



TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

RESIDENTIAL PROJECT
REVIEW COMMITTEE
Adam R. Kaufman AICP, Chair

Telephone: (914) 273-3000 x43
Fax: (914) 273-3554
www.northcastleny.com

RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) PROCEDURES

The RPRC was created to streamline the residential review process and quickly reviews all residential projects. Projects determined to have no impact are permitted to apply to the Building Department while more complicated projects are directed to the appropriate review board(s).

THE RPRC reviews all applications for residential permits (including, but not limited to, buildings permits, steep slope permits, wetlands permits and pool permits), but excluding permits only relating to interior alterations/renovations.

To get on an RPRC agenda you must submit a single PDF file containing the following to the Planning Department:

1. Complete all items on the RPRC checklist
2. RPRC Application fee. Check made payable to: Town of North Castle.
3. Floor Area and Gross Land Coverage work sheets (with backup information)
4. Plans for your project according the RPRC Checklist
5. Submit one single PDF file containing all information listed above to the Planning Department: planning@northcastleny.com.

Once your application has been submitted, you may follow your application on the RPRC webpage located at <http://www.northcastleny.com/residential-project-review-committee-rprc>

Determination Letters are posted on the website (click on determination letters, find the date of your meeting and click on the name of your project - Letters are posted the day after the meeting, typically by 1 :00 p.m.)



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RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

Section I- PROJECT

ADDRESS: 7 Frog Rock Rd

Section III- DESCRIPTION OF WORK:

We are proposed two separate decks in this presentation. Deck one will go in the same footprints as the existing deck located in the rear of the yard.

This deck will be 58' x 14' for a total of 812 sqft. The existing deck that we are replacing is currently 790 sqft. The total net increase for this deck from the previous deck is 22 sqft. The deck will consist of pressure treated wood framing, composite deck boards and metal and cable railings.

Deck two will be located on the side of the house and will be attached to a swim spa. 135 sqft of the deck is located in North town while 20 sqft, one set of steps and the swim spa are all located in New Castle. This deck will consist of pressure treated framing, composite decking and metal and cable railings.

No trees will be removed or disturbed during construction.
All footings will be dug by hand.

Section III- CONTACT INFORMATION:

APPLICANT: Scott Metsch

ADDRESS: 7 Frog Rock Rd Armonk NY

PHONE: _____ MOBILE: 1-646-207-2628 EMAIL: scott@scomet.com

PROPERTY OWNER:
Scott Metsch

ADDRESS: 7 Frog Rock Rd Armonk NY

PHONE: _____ MOBILE: 1-646-207-2628 EMAIL: scott@scomet.com

PROFESSIONAL: Dave Feeney

ADDRESS: 20 Alta Dr. Newburgh NY

PHONE: _____ MOBILE: 845-590-5543

EMAIL: feeneyengineering@gmail.com

Section IV- PROPERTY INFORMATION:

Zone: R-2A Tax ID (lot designation) 100.03-1-17



**Town of North Castle
Residential Project Review Committee**

17 Bedford Road Armonk, New York 10504
(914) 273-3542 (914) 273-3554 (fax)

RPRC COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all Residential Project Review Committee submissions. Failure to provide all of the information requested will result in a determination that the application is incomplete.

Project Name on Plan:

Initial Submittal Revised Preliminary

Street Location:

Zoning District: _____ Property Acreage: _____ Tax Map Parcel ID: _____

Date: _____

DEPARTMENTAL USE ONLY

Date Filed: _____ Staff Name: _____

Preliminary Plan Completeness Review Checklist

Items marked with a "☒" are complete, items left blank "☐" are incomplete and must be completed, "NA" means not applicable.

- 1. Plan prepared by a registered architect or professional engineer
- 2. Aerial photo (Google Earth) showing the applicant's entire property and adjacent properties and streets
- 3. Map showing the applicant's entire property and adjacent properties and streets
- 4. A locator map at a convenient scale
- 5. The proposed location, use and design of all buildings and structures
- 6. Existing topography and proposed grade elevations
- 7. Location of drives
- 8. Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences

RPRC COMPLETENESS REVIEW FORM

Page 2

- 9. Description of method of water supply and sewage disposal and location of such facilities
- 10. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work
- 11. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District
- 12. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree.
- 13. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer.

More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: <http://www.northcastleny.com/townhall.html>

_____ On this date, all items necessary for a technical review of the proposed site plan have been submitted and constitute a COMPLETE APPLICATION.



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PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

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Fax: (914) 273-3554
www.northcastleny.com

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: _____ Date: _____

Tax Map Designation or Proposed Lot No.: _____

Gross Lot Coverage

1. Total lot Area (Net Lot Area for Lots Created After 12/13/06): _____
2. **Maximum** permitted gross land coverage (per Section 355-26.C(1)(b)): _____
3. **BONUS** maximum gross land cover (per Section 355-26.C(1)(b)):
 Distance principal home is beyond minimum front yard setback
 _____ x 10 = _____
4. **TOTAL Maximum Permitted gross land coverage** = Sum of lines 2 and 3 _____
5. Amount of lot area covered by **principal building**:
 _____ existing + _____ proposed = 3080
6. Amount of lot area covered by **accessory buildings**:
 _____ existing + _____ proposed = _____
7. Amount of lot area covered by **decks**:
 _____ existing + _____ proposed = _____
8. Amount of lot area covered by **porches**:
 _____ existing + _____ proposed = _____
9. Amount of lot area covered by **driveway, parking areas and walkways**:
 _____ existing + _____ proposed = _____
10. Amount of lot area covered by **terraces**:
 _____ existing + _____ proposed = _____
11. Amount of lot area covered by **tennis court, pool and mechanical equip**:
 _____ existing + _____ proposed = _____
12. Amount of lot area covered by **all other structures**:
 _____ existing + _____ proposed = _____
13. Proposed **gross land coverage**: Total of Lines 5 – 12 = _____

If Line 13 is less than or equal to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.

Signature and Seal of Professional Preparing Work _____ Date _____





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17 Bedford Road
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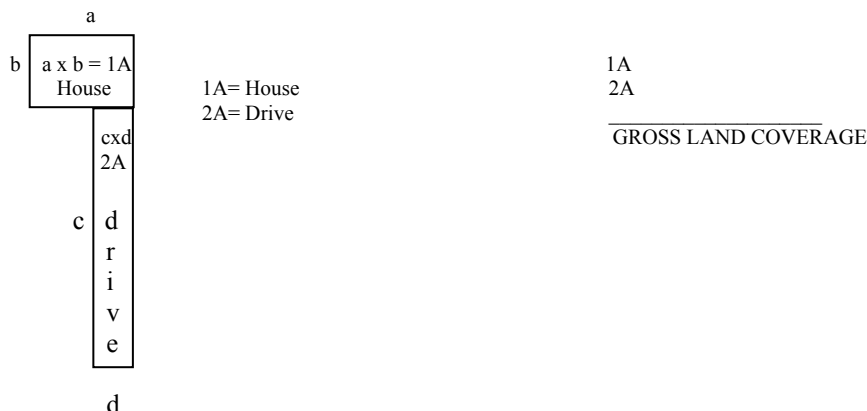
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GROSS LAND COVERAGE WORKSHEET

The following format is to be used for all applications for the purpose of demonstrating the gross land coverage of a property as necessary to show compliance with gross land coverage limitations of the Town Code.

1. Scaled worksheets are to be prepared based upon a site plan which represents existing or proposed conditions as applicable to the particular circumstances of the approval being sought. All site plans and worksheets are required to be prepared by a licensed or registered professional in the State of New York.
2. Each component of the gross land coverage is to be divided into simple polygons (squares, rectangles, etc.) each being drawn on the plan. The area of each polygon is to be shown by providing the dimensions and resulting area measurement. Each polygon is to be assigned an identifying label for reference purposes.
3. A summary table for each component is to be completed. The area of each polygon is to be listed by reference label then added, resulting in the gross land coverage for the entire site.
4. Any exception of land coverage from the gross land coverage must be identified on the floor plans and summary tables. The rationale for any exception must accompany the floor area worksheets.
5. A schematic illustration of the format is shown below



LOT AREA, NET – Lot area minus seventy five (75) percent of the area of any wetlands, waterbodies and, watercourses, but excluding any adjacent areas, all as defined in Chapter 209 Wetlands and Drainage, of the Town Code, and the area of any steep slopes, as defined Chapter 213, except that in the case of one-family lots, the deduction for steep slopes shall be only fifty (50) percent.

