

Construction Plans

For

USC Pendleton Garage Southeast Stair Replacement

Prepared For

University of South Carolina

by:

Chao & Associates, Inc.

Consulting Engineers

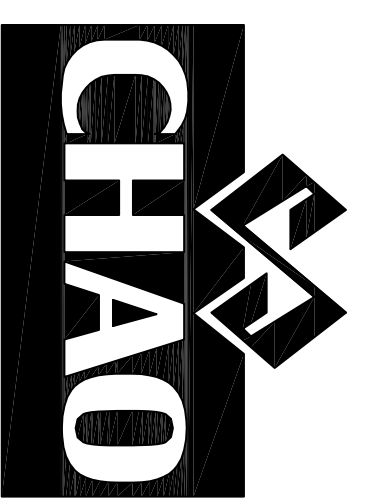
State Project No. H27-Z217
May 11, 2015

DRAWING INDEX

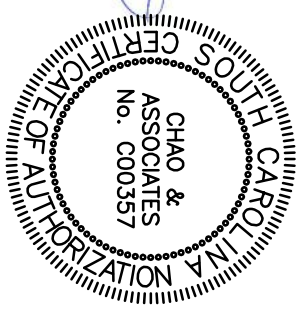
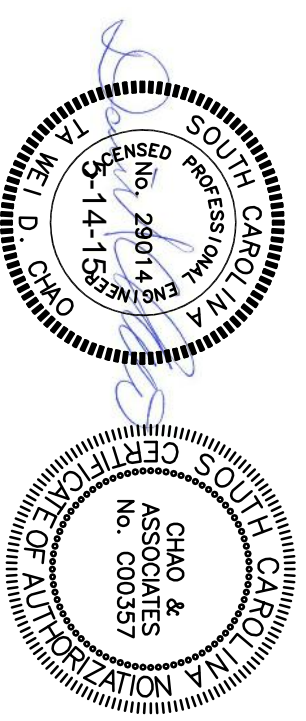
S1.0 - Plan & General Notes
S1.1 - Details & Sections

LOCATION MAP

SCALE: NTS



Chao & Associates, Inc.
Civil - Structural - Survey
7 Clusters Court
Columbia, SC 29210
Voice: (803) 772-8420
Fax: (803) 772-9120
Email: consult@chaoinc.com



General Notes:

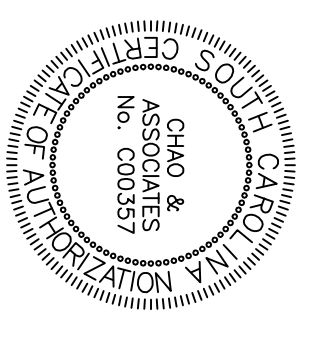
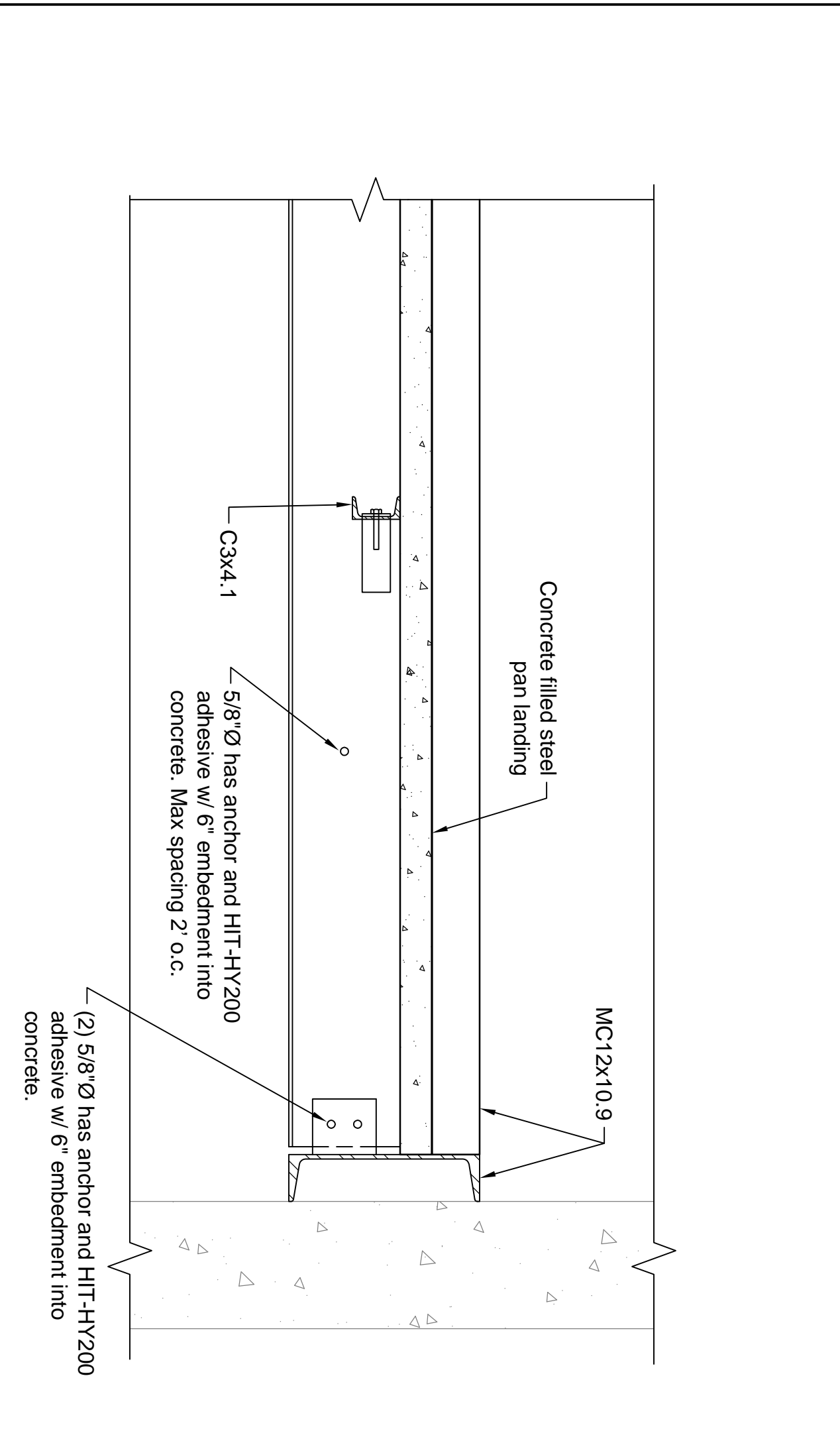
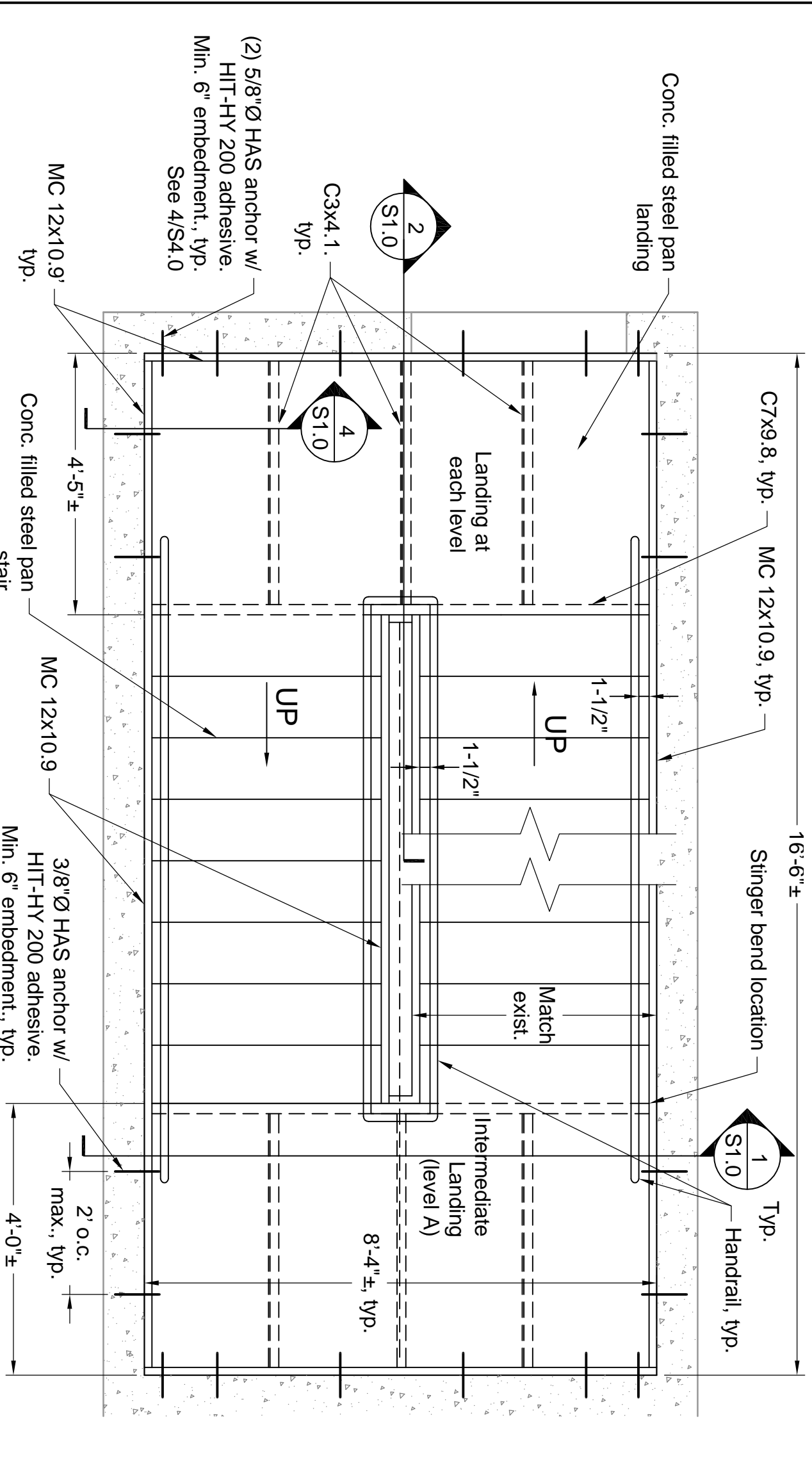
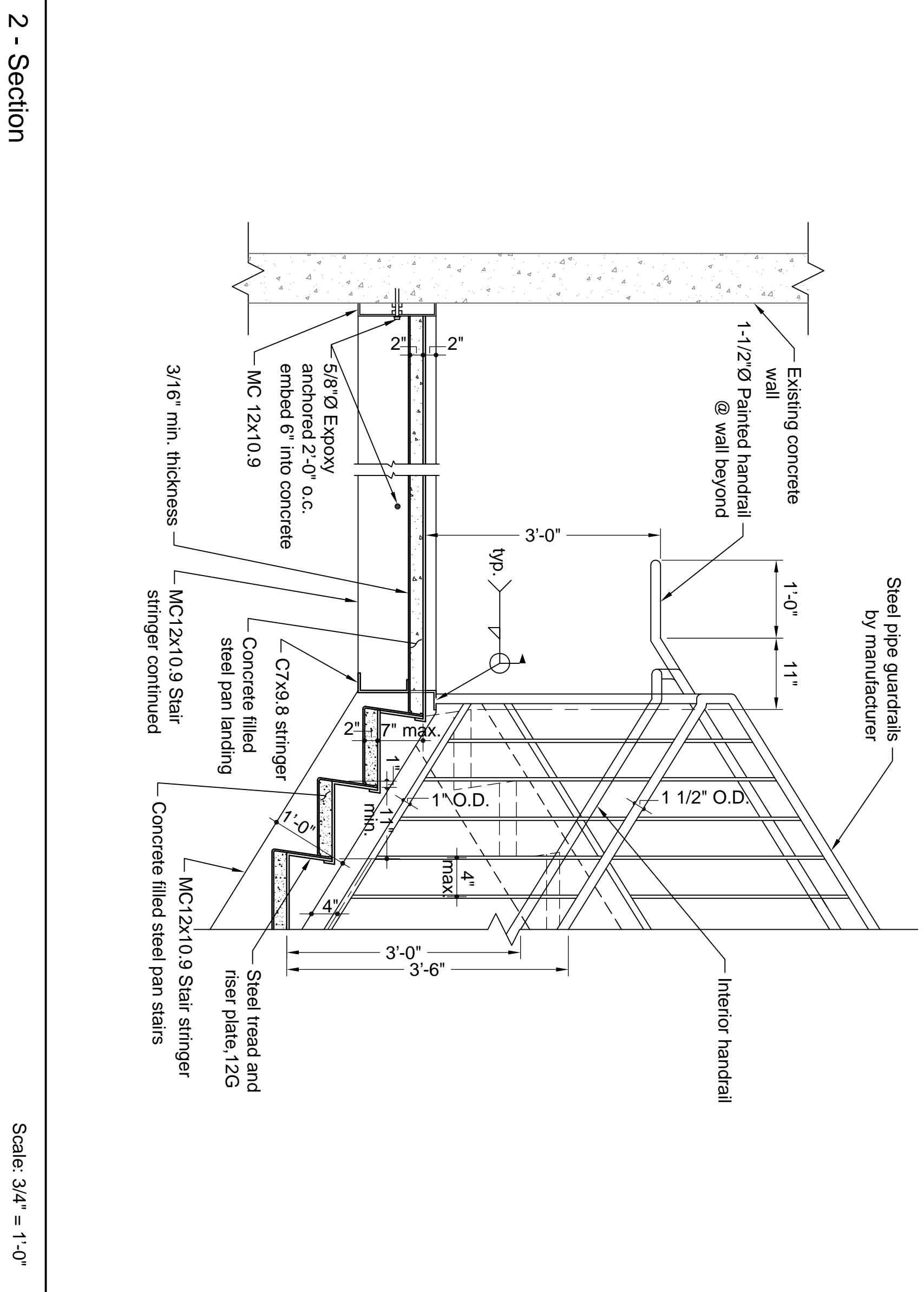
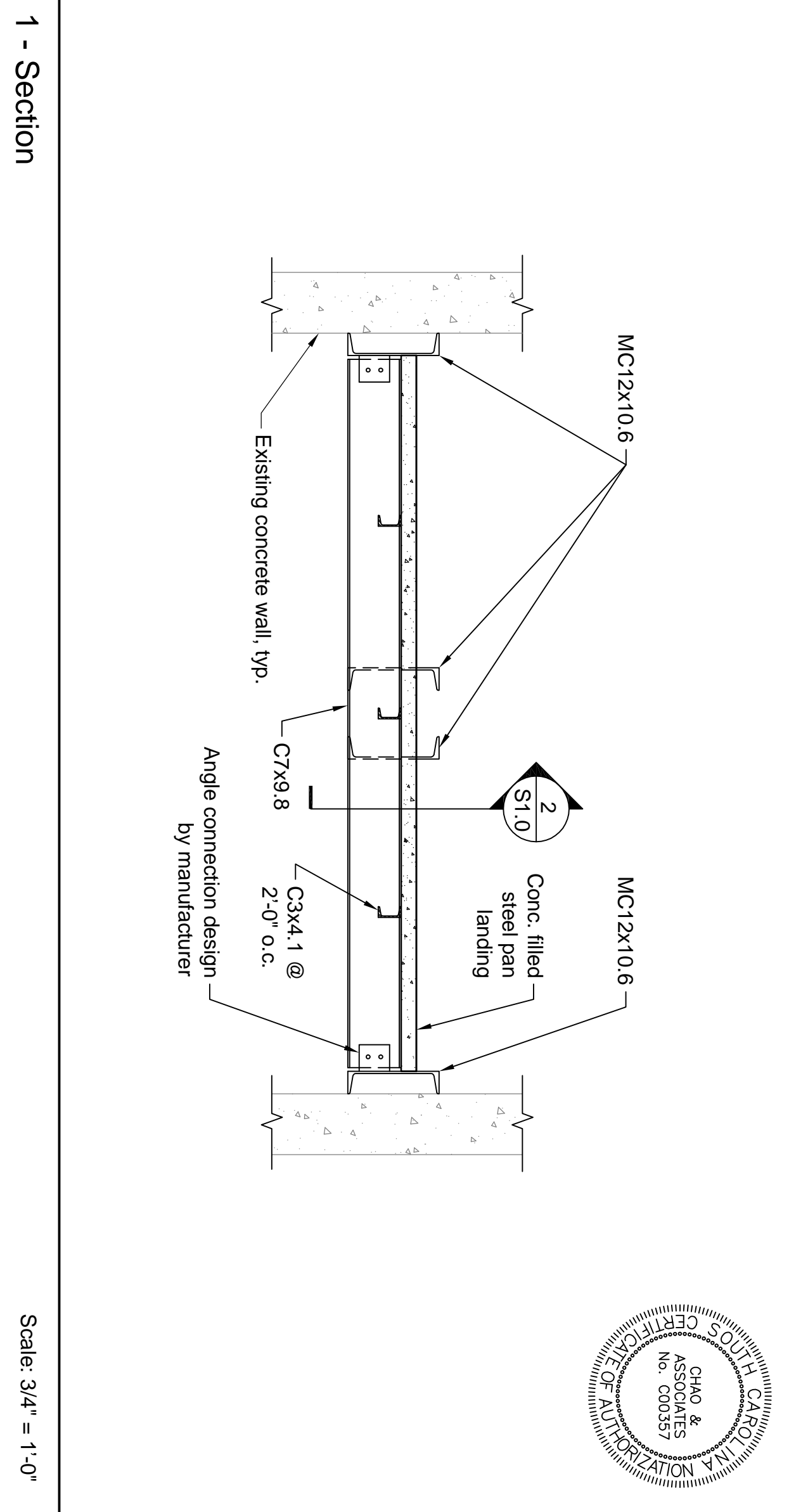
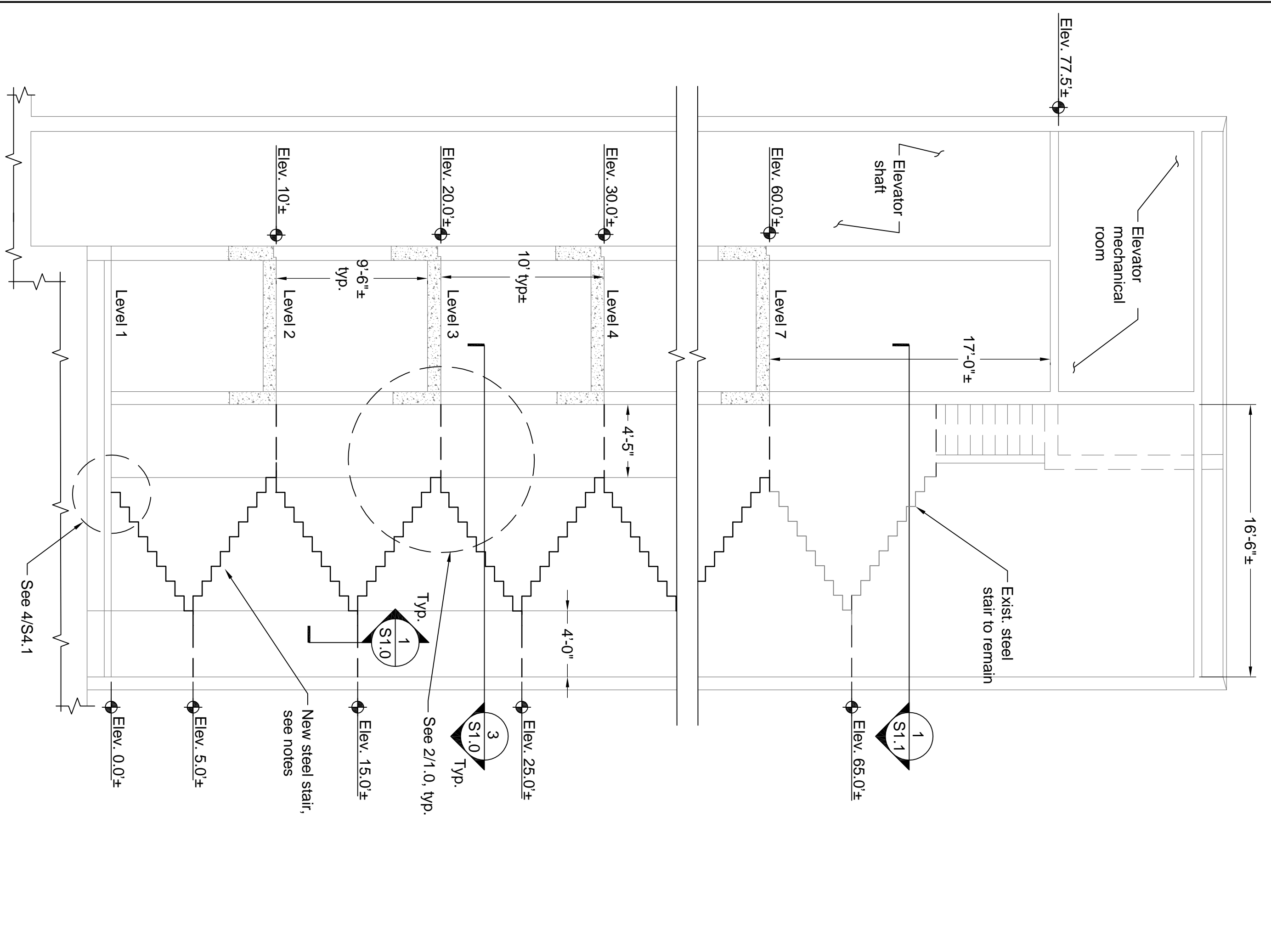
- Design Specifications: International Building Code (2012 Edition).
Design Loads:
Dead Load: Actual
Stair Live Load: 100 PSF
Risk Category: II
Exposure Category: B
- The construction falsework / shoring design (if any) is the responsibility of the Contractor. The design shall be performed by a Registered Engineer and shall be submitted for approval before commencing of the work.
- Where a detail is shown on Structural drawings for one condition, it shall apply to all similar or like conditions, unless noted or shown otherwise on plans. All items shall be tightly anchored or attached square, plumb, and true, or