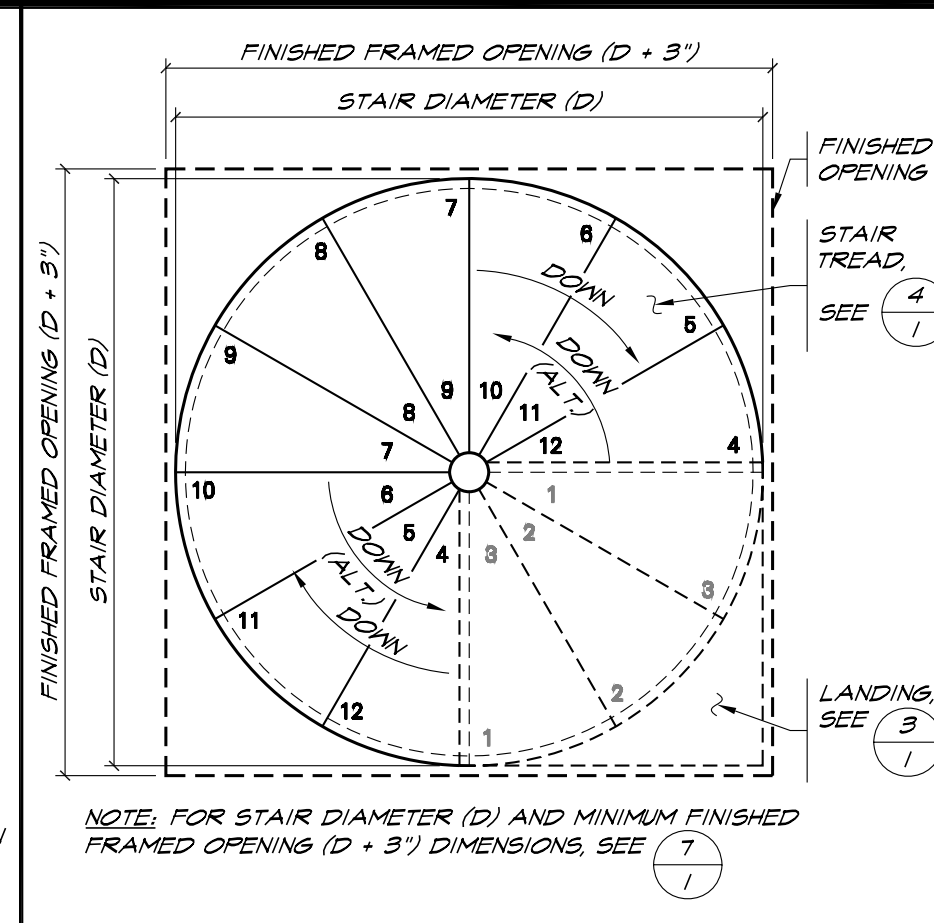
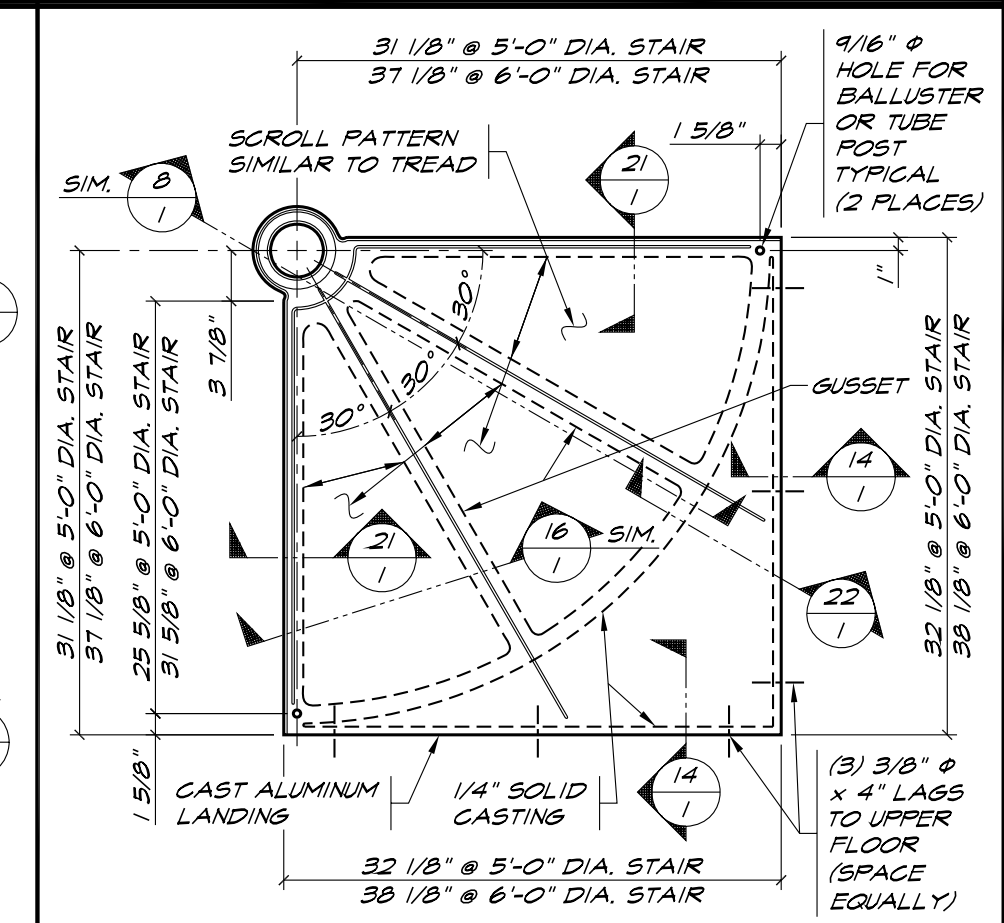