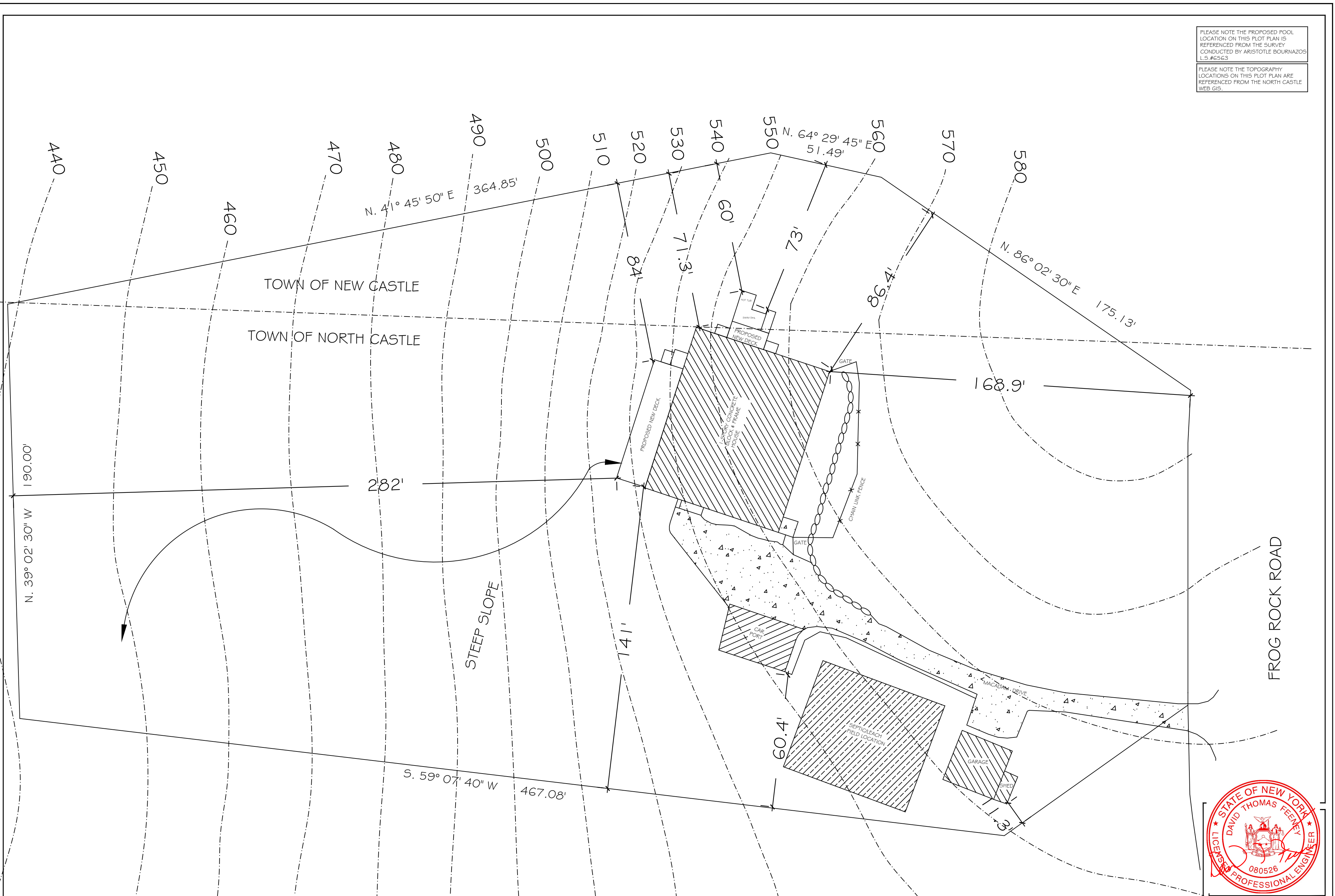
Lot Size	Maximum Permitted Gross Land Coverage for One-Family Dwelling Lots ¹ (square feet)
Less than 5,000 square feet	50% of the lot area
5,000 to 9,999 square feet	2,500 plus 30% of the lot area in excess of 5,000 square feet
10,000 to 14,999 square feet	4,000 plus 24% of the lot area in excess of 10,000 square feet
15,000 square feet to 0.499 acres	5,200 plus 18% of the lot area in excess of 15,000 square feet
0.5 to 0.749 acres	6,420 plus 15% of the lot area in excess of 0.5 acres
0.75 to 0.999 acres	8,050 plus 12% of the lot area in excess of 0.75 acres
1.0 to 1.999 acres	9,350 plus 9% of the lot area in excess of 1.0 acres
2.0 acres or more	13,270 plus 7.5% of the lot area in excess of 2.0 acres

*Permitted gross land coverage limitations for two-family dwelling lots in the R-2F District shall be twenty five (25) percent greater than that permitted for one-family dwelling lots.

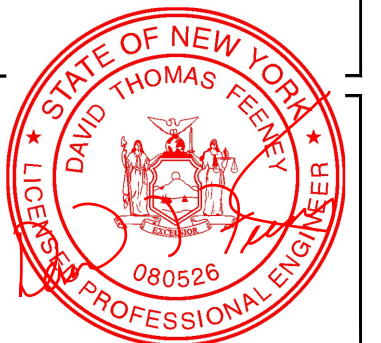
NOTWITHSTANDING ABOVE LIMITATIONS, AN ADDITIONAL 10 SQUARE FEET OF GROSS LAND COVERAGE SHALL BE PERMITTED FOR EACH ONE FOOT OF FRONT YARD SETBACK OF THE PRINCIPAL DWELLING IN EXCESS OF THE MINIMUM FRONT YARD SETBACK REQUIRED.

PLEASE NOTE THE PROPOSED POOL LOCATION ON THIS PLOT PLAN IS REFERENCED FROM THE SURVEY CONDUCTED BY ARISTOTLE BOURNAZOS L.S.#6563

PLEASE NOTE THE TOPOGRAPHY LOCATIONS ON THIS PLOT PLAN ARE REFERENCED FROM THE NORTH CASTLE WEB GIS.



A PLOT PLAN
A101 SCALE: 1" = 30'- 0"



FEENEY ENGINEERING
SINCE 2004
20 ALTA DR NEWBURGH NY
PHONE: 845-590-5543 FEENEYENGINEERING@GMAIL.COM

PROJECT: SCOTT METSCH
7 FROG ROCK RD ARMONK NY 10594

DRAWING: **PLOT PLAN**

SCALE: AS NOTED	DRAWN BY: RLL	DRAWING NO:
DATE: 1/23/20	CHECKED BY: DF	A101

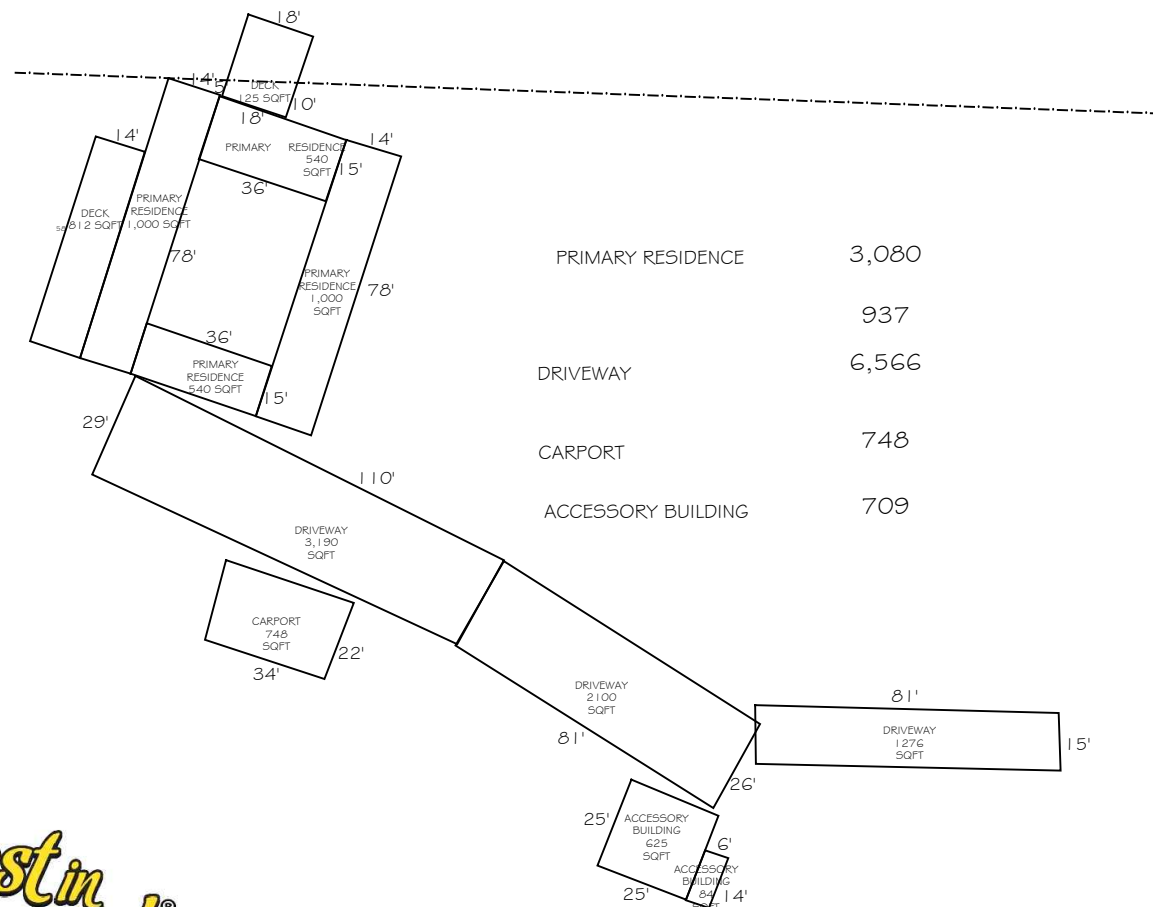
Best in Backyards
—A Division of Eastern Jungle Gym®
30 COMMERCE DRIVE
CARMEL, NEW YORK - (877) 543-4969

PLEASE NOTE THAT ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

WARNING: IT IS A VIOLATION OF NYS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER AN ITEM IN ANY WAY.



A AERIAL MAP
A100 SCALE: N.T.S.



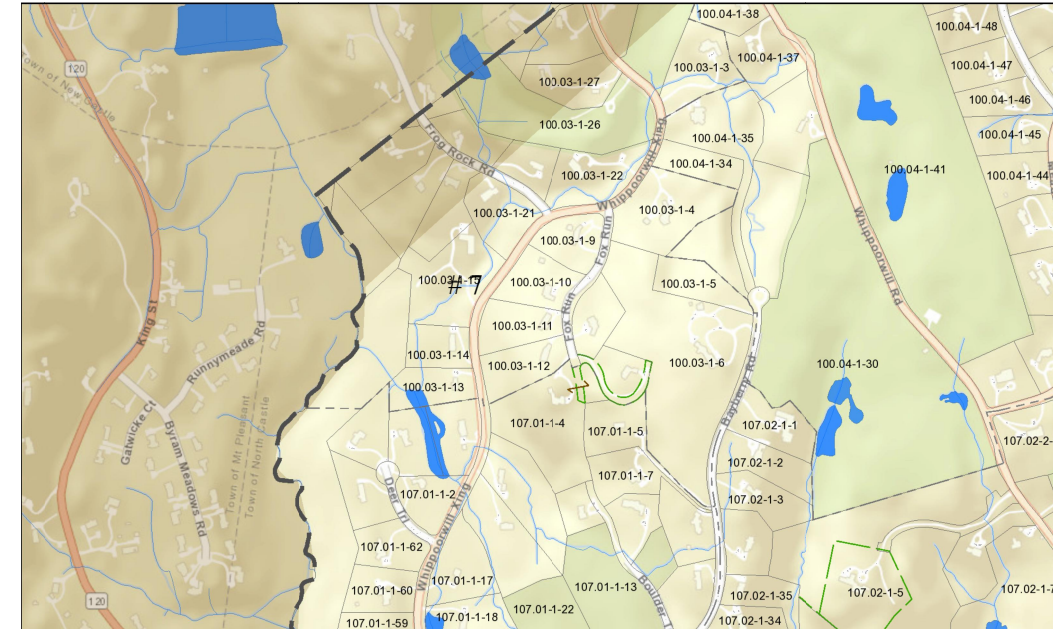
C GROSS LOT COVERAGE
A100 SCALE: N.T.S.

