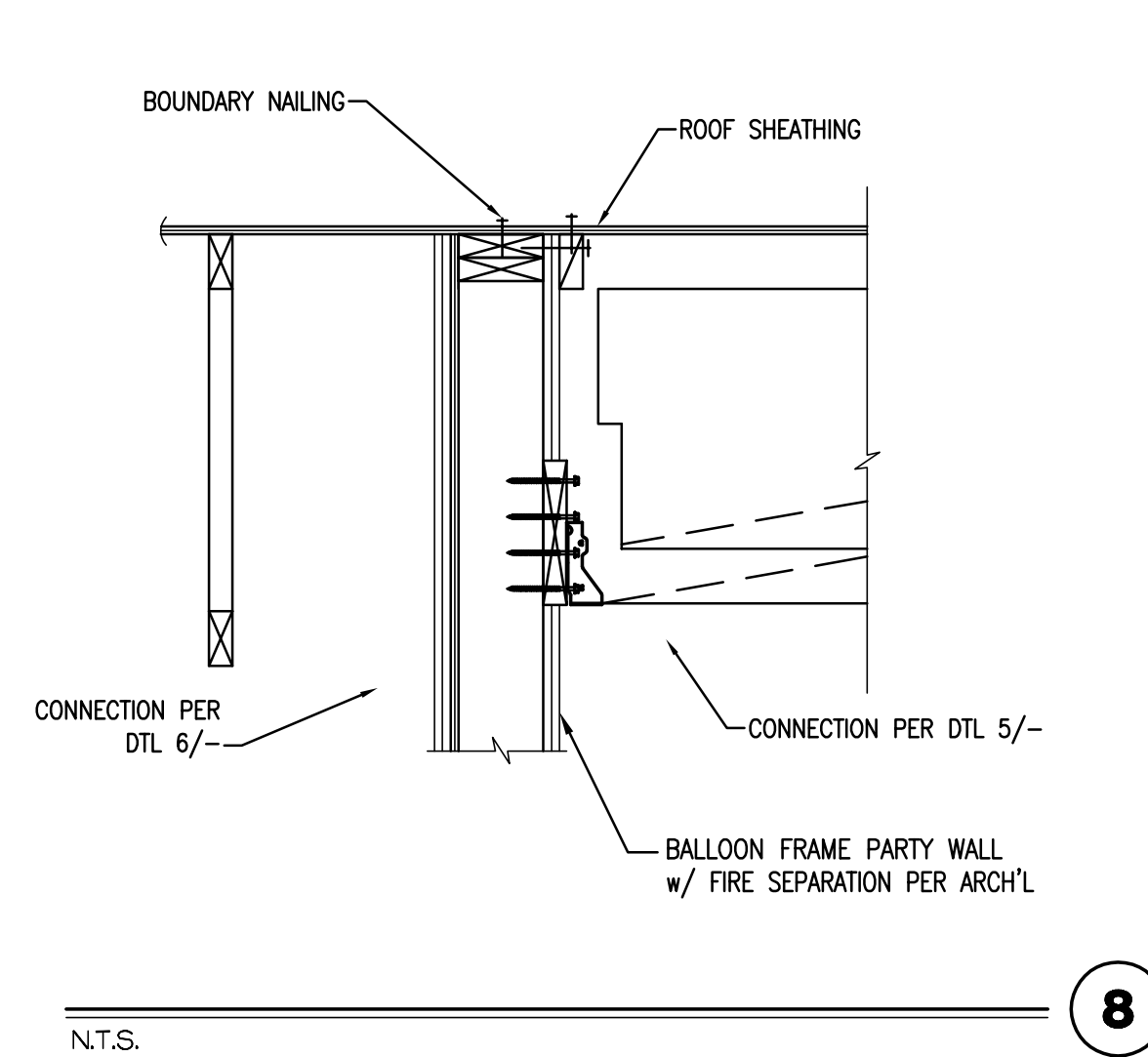
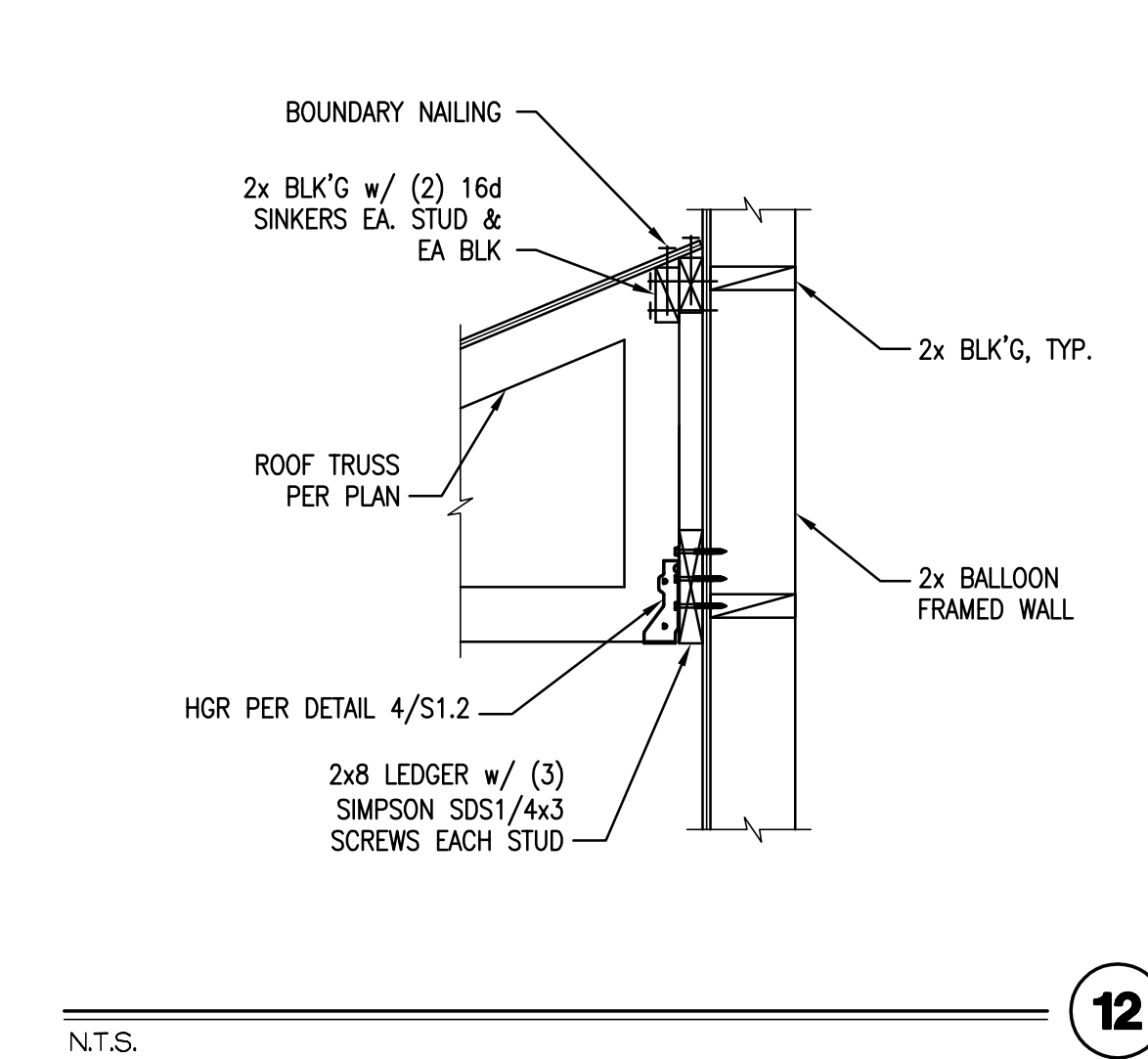