in other planes and shapes as shown on the drawings. Joints shall be tight, even, and free of offsets. No field altering of any members will be allowed that will cause them not to be in accordance with the drawings and specifications, without written approval of the Project Engineer.
- The dimensions shown with a suffix "±" are approximate and shall be verified by the Contractor before fabrication.
- If the Contractor finds a difference between these drawings & existing conditions, or finds any other conditions which prohibit execution of the work as directed in these drawings, the Contractor shall notify the Engineer immediately.
- The owner shall employ a laboratory to perform the quality assurance, sampling, testing and/or inspection at its expense. Final selection of such laboratory shall be approved by the Engineer.
- Any revision/modification to the original design during the shop drawing process, the Contractor shall clearly cloud line all the changes and shall receive approval from the Engineer in writing before fabrication. Any costs associated with correcting the unapproved change shall be at the Contractor's expense.
- All products used are recommended. Any other product to be used must be equal and approved by the Engineer.
- All observed corrosion be thoroughly cleaned and the steel repaired.
- Proper precautions/abatement shall be taken to determine the presence of lead based paint on the existing structure.
- Required measures shall be taken to allow a safe work and public environment in and near the construction site.
- The existing steel material will become the property of the contractor after demolition. Please note that the existing paint was previously determined to be lead based.