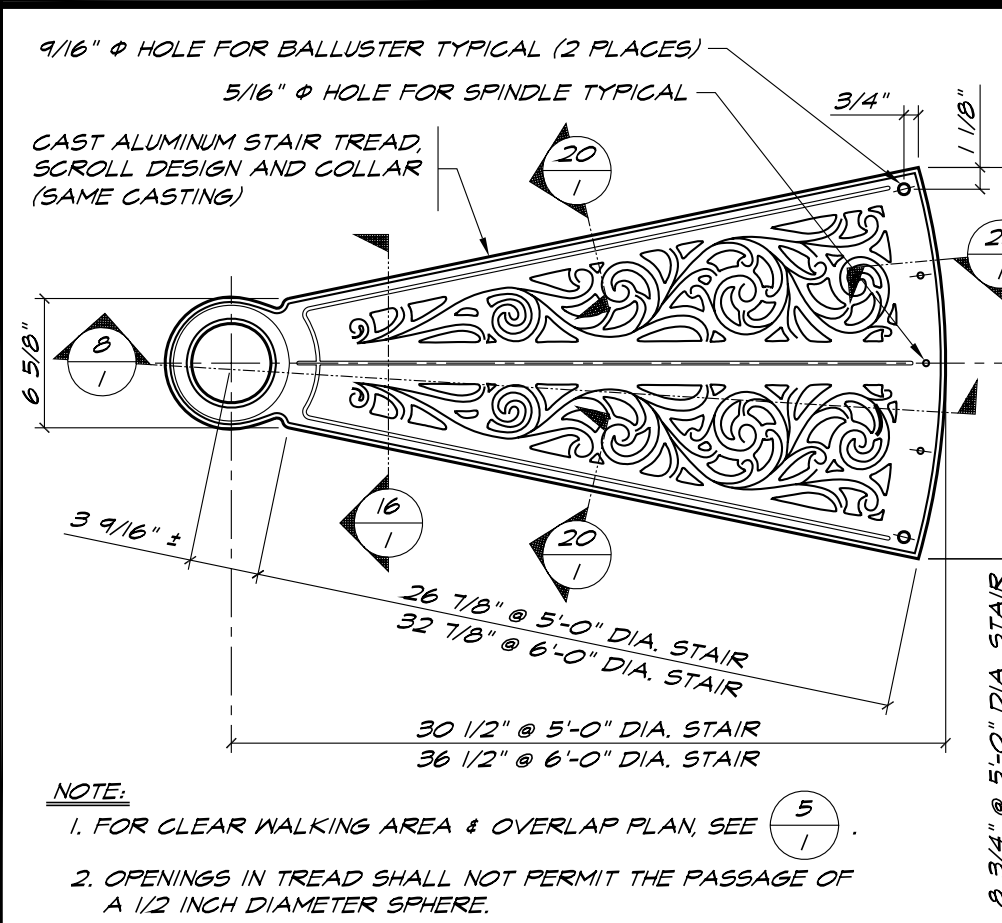
**STAIR ELEVATION** 1/2" = 1'-0" **1**



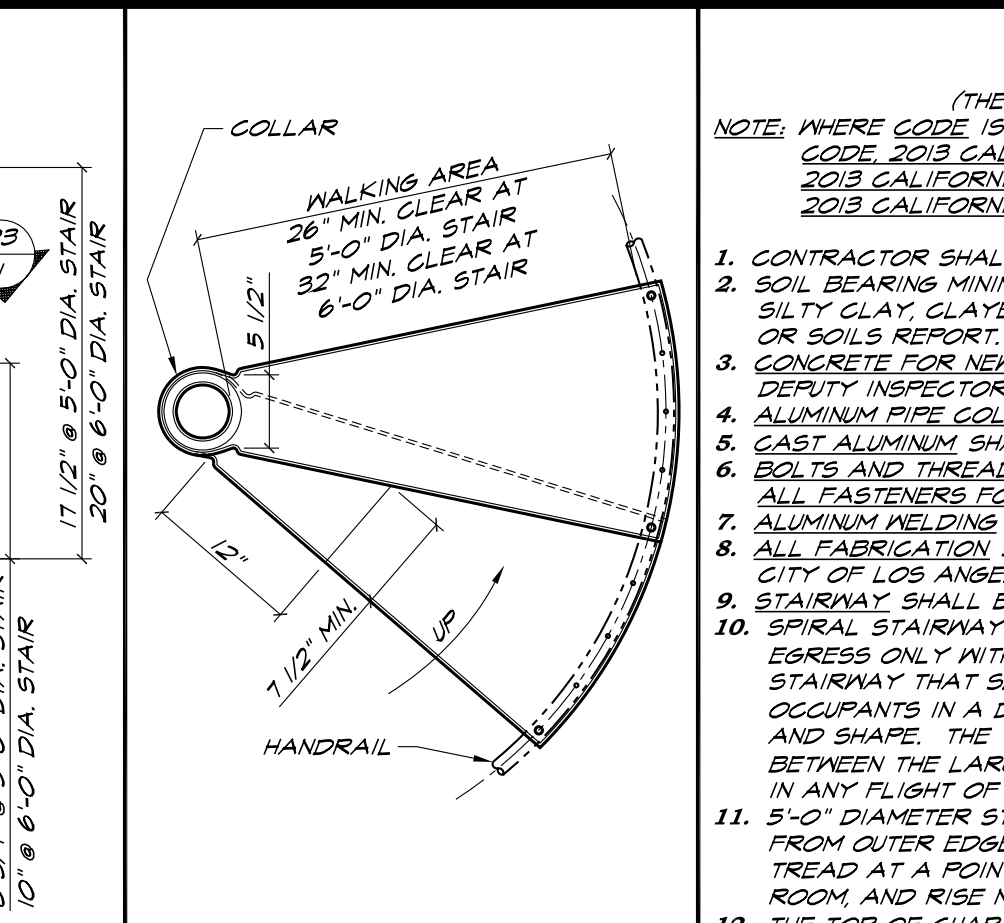
**STAIR PLAN** 3/4" = 1'-0" **2**



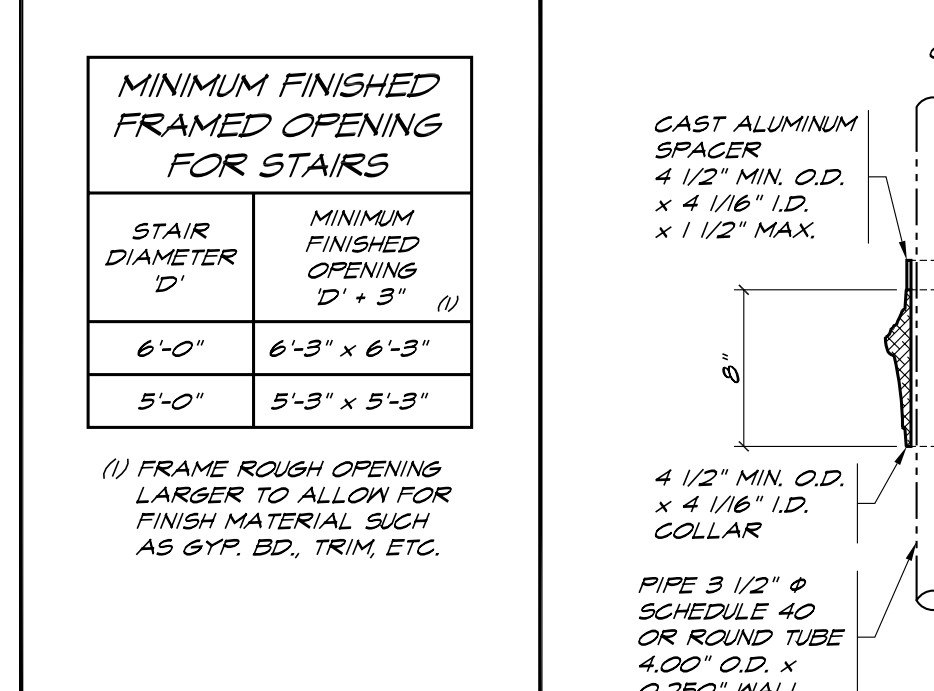
**LANDING PLAN** 1" = 1'-0" **3**



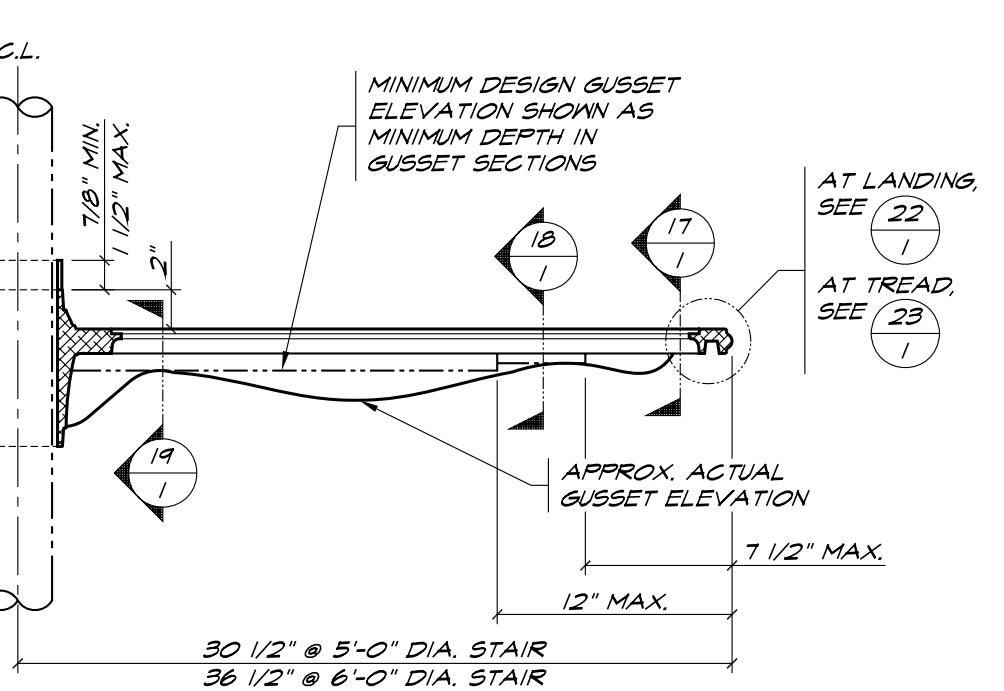
**TYPICAL TREAD PLAN** 1 1/2" = 1'-0" **4**



