Development Services

From Concept to Construction

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More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 18944	**Project Address:** 240 NW 20th Ave
Hearing Date: 2/6/19	**Appellant Name:** Allen Kabanuk
Case No.: B-002	**Appellant Phone:** 503-308-1028
Appeal Type: Building	**Plans Examiner/Inspector:** Mike Walkiewicz, Ed Marihart
Project Type: commercial	**Stories:** 3 **Occupancy:** R-2 **Construction Type:** V-B
Building/Business Name:	**Fire Sprinklers:** No
Appeal Involves: Alteration of an existing structure	**LUR or Permit Application No.:** 19-104546-CO
Plan Submitted Option: pdf [File 1]	**Proposed use:** Existing Multi-family 3 story building

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	OSSC 1607
Requires	As per 2014 Oregon Structural Specialty Code, Section 1607 and Table 1607.1-25 for residential buildings, including fire escapes, the minimum live load requirements of public areas and public corridors, where multiple units collect into an area, requires 100 psf loading.
Proposed Design	We propose to use a vertical load (unfactored design load) of 40 pounds per square foot (psf) as compared to the 100 psf. The minimum live load requirements of 40 psf is based on private rooms and the corridors that serve them per Section 1607 and Table 1607.1-25. Since the fire escape is only serving one unit, it is reasonable to expect that the fire escape loading will not exceed the proposed 40 psf design load for the unit it serves. The proposed load will be applied to the ladders and platform and multiplied by 2 for in-situ testing of the platform and ladder connections.
Reason for alternative	This is a request to reduce the required loads for analysis and testing purposes on a single fire escape on the south side of the building that services the third floor only. The entire third floor is occupied by a single residence, with no other floor able to access the fire escape.

APPEAL DECISION

Reduction in fire escape design live load to 40 psf: Granted as proposed.

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

FIRE ESCAPE REPAIR
240 NW 20TH AVE, PORTLAND, OREGON 97209

PROJECT DESCRIPTION

THE STRUCTURAL REPAIR AND LOAD TESTING OF ELEMENTS OF THE EXISTING EXTERIOR FIRE ESCAPE ON THE SOUTH SIDE OF THE BUILDING.

ZONING INFORMATION

PARCEL: NUMBER R141196
COUCH'S ADDITION, BLOCK 276, LOT 20

TOWNSHIP: SOUTHEAST 1/4 OF SECTION 33T 1N,R 1E, W.M.

ZONE: RH HIGH DENSITY MULTI-DWELLING RESIDENTIAL

ZONE OVERLAY: AB - ALPHABET HISTORIC DISTRICT, NP - NW PLAN DISTRICT

INVENTORY RANK II. JOSEPH GOODMAN HOUSE

LOT AREA: 5,000 SQ FT

BUILDING COVERAGE AREA:
EXISTING: BUILDING = 2907 ± SQ FT
ESCAPE (TO BE REPLACED) = 28± SQ FT
TOTAL = 2935± SQ FT

PROPOSED: BUILDING = 2907 ± SQ FT (UNCHANGED)
FIRE ESCAPE (PROPOSED THIS PROJECT) = 28± SQ FT
TOTAL = 2935± SQ FT

YARD SETBACK PER 33.120 (TABLE 120-4): FRONT: 0' - 0"
SIDE AT STREET: 3' - 0"
SIDE: 5' - 0"
BACK: 5' - 0"
EXTENSIONS INTO SETBACKS: FIRE ESCAPES OF A BUILDING MAY EXTEND INTO A REQUIRED BUILDING SETBACK UP TO 20 PERCENT OF THE DEPTH OF THE SETBACK. HOWEVER, THE FEATURE MUST BE AT LEAST 3 FEET FROM A LOT LINE. (TITLE 33.120.220.D)

CODE AND ORDINANCE ANALYSIS

CODE: 2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
- ALTERATIONS AND REPAIRS PER OSSC 3404 AND 3405

ORDINANCE: CITY ORDINANCE 135236: EXISTING NONCONFORMING STRUCTURES CONTAINING APARTMENT HOUSE OCCUPANCIES (GROUP "H") WHICH ARE MORE THAN TWO STORIES IN HEIGHT SHALL CONFORM TO APPENDIX CHAPTER 13 OF THE 1973 UNIFORM BUILDING CODE (UBC) . ANY ALTERATION TO CHAPTER 13 APPROVED COMPONENTS MUST APPLY FOR A CODE APPEAL.

EXISTING BUILDING INFORMATION : EXISTING 8-UNIT MULTI-FAMILY RESIDENTIAL HOUSING

YEAR BUILT: 1904

OCCUPANCY GROUP (UNCHANGED): R-2 RESIDENTIAL APARTMENT HOUSES (OSSC 310)

CONSTRUCTION TYPE (UNCHANGED): V-B ANY PERMISSIBLE BY CODE (OSSC 602)

FIRE RESISTANCE RATING: 0 HOURS

FIRE SPRINKLER: NONE

FIRE ALARM SYSTEM: WHOLE BUILDING FIRE ALARM SYSTEM WITH NOTIFICATION

BUILDING AREA, EXISTING:

BASEMENT FLOOR =	1,950± SF
1ST FLOOR =	1,950± SF
2ND FLOOR =	1,740± SF
FINISHED ATTIC =	1,100± SF
TOTAL (UNCHANGED) =	6,740± SF

BASIC ALLOWABLE AREA: 7,000 SF PER FLOOR, 14,000 SF TOTAL (OSSC TABLE 503)

BUILDING HEIGHT, EXISTING = 2 STORIES + FINISHED ATTIC + BASEMENT (UNCHANGED)

OCCUPANT LOAD: 200 SF GROSS PER OCCUPANT
FINISHED ATTIC (UNCHANGED) = 1,100± SF / 200 SF PER OCCUPANT = 6 OCCUPANTS
TOTAL (UNCHANGED) = 6,740± SF / 200 SF PER OCCUPANT = 34 OCCUPANTS

CODE APPEALS

CODE APPEALS APPROVED:
1. APPEAL NO. 8 DATED JUNE 10, 1982.
2. REPAIR OF EXISTING FIRE ESCAPE WITH NEW STRUCTURE PER HISTORIC RESOURCE REVIEW APPROVED NOVEMBER 14, 2018, CASE #LU 18-221022.
3. REPAIR OF EXISTING FIRE ESCAPE WITH NEW STRUCTURE. FIRE ESCAPE IS A COMPONENT OF THE FIRE ESCAPE EGRESS SYSTEM PER CH. 13. APPEAL ID 18774, CASE B-018 APPROVED 12/12/18
4. TESTING AND REPAIR OF ATTIC FIRE ESCAPE. FIRE ESCAPE IS A COMPONENT OF THE EGRESS SYSTEM PER CH. 13. APPEAL ID 18774, CASE B-018 APPROVED 12/12/18