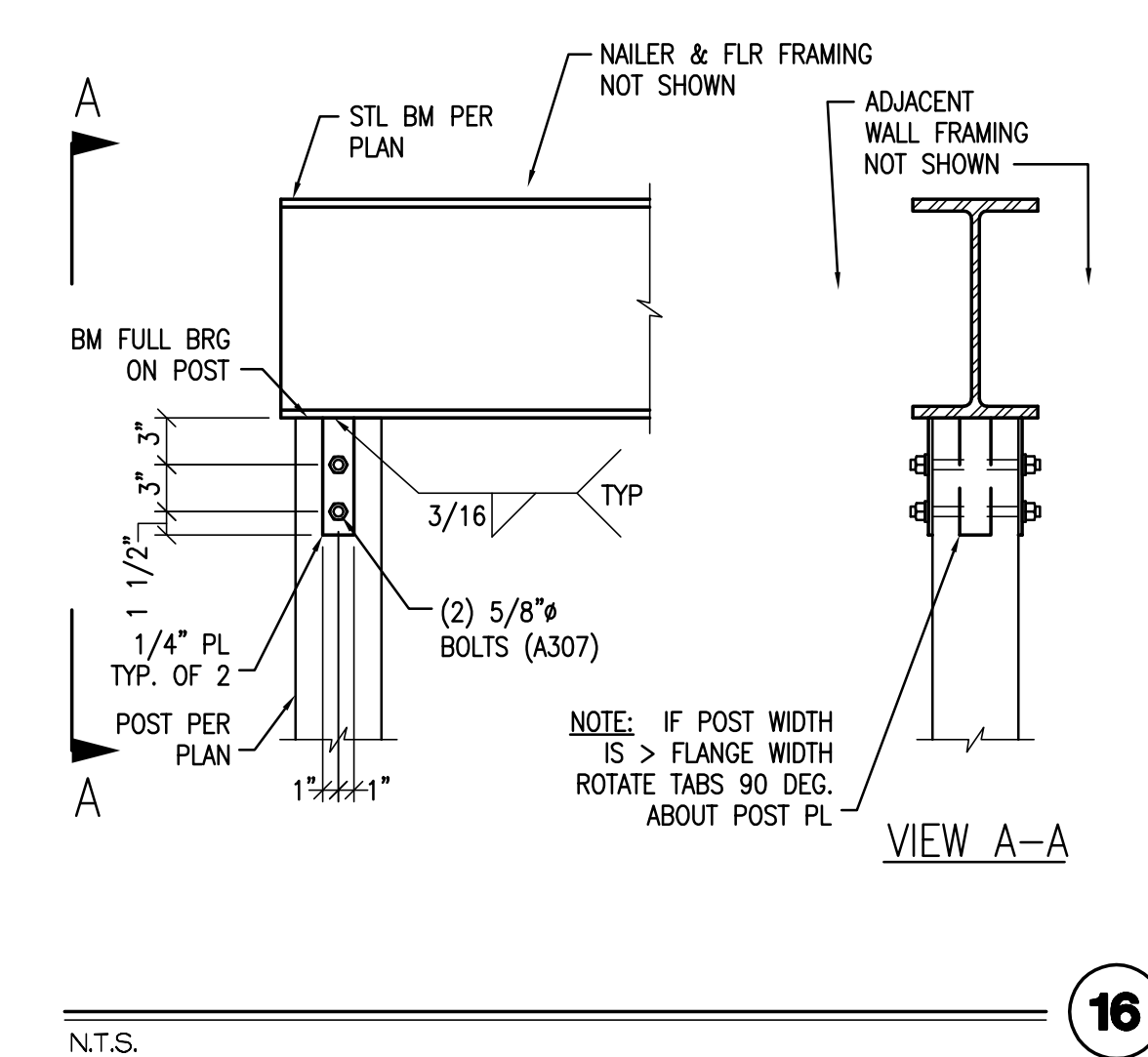
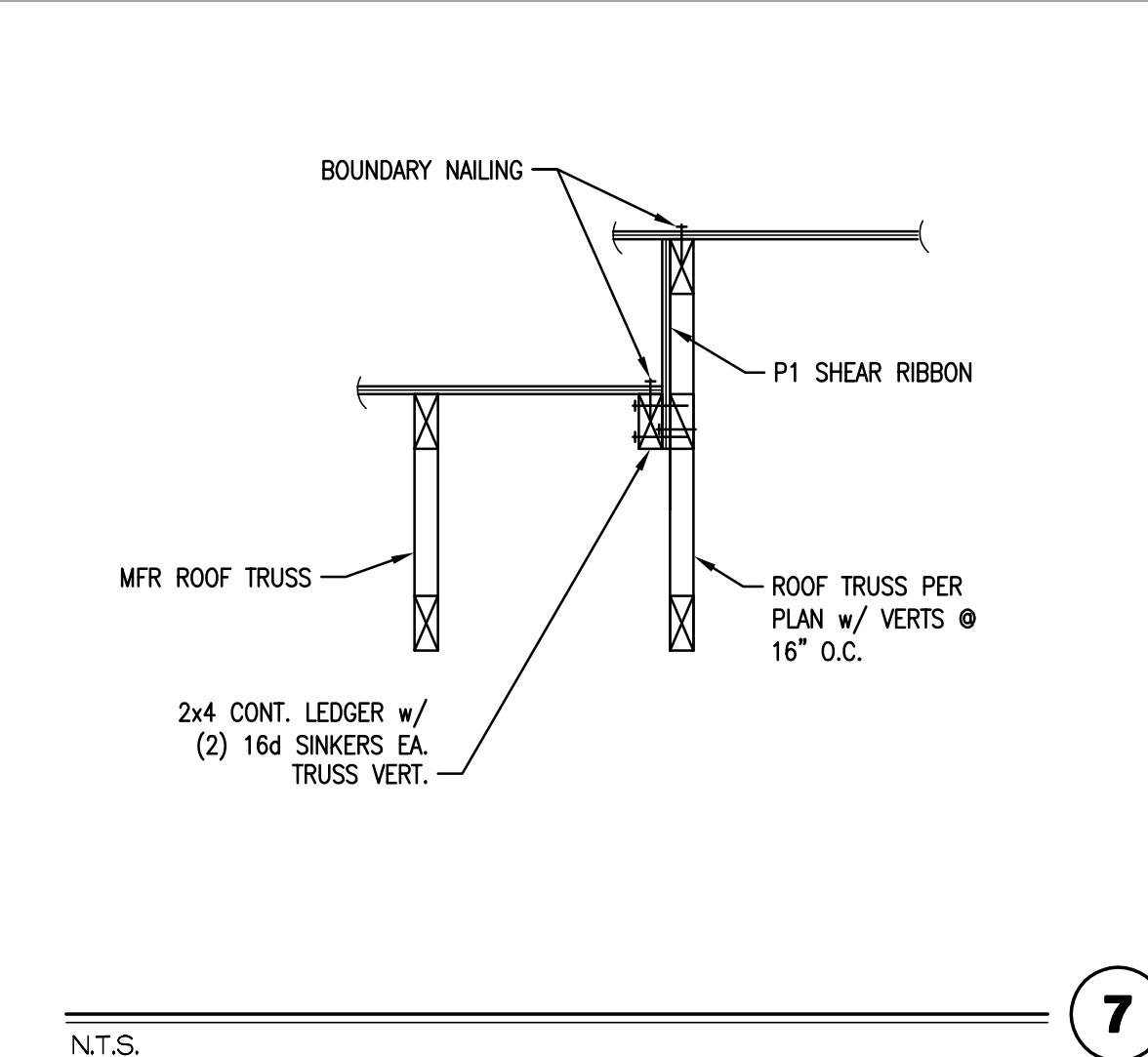
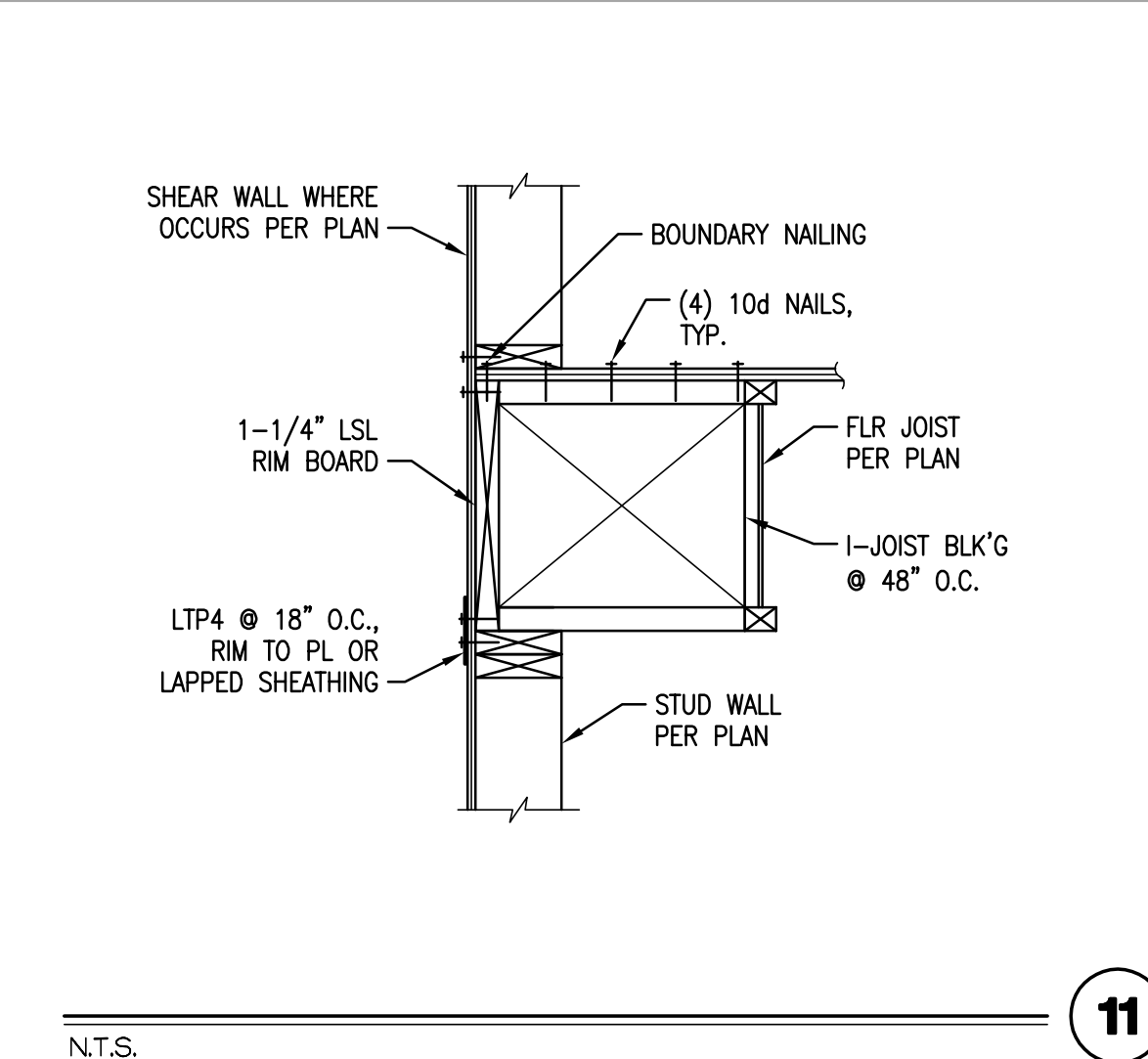