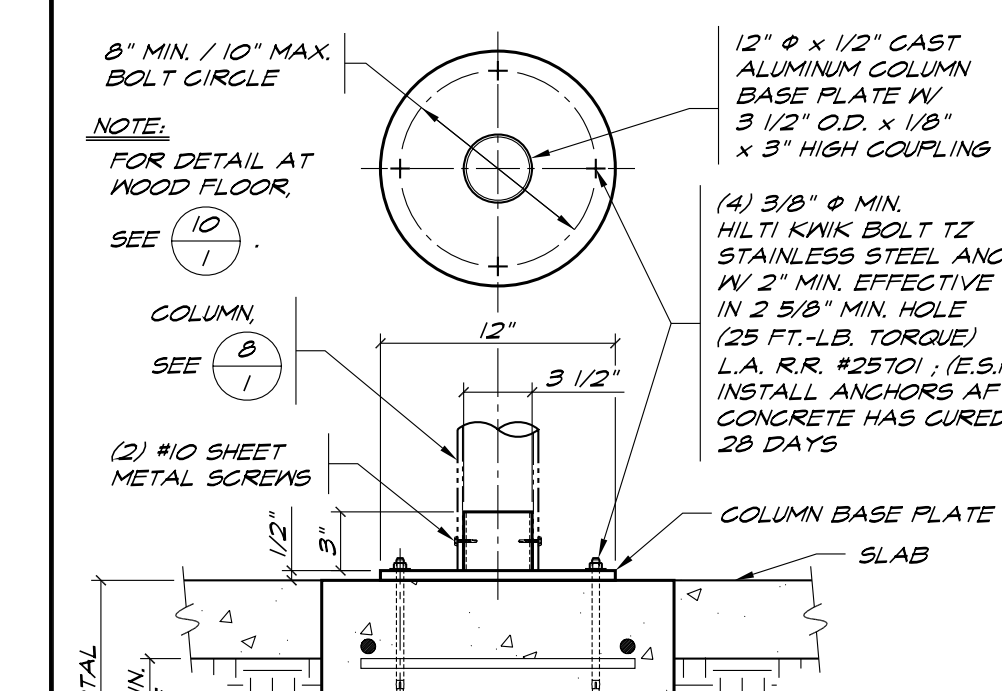
**OVERLAP** 1" = 1'-0" **5**



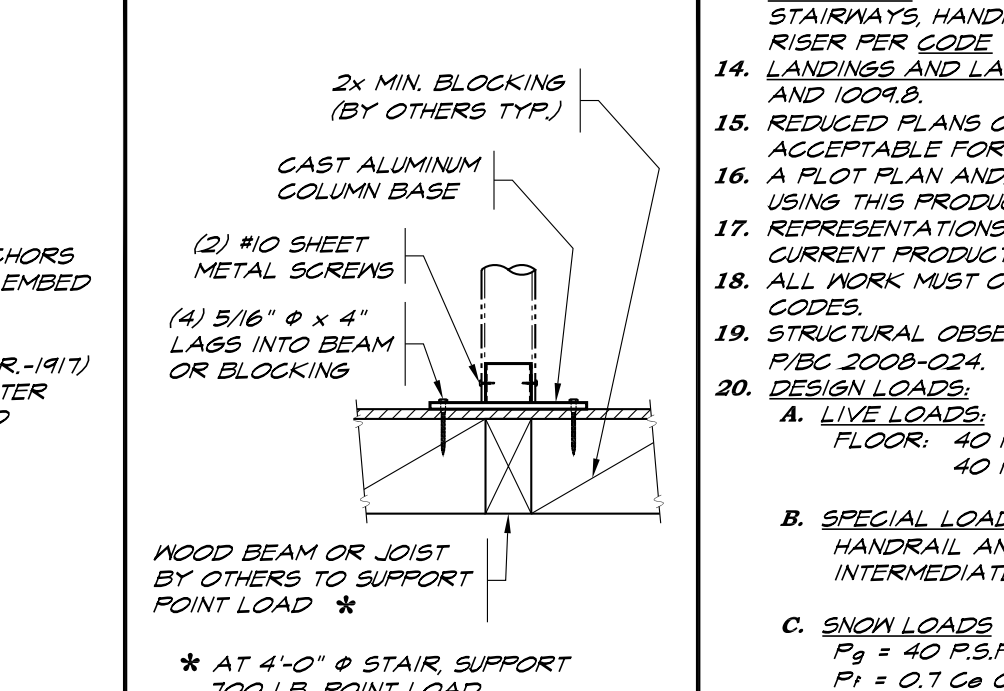
**MINIMUM FINISHED FRAMED OPENING FOR STAIRS** 1/2" = 1'-0" **7**



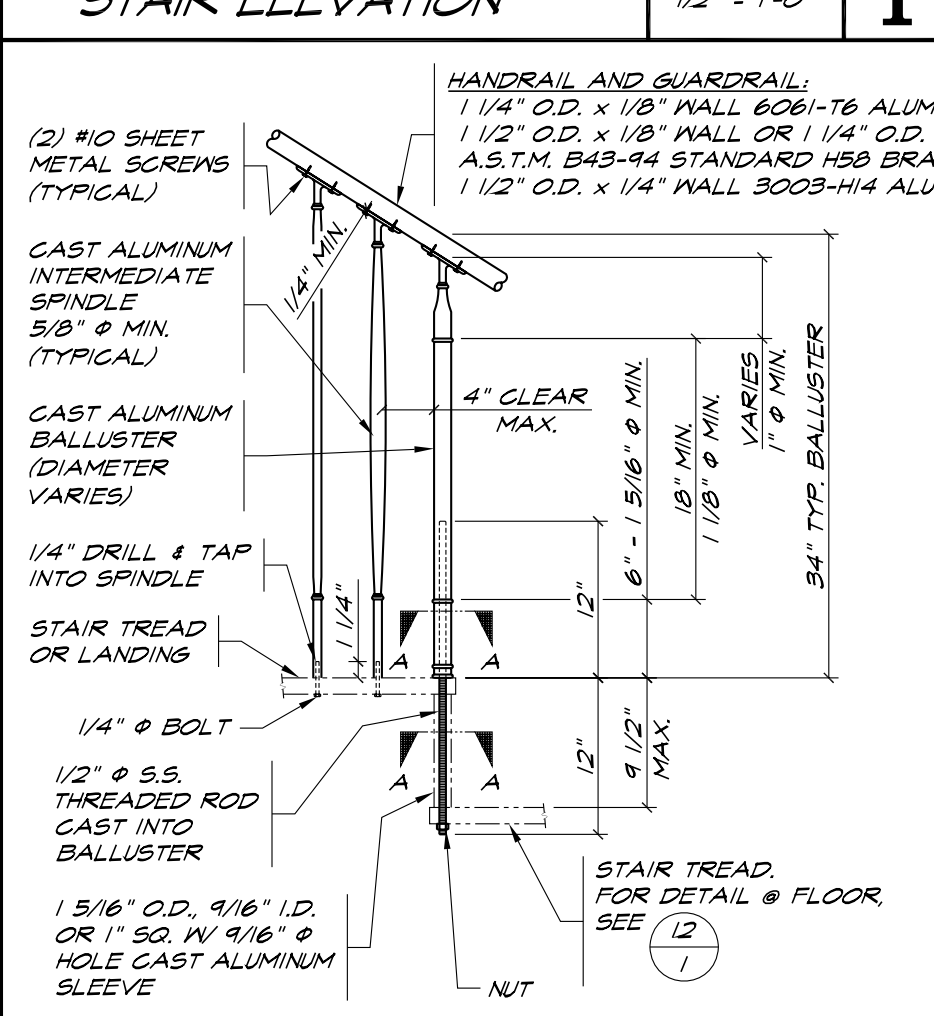
**TREAD AND LANDING SECTION AT GUSSET** 1 1/2" = 1'-0" **8**