DRAWING INDEX

CONTACT INFORMATION

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PORTLAND, OR 97219
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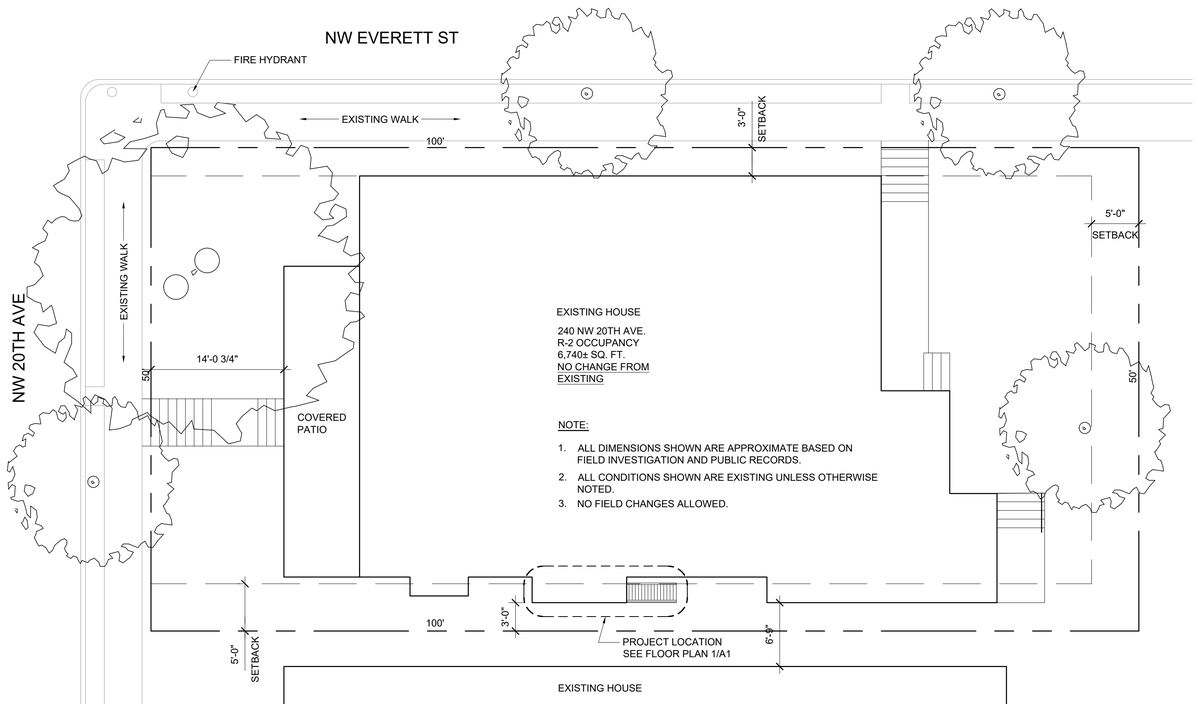
ZONING COMPLIANCE PAGE

CASE FILE LU 18-221022 HR
NO FIELD CHANGES ALLOWED

2 VICINITY MAP
NTS

NORTH



1 SITE PLAN
1/8" = 1'-0"

NORTH

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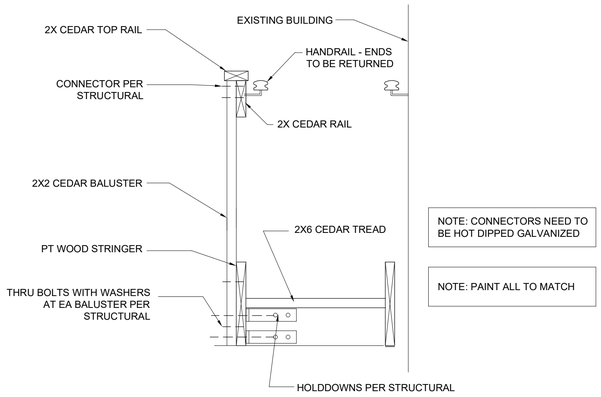
JOSEPH GOODMAN HOUSE
FIRE ESCAPE REPAIR
LIFE SAFETY REVIEW DRAWINGS
240 NW 20TH AVE,
PORTLAND, OR 97209

Date:	12/21/18
Project #:	1190
Drawn By:	CMH

Revisions:

CODE ANALYSIS, ZONING COMPLIANCE, VICINITY MAP, SITE PLAN

A0

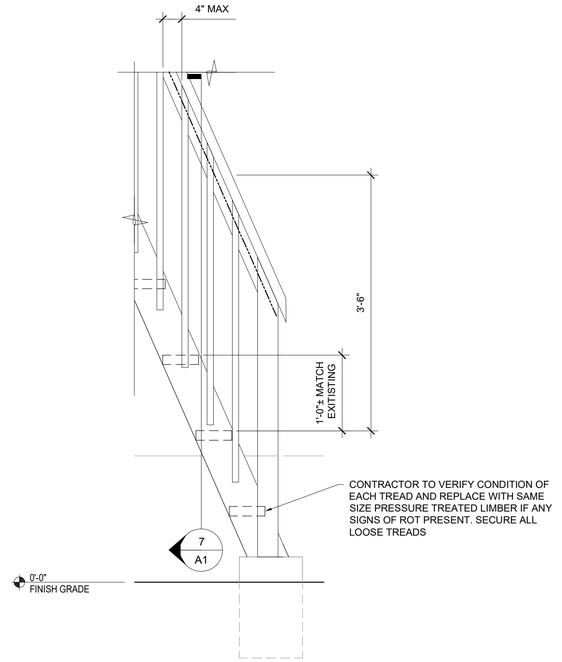


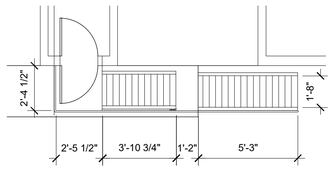
NOTE: CONNECTORS NEED TO BE HOT DIPPED GALVANIZED

NOTE: PAINT ALL TO MATCH

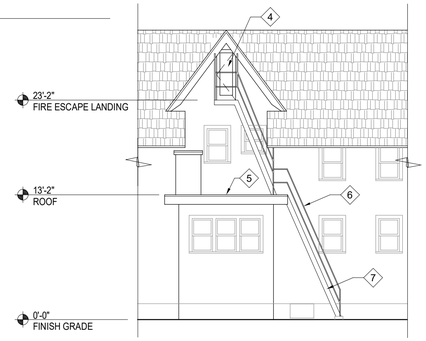
7 DETAIL
1" = 1'-0"