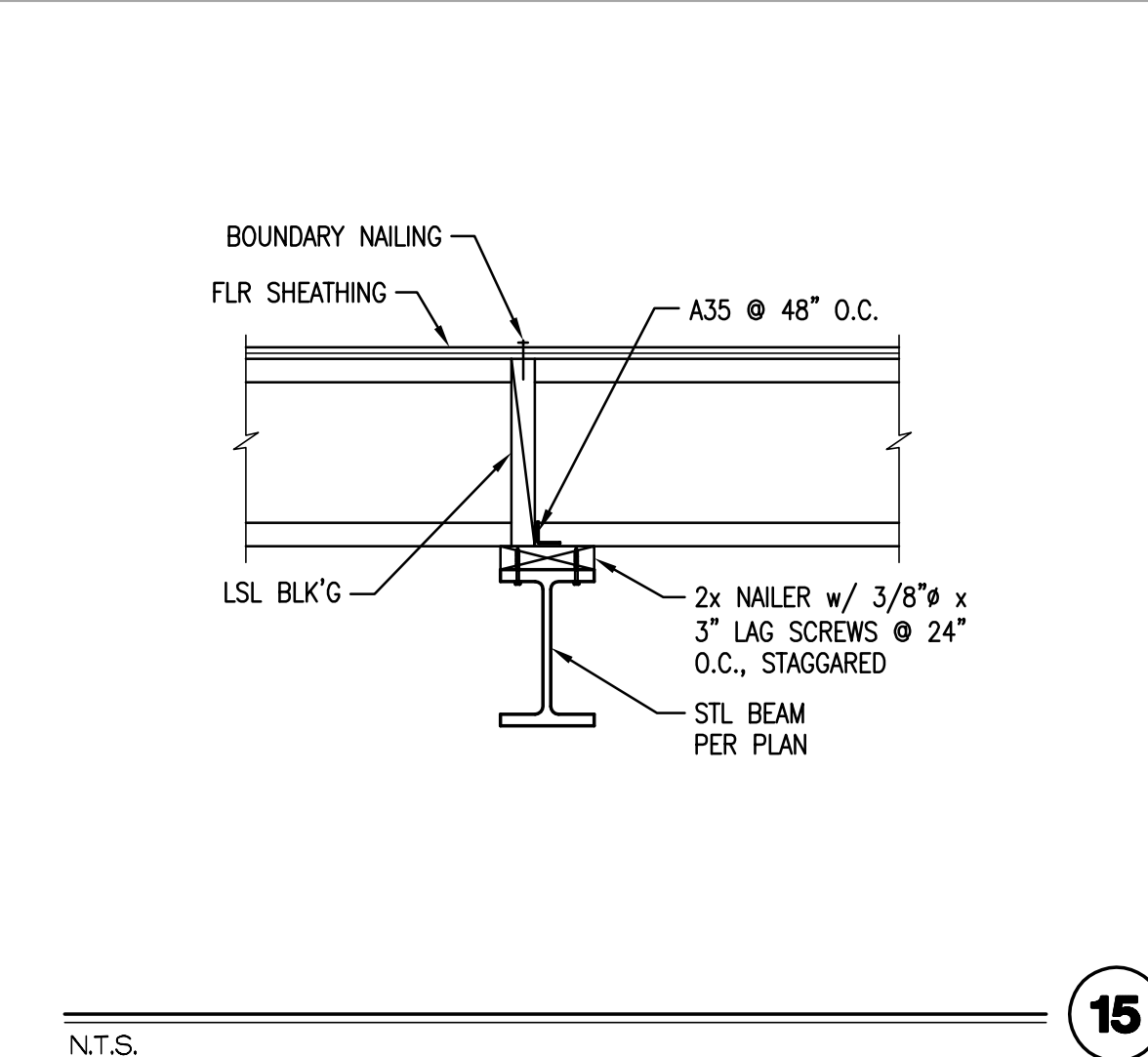
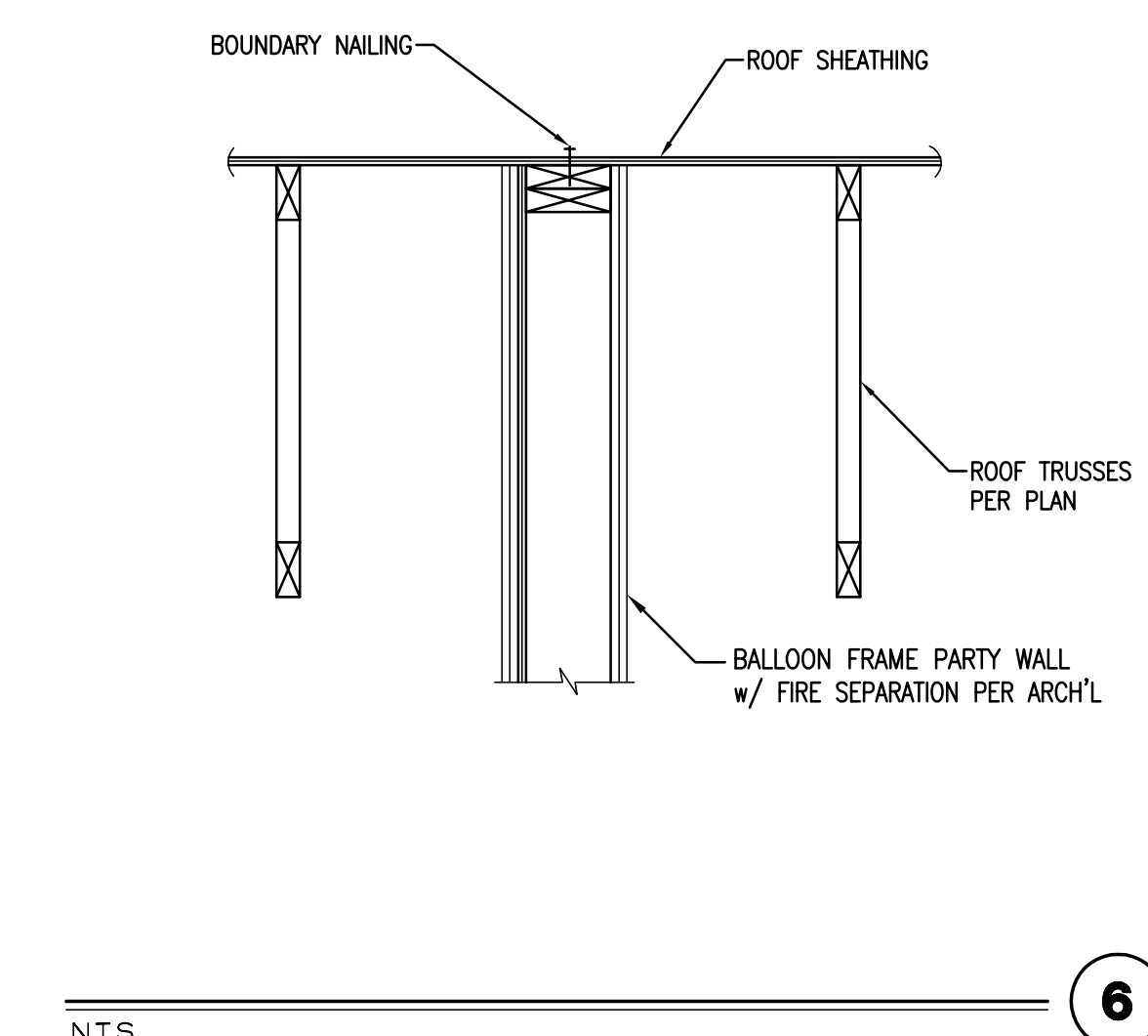