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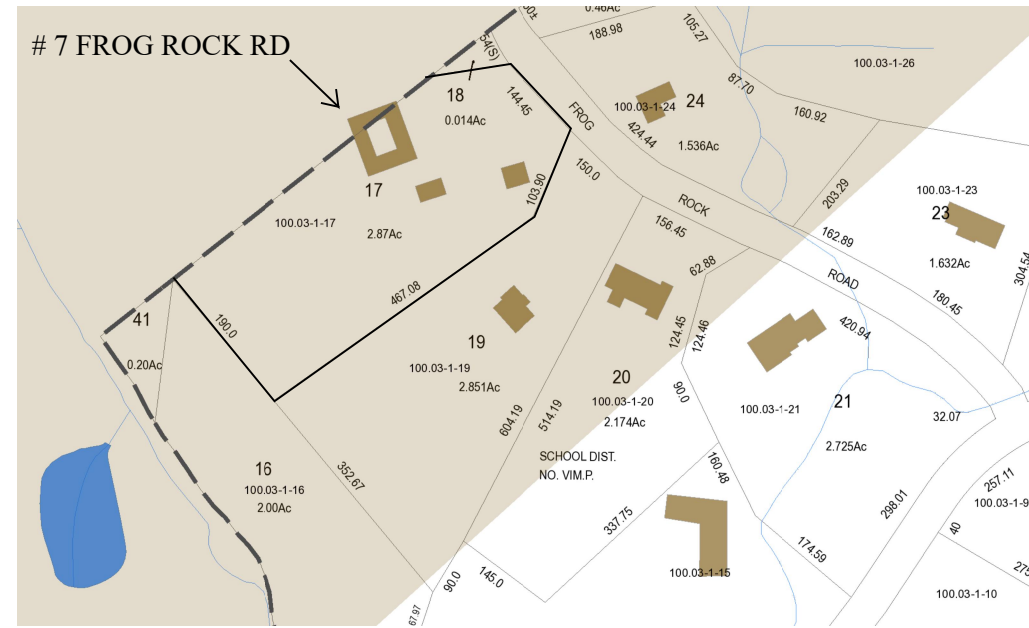
WARNING: IT IS A VIOLATION OF NYS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER AN ITEM IN ANY WAY.

NOTES:

1. EXITING DECK IN REAR YARD TO BE REMOVED AND NEW DECK WILL REST IN 80 PERCENT OF EXISTING FOOTPRINTS.
2. NO CONSTRUCTION EQUIPMENT OR DELIVERY TRUCKS WILL ENTER THE YARD. ALL MATERIALS WILL BE CARRIED IN BY HAND OR WHEELBARROW.
3. THE GRADE WILL REMAIN UNCHANGED. ANY EXCESS SOIL WILL BE HAND GRADED BACK INTO THE YARD. ALL STONES OVER 1 INCH IN DIAMETER, STICKS AND FOREIGN MATERIAL WILL BE REMOVED.
4. STRAW BALES WILL BE USED TO PREVENT ANY EROSION DURING CONSTRUCTION.
5. YARD WILL BE RE-SEEDED, MULCHED AND FERTILIZED WHEN CONSTRUCTION IS COMPLETE.
6. NO WETLANDS LOCATED ON THE PROPERTY
7. NO TREES WILL BE REMOVED AND NO TREES ARE WITHIN A 10' RADIUS FROM THE PROJECT THAT WILL BE DISTURBED.
8. TOP OF SWIM SPA IS 54" ABOVE GRADE. ALL STAIRS PROVIDING ACCESS TO SWIM SPA WILL BE EQUIPPED WITH GATES WILL BE SELF CLOSING AND WILL BE EQUIPPED WITH A SELF LOCKING LATCH AT A HEIGHT OF 54"
9. THE HOUSE WILL SERVE AS A PARTIAL BARRIER TO THE SWIM SPA ENCLOSURE AND ALL DOORS WILL BE EQUIPPED WITH A POOL COMPLIANT ALARM.
10. PROPERTY IS ON TOWN WATER.



C LOCATOR MAP
A100 SCALE: N.T.S.

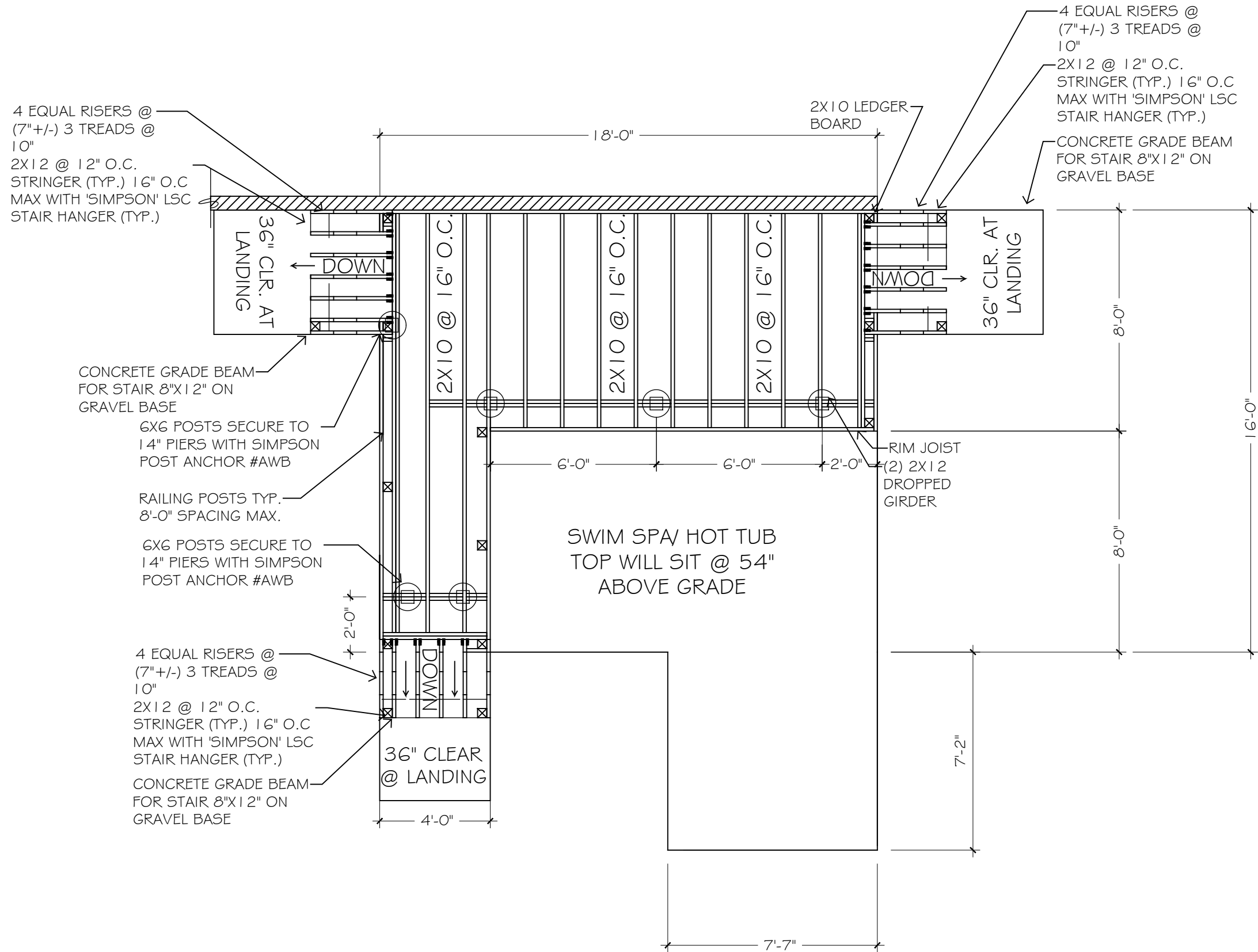


B PROPERTY MAP
A100 SCALE: N.T.S.



FEENEY ENGINEERING
SINCE 2004
20 ALTA DR NEWBURGH NY
PHONE: 845-590-5543 FEENEYENGINEERING@GMAIL.COM
PROJECT: ERCUMENT BAYRASLI
9 BANKS FARM RD BEDFORD NY 10506

DRAWING		
NOTES		
SCALE AS NOTED	DRAWN BY RL	DRAWING NO. A100
DATE 1/12/20	CHECKED BY DF	



A DECK A
A102 SCALE: 1/4" = 1'-0"



FEENEY ENGINEERING
SINCE 2004
20 ALTA DR NEWBURGH NY
PHONE: 845-590-5543 FEENEYENGINEERING@GMAIL.COM

PROJECT: SCOTT METSCH
7 FROG ROCK RD ARMONK NY 10504

DRAWING: DECK A

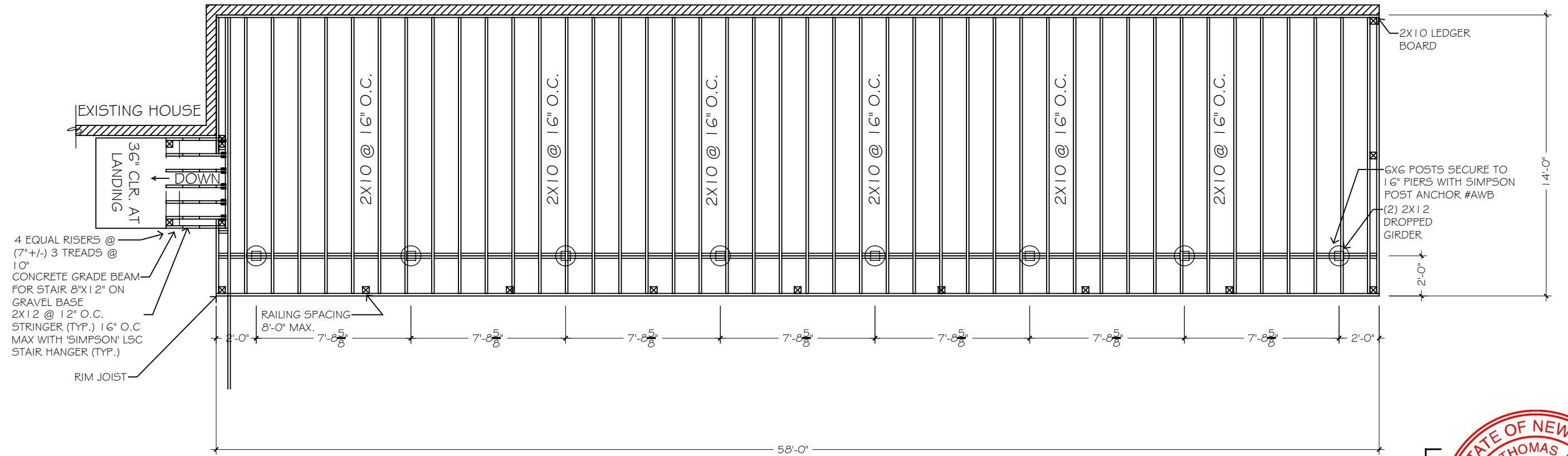
SCALE: AS NOTED	DRAWN BY: RLL	DRAWING NO. A102
DATE: 1/11/20	CHECKED BY: DF	



30 COMMERCE DRIVE
CARMEL, NEW YORK - (877) 543-4969

WARNING: IT IS A VIOLATION OF NYS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER AN ITEM IN ANY WAY.