PHOTO OF EXISTING STAIR

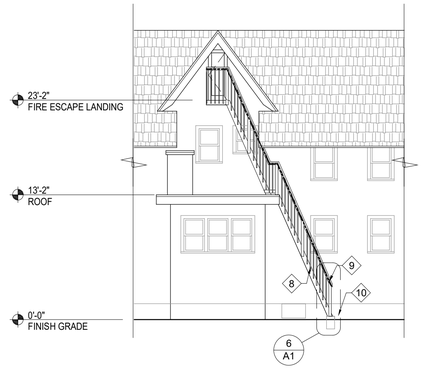




3 ENLARGED STAIR PLAN
1/4" = 1'-0"

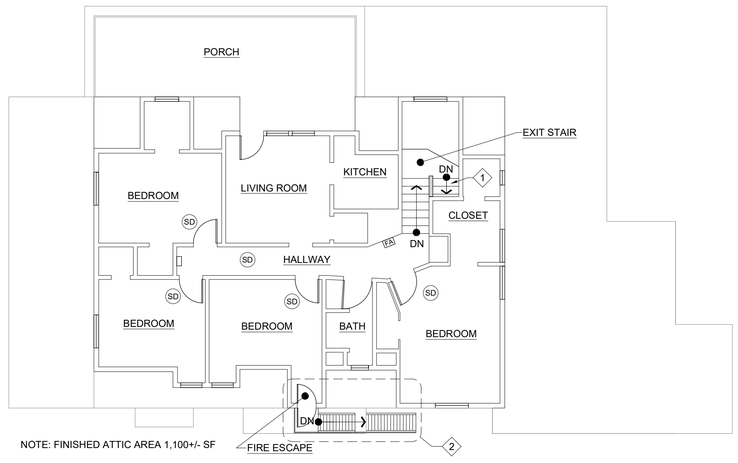


4 FIRE ESCAPE ELEVATION - EXISTING
1/8" = 1'-0"



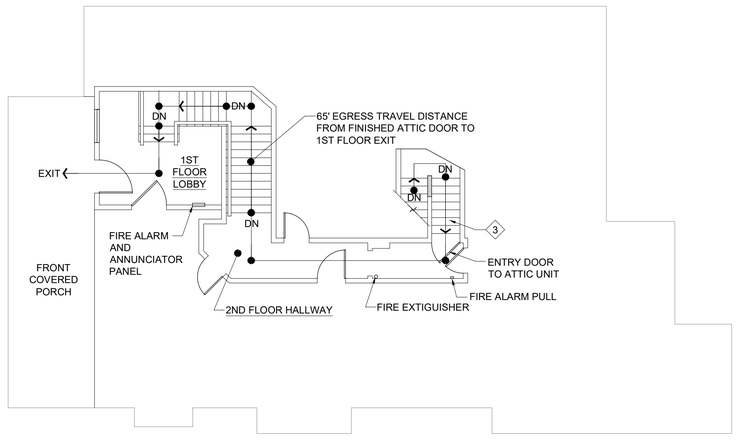
5 FIRE ESCAPE ELEVATION - NEW
1/8" = 1'-0"

6 DETAIL
1" = 1'-0"



1 FINISHED ATTIC FLOOR PLAN
1/8" = 1'-0"

NORTH



2 EGRESS PATH FLOOR PLAN @ 1ST AND 2ND FLOORS
1/8" = 1'-0"

NORTH

GENERAL NOTES

1. ALL CONDITIONS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

KEY NOTES

1. SEE 2/A1 FOR CONTINUATION
2. EXISTING STAIR SHOWN - SEE 3/A1 FOR NEW WORK
3. FROM FINISHED ATTIC
4. EXISTING FINISHED ATTIC FIRE ESCAPE ACCESS
5. EXISTING ROOF WITH 1/4"/FOOT SLOPE
6. EXISTING PIPE RAIL TO BE REMOVED
7. EXISTING 2X STRINGER
8. EXISTING FIRE ESCAPE STAIR
9. NEW FIRE ESCAPE RAILING
10. NEW CONCRETE FOOTING PER STRUCTURAL

LEGEND

- EXISTING WALL
- PARTIAL HEIGHT WALL
- (SD) SMOKE DETECTOR
- (FA) SYSTEM FIRE ALARM BELL

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Date:	12/21/18
Project #:	1190
Drawn By:	CMH

Revisions:

FLOOR PLAN, ELEVATION, AND DETAILS

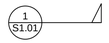
A1

STRUCTURAL ABBREVIATIONS

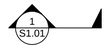
AB	ANCHOR BOLT
ADDL	ADDITIONAL
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ARCH	ARCHITECTURAL
ATR	ALL THREAD ROD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BRNG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
C	CAMBER
CIP	CAST IN PLACE
CJ	CONTROL OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DF/L	DOUGLAS FIR-LARCH
DIA	DIAMETER
DIAG	DIAGONAL
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DTL	DETAIL
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EACH FACE
EL	ELEVATION
EN	EDGE NAIL
EOR	ENGINEER OF RECORD
EQ	EQUAL
EW	EACH WAY
EXT	EXTERIOR
FF	FINISH FLOOR
FN	FIELD NAIL
FLR	FLOOR
FDN	FOUNDATION
FT	FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLUE LAMINATED BEAM
GWB	GYPSUM WALL BOARD
HDG	HOT-DIP GALVANIZED
HDR	HEADER
HF	HEM-FIR
HT	HEIGHT
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
IN	INCH
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP(S)
KSI	KIPS PER SQUARE INCH
L	ANGLE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LVL	LAMINATED VENEER LUMBER
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MIN	MINIMUM
MIR	MIRROR
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
(N)	NEW
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
OWJ	OPEN WEB JOIST
PAF	POWDER ACTUATED FASTENER
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
QTY	QUANTITY
RAD	RADIUS
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
REV	REVISED, REVISION
SC	SLIP CRITICAL
SHT	SHEET
SHT'G	SHEATHING
SIM	SIMILAR
SMS	SHEET METAL SCREW
SOG	SLAB ON GRADE
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROVE
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOF	TOP OF FOOTING
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WP	WORK POINT
WWR	WELDED WIRE REINFORCING

STRUCTURAL DRAWING SYMBOLS

DETAIL REFERENCE



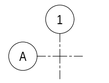
DETAIL SECTION CUT



BUILDING OR WALL SECTION CUT

ELEVATION OF WALL OR FRAME

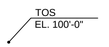
REVISION SYMBOL



GRID LINES

ROTATE VIEW SYMBOL

NORTH ARROW



REFERENCE ELEVATION


SURFACE - STEPPED


SURFACE - SLOPE UP


SURFACE - SLOPE DOWN


SURFACE - SLOPE TWO DIRECTIONS

DECKING SPAN DIRECTION

STRUCTURAL NOTES:

GENERAL

THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND CORRELATION OF ALL ITEMS AND WORK NECESSARY FOR COMPLETION OF THE PROJECT AS INDICATED BY THE CONTRACT DOCUMENTS. SHOULD ANY QUESTION ARISE REGARDING THE CONTRACT DOCUMENTS OR SITE CONDITIONS, THE CONTRACTOR SHALL REQUEST INTERPRETATION AND CLARIFICATION FROM THE ENGINEER BEFORE BEGINNING THE PROJECT. THE ABSENCE OF SUCH REQUEST SHALL SIGNIFY THAT THE CONTRACTOR HAS REVIEWED AND FAMILIARIZED HIMSELF WITH ALL ASPECTS OF THE PROJECT AND HAS COMPLETE COMPREHENSION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOR CONFORMANCE TO ALL SAFETY REGULATIONS DURING CONSTRUCTION.

THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SPECIFICALLY NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR CONSTRUCTION LOADS. ONLY THE CONTRACTOR SHALL PROVIDE ALL METHODS, DIRECTION AND RELATED EQUIPMENT NECESSARY TO PROTECT THE STRUCTURE, WORKMEN AND OTHER PERSONS AND PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN THE FIELD. ANY MATERIAL NOT AS SPECIFIED OR IMPROPER MATERIAL INSTALLATION OR WORKMANSHIP SHALL BE REMOVED AND REPLACED WITH SPECIFIED MATERIAL IN A WORKMANLIKE MANNER AT THE CONTRACTOR'S EXPENSE.

THESE PLANS, SPECIFICATIONS, ENGINEERING AND DESIGN WORK ARE INTENDED SOLELY FOR THE PROJECT SPECIFIED HEREIN. MILLER CONSULTING ENGINEERS DISCLAIMS ALL LIABILITY IF THESE PLANS AND SPECIFICATIONS OR THE DESIGN, ADVICE AND INSTRUCTIONS ATTENDANT THERETO ARE USED ON ANY PROJECT OR AT ANY LOCATION OTHER THAN THE PROJECT AND LOCATION SPECIFIED HEREIN. OBSERVATION VISITS TO THE JOB SITE AND SPECIAL INSPECTIONS ARE NOT PART OF THE STRUCTURAL ENGINEER'S RESPONSIBILITY UNLESS THE CONTRACT DOCUMENTS SPECIFY OTHERWISE.

