

SPECIFICATIONS

SOILS REPORT: No Soils Test has been Performed. A Presumptive Value of 1,500 PSF has been Used to Design this Foundation. An Open Hole Observation of All of the Foundation Excavations by the Geotechnical Engineer is Required Prior to Beginning Construction of the Foundation.

SITE DEVELOPMENT: Rough Grade to Leave Good Drainage During and After Construction. Final Grade After Construction Shall be 6" of Drop Away from the Building in the First 10'. Remove Topsoil and Organic Material from where Components of Your Foundation and Slabs will Go. If You Discover Ground Water, Notify Engineer. Do Not Build on Frozen Soil or Mud.

SOILS: Soils are a Construction Material; However, without Proper Use, They can Behave in Unpredictable Fashions. Here's what We Consider Proper Use:

- Fill and Compact Soft Spots to the Density Required for that Area of the Foundation.

- Soil Under Load Bearing Components of the Structure, Such as Walls and Pads, Shall be Compacted to 95% Modified Proctor Density. Backfill Against Foundation Walls Shall be Compacted to 80% Modified Proctor Density.

- Backfill Should be Made in 6" Layers, Called Lifts, with Each Lift Properly Compacted to the Required Density, Using the Proper Compacting Equipment. Foundation Walls Designed to have Backfill on Both Sides Shall have Fill Brought Up Equally on Both Sides, rather than Backfilling One Side Prior to Backfilling the Other. Generally, Use of a "Jumping Jack" for Cohesive Soils (i.e., Clayey or Silty) or a Vibratory Plate Compactor for Granular Soils (i.e., Sandy) will Provide Good Results. The Soil Should be at the Right Moisture Content; if it Seems Wet or Dry, Notify the Soils Engineer for Advice. Using Boom Mounted Compacting Equipment, such as a Shaker Head or "Stinger", or Pounding the Soil with a Backhoe Exerts a Tremendous Force; if Used to Compact Backfill Around Foundation Walls Failure is Likely. Likewise, Autos, Trucks, Front End Loaders, Etc., are Not Compacting Equipment, and if they are Driven Close (within 10 FT) to a Foundation Wall, it is likely the Wall Will Bow and Crack.

- Compaction Shall be Accomplished so as to Form a Berm of Dense Soil Against the Side of the Structure to Provide Adequate Lateral Support. Each Lift in the Process Shall be Finished Along the Entire Length of Wall Before Starting on the Next Lift. Do Not Compact Too Tightly or in Such a Fashion the Wedging Occurs Against the Foundation Wall or Bowing and Cracking Can Occur. Generally, Floor Joists and Slabs Must be in Place Prior to Backfilling Against the Foundation; the Foundation Design will List Specific Exceptions. Block Between the Foundation Wall and Parallel Floor Joists at 4' O.C. Along Full Height Foundation Walls.

- Do Not Allow the Backfill to Become Saturated with Water at Any Time, During or After Construction. This Places Excessive Pressure Against the Wall and Can Cause Cracking or Bowing.

- Sill Plates Shall be Anchored with 1/2" Diameter Anchor Bolts at a Maximum Spacing of 48" O.C. and within 12" of Plate Ends, Unless Otherwise Noted.

CONCRETE: Concrete Shall be a Minimum of 3,000 PSI with a Maximum Slump of 4" for Walls, Pads and Shallow Piers and a Minimum of 3,500 PSI with a Maximum 4" Slump for Deep Drilled Piers unless Otherwise Specified on Drawings. Slump may be Increased to 6" with Pozzolan Additives if No Additional Water is Used in the Mix. Beware of Concrete Truck Operators Who Wish to Add Water to the Concrete at the Site to Make it More Workable. Additional Water Will Decrease the Strength of the Concrete. The Concrete Must Stay in the Forms for a Minimum of 72 Hours to Cure or to be Covered with Curing Sheets or Sprayed with a Curing Compound. The Water in Concrete is Required to Complete the Chemical Reaction, and if Concrete is Uncovered Too Soon after Placement, it Will Dry Out to the Detriment of the Concrete's Strength and Appearance. Foundations which have Forms Stripped Early End Up with as Little as Half the Strength of Foundation Walls which are Properly Cured. Similarly, Do Not Allow the Concrete to Freeze During the First 7 Days. The Water within the Concrete Freezes and Becomes Unavailable for the Chemical reaction, Possibly Causing a Detriment to the Concrete's Strength and Appearance. Except in Very Massive Structures, the Heat of Hydration of Concrete is Generally Not Sufficient to Prevent Freezing During a Typical Colorado Winter Night.