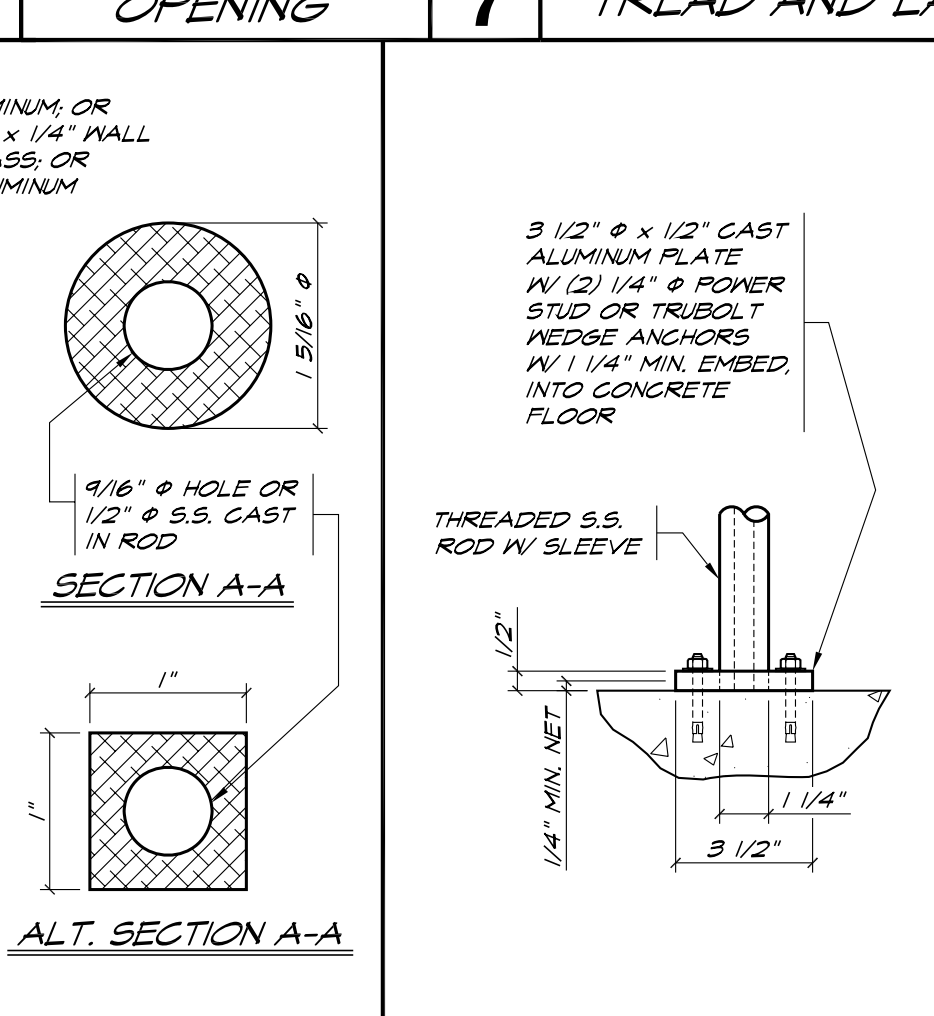
**FOOTING DETAIL** 1 1/2" = 1'-0" **9**



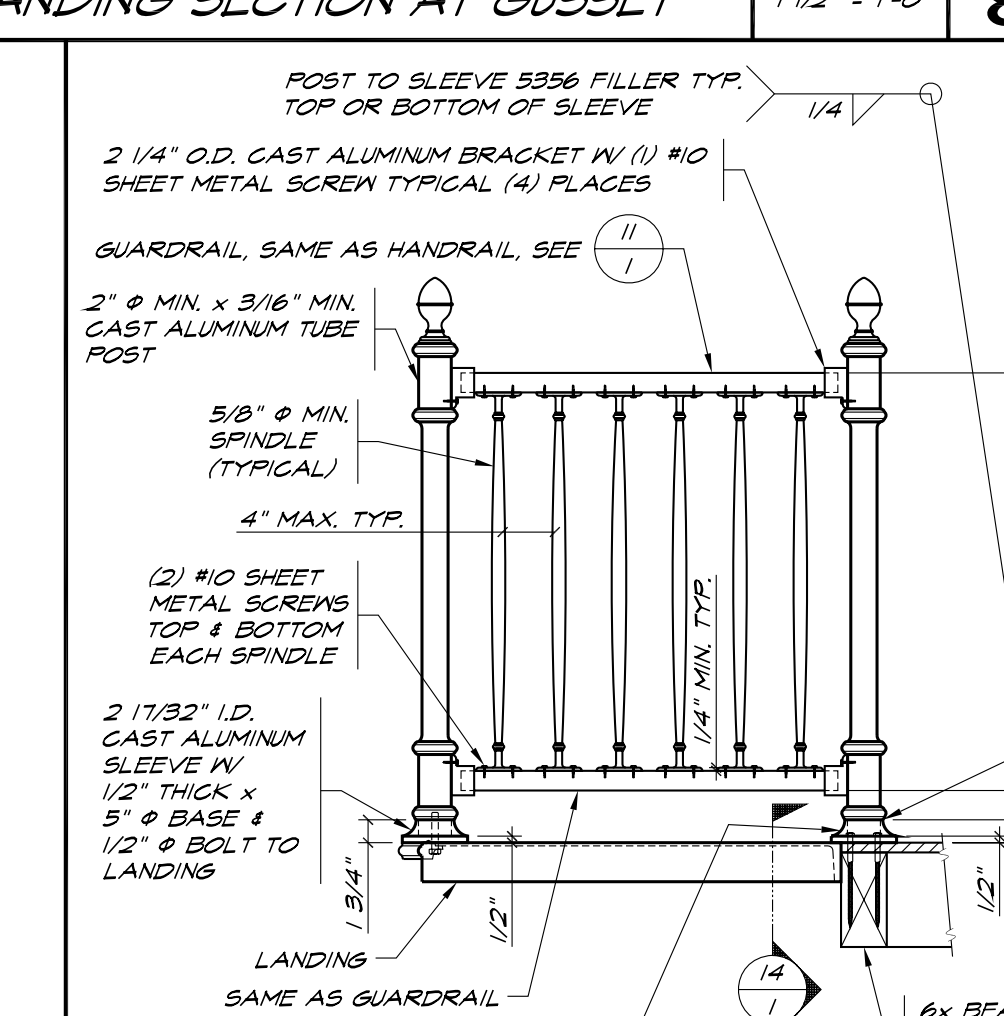
**DETAIL** 1" = 1'-0" **10**



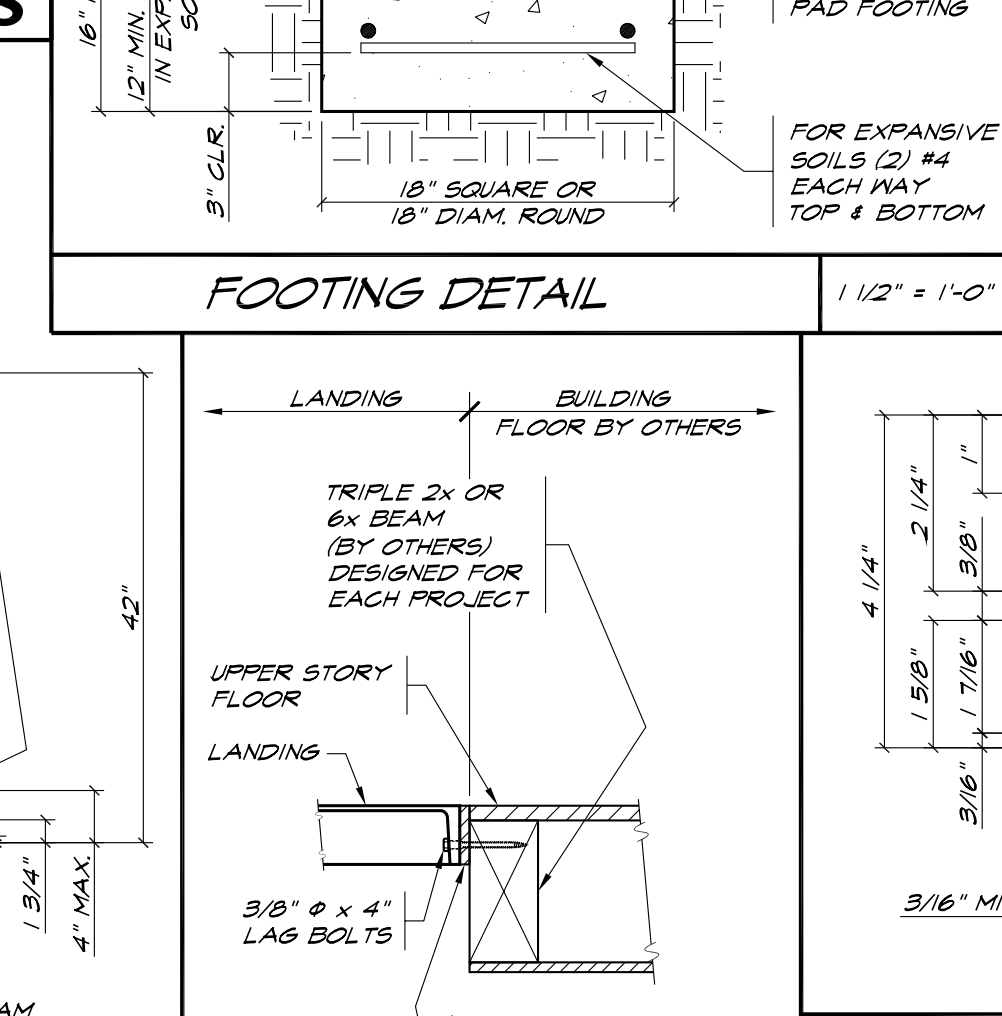
**HANDRAIL AND BALLUSTER DETAIL** 1" = 1'-0" **11**