NON STRUCTURAL PORTIONS OF PROJECT, INCLUDING BUT NOT LIMITED TO PLUMBING, FIRE SUPPRESSION, ELECTRICAL, MECHANICAL, LAND USE, SITE PLANNING, EROSION CONTROL FLASHING AND WATER-PROOFING ARE BEYOND THE SCOPE OF THESE DRAWINGS AND ARE PROVIDED BY OTHERS.

TEMPORARY SHORING

WHEREVER SHORING IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SHORING SYSTEM THAT PREVENTS SETTLEMENT AND/OR DAMAGE TO EXISTING FACILITIES AND PROTECTS PERSONNEL, THE PUBLIC, AND THE BUILDING DURING CONSTRUCTION, AS REQUIRED. THE CONTRACTOR SHALL LOCATE THE SYSTEM CLEAR WITHOUT OBSTRUCTION OF THE PERMANENT STRUCTURE AND TO PERMIT CONSTRUCTION TO PROCEED.

BUILDING CODE

ALL PHASES OF THE WORK SHALL CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE, BASED ON THE 2012 INTERNATIONAL BUILDING CODE (IBC), INCLUDING ALL REFERENCE STANDARDS, UNLESS NOTED OTHERWISE.

SPECIAL INSPECTION / STRUCTURAL OBSERVATION

SPECIAL INSPECTION AND/OR TESTING IS REQUIRED IN ACCORDANCE WITH IBC SECTION 1704. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE TO ALLOW SCHEDULING OF SPECIAL INSPECTION. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE SPECIAL INSPECTION AND TESTING BY A QUALIFIED THIRD PARTY, SUCH AS A TESTING AGENCY REVIEWED BY THE ENGINEER.

REFERENCE THE SPECIAL INSPECTION TABLE ON SHEET S0.01 FOR ITEMS REQUIRING SPECIAL INSPECTION, TESTING, AND STRUCTURAL OBSERVATION.

DESIGN LOADS

STRUCTURAL DESIGN CRITERIA	
DESIGN LIVE LOAD	
FIRE ESCAPES	40 PSF

STRUCTURAL STEEL

ALL FIRE ESCAPES SHALL BE PAINTED. PAINT MAY BE APPLIED USING BRUSH, ROLLER, OR SPRAY AND SHALL BE APPLIED TO ALL SURFACES. PAINT COATINGS SHALL BE ONE OF THE FOLLOWING:

A. ONE COAT OF IRON OXIDE PRIMER FOLLOWED BY ONE COAT OF ALKYD ENAMEL FINISH (COLOR BY OWNER).
B. ONE COAT OF HAMMERITE BRAND PAINT.
C. ONE COAT OF VALSPAR VAL-CHEM EPOXY MASTIC 75-W-9W.

PRIOR TO PAINTING, THE FIRE ESCAPE SHALL BE CLEANED USING HAND TOOLS (SCRAPERS, GRINDERS, WIRE WHEELS, ETC.) OR SANDBLASTED. CONTRACTOR SHALL FOLLOW ALL APPROPRIATE REGULATIONS WHEN WORKING WITH LEAD BASED PAINT.

ALL CONNECTIONS WITH VISIBLE CORROSION PRESENT SHALL BE TAKEN APART, CLEANED OF RUST, AND PRIMED AND PAINTED. NOT ALL CONNECTIONS WITH CORROSION ARE NOTED ON THESE CONSTRUCTION DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE EXTENT OF CORROSION. THE CONNECTION SHALL BE REASSEMBLED USING NEW TYPE 316 STAINLESS STEEL BOLTS. ALL NEW BOLTS SHALL MATCH THE DIAMETER OF THE EXISTING BOLTS OR RIVETS THAT ARE BEING REPLACED. ANY CORROSION PRESENT ON EXISTING STEEL MEMBERS SHALL BE REMOVED TO BARE METAL. THE STEEL SHALL BE PRIMED AND PAINTED WITH ONE FINISH COAT OF RUST INHIBITING PAINT (COLOR BY OWNER).

ANY STEEL ELEMENT THAT HAS LOST MORE THAN 5% OF ITS ORIGINAL THICKNESS DUE TO CORROSION SHALL BE STRENGTHENED. CONTACT ENGINEER OF RECORD FOR REPAIR DETAILS IF THIS CONDITION IS ENCOUNTERED.

DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360-05).

ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:

ALL SECTIONS AND PLATES: ASTM A36

UNLESS NOTED OTHERWISE, ALL BOLTS TO BE TYPE 316 STAINLESS STEEL, WITH MATCHING NUTS.

FOUNDATION CRITERIA

CONTRACTOR SHALL VERIFY SOIL CONDITIONS AT THE FOOTINGS AND MAKE ANY NECESSARY CORRECTIONS TO PLACE THEM ON FIRM NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT PER ASTM D698 (STANDARD PROCTOR), OR ASTM D1557 (MODIFIED PROCTOR). THE COMPACTION SHALL BE VERIFIED BY A QUALIFIED INSPECTOR APPROVED BY THE BUILDING OFFICIAL. COMPACTED STRUCTURAL FILL FOR DEPTHS GREATER THAN 12 INCHES SHALL COMPLY WITH PROVISIONS OF AN APPROVED GEOTECHNICAL REPORT. ASSUMED SOIL BEARING PRESSURE 1500 POUNDS PER SQUARE FOOT (PSF).

CONCRETE

MIXING, BATCHING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE, ACI 318, ACI 301 AND IBC CHAPTER 19.

CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:

CONCRETE MIX DESIGN REQUIREMENTS			
MEMBER TYPE/LOCATION	COMPRESSIVE STRENGTH AT 28 DAYS, F'C (PSI)	MAXIMUM AGGREGATE SIZE	MAXIMUM W/CM RATIO
FOOTINGS AND MAT FOUNDATIONS	4000.0000	1"	0.5000

THE AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. ALL CONCRETE WITH REINFORCEMENT SHALL HAVE NO CHLORINE OR CHLORIDES. NO WATER MAY BE ADDED TO THE CONCRETE IN THE FIELD UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER IN CONJUNCTION WITH THE APPROVED CONCRETE MIX DESIGN.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER BEFORE PLACING CONCRETE.

CONCRETE REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED BARS PER ASTM A615 OR A706, GRADE 60 UNLESS NOTED OTHERWISE.

ALL REINFORCING STEEL SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS, PLASTIC CHAIRS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1 AND SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE PRIOR TO PLACING CONCRETE. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315. BAR LENGTHS DETAILED ARE OUT TO OUT AND DO NOT INCLUDE ALLOWANCE FOR HOOKS OR BENDS.

UNLESS NOTED OTHERWISE, CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS:

1. CONCRETE CAST AGAINST EARTH:
   a. ALL BAR SIZES: 3 INCHES
2. CONCRETE EXPOSED TO WEATHER:
   a. #5 BAR OR SMALLER: 1 1/2 INCHES

SPECIFIED CONCRETE COVER SHALL BE MAINTAINED TO ALL REINFORCEMENT AT CONCRETE REVEALS AND INSETS. SHOP DRAWINGS SHOWING CONCRETE REVEALS AND OTHER INSETS SHALL BE SUBMITTED FOR REVIEW.