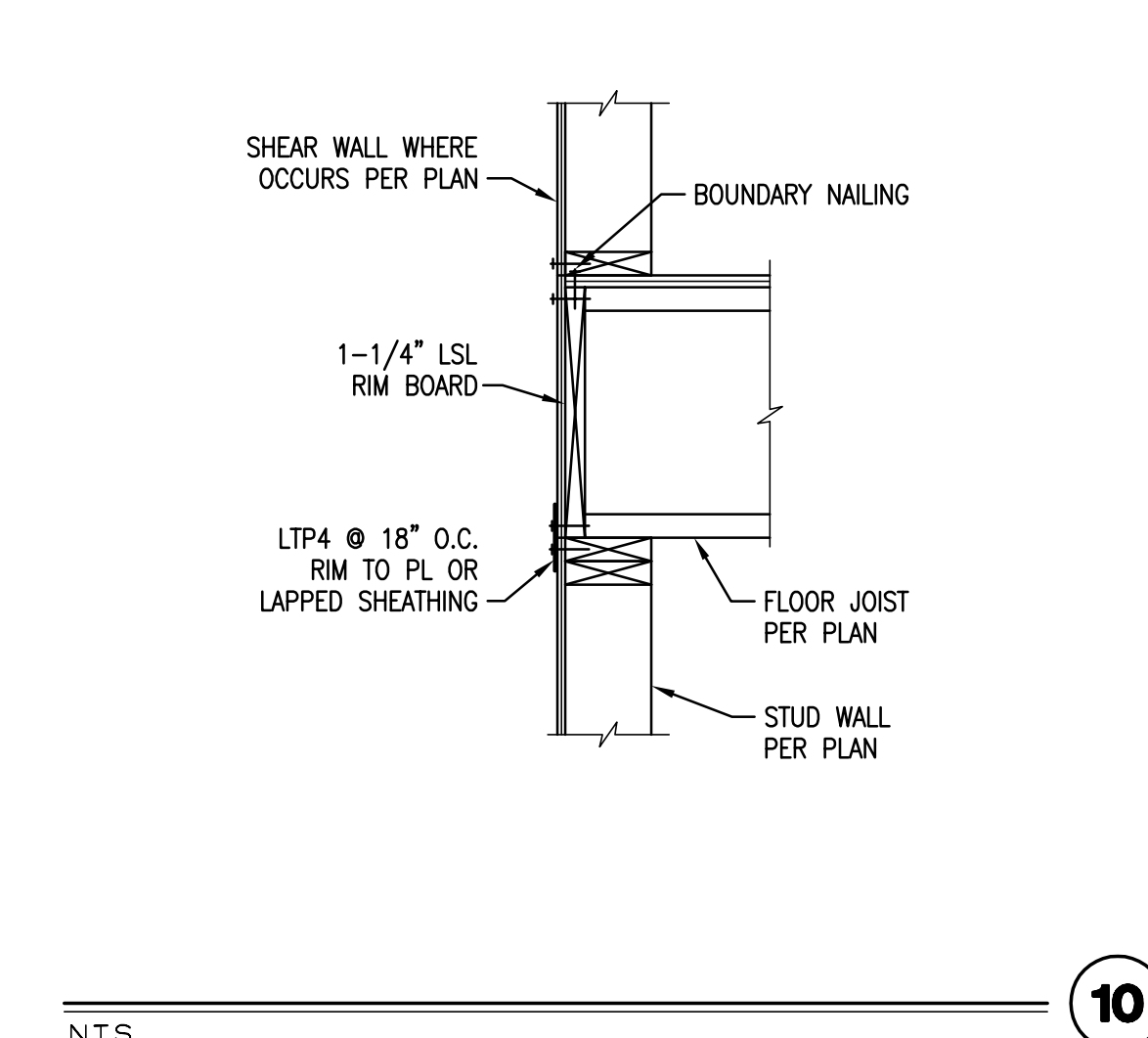
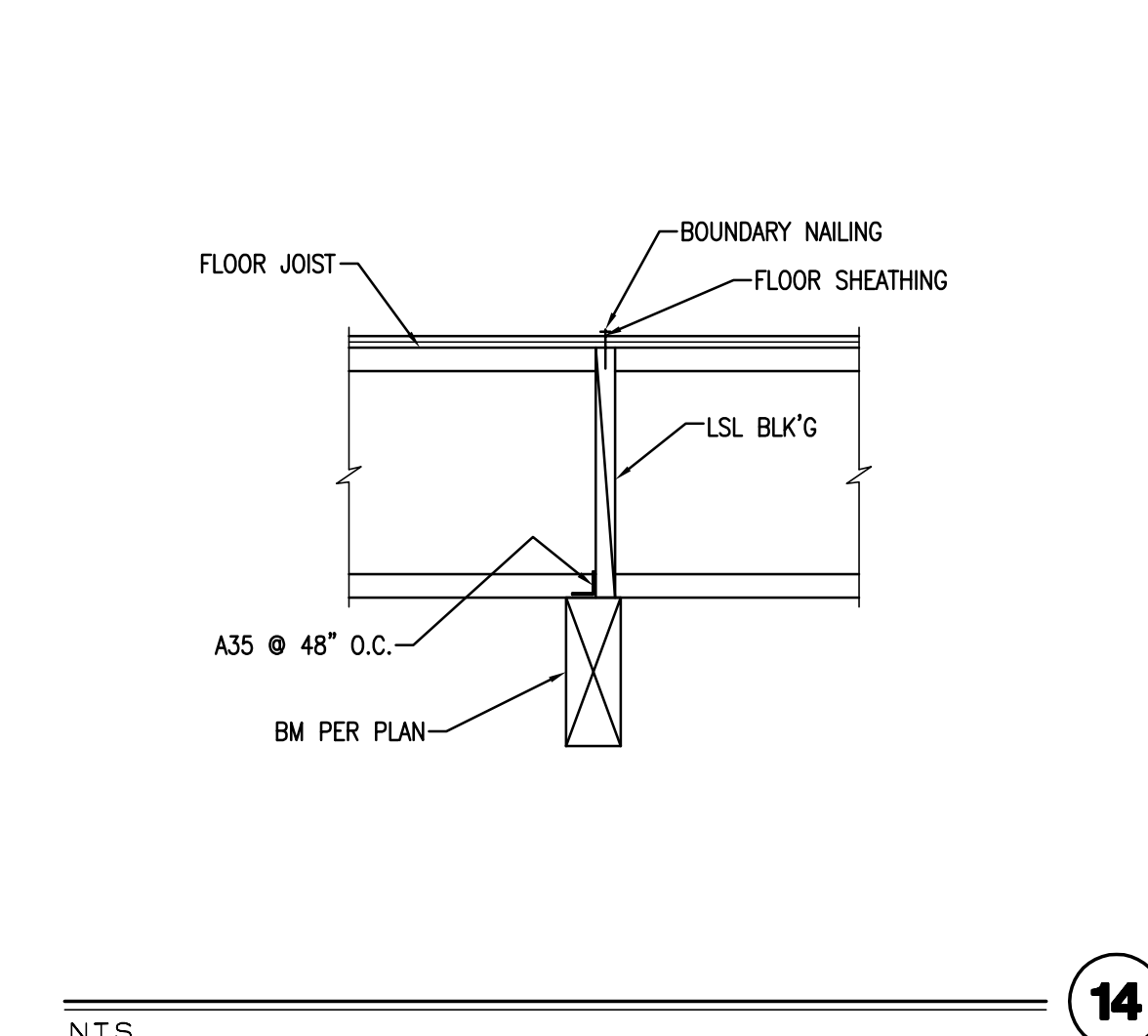