EXISTING HOUSE



30 COMMERCE DRIVE
CARMEL, NEW YORK - (877) 543-4969

A DECK B
A103 SCALE: 1/4" = 1'-0"

WARNING: IT IS A VIOLATION OF NYS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER AN ITEM IN ANY WAY.

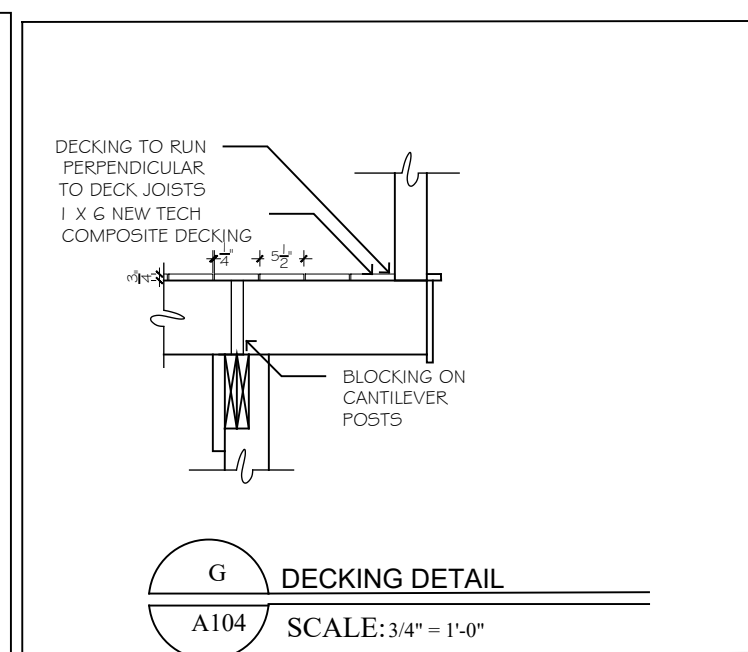
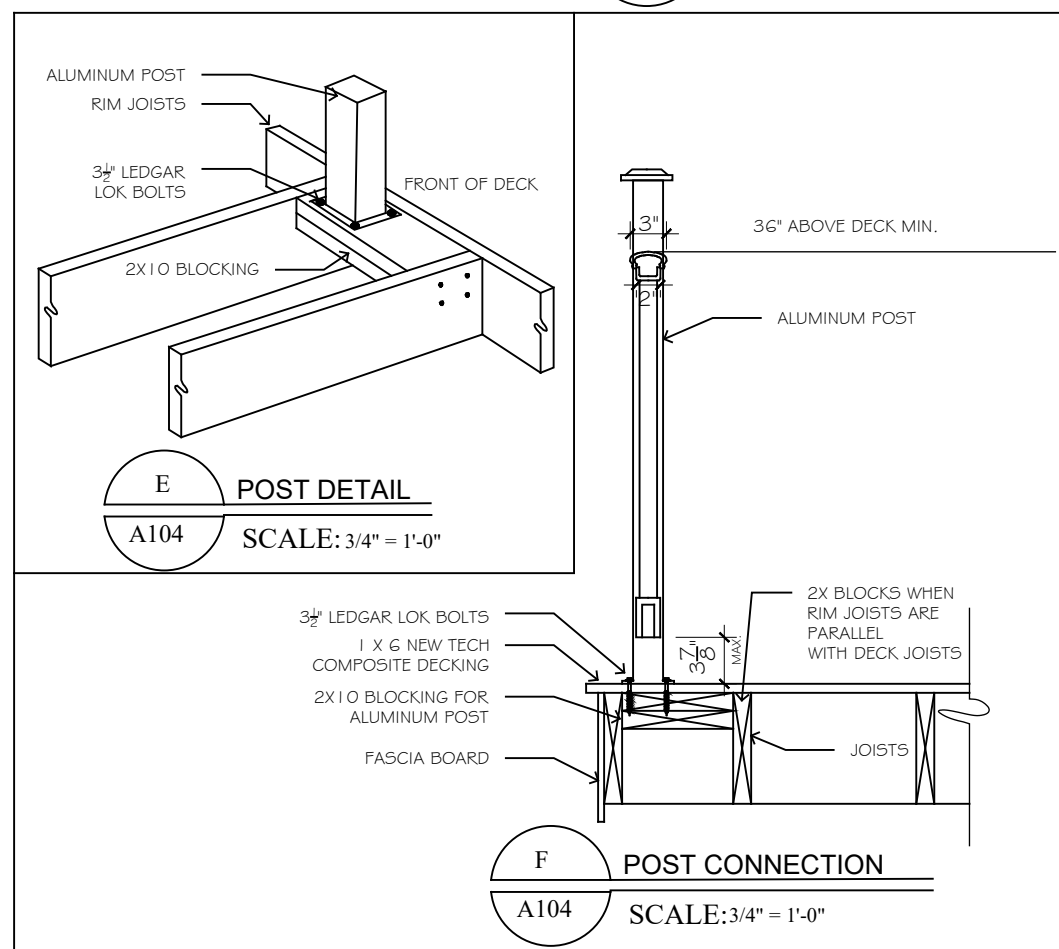
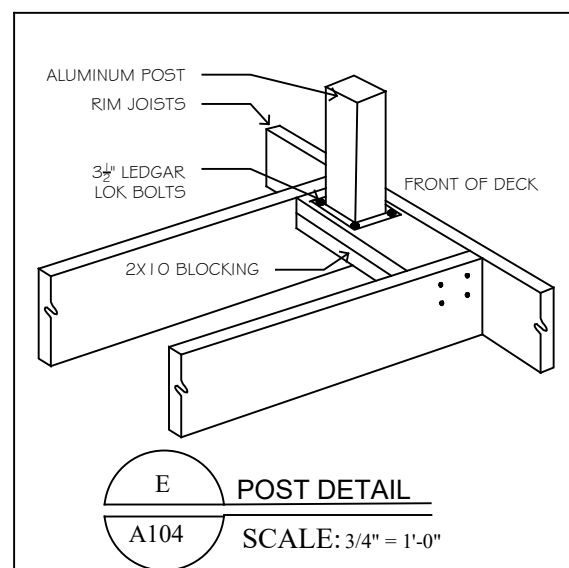
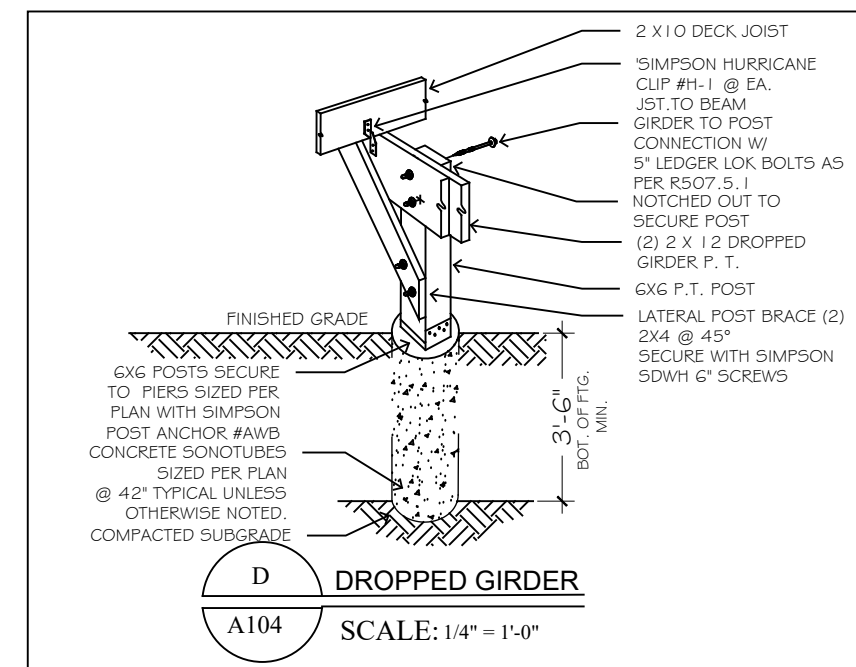
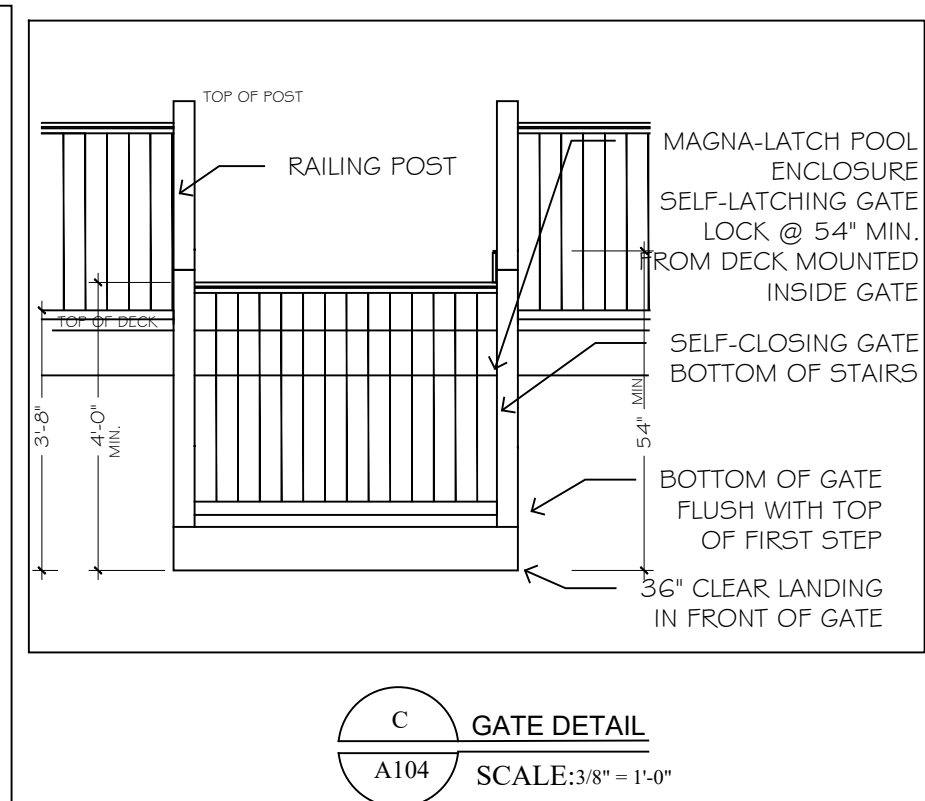
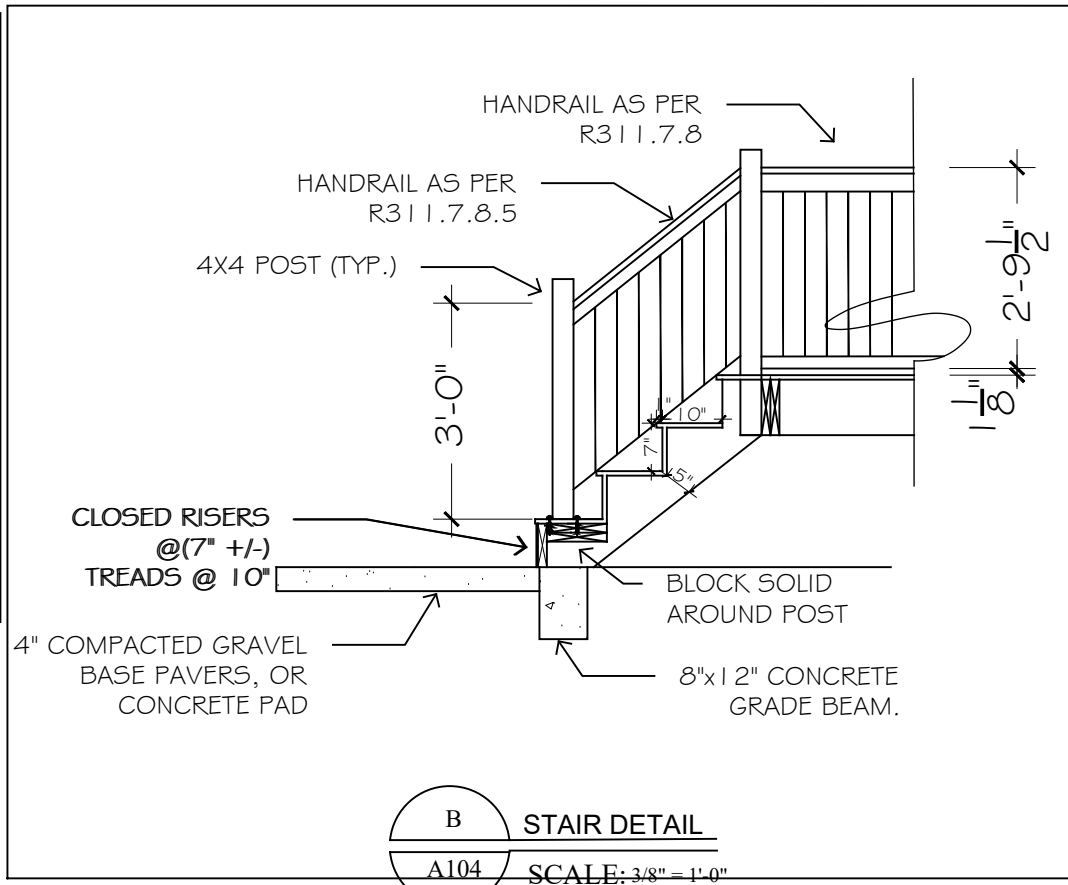
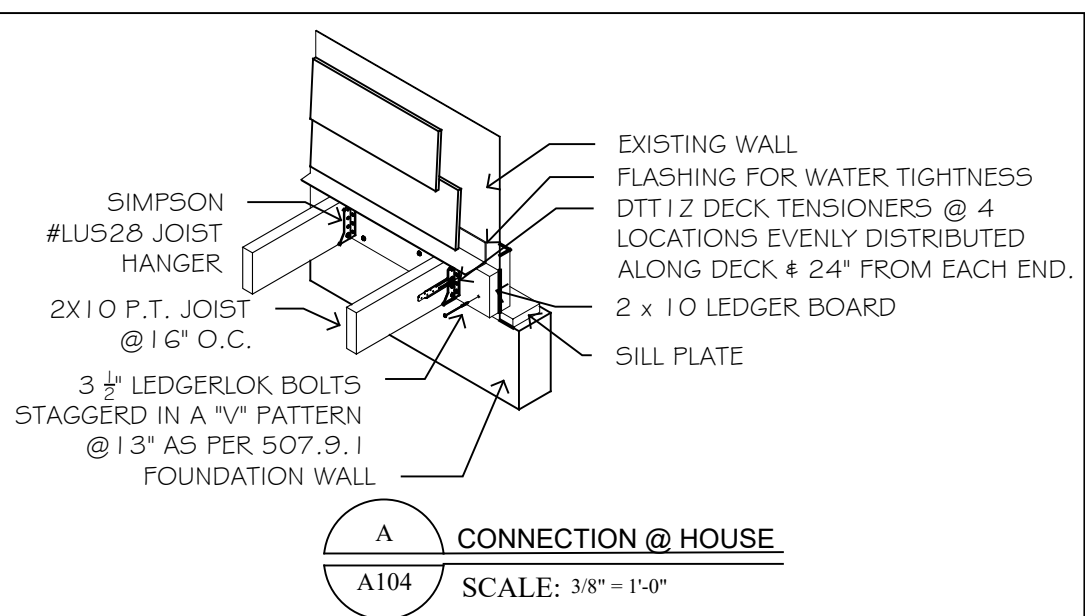