REINFORCING BARS SHALL BE LAP SPLICED MINIMUM 30" LAP FOR #4 BAR AND A MINIMUM 36" LAP FOR #5 BAR UNO

CONCRETE ANCHORS

ALL CAST IN PLACE ANCHOR BOLTS SHALL BE SECURELY TIED IN THEIR FINAL POSITION PRIOR TO PLACING CONCRETE (WET-SETTING OF ANCHOR BOLTS IS NOT PERMITTED). ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 36. FURNISH ANCHOR RODS WITH MATCHING DOUBLE HEAVY HEX NUTS JAMMED AT THE END EMBEDDED IN CONCRETE. HOOKED ANCHOR RODS SHALL NOT BE USED EXCEPT WHERE NOTED.

POST INSTALLED CONCRETE ANCHORS SHALL CONSIST OF THE FOLLOWING UNLESS NOTED OTHERWISE:
ADHESIVE ANCHORS: HILTI HIT-RE 500 V3

ALL POST INSTALLED CONCRETE ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION CRITERIA AND PER THE CURRENT ICC EVALUATION REPORT.

WOOD FRAMING

ALL STRUCTURAL WOOD COLUMNS AND BEAMS TO BE DOUGLAS FIR/LARCH (DF/L), #1 UNLESS NOTED OTHERWISE. ALL JOISTS, PURLINS, AND GIRTS TO BE DF/L #2 AND BETTER UNLESS NOTED OTHERWISE. ALL BLOCKING AND NON-STRUCTURAL FRAMING TO BE CONSTRUCTION GRADE AND BETTER. ALL WOOD PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE HEM-FIR #2 PRESSURE TREATED UNLESS NOTED OTHERWISE. ALL COLUMNS SHALL HAVE SOLID BLOCKING FOR THE FULL COLUMN AREA TO SUPPORTING MEMBERS BELOW. COLUMNS SHALL ALIGN THROUGH ALL FLOORS TO THE FOUNDATION.

ALL PREFABRICATED METAL TIMBER CONNECTORS AND HANGERS SHALL BE FULLY BOLTED AND/OR NAILED AS INDICATED BY MANUFACTURER, UNLESS NOTED OTHERWISE. ALL CONNECTORS, HANGERS AND FASTENERS SHALL BE CORROSION PROTECTED PER MANUFACTURER'S RECOMMENDATIONS. SIMPSON PREFABRICATED METAL TIMBER CONNECTORS NOTED. OTHER TYPES OF METAL CONNECTORS REQUIRE PRIOR REVIEW.

ALL BOLT HEADS OR NUTS BEARING ON WOOD TO HAVE STANDARD WASHERS. BOLT HOLES IN WOOD SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT. ALL LAG SCREWS SHALL HAVE PILOT HOLES AS PER LAG SCREW LEAD HOLE SCHEDULE. REFER TO SECTION 11.1 OF THE NDS FOR ADDITIONAL INSTALLATION INSTRUCTIONS OF DOWEL-TYPE FASTENERS.

LAG SCREW PILOT HOLE SCHEDULE (PER SECT. 11.1.4 OF NDS) APPLICABLE FOR: DOUGLAS FIR-LARCH, HEM-FIR, ENGINEERED LUMBER, AND 24F GLB		
LAG DIAMETER	CLEARANCE HOLE FOR SHANK (FULL BODY DIA.)	LEAD HOLE FOR LENGTH OF THREADED PORTION ONLY
3/8" AND SMALLER	NOT REQUIRED	NOT REQUIRED
7/16"	7/16"	3/16"
1/2"	1/2"	1/4"
5/8"	5/8"	3/8"

UNLESS OTHERWISE SPECIFIED BY THE PANEL MANUFACTURER, PROVIDE A MINIMUM GAP OF 1/8" BETWEEN ALL SHEATHING PANELS. ALL FLOOR SHEATHING TO BE TONGUE AND GROOVE. GLUE ALL FLOOR SHEATHING WITH STRUCTURAL ADHESIVE, 3M-5200 OR EQUIVALENT, AT ALL SUPPORTS. ALL SHEATHING WALLS AND/OR SHEAR WALLS SHALL HAVE 2X BLOCKING AT PANEL EDGES UNLESS NOTED OTHERWISE.

WOOD FRAMING FASTENING SCHEDULE

ALL NAILS SHALL BE COMMON AND NAILING SHALL BE PER THE NAILING SCHEDULE UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE FOLLOWING NAIL SIZES SHALL BE USED UNLESS NOTED OTHERWISE:

6D NAIL: 0.113 INCH DIA. X 2 INCHES LONG WITH MIN HEAD DIA. 17/64 IN.
8D NAIL: 0.131 INCH DIA. X 2 ½ INCHES LONG WITH MIN HEAD DIA. 9/32 IN.
10D NAIL: 0.148 INCH DIA. X 3 INCH LONG WITH MIN HEAD DIA. 5/16 IN.
12D NAIL: 0.148 INCH DIA. X 3 ¼ INCHES WITH MIN HEAD DIA. 5/16 IN.
16D NAIL: 0.162 INCH DIA. X 3 ½ INCHES WITH MIN HEAD DIA. 11/32 IN.

STAPLE OF EQUIVALENT VALUE MAY BE SUBSTITUTED AFTER REVIEW BY ENGINEER. NAILS AND STAPLES SHALL NOT BE OVERDRIVEN.

WOOD FRAMING FASTENING SCHEDULE	
ITEM	FASTENERS
JOISTS TO BLOCKING (END NAIL)	(3) 16D
BLOCKING TO TJOISTS (TOE NAIL)	(4) 10D
RIM JOIST TO JOISTS (END NAIL)	(3) 16D
2X6 TONGUE AND GROOVE DECKING	(2) 16D HDG FACE NAILS AND (1) 16D HDG TOE NAIL EA. COURSE AT EA. SUPPORT

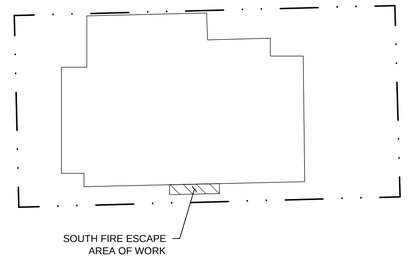
PRESSURE TREATED LUMBER

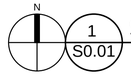
ALL STRUCTURAL WOOD MEMBERS EXPOSED TO WEATHER OR AS NOTED ON DRAWINGS OR AS REQUIRED BY IBC SECTION 2303.1.8, SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH AMERICAN WOOD-PRESERVERS ASSOCIATION USING (ACQ, CA-B, DOT) STANDARD UI AND M4 FOR SPECIES, PRODUCT, PRESERVATIVE, AND END USE. RETENTION AMOUNTS SHALL BE AS REQUIRED FOR AWPA USE CATEGORY STANDARDS FOR STRUCTURAL APPLICATIONS. FOR ABOVE GROUND APPLICATIONS RETENTION OF 0.25 LBS PER CUBIC FOOT OF ACQ OR 0.10 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARDS UC1, UC2, UC3A, UC3B. FOR GROUND CONTACT, FRESH WATER IMMERSION APPLICATIONS RETENTION OF 0.40 LBS PER CUBIC FOOT OF ACQ OR 0.25 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARDS UC4A, UC4B. FOR IN GROUND STRUCTURAL APPLICATIONS RETENTION OF 0.60 LBS PER CUBIC FOOT OF ACQ OR 0.31 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARD UC4B. FOR ABOVE GROUND, CONTINUOUSLY PROTECTED FROM LIQUID WATER APPLICATIONS (SILL PLATE) RETENTION OF 0.25 LBS PER CUBIC FOOT OF ACQ OR 0.10 LBS PER CUBIC FOOT OF CA-B OR 0.25 LBS PER CUBIC FOOT BASED ON AWPA USE CATEGORY STANDARDS UC1, UC2.

FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED MATERIAL SHALL BE IN ACCORDANCE WITH IBC SECTION 2304.9.5. TIMBER CONNECTORS/FASTENERS INCLUDING NUTS AND WASHERS IN CONTACT WITH PRESERVATIVE-TREATED MATERIAL SHALL HAVE PROTECTIVE COATINGS AS RECOMMENDED BY CONNECTOR/FASTENER MANUFACTURER.

ALL LAMINATED VENEER LUMBER, ORIENTED STRAND LUMBER, GLUE LAMINATED LUMBER EXPOSED TO WEATHER AND SUBJECT TO DECAY, SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR PRESERVATIVE MATERIALS, RETENTION RATES, AND END USE. LAMINATED TIMBERS SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH IBC SECTION 2304.11.3.

ALL TRIMMED SECTIONS, CUTS, DAPS, OR HOLES IN PRESSURE TREATED MATERIALS SHALL BE TREATED WITH COPPER NAPTHENATE, IN ACCORDANCE WITH AWPA STANDARD M4. FOR ADDITIONAL REQUIREMENTS, SEE IBC SECTION 2304.11 FOR PROTECTION AGAINST DECAY AND TERMITES.





SITE PLAN

N.T.S.

STRUCTURAL DRAWING INDEX

STRUCTURAL SCOPE OF WORK
THESE STRUCTURAL DRAWINGS ARE FOR THE REPAIR AND LOAD TESTING OF ELEMENTS OF THE EXTERIOR FIRE ESCAPE ON THE SOUTH SIDE OF THE BUILDING. THESE DRAWINGS TO ACCOMPANY DRAWINGS BY CONVERGENCE ARCHITECTURE

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FIRE ESCAPE REPAIR & TESTING

CONVERGENCE ARCHITECTURE

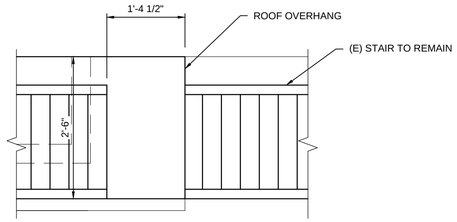
240 NW 20TH AVE
PORTLAND, OR

DRAWN BY:	SMM
CHECKED BY:	MJ
PROJECT NO:	180076
ISSUE DATE:	12.21.2018

DESCRIPTION | DATE | REV.

SHEET CONTENT
STRUCTURAL NOTES
SITE PLAN

SHEET
S0.01



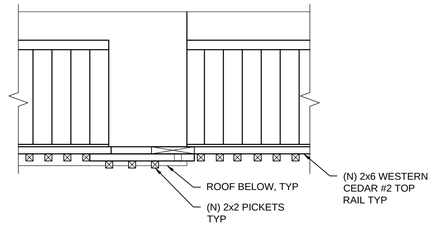
1 S3.01

N

1 S1.01

SOUTH FIRE ESCAPE
LEVEL 1 REPAIR PLAN

3/4" = 1'-0"



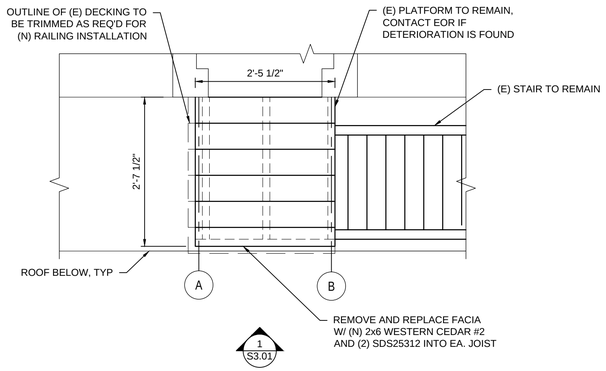
1 S3.01

N

2 S1.01

SOUTH FIRE ESCAPE
LEVEL 1 GUARDRAIL REPAIR PLAN

3/4" = 1'-0"



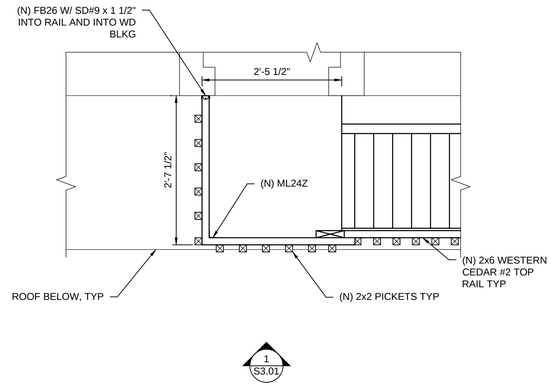
1 S3.01

N

3 S1.01

SOUTH FIRE ESCAPE
LEVEL 2 REPAIR PLAN

3/4" = 1'-0"



1 S3.01

N

4 S1.01

SOUTH FIRE ESCAPE
LEVEL 2 GUARDRAIL REPAIR PLAN

3/4" = 1'-0"

LINE IS 2 INCHES AT FULL SCALE

(IF NOT 2" - SCALE ACCORDINGLY)

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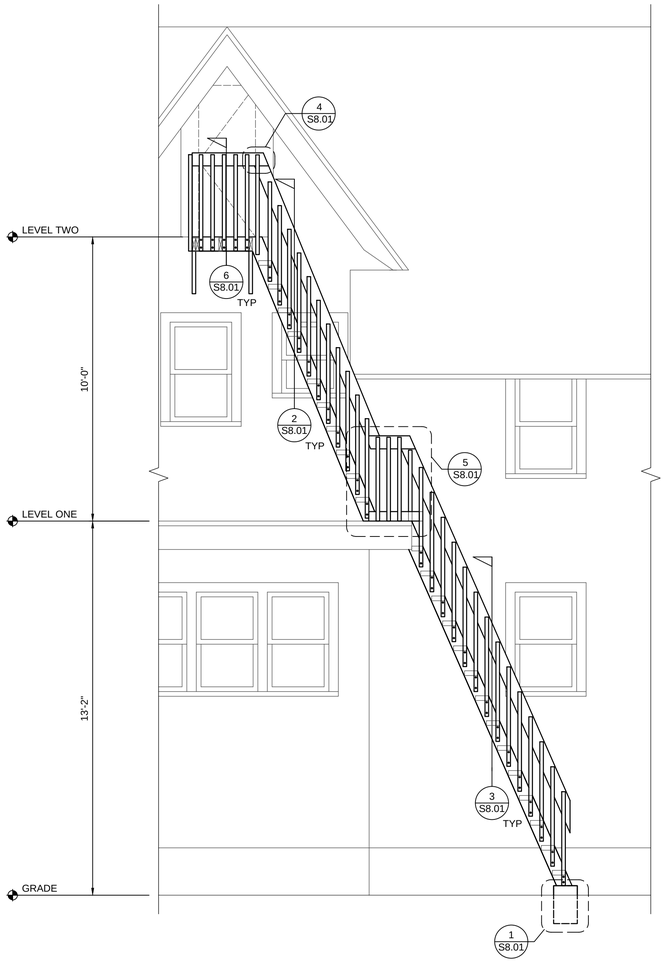
SHEET CONTENT