CONCRETE CONTINUED: Do Not Let the Concrete Drop Farther Than 10' when Placing it. Avoid Dropping Concrete on Reinforcing Steel as Much as Possible, as this will Tend to Displace the Steel. After Placement, Rod or Vibrate the Concrete to Eliminate Joints or Air Pockets, but Do Not Cause the Ingredients to Separate or Water to Pool at the Top. Excessive Vibration can Cause Damage to the Forms. Place Stress Against Concrete for at Least 7 Days after Placement. Use Forms which are Properly Oiled and Braced. Leave Them in Place Until the Concrete has Cured to the Point Where it can Support its Own Weight. Remove Forms Carefully so as Not to Damage the Concrete; Patch Any Voids with Grout Using the Same Mixture as the Original Concrete, but without Coarse Aggregate. Put Control joints in Slabs at No More Than 12' Each Direction. Use of Poly Fiber Mesh in Slabs Less Than 6" Thick and Welded Wire Fabric in Slabs 6" Thick or Greater is Recommended to Reduce Shrinkage Cracking.

If Deep Drilled Piers (Caissons) are Used in the Foundation, a Maximum of 4 Hours Between the Drilling of the Hole and the Placement of the Concrete is Allowed, with Less Than One Hour Being Desired. If Ground Water is Encountered, Immediate Filling is Required. Up to 1" of Water is Authorized in Caisson Holes Prior to Concrete Placement; Deeper Water Must be Pumped or Otherwise Forced Out.

STEEL: Reinforcing Steel is Grade 60, unless Otherwise Called Out on the Plans. Free of Rust, Dirt, Oil, Scale, or Anything Else which will Impair its Ability to Adhere to Concrete. All Reinforcing Steel Shall be Securely Tied at All Intersections and Supported to Prevent Displacement during Concrete Placing Operations. Steel Must Not be any Closer Than 3" to Surfaces which will be Exposed to Earth and 2" from Other Surfaces. See the Reinforcement Details for Additional Placement Requirements. Overlap and Tie Splices 18". Bend and Tie Corners 24". Placement of Reinforcing Steel According to the Design is Important in Order to Allow the Steel and Concrete to Work Together to Develop Maximum Strength.

LIABILITY: All Design and Construction Represents Compromise. This Foundation has been Accomplished with Economy, Constructibility, and Reliability as Primary Considerations and Reflects the Current Standards of Practice in the Front Range Area. It has Not been Designed to Withstand Every Concivable Event which Might Occur, as that Would Render the Foundation Exceptionally Difficult to Build and Exceedingly Expensive. Likewise, the Details are Not Intended to Provide Step-By-Step Installation Instructions; the IRC/IBC Building Code Provides Other Information Needed for Foundation Construction. A Working Knowledge of the Code as well as Practical Experience in Local Foundation Construction Practices (in the Specific Type of Foundation Being Built) is Required to Complete the Foundation. If You or any Member of the Construction Team has a Question About Any Portion of This Foundation Design, Contact this Office to Resolve the Situation Prior to Proceeding with Construction. While the Design of this Foundation Should Provide a Structure which will Function Well for the Life of the Building under Normal Circumstances, Unforseen Events, Such as Flooding, Exceptional Loads, or Even Improper Construction not Noticed during Building can Cause Problems. Therefore, the Limits of Liability Extend to the Fee Rendered for the Professional Services Provided.

GEOQUEST, LLC.

6825 SILVER PONDS HEIGHTS
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OFFICE: (719) 481-4560
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Project: 16-0544