Structural and Miscellaneous Steel Notes

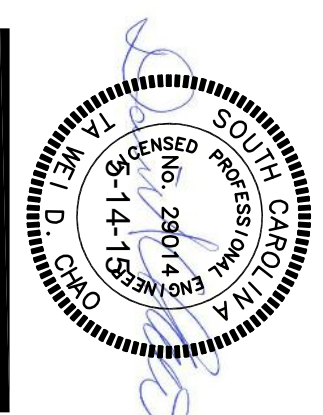
- All structural and miscellaneous steel shall conform to the Fourteenth Edition of the AISC "Specification for Structural Steel Buildings" and all its supplements, and to the AISC "Code of Standard Practice for Steel Buildings and Bridges".
- All structural steel shall conform to ASTM A-36, F_y=36,000 PSI unless otherwise noted.
- All welded connections shall be done with E70XX electrodes with 3/16" min. material.
- All welding shall comply with AWS D1-1 structural welding code the latest edition.
- All bolts shall be Group A (A325), unless otherwise noted.
- The structural steel shall have one coat of finish paint, of color determined by the owner. Prior to painting, all steel surfaces shall be prepared in accordance with SSPC-SP3. The finish paint used shall be compatible for applying over hot dipped galvanized coating. For duplex coatings (galvanized + painted) the steel shall be unquenched (or ASTM approved method). All paints shall be approved by the Owner/Architect prior to their use.
- Fabrication and assembly of bolted connections shall comply with applicable sections of AISC "Specification for Structural Joints using ASTM A325 or A490 bolts."
- No openings in beams shall be permitted without the written permission of the engineer.
- The use of a gas-cutting torch in the field for cutting holes or for correcting fabrication errors will not be permitted on structural framing members except w/ the written approval of the Engineer for each specification.
- An independent inspection agency shall be employed by the owner and approved by the engineer to inspect the structural steel in the field and verify that it conforms to the requirements of the contract documents.
- All structural steel shall be hot-dipped galvanized according to ASTM 123. All connections, hardware shall be hot-dipped galvanized according to ASTM 153. All galvanizing damaged by welding shall be repaired by Z.R.C. cold galvanizing paint.

Steel Stairs:

- All stair framing shall be designed by the stair manufacturer to support all dead loads plus a minimum live loading of 100 PSF.
- Provide steel hangers, clip angles, etc. as required to support stair framing from the structure.
- Shop drawings for all stairs shall be sealed by a Professional Engineer registered in the State of South Carolina and shall state that all stair components have been designed to the specified loadings and comply with the International Building Code 2012.



