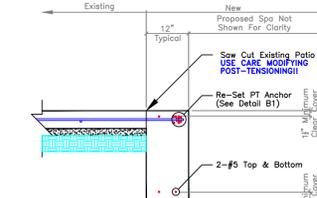
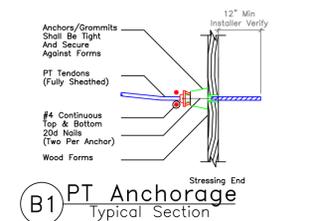
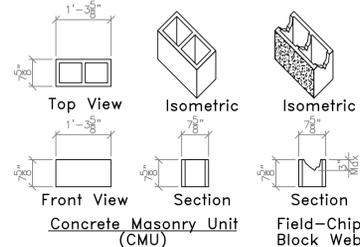
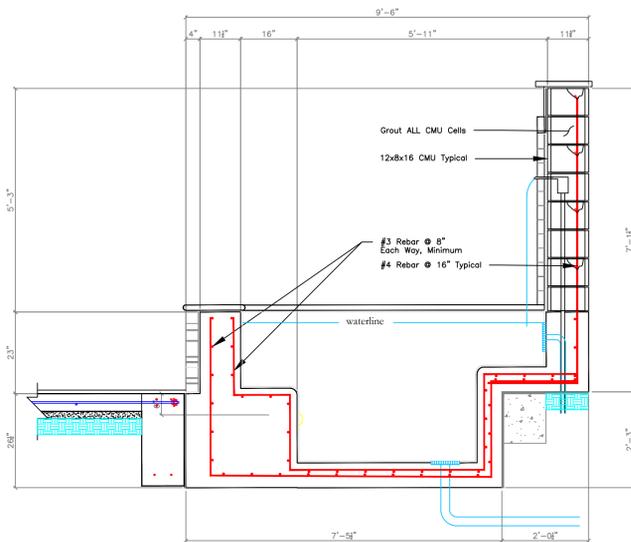
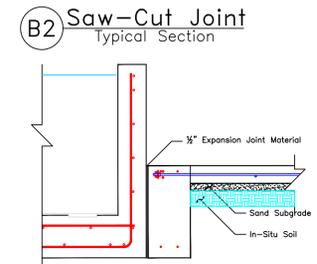


**VERIFY ALL
DIMENSIONS & DROPS
PRIOR TO CONSTRUCTION**



CAUTION:
Existing Foundation is Post-Tensioned (PT).
Locate ALL PT Anchors and Tendons Before Modifying Existing Foundation.
USE CARE WHEN DRILLING AND MODIFYING FOUNDATION.



1. Engineering Documents:

- 1.1. International Residential Code (IRC 2021)
- 1.2. International Building Code (IBC 2021)
- 1.3. Soil Survey for Dallas County, Texas by:
U.S. Department of Agriculture
Soil Conservation Service
- 1.4. Spa concept plans dated 05 February 2025 by:
Artz Landscape Design
- 1.5. Standard engineering practice. Foundation and superstructure designs reflect minimum requirements needed to allow this structural system to adequately perform in conjunction with assumed site soil and anticipated load conditions.

2. Limitations:

- 2.1. Superstructure and foundation elements' structures designs were based on conversations with the Contractor and homeowner about soil movement potentials and structure sensitivities.
- 2.2. External stability, including but not limited to foundation bearing capacity and global slope stability, is the responsibility of others. Design is based on the assumption that the materials within the structure mass, methods of construction, and the quality of premanufactured materials, conform to these and the manufacturers' specifications.
- 2.3. The intent of these design details is NOT to eliminate, but rather, to limit excessive differential superstructure flexure so that severe differential movements will not cause unreasonable distress. Some differential movements are expected.
- 2.4. Details are intended to describe minimum load capacity structural characteristics only. Other design elements (e.g. site drainage, mechanical, electrical, plumbing, finishes, waterproofing) are by others. These infrastructure elements should be designed and constructed with anticipated potential vertical movements.

- 2.5. Modification of this plan or structural design, or use of plan at other than the listed address without the prior written consent of the structural engineer will void any responsibility and liability associated with the performance of these engineered structures.
- 2.6. Inspections are to be as required by the local building department, by the builder, and/or by the owner, and coordinated through the builder.
3. Site Preparation:
 - 3.1. The contractor shall locate all utilities (including irrigation systems) prior to commencing excavation.
 - 3.2. Embankment fill shall be compacted to minimum 95% Standard Proctor Density.
 - 3.3. Embankment fill shall be placed between optimum moisture content (OMC) and OMC+3%.
 - 3.4. Compacted in lift thickness not exceeding 8".
 - 3.5. Embankment construction shall be graded at the end of each day to promote reasonable surface runoff without erosion and to prevent backfill saturation and ponding at the foundation perimeter.
 - 3.6. Rainwater collected by a gutter system should be transported by pipe to a storm drain or to a paved area. If downspouts discharge next to the structure onto flatwork or paved areas, the area should be watertight in order to eliminate infiltration next to the buildings.
4. Foundation Construction
 - 4.1. Forms shall be staked and braced in a manner to prevent damage to the moisture barriers. Damage shall be repaired in accordance with manufacturer's recommendations.
 - 4.2. Concrete shall be properly vibrated around all reinforcement during concrete placement to eliminate air pockets and voids.

- 4.3. Concrete placement shall be done in a manner to maintain proper rebar and form alignment.
- 4.4. Concrete shall be placed in a careful manner to avoid grade beam trench soil sloughing and to avoid concrete aggregate segregation.
5. In-Situ Soil Characteristics:
 - 5.1. PI = 36+ (plasticity index range, in-situ soils).
 - 4.3. $\sigma = 1500$ psf (allowable bearing pressure, at least 18" below finished grade).
6. External Loads:
 - 6.1. WL = 20 psf (wind load, estimated, ASCE 7-16, 3 sec gust)
7. Concrete Reinforcement Bar:
 - 7.1. All reinforcing steel (rebar) shall be new billet steel conforming to ASTM A-615 grade 60 (yield strength, $f_y = 60$ ksi).
 - 7.2. Rebar shall be free of rust or other deleterious materials.
8. Concrete Mix Design:
 - 8.1. $f_c = 3000$ psi (minimum compressive strength at 28 days).
 - 8.2. Slump = 5" (typical). Adding water at site is not permitted.
 - 8.3. Concrete mix designs shall be proportioned to minimize the adverse effects of climate at the time of year the concrete is placed. Admixtures, if used, shall not contain chlorides, fluorides, sulfites, nitrates or other corrosion inducing salts. Flyash shall not be used without prior written consent of the engineer.

3. Maintenance:

- 3.1. Care should be taken to maintain constant foundation soil moisture by irrigating surrounding landscaped areas during dry periods and by insuring adequate drainage away from the foundation during wet periods. Areas with trees and/or large shrubs can differentially absorb large quantities of moisture from the soil. These areas may require additional watering during dry periods.
- 3.2. Portions of the structure within the influence zone of the plant roots should also be monitored for future distress potentially related to root development.
- 3.3. Future distress may require flora removal. A qualified landscape architect could provide information on flora root structures and could recommend plant types with minimal root development.

No.	Revision/Issue	Date

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This drawing is for concept review only. Not for construction.

The seal appearing on this document was authorized by Glenn Tracy, P.E. on March 20, 2025.

Project Name and Address

The Fleischli Residence
4513 Normandy
University Park

Project Structural Details	Sheet 03.1
Date 20 March, 2025	Scale as noted