Sheet: 1 of 5

Date: 23 Sep 2016

Drawn by: crd

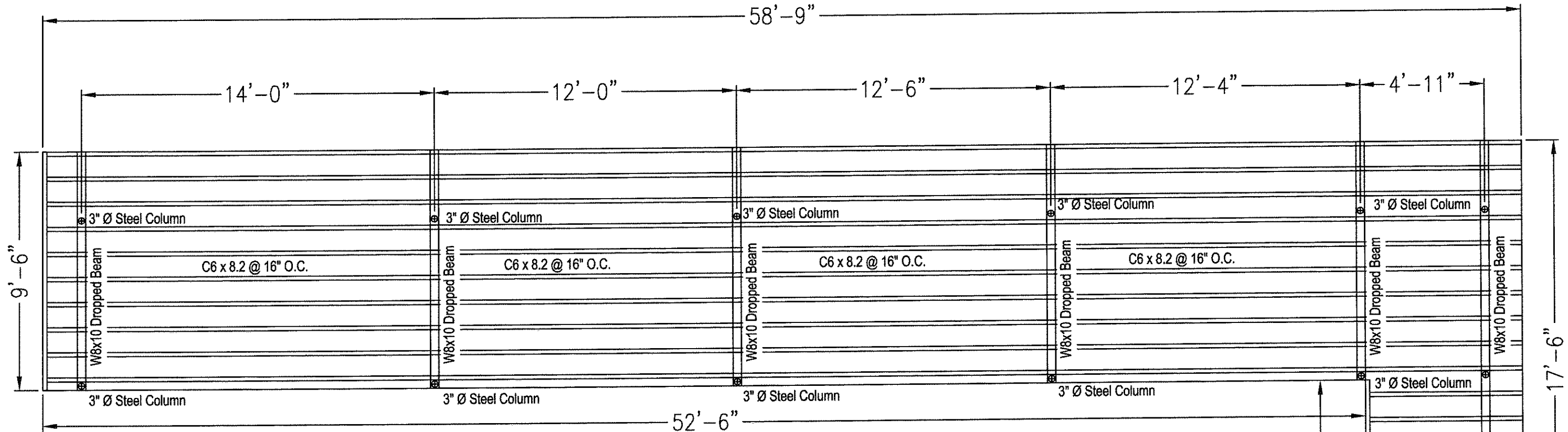
Checked by: cem

Project Name and Address

Jesse Abair

106 Washington Ave,
El Paso County, Colorado

Deck Replacement Plan



Deck is the same size so the loads will not change. Therefore no new foundations are needed.

Design Loads (Under 7,000 FT):

Deck (No Hot Tub):
 Live: 40 PSF
 Dead: 15 PSF
 Total: 55 PSF

66 PSF @ Ledger

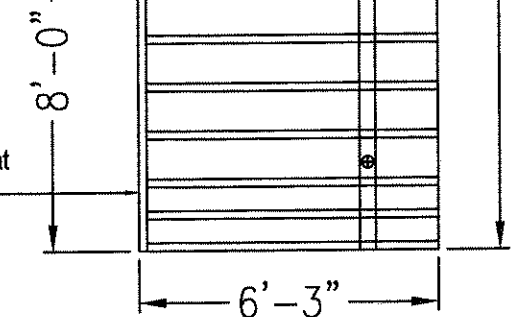
Wind: 100 MPH Basic Wind Speed (20 PSF)
 Exposure C Only

Soil: Presumptive 1,500 PSF

Solid Block All Bearing Continuous to Foundation.

Existing House

C6 x 8.2 Ledger with 3/8" x 5" lag bolt stagger pattern at 10" O.C.



Project: 16-0544

Sheet: 2 of 5

Date: 23 Sep 2016

Scale: 1/4" = 1'

Drawn by: crd

Checked by: cem

Project Name and Address

Jesse Abair

106 Washington Ave,
 El Paso County, Colorado

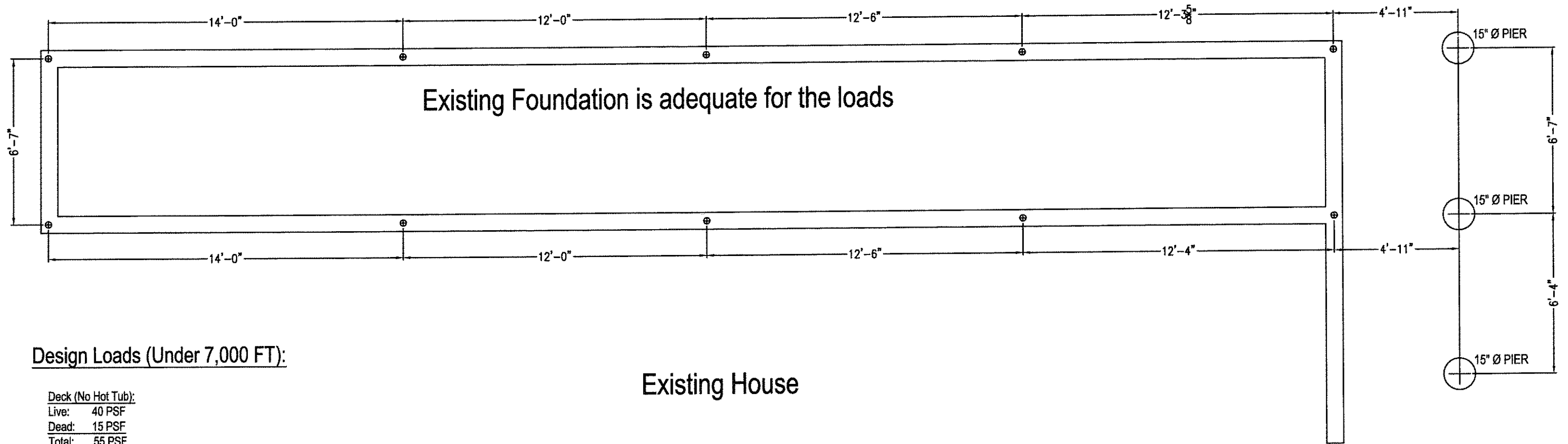
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Foundation Plan