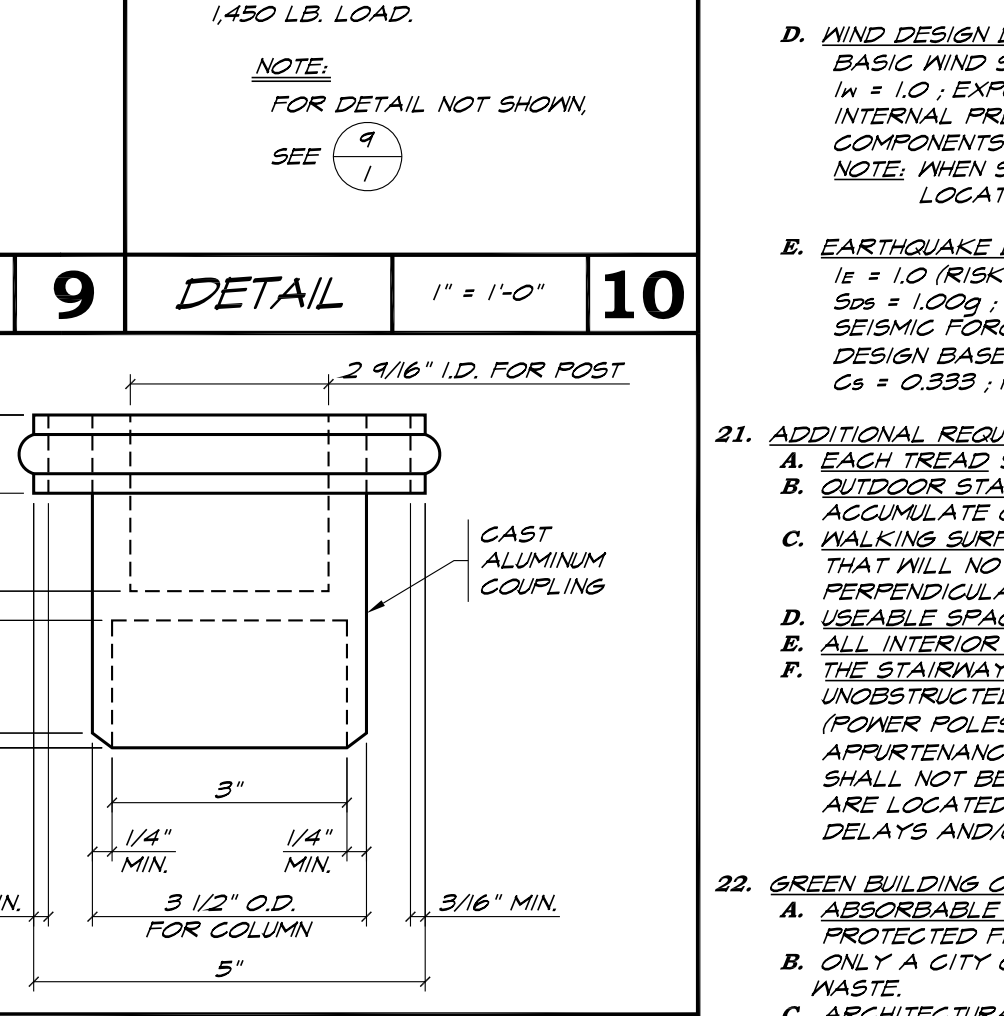
**SECTION A-A** 3" = 1'-0" **12**



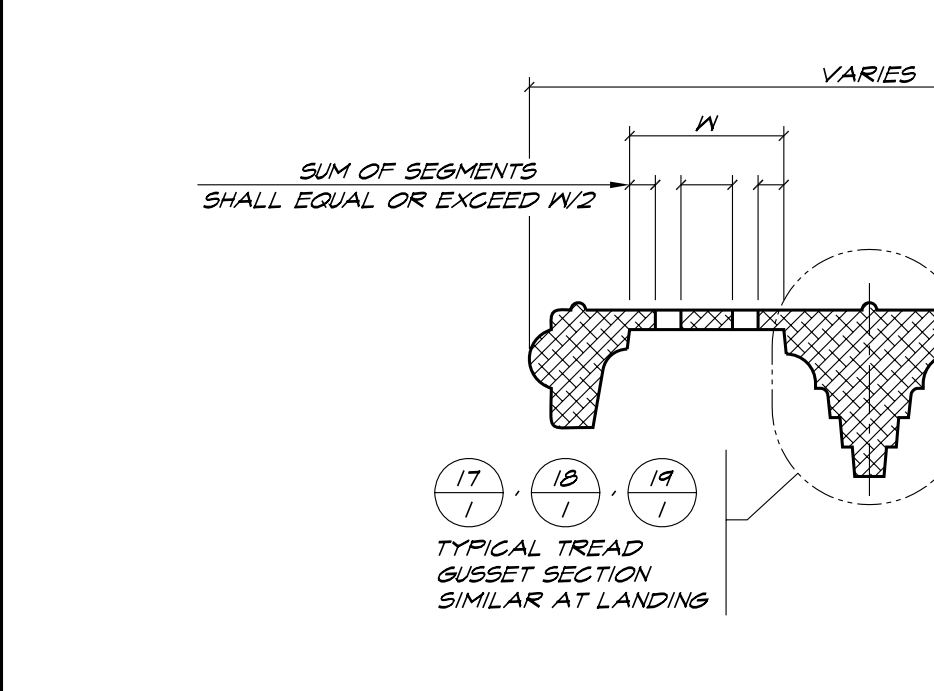
**GUARDRAIL DETAIL** 1" = 1'-0" **13**



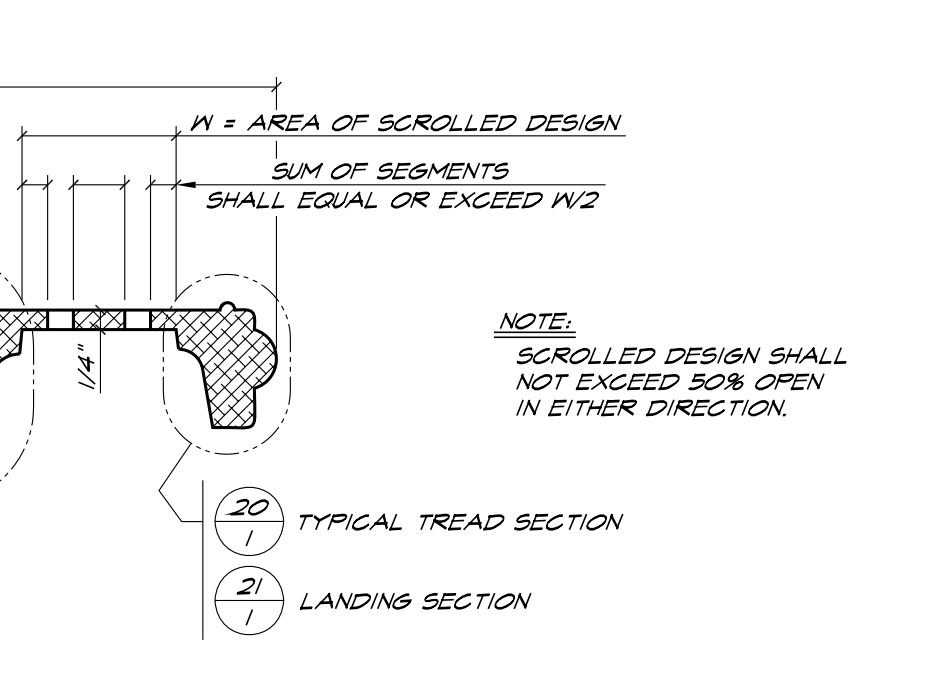
**LANDING** 1 1/2" = 1'-0" **14**



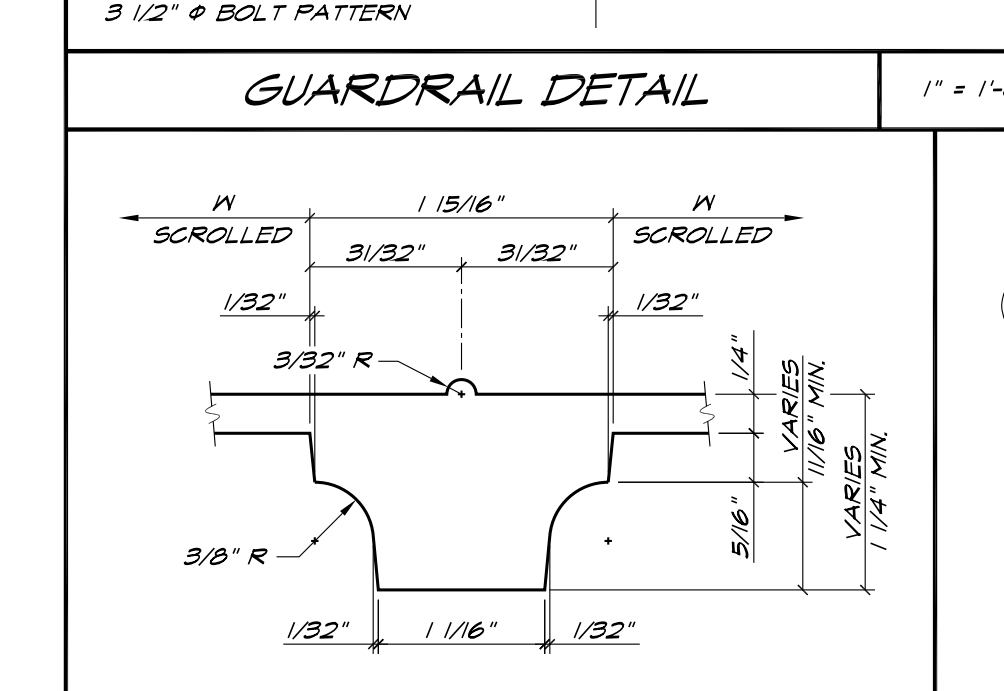
**COUPLING DETAIL** 6" = 1'-0" **15**



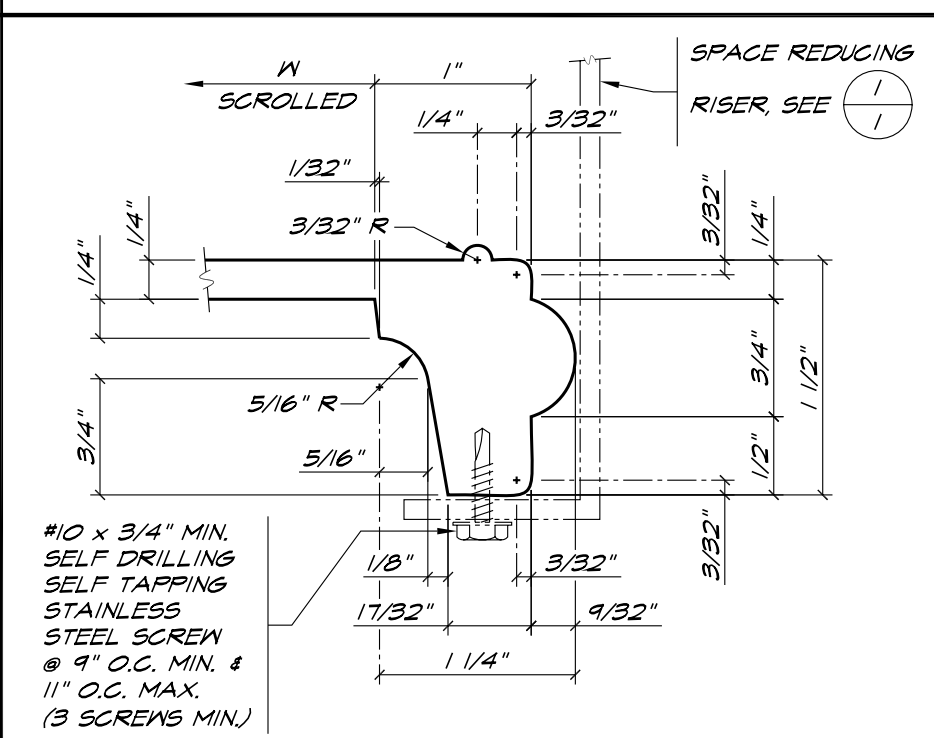
**TYPICAL SECTION AT TREAD (LANDING SIMILAR)** N.T.S. **16**