FEENEY ENGINEERING
SINCE 2004
20 ALTA DR NEWBURGH NY
PHONE: 845-590-5543 FEENEYENGINEERING@GMAIL.COM

PROJECT SCOTT METSCH
7 FROG ROCK RD ARMONK NY 10504

DRAWING DECK A

SCALE AS NOTED	DRAWN BY RL	DRAWING NO. A103
DATE 1/23/20	CHECKED BY DF	



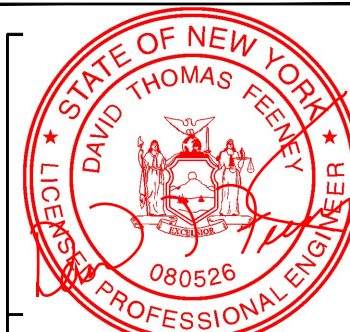
RAILING & STAIR NOTE

STAIRS WITH (4) OR MORE RISERS SHALL BE PROVIDED WITH HANDRAILS ON AT LEAST ONE SIDE. HANDRAILS SHALL BE A MINIMUM OF 34" IN HEIGHT AND NOT MORE THAN 38" IN HEIGHT. RAILS ARE TO BE MEASURED VERTICALLY FROM THE NOSING OF THE TREADS.

PORCHES, DECKS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS A MINIMUM OF 36" HIGH.

RISERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE.

ALL WOOD TO BE PRESSURE TREATED.



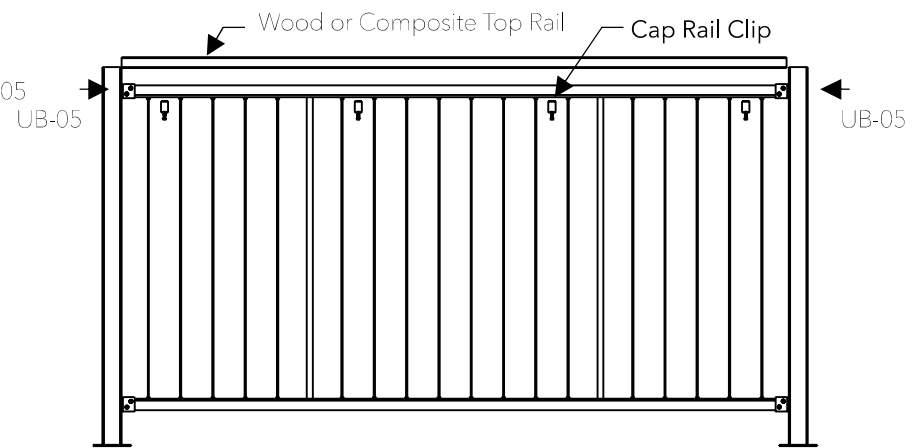
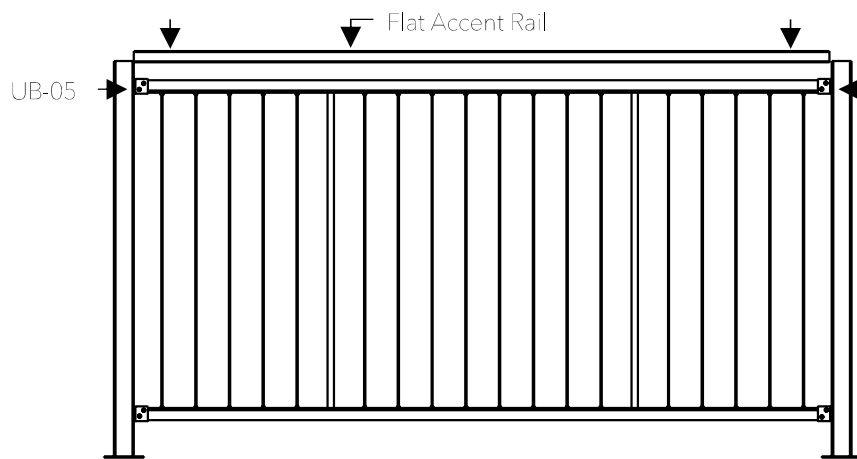
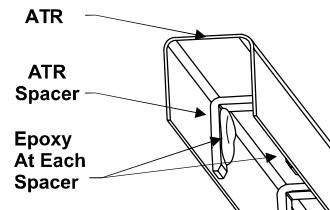
20 ALTA DR NEWBURGH NY
PHONE: 845-590-5543 FEENEYENGINEERING@GMAIL.COM