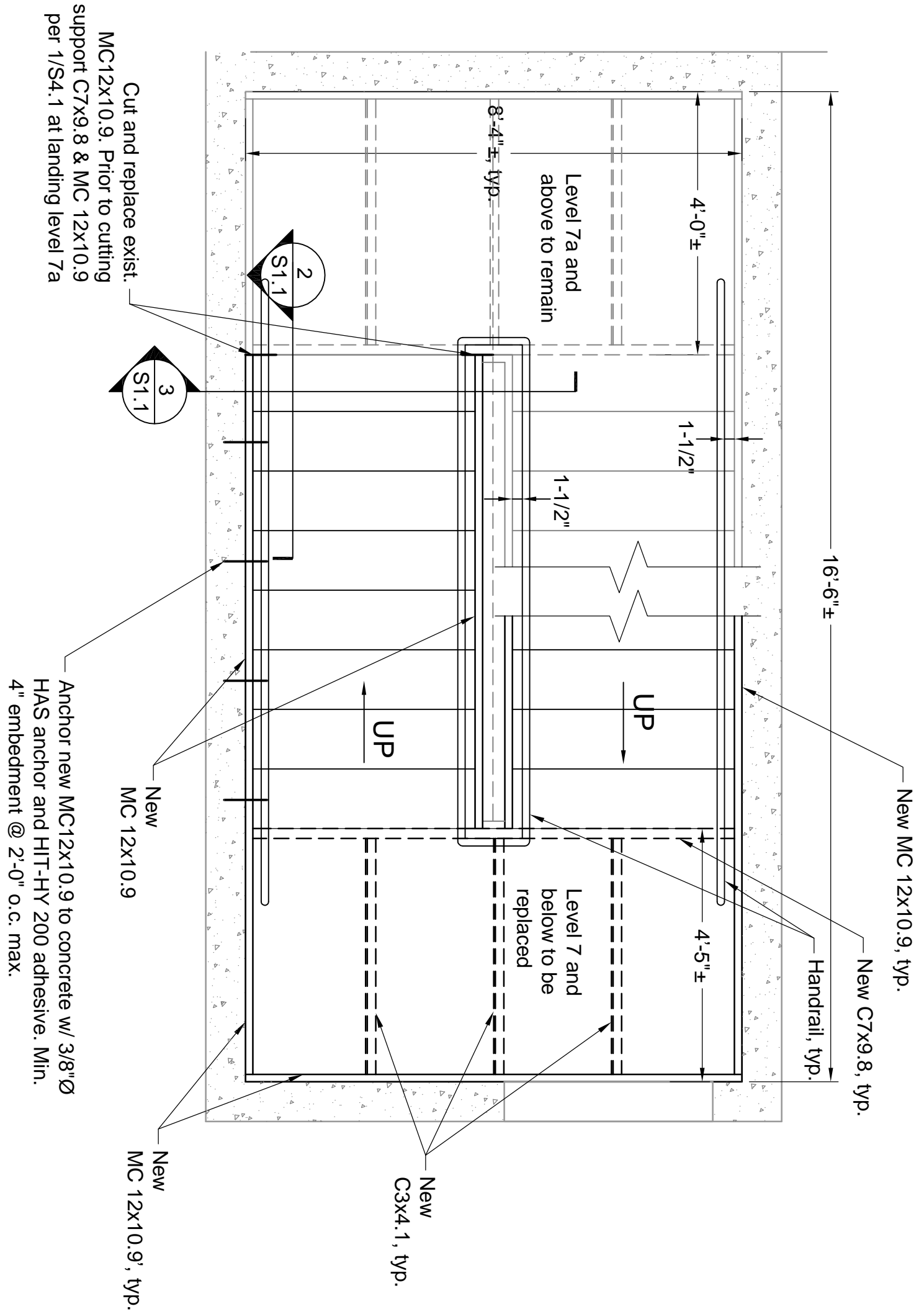
Chao & Associates, Inc.
 Civil - Structural - Survey
 7 Clusters Court
 Columbia, SC 29210
 Voice: (803) 772-8420
 Fax: (803) 772-9120
 Email: consult@chaoinc.com



Replacement General Notes, Plan and Elevation
 Pendleton Garage Stair Replacement
 Prepared For:
 University of South Carolina, Columbia, SC

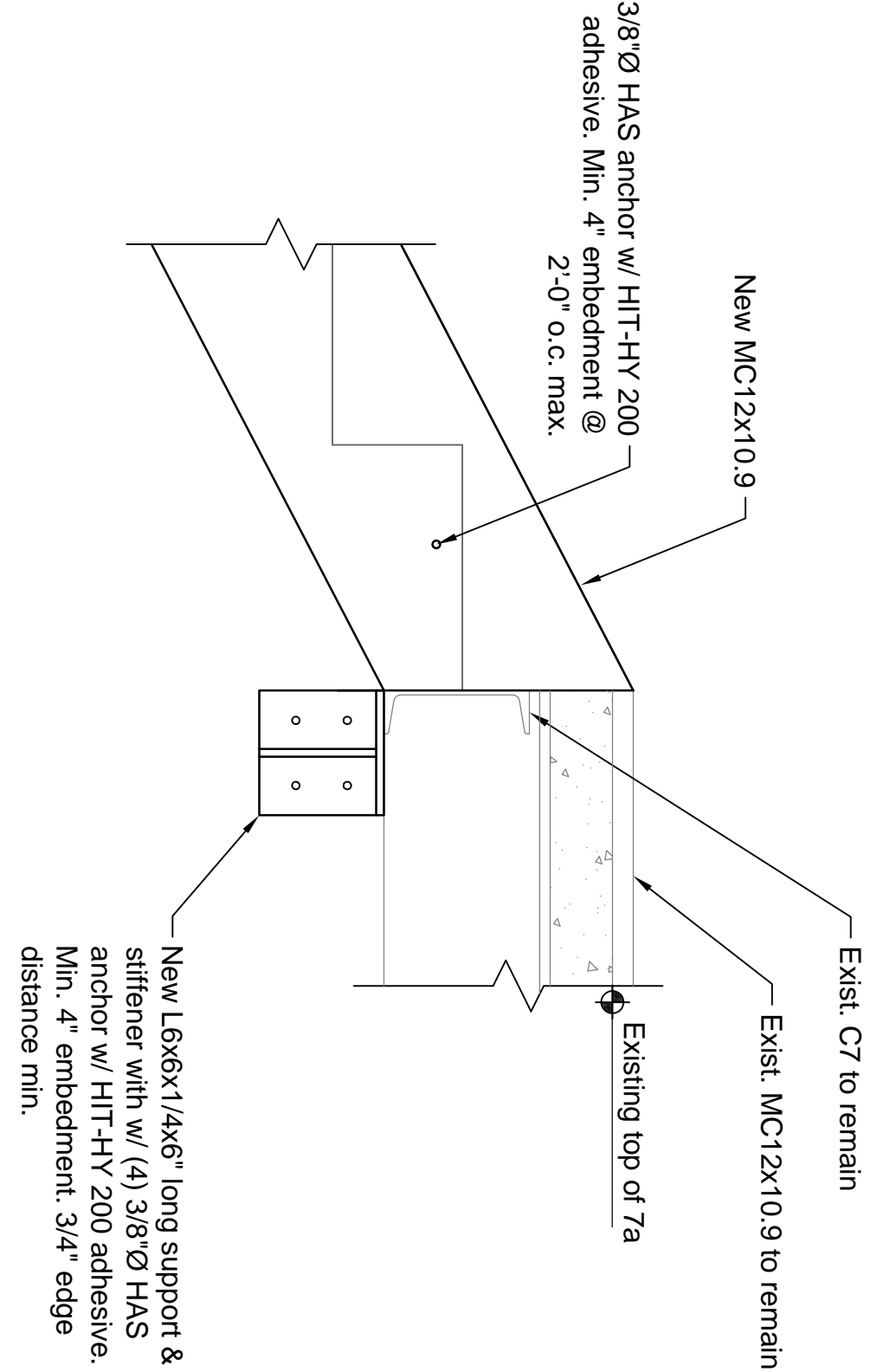
Drawn: PR Checked: BD
 Revised:
 File: 393239E-S.dwg Project No.: 393239E