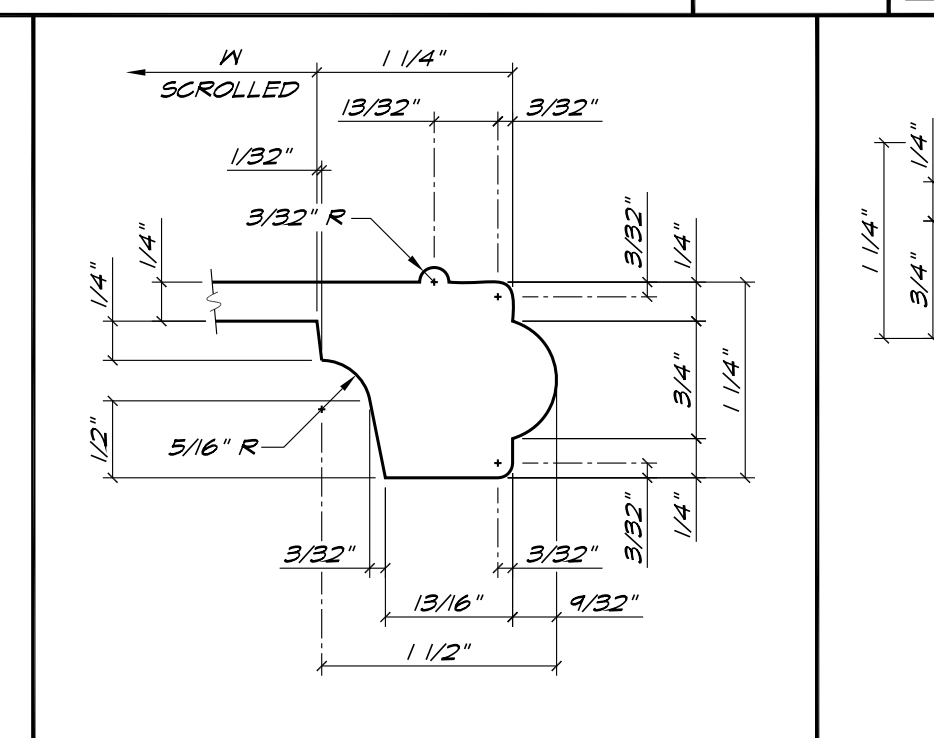
**GUSSET SECTION** 1" = 1" **17**



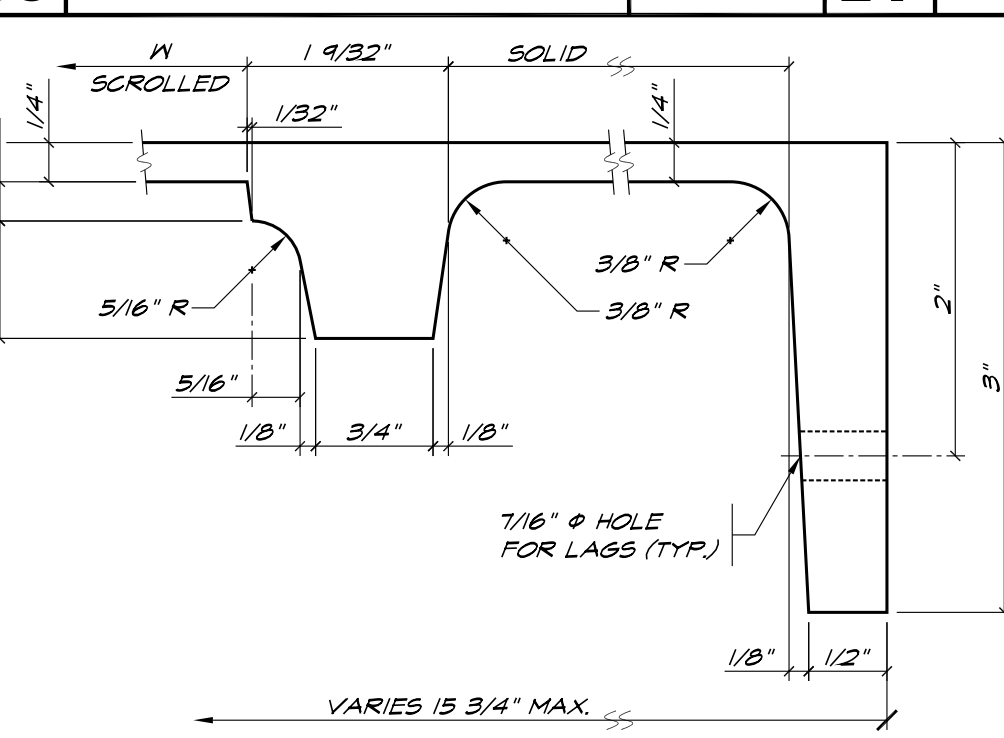
**GUSSET SECTION** 1" = 1" **18**



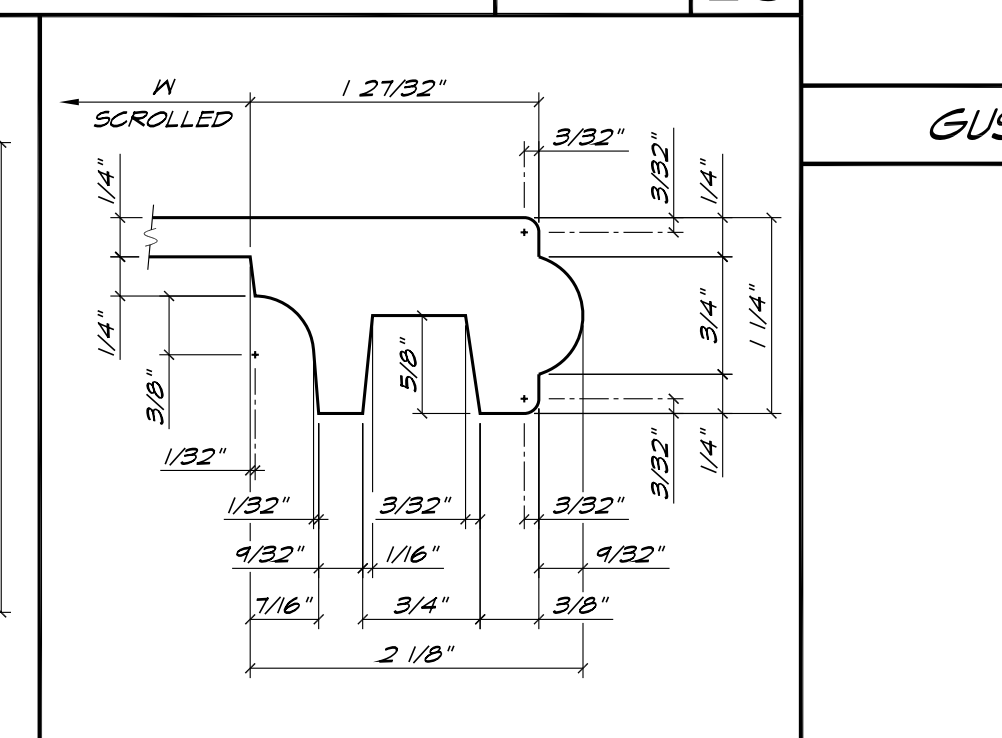
**TREAD SECTION** 1" = 1" **20**



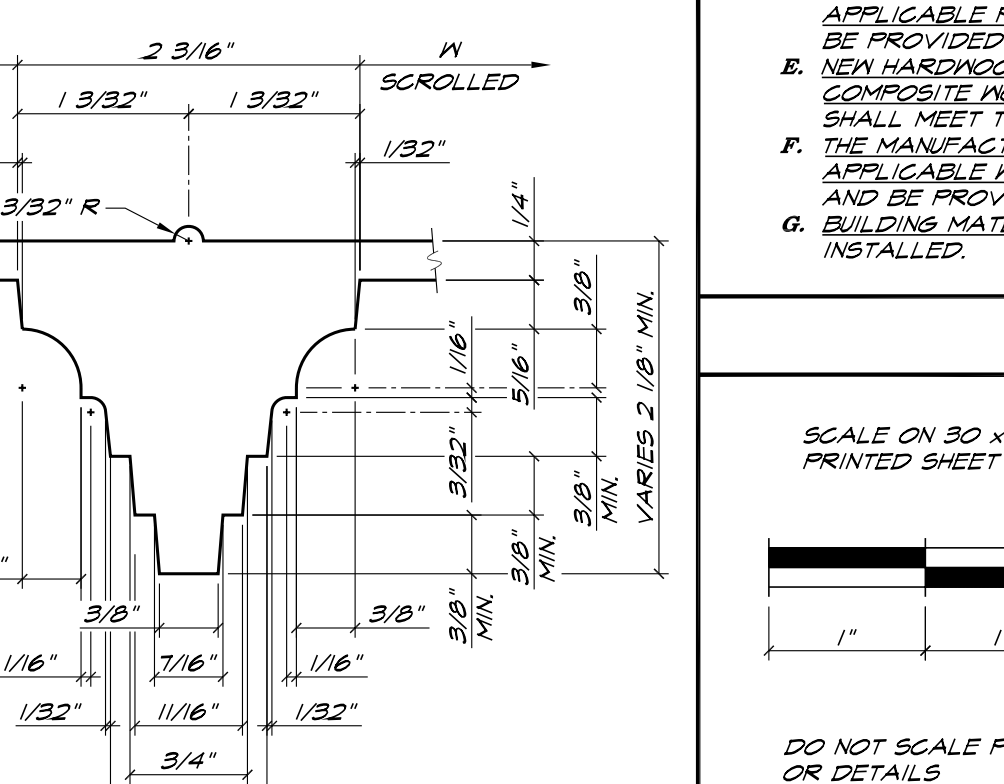
**LANDING SECTION** 1" = 1" **21**



**LANDING SECTION** 1" = 1" **22**



**TREAD SECTION** 1" = 1" **23**



**GUSSET SECTION** 