SOUTH FIRE ESCAPE REPAIR PLANS

SHEET

S1.01



1
S3.01

SOUTH
FIRE ESCAPE ELEVATION

1/4" = 1'-0"

LINE IS 2 INCHES
AT FULL SCALE
(IF NOT 2" - SCALE ACCORDINGLY)

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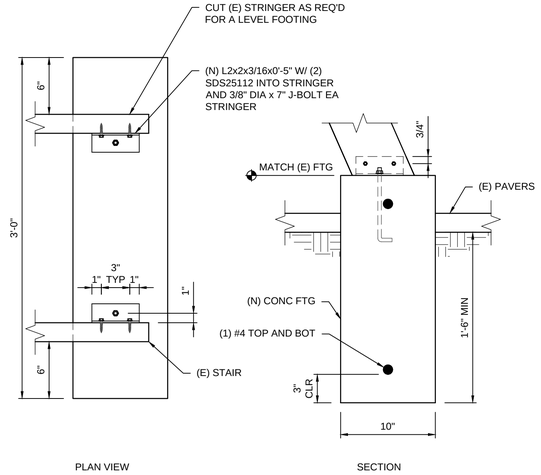
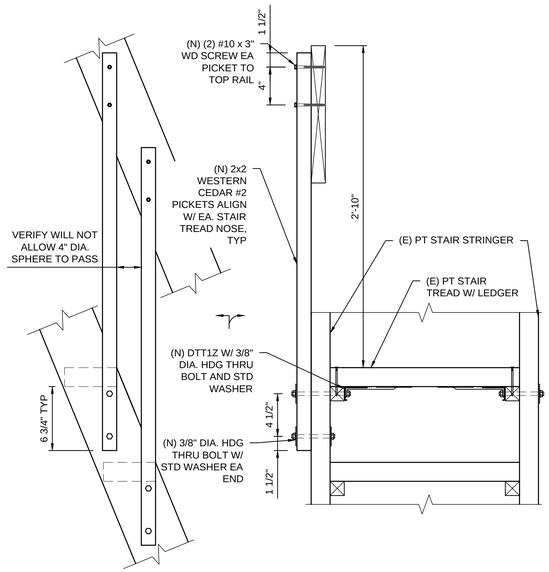
FIRE ESCAPE
ELEVATION

SHEET
S3.01



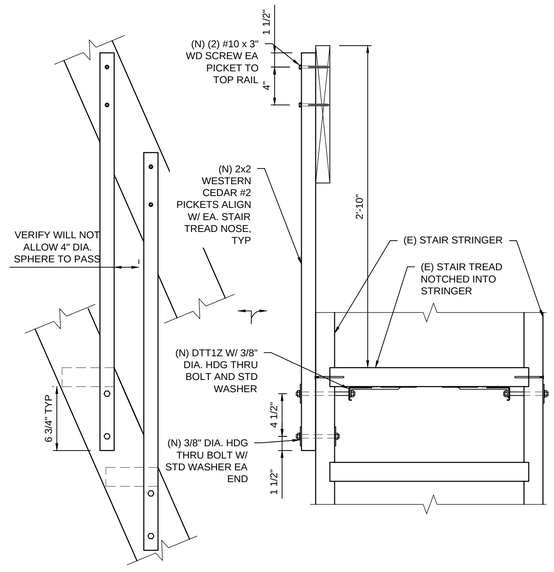
1 S8.01 STAIR FDN REPAIR

1 1/2" = 1'-0"



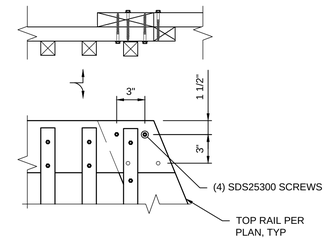
2 S8.01 UPPER STAIR RAILING CONN

1 1/2" = 1'-0"



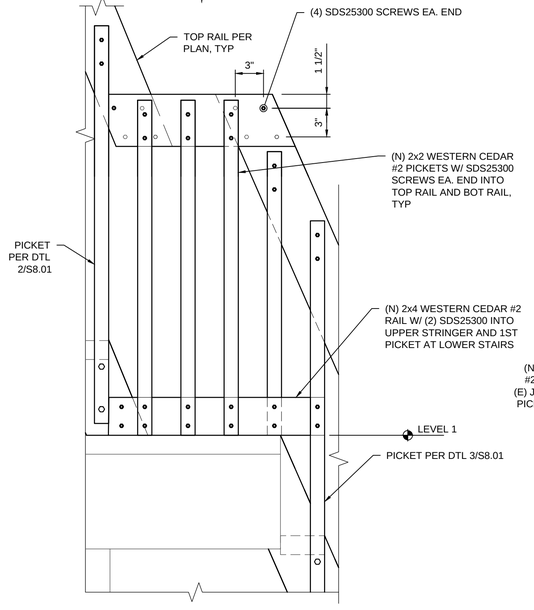
3 S8.01 LOWER STAIR RAILING CONN

1 1/2" = 1'-0"



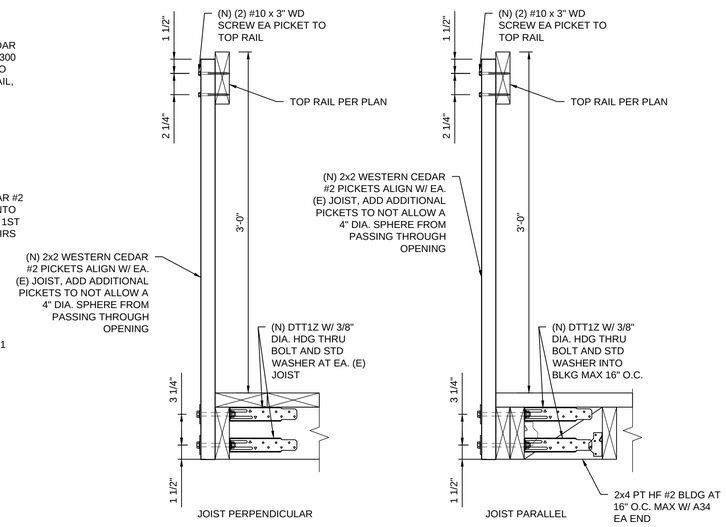
4 S8.01 LANDING RAIL TO UPPER STAIR RAIL

1 1/2" = 1'-0"



5 S8.01 LEVEL 1 TO STAIR RAILINGS CONN

1 1/2" = 1'-0"



6 S8.01 PLATFORM GUARDRAIL

1 1/2" = 1'-0"

LINE IS 2 INCHES AT FULL SCALE

(IF NOT 2" - SCALE ACCORDINGLY)

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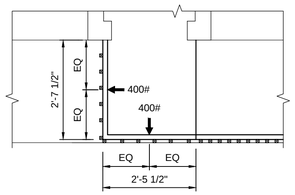
SHEET CONTENT