Design Loads (Under 7,000 FT):

Deck (No Hot Tub):

Live: 40 PSF
 Dead: 15 PSF
 Total: 55 PSF

66 PSF @ Ledger

Wind: 100 MPH Basic Wind Speed (20 PSF)
 Exposure C Only

Soil: Presumptive 1,500 PSF

Solid Block All Bearing Continuous to Foundation.

Existing House

Deck is the same size so the loads will not change. Therefore no new foundations are needed.

Project: 16-0544

Sheet: 3 of 5

Date: 23 Sep 2016

Scale: 1/4" = 1'

Drawn by: crd

Checked by: cem

Project Name and Address

Jesse Abair

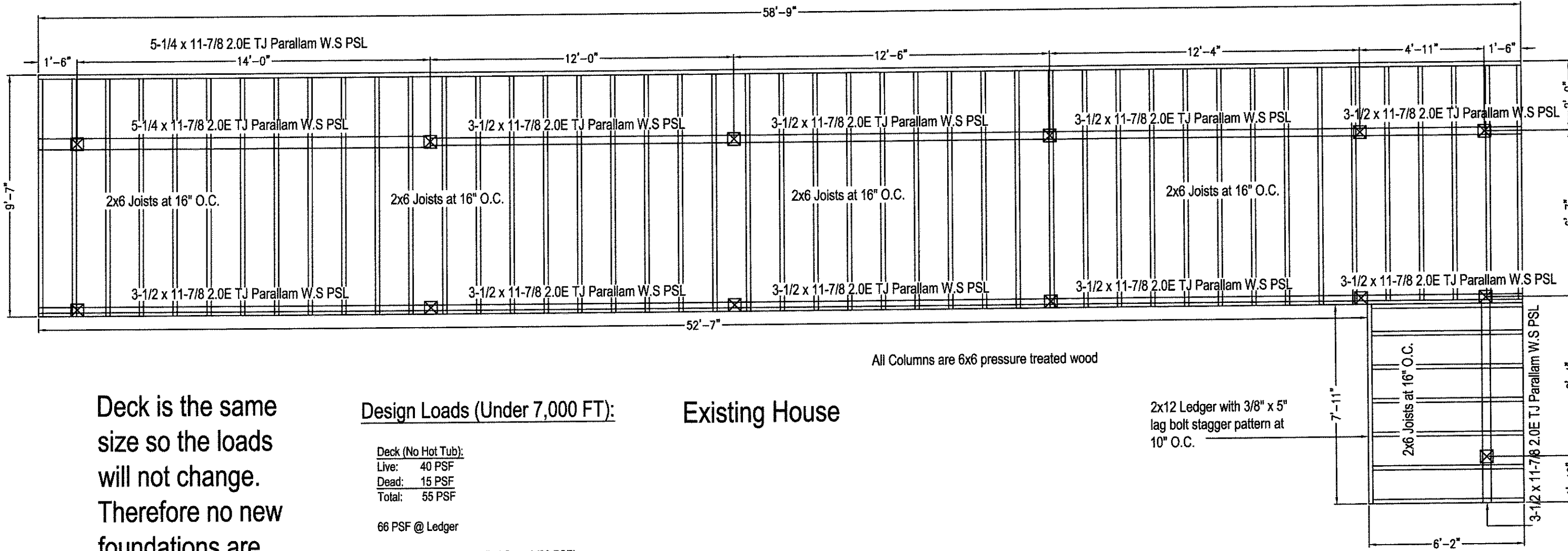
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Deck Replacement Plan



All Columns are 6x6 pressure treated wood

Deck is the same size so the loads will not change. Therefore no new foundations are needed.