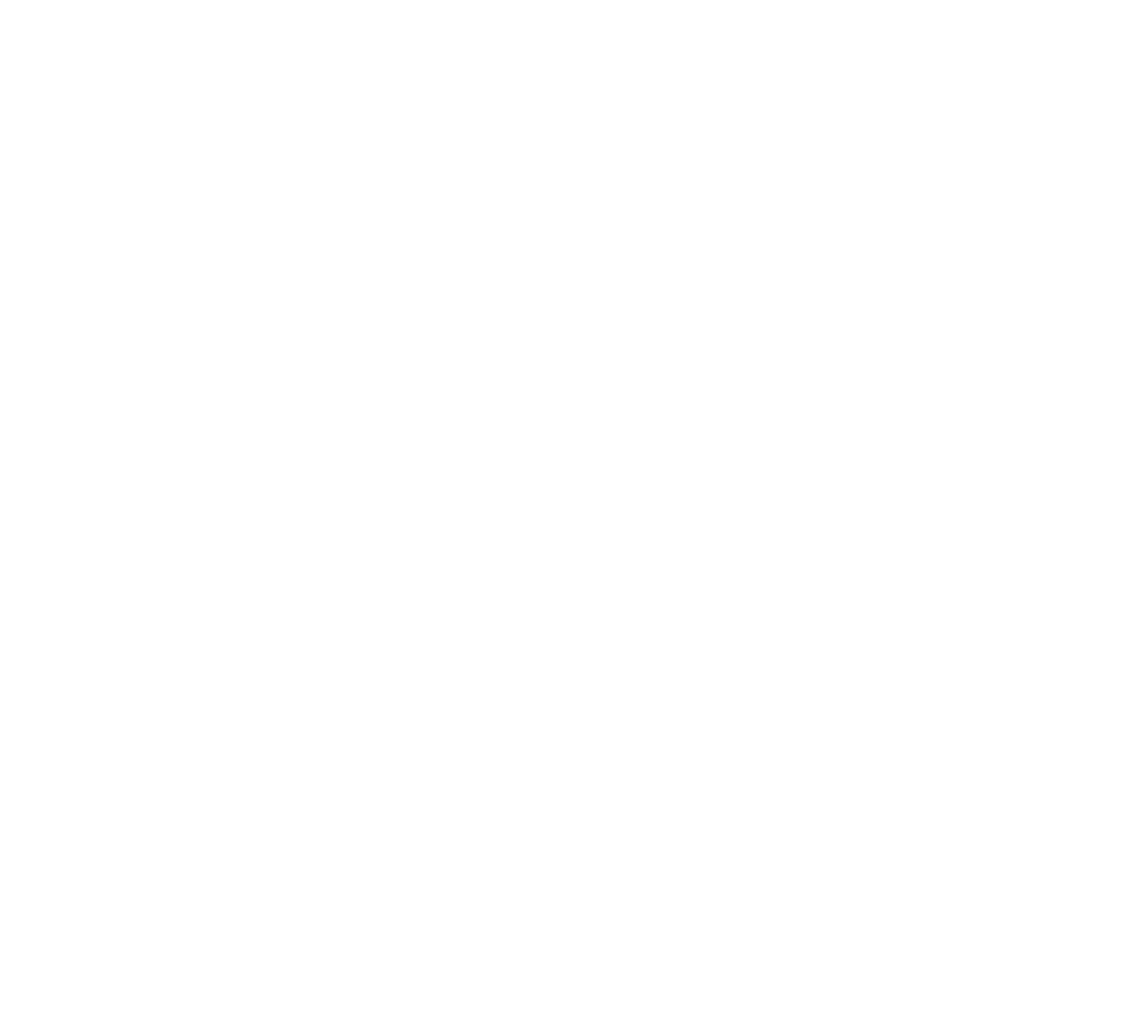
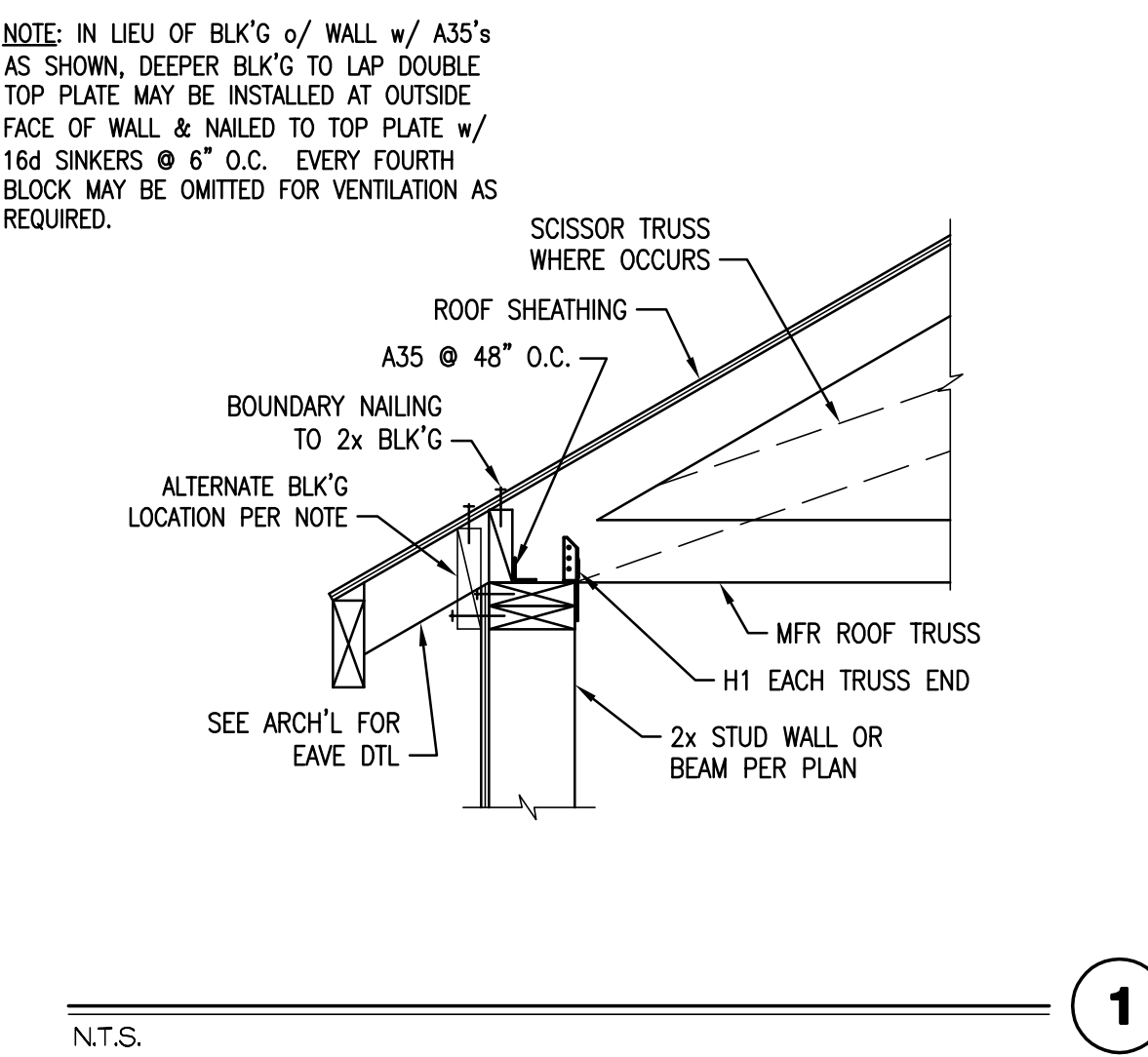
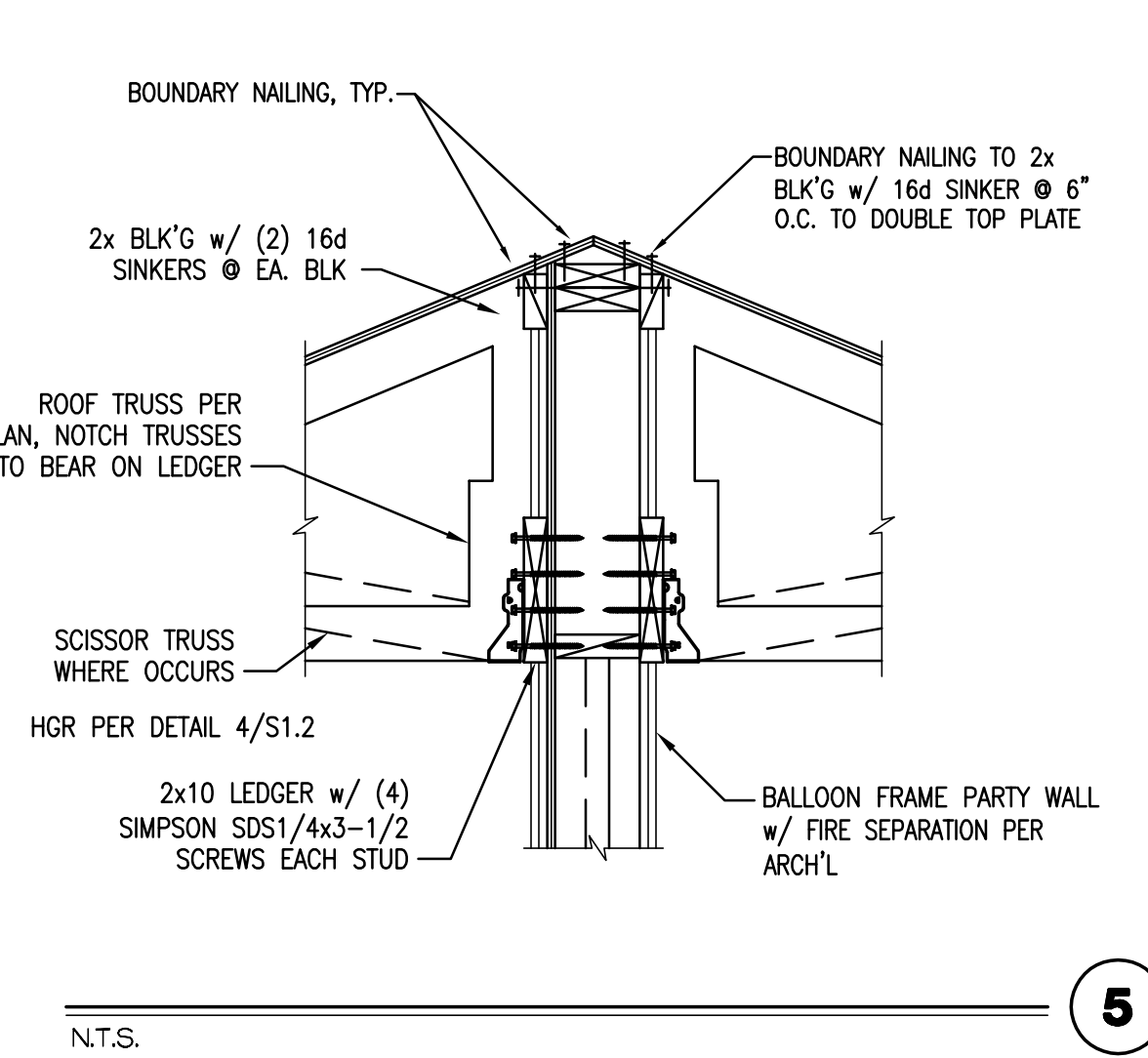