S1.0
 Sheet Number
 5/11/15
 Date



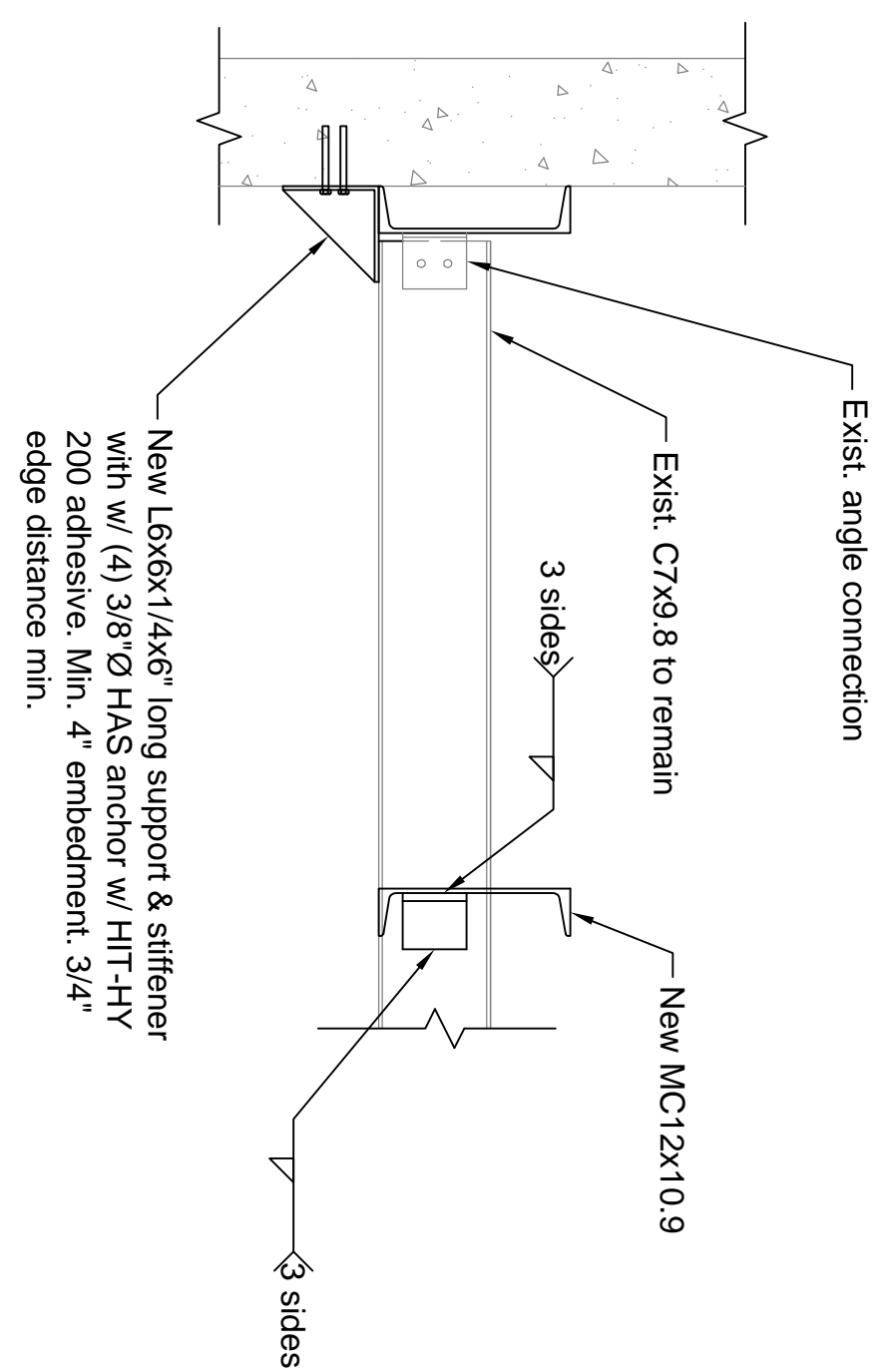
1 - Level 7-7a Plan, connection of new stairs to existing