SCOTT METSCH
7 FROG ROCK RD ARMONK NY 10504

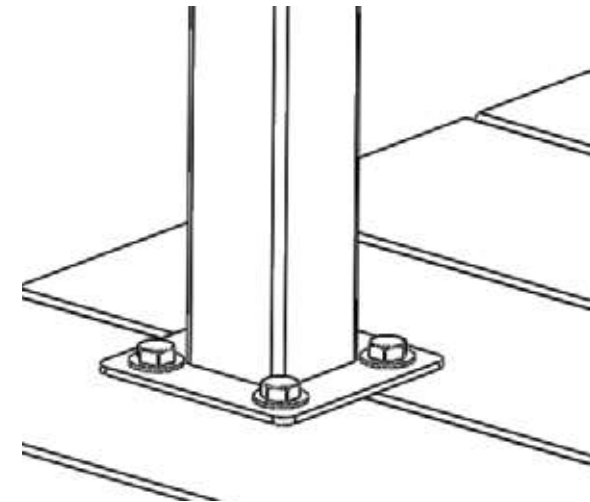
DETAILS		
DATE	BY	SCALE
AS NOTED	RLL	A104
11/23/20	DF	

MOUNT BRACKETS & PANELS

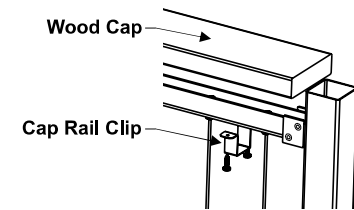
OPTION 1: UNIVERSAL BRACKETS



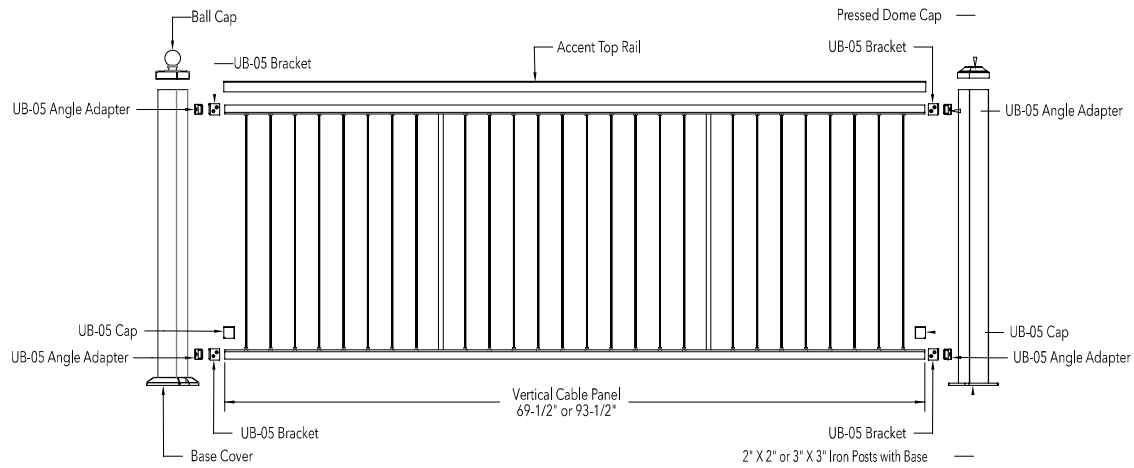
MOUNT POSTS



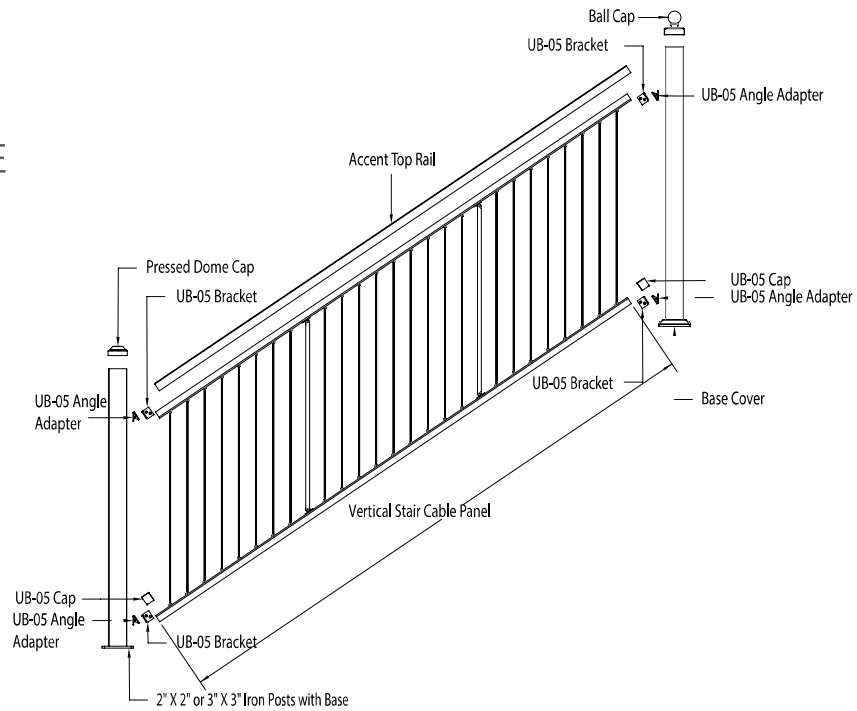
Fortress Posts must always be secured to the deck framing and should never be attached to only the deck boards.



UNIVERSAL BRACKETS: ANGLE/MITER



UNIVERSAL BRACKETS: STAIR WITH UB-05 ANGLE ADAPTER



Issue Date: 04-03-2017
Revision Date: 05-14-2020
Renewal Date: 05-30-2021

DIVISION: 05 00 00 METALS
Section: 05 52 00 – Metal Railings

REPORT HOLDER:
FORTRESS RAILING PRODUCTS
1720 North First Street
Garland, Texas 75040
972-231-4001
www.FortressRailing.com

REPORT SUBJECT:
Fortress Vertical Cable Railing
Fortress Horizontal Cable Railing

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2015 *International Building Code*® (IBC)
- 2015 *International Residential Code*® (IRC)

1.2 *Fortress Vertical and Horizontal Cable Railing* has been evaluated for the following properties:

- Structural Performance

1.3 *Fortress Vertical and Horizontal Cable Railing* has been evaluated for the following uses:

- The *Fortress Vertical and Horizontal Cable Railing* as described in this report are guardrails (guards) under the definitions of the referenced codes and are intended for use on elevated walking areas such as decks, balconies and porches. See Table 1 for qualified guardrail dimensions.

2.0 STATEMENT OF COMPLIANCE

2.1 *Fortress Vertical and Horizontal Cable Railing* complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 The *Fortress Vertical and Horizontal Cable Railing* systems are pre-assembled steel railing systems consisting of galvanized formed steel rails, pickets, and posts. The system consists of the following components;

3.1.1 3.1.1 The top and bottom rails for vertical assemblies are a two-piece assembly consisting of 1-1/4" high by 1-1/4" wide by 0.160" wall U-shaped bend steel section (outside member) and a 7/16" high by 7/8" wide by 0.075 wall U-shaped bent steel (inside member). Horizontal assemblies consist of only the U member. See Figure 1.

3.1.2 Infill may consist of vertical or horizontal stainless steel cable and steel balusters. The cables are of 1/8" diameter, 1x19, 316 stainless steel.

3.1.2.1 Vertical cables are installed at 3-1/4" on center with 5/8" diameter steel balusters spaced no greater than 31-1/4" on center along the length of the rail. The ends of the steel balusters include internal threading for attachment to the rail using a 5/16"-20 by 1-1/8" hex head stainless bolts. See Figures 3 through 5.

3.1.2.2 Horizontal cables are spaced every 3.6" to 3.77" depending on railing height with one 0.5" square hollow vertical midline support. The support is fitted with an internally threaded cap for installation to the top and bottom rails. See figures 6 through 7.

3.1.3 Top and bottom rails are connected to posts using steel mounting brackets. See Figure 2.

3.1.4 The railings are attached to either conventional 4 x 4 wood supports or steel posts. Steel post options include:

3.1.4.1 Square steel tube, 2" by 0.098" thick wall. The tube is connected to a 4" by 6mm thick square base via a 3/16" continuous fillet weld. The base plate has four 0.39" diameter holes for anchor bolts. See Figure 9.



3.1.4.2 Square steel tube, 3" by 0.075" thick wall. The tube is connected to a 5.12" by 7.6mm thick square base plate via a 1/4" continuous fillet weld. The base plate has four 1/2" diameter holes for anchor bolts. See Figure 8.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The *Fortress Vertical and Horizontal Cable Railing* systems described in this report has demonstrated the capacity to resist the design loads specified in Chapter 16 of the IBC, as well as Section R301 of the IRC when tested in accordance with ICC-ES AC273. See Table 1 for maximum guardrail dimensions and code occupancy classifications.

5.0 INSTALLATION

5.1 General:

Fortress Vertical and Horizontal Cable Railing must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application:

5.2.1 *Fortress Vertical and Horizontal Cable Railing* is a pre-assembled steel railing system.

5.2.2 Top and bottom rails are secured to steel posts or conventional wood posts with metal brackets and carbon steel screws. Wood posts or other wood supporting structure shall have a specific gravity of 0.55 or greater (Southern Yellow Pine or better) and a minimum thickness to allow full penetration of the mounting screws. Rail attachment shall be in accordance with Table 2.

5.2.3 The steel posts shall be anchored to a concrete, steel or, wood deck with four 3/8" approved anchor bolts. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report. See Section 6: Conditions of Use for additional requirements.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 The *Fortress Vertical and Horizontal Cable Railing* described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 and 2.0 of this report, subject to the following conditions:

6.2.1 Conventional wood supports for guardrails, including posts are not within the scope of this report and are subject to evaluation and approval by the building official. Supports must satisfy the design load requirements specified in Chapter 16 of the IBC. Supports and framing must provide suitable material for anchorage of the rail brackets and supports, respectively. Where required by the building official, engineering calculations and details shall be provided.

6.2.2 Anchorage of the structural steel post is not within the scope of this report and is subject to evaluation and approval by the building official. Anchors must satisfy the design load requirements specified in Chapter 16 of the building code and must meet the following minimum requirements:

6.2.2.1 A minimum of four anchor bolts must be used and located in the four pre-drilled holes in the post base plate.

6.2.2.2 The anchors must be stainless steel, galvanized steel, or other material compatible with the steel posts.

6.2.2.3 The anchor bolts must have a minimum diameter of 3/8" and utilize flat washers. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report.

6.2.2.4 For installation on wood decks, anchorage shall be made to structural framing. Anchorage to decking alone is not permitted.

6.2.3 Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage and supporting structure complies with the building code for the type and condition of the supporting construction.

6.2.4 Any component or configuration not identified in this report has not been evaluated for performance and/or compliance to the referenced codes. Identification





of such components with the CCRR program mark and/or number is prohibited.