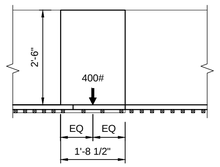
FIRE ESCAPE REPAIR DETAILS

SHEET

S8.01

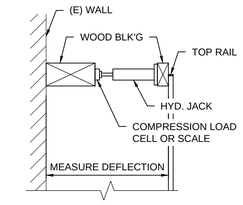


LEVEL 2



LEVEL 1

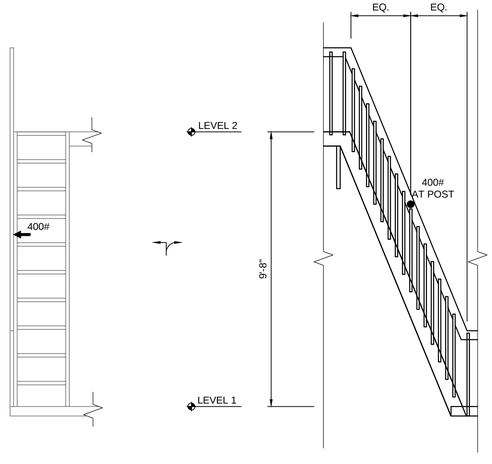
LANDING GUARDRAIL LOAD TEST NOTES:
1. APPLY LOADING SHOWN TO THE TOP RAIL. LOADS ARE NOT REQUIRED TO BE APPLIED SIMULTANEOUSLY U.N.O.
2. HOLD EACH LOAD FOR (10) MINUTES.
3. TEST REQ'D ONLY FOR LEVEL(S) SHOWN



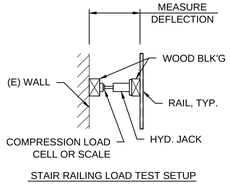
LANDING GUARDRAIL LOAD TEST SETUP

1 S9.01 SOUTH FIRE ESCAPE LANDING GUARDRAIL LOAD TEST

1/2" = 1'-0"



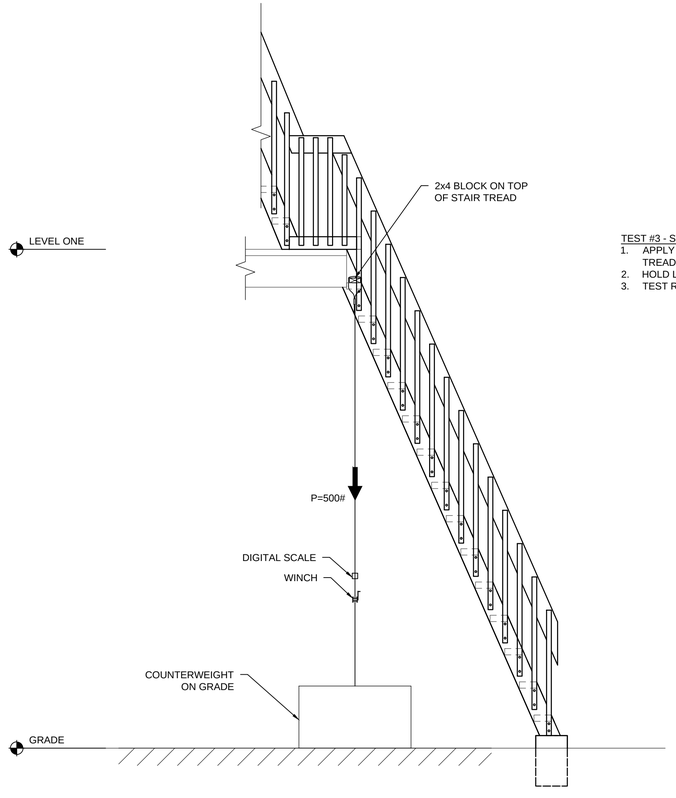
STAIR RAILING LOAD TEST NOTES:
1. APPLY LOADS SHOWN TO THE TOP STAIR RAIL. THE LOAD DIRECTION TO BE OUTWARD WHEN STANDING ON THE STAIRWAY.
2. HOLD LOAD FOR (10) MINUTES.
3. TEST REQ'D ONLY BETWEEN LEVELS SHOWN



STAIR RAILING LOAD TEST SETUP

2 S9.01 SOUTH FIRE ESCAPE STAIR RAILING LOAD TEST

3/8" = 1'-0"



TEST #3 - STAIR LOADING
1. APPLY LOADS AS SHOWN TO THE STAIR TREADS.
2. HOLD LOAD FOR (60) MINUTES
3. TEST REQ'D ONLY FOR LEVELS SHOWN

3 S9.01 TEST #3 FIRE ESCAPE UPPER STAIR CONNECTION TEST

1/2" = 1'-0"

GENERAL NOTES FOR LOAD TESTING
1. ALL TEST LOADING SHALL BE MONITORED USING CALIBRATED LOAD CELLS AND/OR SCALES.
2. DEFLECTIONS TO THE NEAREST 1/16TH INCH SHALL BE TAKEN FOR TESTED ELEMENTS. MEASUREMENTS SHALL BE TAKEN FROM FIXED REFERENCE POINTS OR REFERENCE POINTS NOTED ON THE TEST SETUP DETAILS.
3. THE ELEMENTS SHALL BE CONSIDERED TO HAVE SUCCESSFULLY PASSED THE LOAD TEST IF THE FOLLOWING CRITERIA ARE SATISFIED:
   A. WITHIN ONE HOUR AFTER REMOVAL OF TEST LOAD, THE STRUCTURE SHALL HAVE RECOVERED NOT LESS THAN 75 PERCENT OF THE MAXIMUM DEFLECTION.
   B. DURING AND IMMEDIATELY AFTER THE TEST, THE STRUCTURE SHALL NOT SHOW EVIDENCE OF FAILURE.
4. THE TESTING AGENCY PERFORMING THE LOAD TEST SHALL NOTIFY THE E.O.R. AT LEAST TWO DAYS PRIOR TO LOAD TESTING. THE E.O.R. IS REQUIRED TO OBSERVE THE LOAD TESTING BEING PERFORMED.

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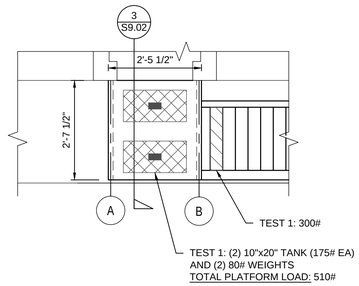
SHEET CONTENT
SOUTH FIRE ESCAPE TESTING LOADS

SHEET
S9.01

LINE IS 2 INCHES AT FULL SCALE
(IF NOT 2" - SCALE ACCORDINGLY)



LEVEL 1

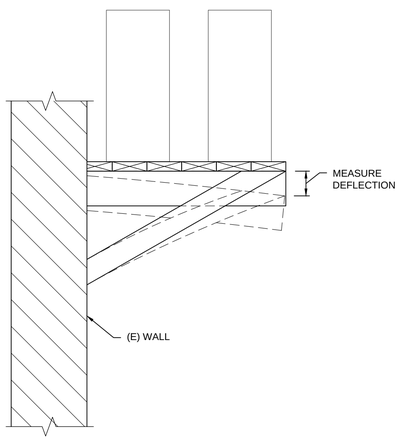
1 S9.02 SOUTH FIRE ESCAPE
LANDING SUPPORT LOAD TEST

1/2" = 1'-0"

LANDING SUPPORT LOAD TEST NOTES:
1. HOLD LOAD SHOWN FOR (60) MINUTES.
2. TEST LOADS SHOWN TO BE TESTED SIMULTANEOUSLY.

2 S9.02 NOT USED

1/2" = 1'-0"



3 S9.02 SECTION AT SUPPORT BRACE

1" = 1'-0"

LINE IS 2 INCHES
AT FULL SCALE
(IF NOT 2" - SCALE ACCORDINGLY)

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SHEET CONTENT
SOUTH FIRE ESCAPE
TESTING LOADS

SHEET
S9.02