Scale: 1/2" = 1'-0"



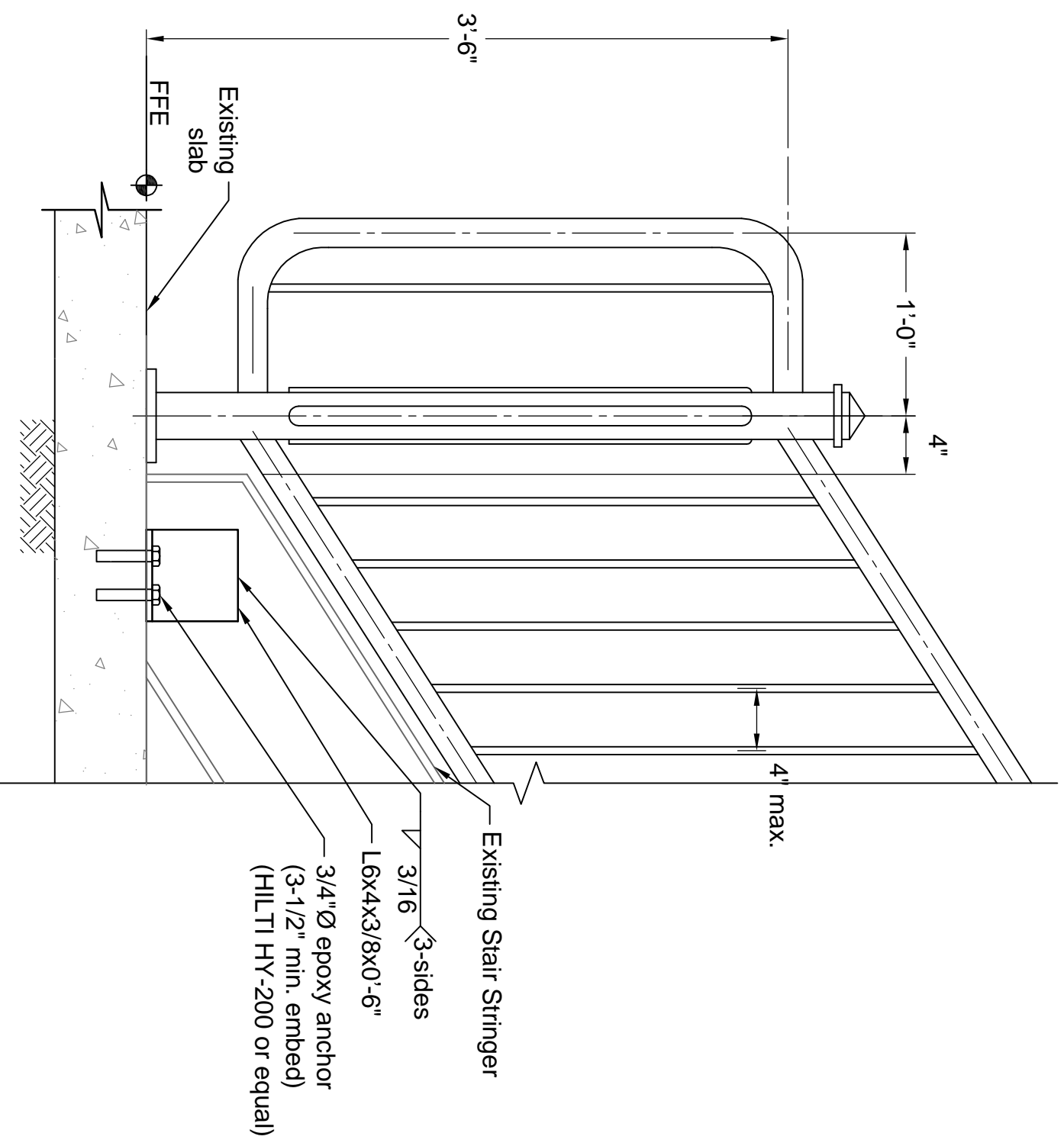
2 - Section

Scale: 1 1/2" = 1'-0"



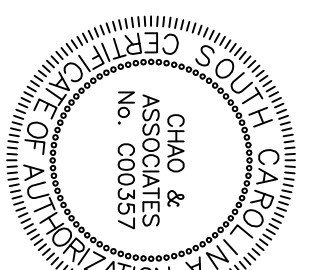
3 - Section

Scale: 1" = 1'-0"



4 - Detail

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



Chao & Associates, Inc.
 Civil - Structural - Survey
 7 Clusters Court
 Columbia, SC 29210
 Voice: (803) 772-8420
 Fax: (803) 772-9120
 Email: consult@chaoinc.com



Replacement Sections and Details
 Pendleton Garage Stair Replacement
 Prepared For:
 University of South Carolina, Columbia, SC

Drawn: PR Checked: BD
 Revised:

File: 393239E-S.dwg Project No.: 393239E

S1.1
 Sheet Number
 5/11/15
 Date