6.2.5 Compatibility of fasteners and other installation hardware with the supporting construction, including treated wood, is not within the scope of this report.

6.2.6 Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the railing systems described herein; other methods of attachment are outside the scope of this report.

6.3 *Fortress Vertical and Horizontal Cable Railing* is manufactured by Fortress Railing Products under a quality program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ICC-ES AC273, Acceptance Criteria for Handrails and Guards, revised March 2016.

7.3 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

Fortress Vertical and Horizontal Cable Rails are identified with the manufacturer's name (Fortress Railing Products), address and telephone number, the product name (*Fortress Vertical or Horizontal Cable Railing*), the phrase "For Use in One- and Two-Family Dwellings Only" where applicable, the Intertek Mark as shown below, the Code Compliance Research Report mark and number (CCRR-0248), and the following statement: "See CCRR-0248 at <https://whdirectory.intertek.com> for uses and performance levels.



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





TABLE 1 – GUARDRAIL SYSTEMS AND CODE OCCUPANCY CLASSIFICATIONS

Maximum Guardrail Dimensions ⁽¹⁾	Type	Supporting Post	Code Occupancy Classification
93-3/4" x 42"	Vertical Cable	2" Square Steel Posts, 3" Square Steel Posts or, Conventional Wood Posts	IBC: All Use Groups And, IRC: One- and Two-Family Dwellings
93.5" x 42"	Horizontal Cable		

⁽¹⁾ Guardrails are qualified up to and including the listed maximum guardrail dimensions for use in the referenced Code Occupancy Classification. Guardrail lengths are actual railing lengths, i.e. clear space between supports for level rails. Guardrail height is walking surface to top of top rail.

TABLE 2 – FASTENING SCHEDULE

Connection	Fastener
Rail Bracket to Steel Post ⁽¹⁾	Vertical Cable: Two 12-24 by 3/4" (0.178 in minor diameter) thread-cutting, star-drive, stainless steel screws
	Horizontal Cable: Two ¼" -20 x 0.75" T-25 thread-cutting, star drive stainless steel screws.
Rail Bracket to Wood Post	Two #12-10 by 2-1/2" (0.155 in minor diameter) Type A point, wood screws
Rail Bracket to Rail ⁽¹⁾	Vertical Cable: One #12-24 by 3/4" (0.178 in minor diameter) thread-cutting, star-drive, carbon steel screws (fastened on deck side of rail/bracket).
	Horizontal Cable: One 1/4" -20 x 0.75" T-25 Thread Cutting Flat Head Screws (fastened on deck side of rail/bracket).
Baluster to Top / Bottom Rail	One 5/16-20 by 1-1/8" hex head stainless steel bolt
Vertical Cable Infill to Top Rail	Adjustable threaded cable clamp swage fitting with lock nut
Vertical Cable Infill to Bottom Rail	Stainless steel ball cable clamp swage fitting
Horizontal Cable	Cable Clamp and adjustable threaded swage at opposing ends.
Horizontal Cable Infill Mid Span Vertical Support to Rails	M6 x 18 mm button head cap screw

⁽¹⁾ 3/16" diameter pre-drill



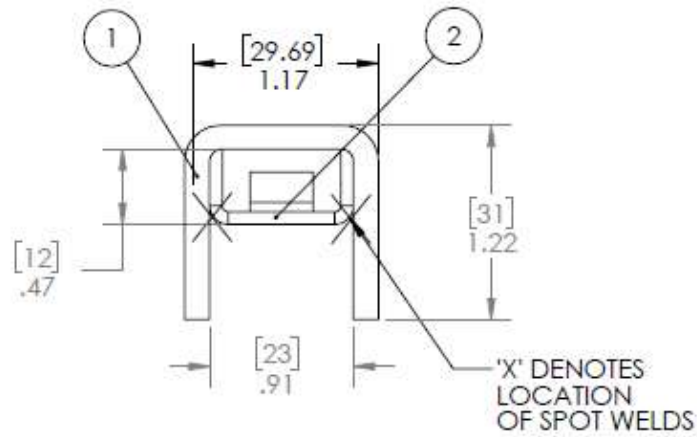


FIGURE 1: TOP AND BOTTOM RAIL ASSEMBLY

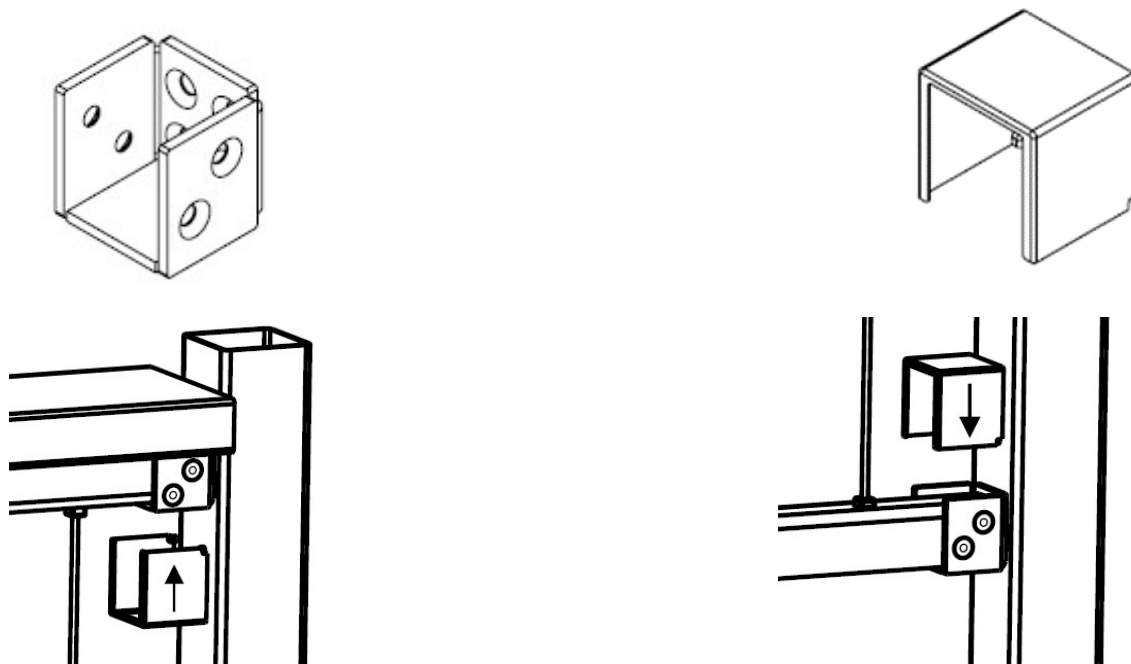


FIGURE 2: UNIVERSAL RAIL BRACKET AND ASSEMBLY

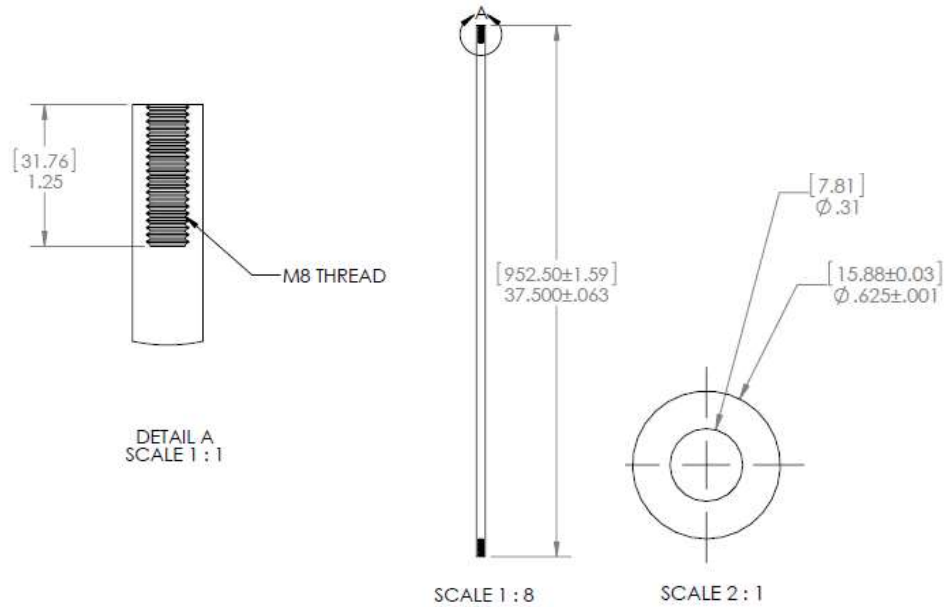
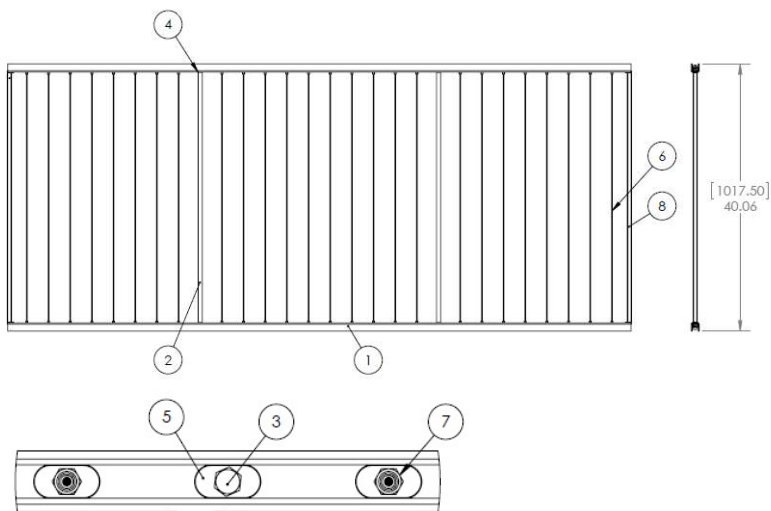


FIGURE 3: INTERNALLY THREADED BALUSTER FOR VERTICAL CABLE RAIL



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	R3331-00352	VERTICAL CABLE RAIL 93.5" WELDMENT	2
	R3331-00347	VERTICAL CABLE PANEL 93.5" RAIL	1
	R3331-00349	93.5" REINFORCING SPACER	1
2	R3331-00345	VERTICAL CABLE PANEL SPACER 40"	2
3	C9192-00198	M8 X 30MM HEX BOLT	4
4	C9193-01800	M8 NYLON WASHER	4
5	R3339-01601	NYLON WASHER SLEEVE INSERT	56
6	R3333-02752	40" VERTICAL CABLE SWAGE ASSEMBLY	26
	R3333-00343	1 X 19 STAINLESS STEEL CABLE 40"	1
	R3333-00200	STAINLESS STEEL BALL CABLE CLAMP	1
	R3333-00201	ADJUSTABLE SWAGE CABLE CLAMP	1
7	C9194-00168	M8 X 1.25" THREAD NYLON INSERT HEX LOCK NUT	26
8	R3339-02755	CR 40" PANEL RAIL SUPPORT ASSEMBLY	2
	R3339-02750	CR 40" PANEL RAIL SUPPORT TUBE	1
	R3339-02753	CR PANEL RAIL SUPPORT C CLIP	2