Design Loads (Under 7,000 FT):

Deck (No Hot Tub):
 Live: 40 PSF
 Dead: 15 PSF
 Total: 55 PSF

66 PSF @ Ledger

Wind: 100 MPH Basic Wind Speed (20 PSF)
 Exposure C Only

Soil: Presumptive 1,500 PSF

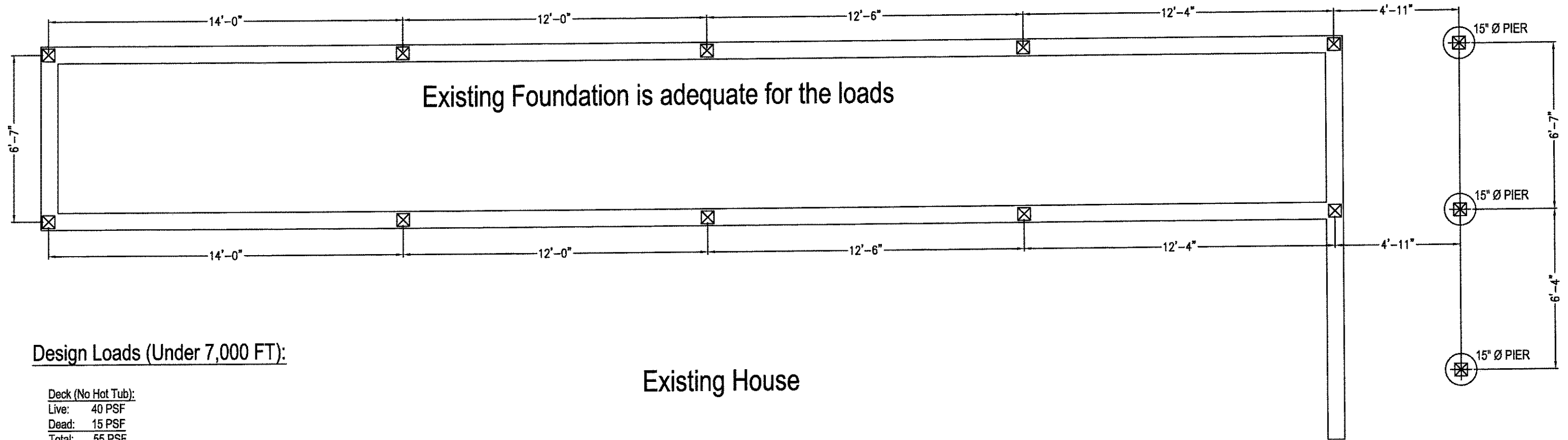
Solid Block All Bearing Continuous to Foundation.

Existing House

2x12 Ledger with 3/8" x 5" lag bolt stagger pattern at 10" O.C.

Project: 16-0544 Sheet: 4 of 5 Date: 23 Sep 2016 Scale: 1/4" = 1' Drawn by: crd Checked by: cem	<p style="text-align: center;">Project Name and Address</p> <p style="text-align: center;">Jesse Abair</p> <p style="text-align: center;">106 Washington Ave, El Paso County, Colorado</p>	<p style="text-align: center;">GEOQUEST, LLC.</p> <p style="text-align: center;">6825 SILVER PONDS HEIGHTS SUITE 101 COLORADO SPRINGS, CO 80908</p> <p style="text-align: center;">OFFICE: (719) 481-4560 FAX: (719) 481-9204</p>
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Foundation Plan



Existing House

Design Loads (Under 7,000 FT):

Deck (No Hot Tub):

Live: 40 PSF

Dead: 15 PSF

Total: 55 PSF

66 PSF @ Ledger

Wind: 100 MPH Basic Wind Speed (20 PSF)

Exposure C Only

Soil: Presumptive 1,500 PSF

Solid Block All Bearing Continuous to Foundation.

Deck is the same size so the loads will not change. Therefore no new foundations are needed.

Project: 16-0544

Sheet: 5 of 5

Date: 23 Sep 2016

Scale: 1/4" = 1'

Drawn by: crd

Checked by: cem

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