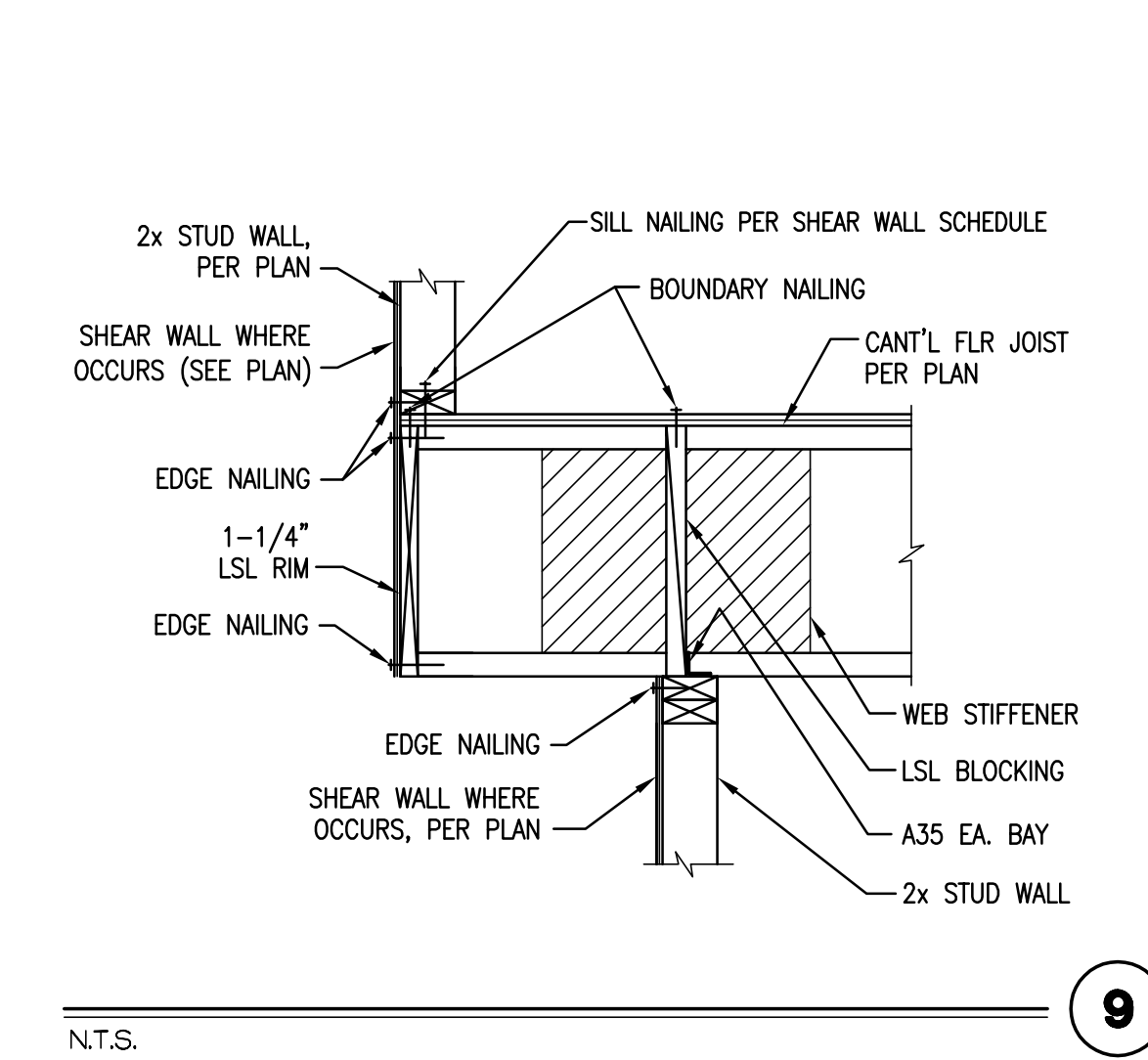
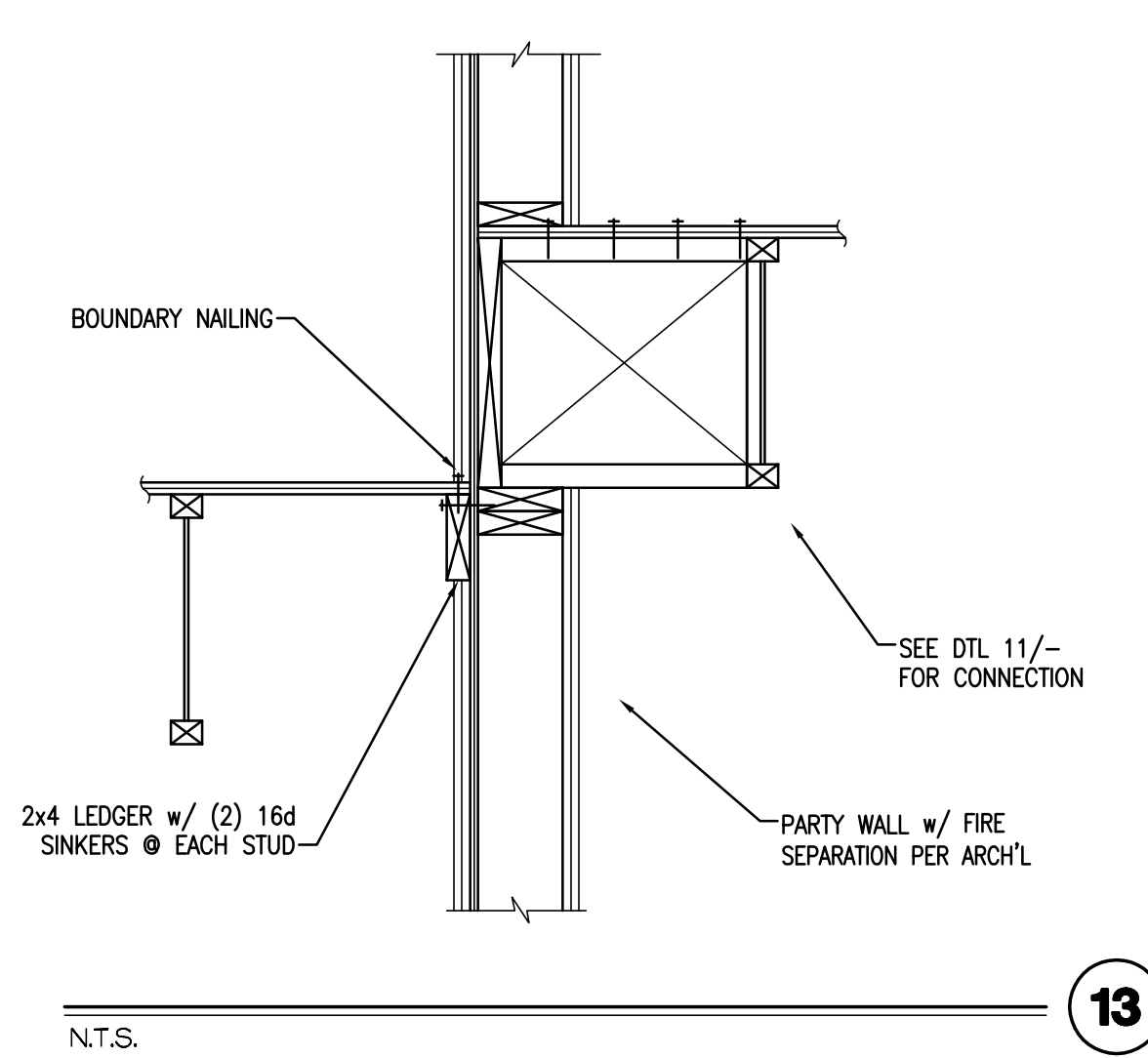