FIGURE 4: VERTICAL CABLE RAILING ASSEMBLY

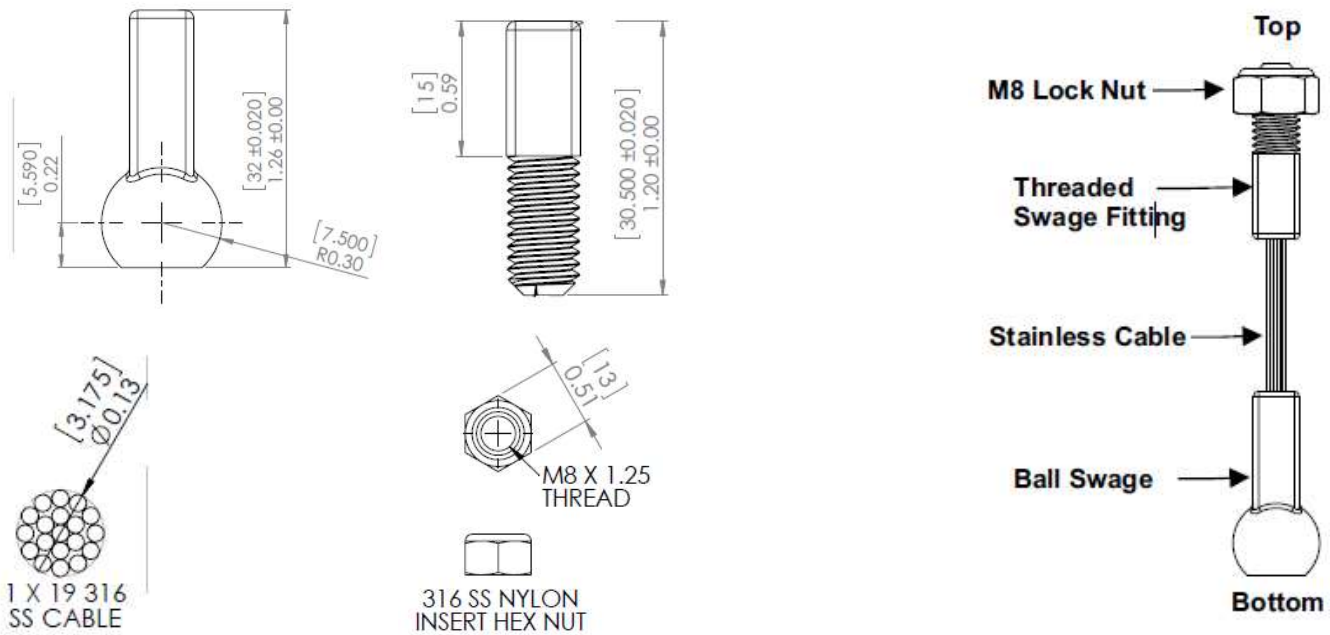
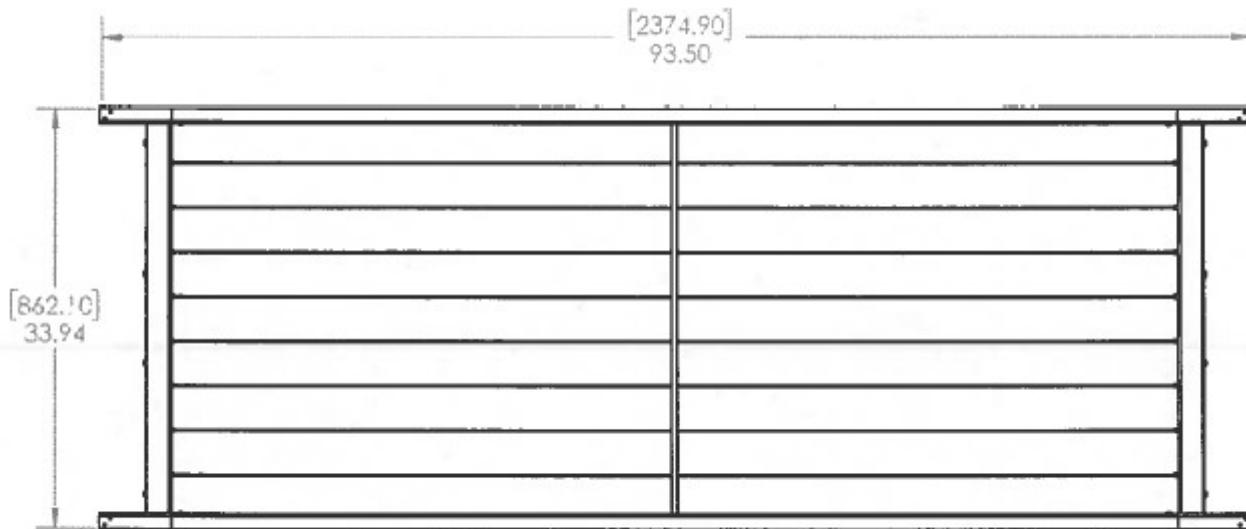


FIGURE 5: VERTICAL CABLE RAILING COMPONENTS

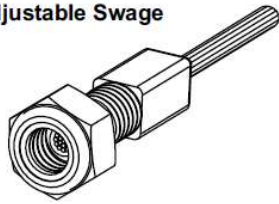


SCALE 1 : 12

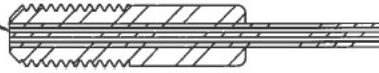
FIGURE 6: HORIZONTAL CABLE RAILING ASSEMBLY



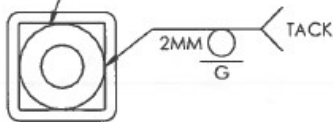
Adjustable Swage



CABLE IS EVEN WITH ADJUSTABLE SWAGE CABLE CLAMP

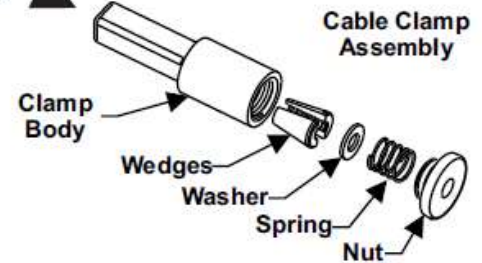


THREADED INSERT IS FLUSH WITH THE END OF THE SUPPORT



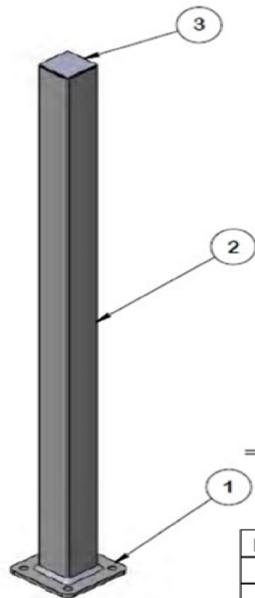
Vertical Midline Support Threaded Insert

Insert Cable This End

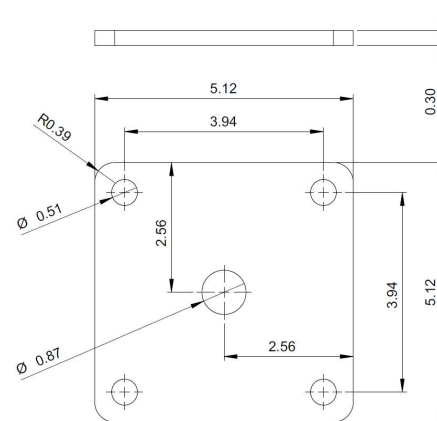


Cable Clamp Assembly

FIGURE 7 - HORIZONTAL CABLE RAILING COMPONENTS



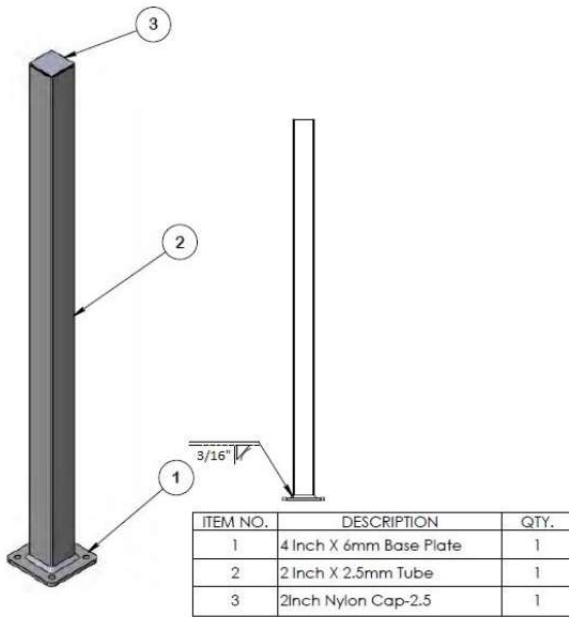
ITEM NO.	DESCRIPTION	QTY
1	5.11 Inch X 7.5mm Base Plate	1
2	3 Inch X 1.8mm Tube	1
3	3 Inch Nylon Cap	1



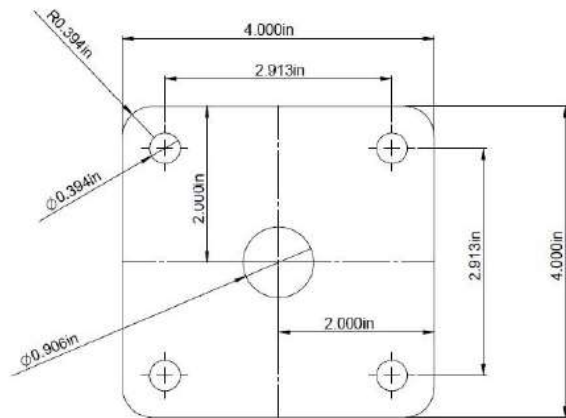
Post Assembly

Base Plate

FIGURE 8 - 3" STEEL POST



POST ASSEMBLY



BASE PLATE

FIGURE 9 - 2" STEEL POST