1" = 1" **19**

**GENERAL NOTES**

(THESE NOTES SHALL APPLY UNLESS OTHERWISE NOTED)

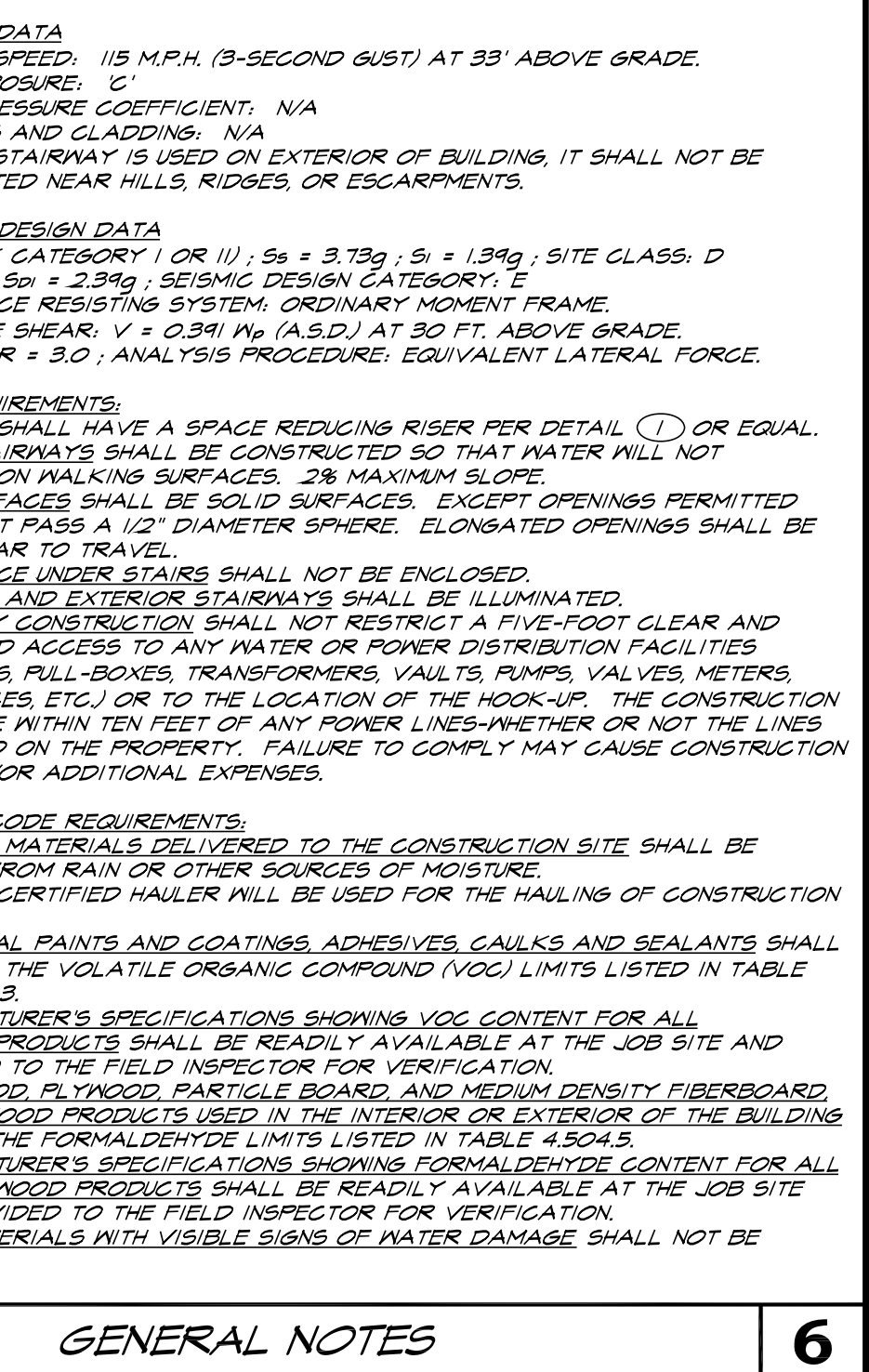
NOTE: WHERE CODE IS SPECIFIED, IT SHALL BE THE 2014 LOS ANGELES CITY BUILDING CODE, 2013 CALIFORNIA BUILDING CODE WITH L.A. CITY AMENDMENTS, 2013 CALIFORNIA BUILDING CODE, 2012 INTERNATIONAL BUILDING CODE, 2013 CALIFORNIA RESIDENTIAL CODE, AND 2012 INTERNATIONAL RESIDENTIAL CODE.

- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE.
- SOIL BEARING MINIMUM = 1500 P.S.F. PER TABLE 1806.2 FOR CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT PER GRADING PREINSPECTION OR SOILS REPORT.
- CONCRETE FOR NEW FOOTINGS SHALL BE STANDARD MIX 2500 P.S.I. AT 28 DAYS. DEFECT INSPECTOR NOT REQUIRED.
- ALUMINUM PIPE COLUMNS AND ROUND TUBE COLUMNS SHALL BE ALLOY 6061-T6.
- CAST ALUMINUM SHALL BE A.N.S.I. AA-319.0F (F<sub>y</sub> = 27 K.S.I. AND F<sub>t</sub> = 14 K.S.I.).
- BOLTS AND THREADED RODS SHALL BE TYPE 304 ANNEALED STAINLESS STEEL.
- STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT AND BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 3/8" (0.375") IN ANY FLIGHT OF STAIRS.
- STAIRWAYS SHALL BE USED FOR ONE AND TWO FAMILY DWELLINGS ONLY.
- SPIRAL STAIRWAYS ARE PERMITTED TO BE USED AS A COMPONENT IN THE MEANS OF EGRESS ONLY WITHIN DWELLING UNITS. (NOTE THAT A PRIVATE STAIRWAY IS A STAIRWAY THAT SERVES A SINGLE TENANT. A SINGLE TENANT MAY BE ONE OR MORE OCCUPANTS IN A DWELLING). STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER HEIGHT AND BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 3/8" (0.375") IN ANY FLIGHT OF STAIRS.
- 5'-0" DIAMETER STAIRWAYS SHALL PROVIDE A MINIMUM OF 26" WIDE WALKING AREA FROM OUTER EDGE OF SUPPORT COLUMN TO INNER EDGE OF HANDRAIL. 1/2" MINIMUM TREAD AT A POINT 12" FROM WHERE THE TREAD IS NARROWEST, MINIMUM 6'-6" HEAD ROOM AND RISE NOT TO EXCEED 9' 1/2".
- THE TOP OF GUARDRAILS (GUARDS) SHALL BE 42" MINIMUM IN HEIGHT. OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH THAT A 4" SPHERE CANNOT PASS THROUGH.
- HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. FOR PRIVATE STAIRWAYS HANDRAILS ARE NOT REQUIRED TO EXTEND BEYOND THE TOP OR BOTTOM RISER PER CODE SECTION 1012.6.
- LANDINGS AND LANDING AT DOORS SHALL COMPLY WITH CODE SECTIONS 1008.1.6 AND 1008.6.
- REDUCED PLANS OR FLOOR QUALITY PRINTS (TOO DARK OR TOO LIGHT) WILL NOT BE ACCEPTABLE FOR OBTAINING A BUILDING PERMIT.
- A FLOT PLAN AND/OR FLOOR PLAN IS REQUIRED FOR OBTAINING A BUILDING PERMIT USING THIS DRAWING.
- REPRESENTATIONS OF PATTERNS AND VIEWS SHOWN ON THIS PLAN MAY NOT MATCH CURRENT PRODUCTION.
- ALL WORK MUST COMPLY WITH L.A. CITY PLANNING AND ZONING CODES AND LOCAL ORDINANCES.
- STRUCTURAL OBSERVATION IS NOT REQUIRED PER L.A. CITY INFORMATION BULLETIN P/BG 2008-024. (C.B.G./I.B.G. SECTION 1704.2.5.2).
- DESIGN LOADS:
  - DEAD LOADS:
    - FLOOR: 40 P.S.F. OR 300 LB. ON 2 INCH BY 2 INCH ON TREADS & 40 P.S.F. ON LANDING.
    - SPECIAL LOADS: HANDRAIL AND GUARDRAIL (GUARD): 200 LB. IN ANY DIRECTION. INTERMEDIATE RAILS: 50 LB. ON ONE 50 FT.
    - SNOW LOADS:
      - P<sub>g</sub> = 40 P.S.F. GROUND SNOW LOAD
      - P<sub>f</sub> = 0.7 C<sub>e</sub> C<sub>i</sub> 1 P<sub>g</sub> + 0.7(1.2)1.1(0.4) + 40 P.S.F.
      - C<sub>e</sub> = 1.2 UNIFORM (MOST SEVERE) FACTOR
      - C<sub>i</sub> = 1.2 UNIFORM (MOST SEVERE) FACTOR
      - I = 1.0 (RISK CATEGORY I OR II)
    - WIND DESIGN DATA:
      - 16 = 1.0 (RISK CATEGORY I OR II); 5s = 3.75g; 5i = 1.39g; SITE CLASS: D
      - S<sub>0s</sub> = 1.00g; S<sub>0i</sub> = 2.39g; SEISMIC DESIGN CATEGORY: E
      - SEISMIC FORCE RESISTING SYSTEM: ORDINARY MOMENT FRAME.
      - DESIGN BASE SHEAR: V = 0.391 W<sub>0</sub> (A.S.D.) AT 50 FT. ABOVE GRADE.
      - C<sub>s</sub> = 0.333; R = 3.0; ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE.
  - ADDITIONAL REQUIREMENTS:
    - EACH TREAD SHALL HAVE A SPACE REDUCING RISER PER DETAIL 1 OR EQUAL.
    - OUTDOOR STAIRWAYS SHALL BE CONSTRUCTED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES. 2% MAXIMUM SLOPE.
    - WALKING SURFACES SHALL BE SOLID SURFACES. EXCEPT OPENINGS PERMITTED THAT WILL NOT PASS A 1/2" DIAMETER SPHERE. ELONGATED OPENINGS SHALL BE PERPENDICULAR TO TRAVEL.
    - USABLE SPACE UNDER STAIRS SHALL NOT BE ENCLOSED.
    - ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED.
    - THE STAIRWAY CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOD-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

**GENERAL NOTES** **6**

SCALE ON 30 x 42 PRINTED SHEET

DO NOT SCALE PLANS OR DETAILS



**Victorian One**  
Cast Spiral Stair Rits

THIS PLAN IS VALID ONLY WITH NET SEAL & SIGNATURE OF ENGINEER.

REGISTERED PROFESSIONAL ENGINEER  
No. 23278  
Exp. 12/31/15  
STATE OF CALIFORNIA

JUN 24 '14

DRAWN: K. MOURA  
CHECKED: W.  
DATE: 2-17-14  
SCALE: AS SHOWN  
JOB NO.: 85-92  
SHEET: 1

REVISIONS

BY

WOOD Engineering, Inc.  
Structural Engineering  
7765 Wilshire  
Contractor & Residential Building Design  
10400 FOOTHILL BOULEVARD #250  
BAY AREA, CA 94024 • FAX: (925) 605-6899  
(925) 605-1000

CONTRACTOR: PHONE: (800) 362-4786 OR (909) 605-1000  
WWW.THEIRONSHOP.COM

**THE IRON SHOP**

3849 GLASTI ROAD, UNIT D,  
ONTARIO, CA 91761  
TELEPHONE: (909) 605-8889  
FAX: (909) 605-8889

**SPIRAL STAIRWAY**

**MODEL NO.: STANDARD #139**

L.A. CITY STANDARD PLAN #139  
L.A. CITY LICENSED FABRICATOR #1150

APPROVAL STAMP

OF 1 SHEETS