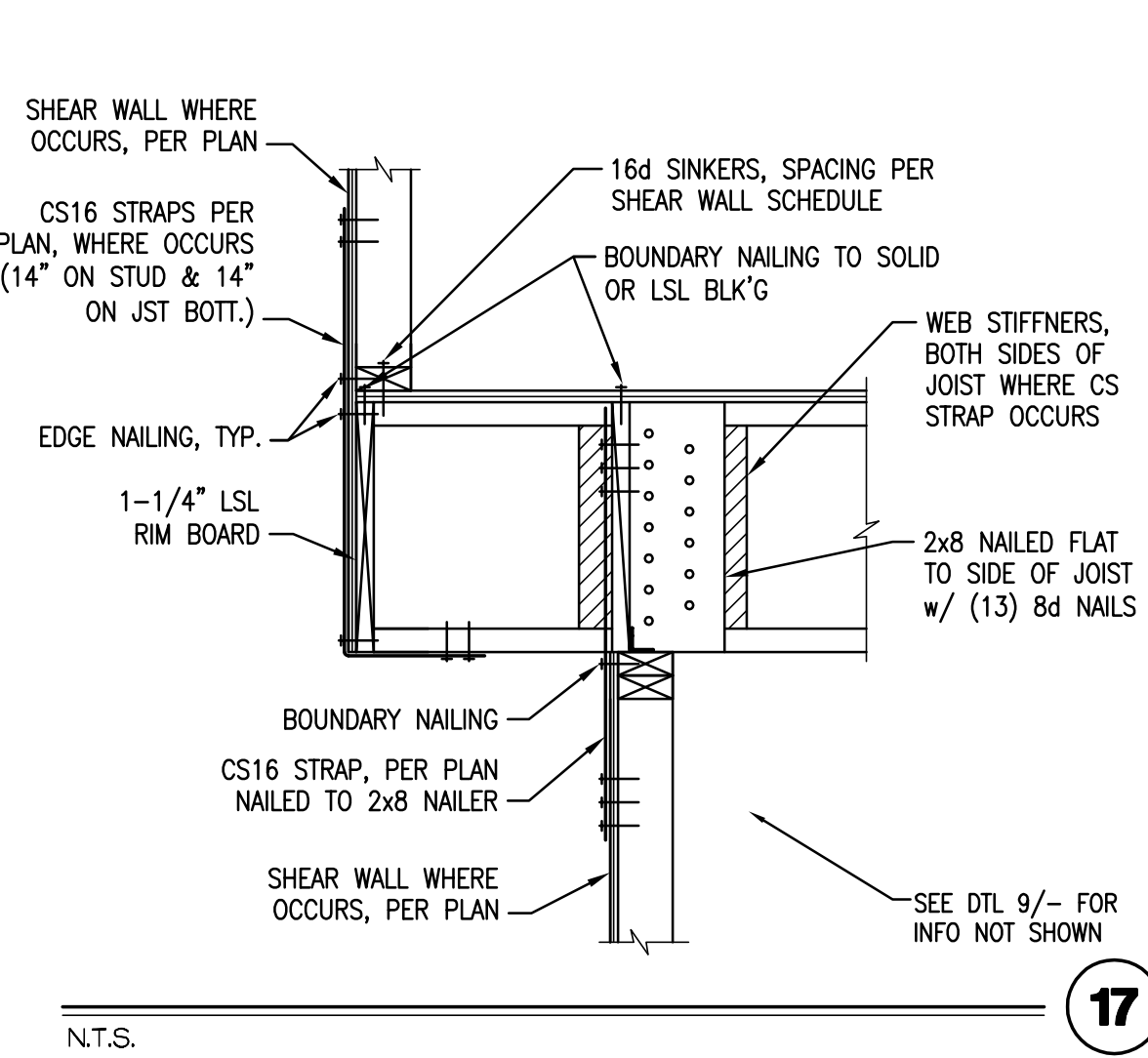
STEVE TURLEY
1050 S. 1000 E.
PROVO, UTAH
FOUNDATION DETAILS

PROFESSIONAL STRUCTURAL ENGINEER
No. 376983-2203
ROGER T. ALWORTH
STATE OF UTAH
05/19/2020

ROGER T. ALWORTH, S.E.
176983

U3003-002-191

SD-1



REV. #	DATE	BY	DESCRIPTION

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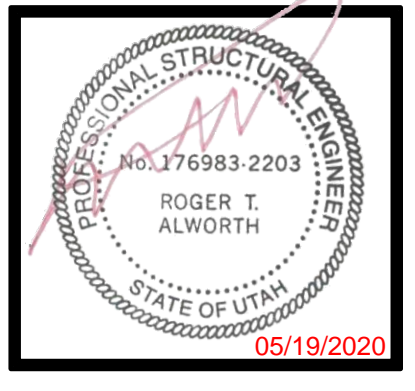
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PROVO, UTAH

STRUCTURAL DETAILS



ROGER T. ALWORTH, S.E.

176983

U3003-002-191

SD-2



Project Number: U3003-002-191

May 18, 2020

Steve Turley
1480 S. State St.
Provo, UT 84606

REFERENCE: **Spring Creek Apts. - Phase III
Summary of Revision 2**

Dear Steve,

Changes have occurred to the structural plans. All changes have been identified on the structural plans with a rev 1 cloud. The following is a description of the changes:

Sheet S1

- Sheet index updated

Sheet S2

- Minor sill changes
- Added retaining wall outlines to for coordination with arch'l

Sheet S3

- Clarified mechanical chase
- Clarifications to floor joist table
- Added header for new door opening

Sheet S4

- Beam changed from dropped to flush

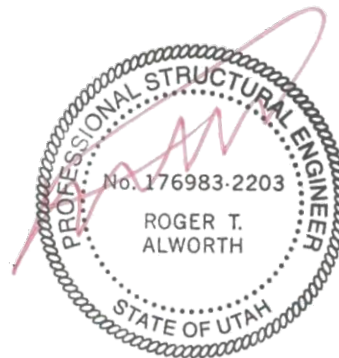
Sheet S6

- New opening in shearwalls

For the items mentioned above, revised calculations have been attached (as applicable). The revised calculations are for the building department plan reviewer to reference.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC



05/18/2020

Roger T. Alworth, SE
Project Engineer

RTA/jba

Enclosure



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ay be
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ing.

SUBJECT: BEAMS

DESIGN LOADS:

Load Types:	Snow ¹ s	Live	Dead
Roof	30	20	19
Floor		40	14
Wall			12

Add .2*S_{Ds} to dead load? Yes 0.184 =.2*S_{Ds}

Load Combinations:

- LC 2: D+L
- LC 3: D+(Lr or S)
- LC 4: D+.75L+.75(Lr or S)

CRITERIA (L)

A_(BLANK)

	D _{TL}	D _{LL}	D _{DL}	D _{Lr/S}
A	240	360		240
B	240	480		240
C	600		800	240

Abbrev	GRADES	F _{bxx} (psi)	F _{vxx} (psi)	E _{xx} (psi)	g (lb/ft ³)
DFL#2	DOUGLAS FIR LARCH #2	875	180	1600000	31.2
DF1 (5x)	Douglas Fir Larch #1 5x & L	1,350	170	1700000	31.2
DFL#1	DOUGLAS FIR LARCH #1	1,000	180	1700000	31.2
24F-V4	Glue Laminated Timber 24F	2,400	265	1800000	39.9
24F-V8	Glue Laminated Timber 24F	2,400	265	1800000	39.9
LVL (1.9)	MICROLLAM LVL (1.9E)	2,600	285	1900000	41.8
LVL (2.0)	VERSA-LAM (2.0E)	2,800	285	2000000	41.8
LSL	TIMBERSTRAND LSL (1.3E)	1,700	400	1300000	41.8
PSL	PARALLAM PSL (2.0E)	2,900	290	2000000	41.8
STL36	GRADE 36 STEEL	21,600	14,400	29,000,000	490
STL46	GRADE 46 STEEL	27,700	16,500	29,000,000	490
STL50	GRADE 50 STEEL	30,000	20,000	29,000,000	490

Label	Length 'L' (ft)	Roof Trib (ft)	Floor Trib (ft)	Wall Trib (ft)	Add'l Live Load (plf)	Add'l Lr/S Load (plf)	Add'l Dead Load (plf)	Point Load From	Read (A/B)	Dist 'a' (ft)	Point Live Load 'P _{LL} ' (lb)	Point Roof Load 'P _{Lr/S} ' (lb)	Point Dead Load 'P _{DL} ' (lb)	# PILES	Grade	Size	"BM/HDR"	D CRITERIA	C _r	C _D	C _{F,V,C_L}	R _g (lb)	R _b (lb)	M _{max} (ft-lb)	M _{allow} (ft-lb)	V _{max} (lb)	V _{allow} (lb)	D _{TL} (in)	D _{TLallow} (in)	D _{LL} (in)	D _{LLallow} (in)	D _{Lr/S} (in)	D _{Lr/Sallow} (in)	1.5DL GLB Camb	Check
B11	5.33		6.5	10				UB7	A		1173	160	852	(3)	DFL#2	2X8	H	B	1.00	1.00	1.20	3457	1273	1697	3449	985	3915	0.038	0.267	0.021	0.133		0.267		0.49 M



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PROJECT: Spring Creek Phase III

JOB NO.: U3003-002-191

SUBJECT: SHEAR WALLS

$P_{Applied}$ = 1
 Min Diaphragm Width (ft) = 39
 Allowable Seismic Aspect Ratio = 3.5
 Allowable Wind Aspect Ratio = 3.5
 Comb. Overstrength Factors: (Ω -0.5) = 2.50

p_i	Loc	F_p/F_x
1.00	A - A&B-1S	1.00
1.00	A - E&F-2ND	1.00
1.00	A -A&B-3RD	1.00

p calculated in accordance with:
 ASCE7-16 Section 12.3.4.2

Roof DL (psf) = 16
 Floor DL (psf) = 12

(includes seismic snow where occurs)

No Exception in ASCE 7 12.3.4.2b met?

LINE:	C	1ST	STORY	Occurs 7 times	Timber Framed Shearwall Calculations															
Line Loads (plf)				Loads from above				Actual Applied Loads (plf unless noted otherwise)				Diaphragm Shear (plf)		Perf/FTAO Wall Info		Rdl (ft)				
Load	Trib w (ft)	E.Z. Appl*	Span (ft)	Line	%	Location	0.7E (lbs)	0.6W (lbs)	p^* Seis	Wind	E.Z. Wind	2a (ft)	E.Z. P (lb)	Drag (ft)	Seis (Load vs. Allow.)	Ltotal (ft)	13.25	Fdl (ft)	6.5	
ω_5	8.5	Major	17		1.00	Offset			125.1	86.4	106.4	7.8	120	13.25	80					
		None			1.00	Offset								13.25	198					
				C-2ND	1.00	Above	8137	1844												
	Plate h (ft)=	8					Total per wall		1314	386										
	Max opening height (ft)=	6.66								Include Ω for irregularities (above)?			No							
	Apply aspect ratio reduction?	Yes			83%	Perforated SW?	Yes			Shear Length (ft)=	8.25			Story V (K)=	44330					
	Opening elevation					Force Transfer @ Openings?	No			Wall DL (psf)=	10			Max allow. drift (in)	2.4					
																				0.33

Shear-Wall Length (ft)	Roof _{DL} 'w' (ft)	Floor _{DL} 'w' (ft)	Other _{DL} 'w' (plf)	Tension From Above (lb)	Wall Type	Sill Type	Holdown Strap	HD Capacity (Stem/floor config)	OTM (wind, seismic) (ft-lb)	(0.6-.2SDs) *RM (ft-lb)	Aspect Ratio	Seis. Shear (plf)	Seis. Wall Cap. (plf)	Wind Shear (plf)	Wind Wall Cap. (plf)	Sill Plate Cap. (plf)	Tension (lb)	HD Capacity	Max Shear-Wall δ (in)
4.125											1.94	1.00							
4.125											1.94	1.00							

Add'l Comments:

Max: