

**FOUNDATION PLAN**  
 SCALE 1/4" = 1'-0"

**General Notes:**

- Codes:**  
 This plan was prepared based on the New York Building Code, 2009 International Building Code with local amendments and portions of the most recent version of ACI 318.
- Loads:**  
 This plan is based upon the following load parameters:  
 Roof: Live Load = 30 psf  
 Floor: Live Load = 40 psf  
 Wind: Per NYC Bldg. Code  
 Seismic: Per NYC Bldg. Code  
 Soils Borings by: Atlas Technical Associates, Inc.
- Materials:**  
 This plan is based upon the following material properties:  
**Concrete:** Concrete shall contain Type II cement, 6 % +/- 1 % air entrainment, and a minimum 28 day compressive strength of 3000 psi for structural concrete, and 3500 psi for interior or exterior slabs on grade.  
**Reinforcing:** Reinforcing shall be deformed grade 60 steel unless noted otherwise (UNO) on the plan and shall conform to ASTM A615. Minimum concrete cover shall be 2" (in) UNO on the plan. Overlaps shall be 36 bar diameters but not less than 24" (in). Detail reinforcing bars in accordance to the ACI detailing manual and ACI code, latest edition. All Foundation wall reinforcement, should be sized in place. Slab and footing reinforcement shall utilize chairs or other acceptable methods to achieve the required cross section location.  
**Anchor Bolts:** Foundation anchor bolts shall conform to ASTM A307 and be 1/2" (in) diameter by 12" (in) long spaced at 6'-0" maximum and 12" (in) from corners and splices.
- Helix Piers:**  
 All Helix foundations and pier caps shall be as manufactured by Magnum Piering Inc. or equivalent. Helix foundation installation should be observed by a representative from a qualified structural or geotechnical engineer to verify installation torques and minimum depth.
- Soils:**  
 SECURE recommends an open-hole inspection be performed by a qualified geotechnical engineer. Open-hole inspections are to verify that the soil conditions are consistent with those described in the above referenced soils report. If applicable, Soils conditions inconsistent with the soils report may require additional evaluation or a foundation redesign, and should be brought to the attention of the structural engineer. All footings, piers, or piers shall be a minimum of 48" (in) below grade, or per local code, and should bear upon undisturbed native soils or structural fill acceptable to the geotechnical engineer. All other recommendations contained in the soils report, if any, pertaining to backfill, drainage, etc. should be incorporated into the design of this project.
- Slabs-on-grade:**  
 Provide control joints at 10'-0" on center maximum. Exterior slabs such as patios, porches, driveways, etc. should not be coupled to the foundation when placed over frost susceptible soils. Exterior slabs shall be isolated from the rest of the structure. All utilities which pass through the slab should be isolated from the slab by a slip joint. Utility block-outs are not shown and must be field located.
- Backfill:**  
 We recommend foundation walls not be backfilled for a minimum of eight days after placement of concrete. Prior to backfilling we recommend damp-proofing for all below grade habitable living areas as required by local code. All floor systems should be in place before backfilling against any foundation wall, or as an alternative adequately brace the foundation. Start backfilling of foundation walls at corners. SECURE recommends imported granular (non-expansive) structural fill be used for backfilling around all foundation walls and beneath all slab-on-grade areas for sites where expansive soils are prevalent. In lieu of imported granular fill, the native soils could be used for backfill if the material and compaction process is acceptable to the geotechnical engineer. Backfill should be adequately compacted and graded to provide adequate drainage away from the foundation. Backfill adjacent to the foundation may settle over time. The backfill must be monitored and maintained to provide adequate drainage away from the foundation.
- Drainage:**  
 Adequate drainage shall be provided around the structure. This drainage should be monitored and maintained throughout the life of the structure. At a minimum SECURE recommends a minimum slope of 1" (in) in the first ten feet, and a minimum 2 % slope from that point to the property line for landscaped areas. In areas where sidewalks or paving do not immediately adjoin the structures, this slope should have a minimum grade of 10 % for at least 10 feet. For all below grade habitable areas SECURE recommends a perimeter drain. The perimeter drain should be constructed in accordance with the recommendations of the architect or geotechnical engineer. At a minimum, the drain should consist of drainage fabric over 1/2" (in) of clean gravel over a 4" (in) perforated pipe sloped at 1/8" (in) minimum to daylight well beyond the foundation system or to a sump pit with pump.
- Limitations:**  
 This plan is only a foundation design. However, it may include member sizes as requested. It is the contractor/owner's responsibility to verify and coordinate all dimensions prior to construction. Brick ledges, foundation steps, insets, beam pockets, and basement windows, etc. may or may not be shown. This foundation plan is based on the contractor/owner furnished plans and the above referenced specifications. Any discrepancies or changes should be brought to the attention of SECURE.

HELIX FOUNDATION SCHEDULE					
SYMBOL	QUANTITY	DESIGN CAPACITY	MIN. LENGTH*	MANUF. CAP	NOTES
○	45	136 KIP@	15' (FT)	MP1302 GB CAP	MIN. Ø250 WALL HELIX SHAFT (STD. DUTY)

\* MIN. DISTANCE BETWEEN GROUND SURFACE AND UPPERMOST HELICAL BEARING PLATE

**HELICAL PILE LAYOUT**

NO.	DATE	REVISION/ISSUE

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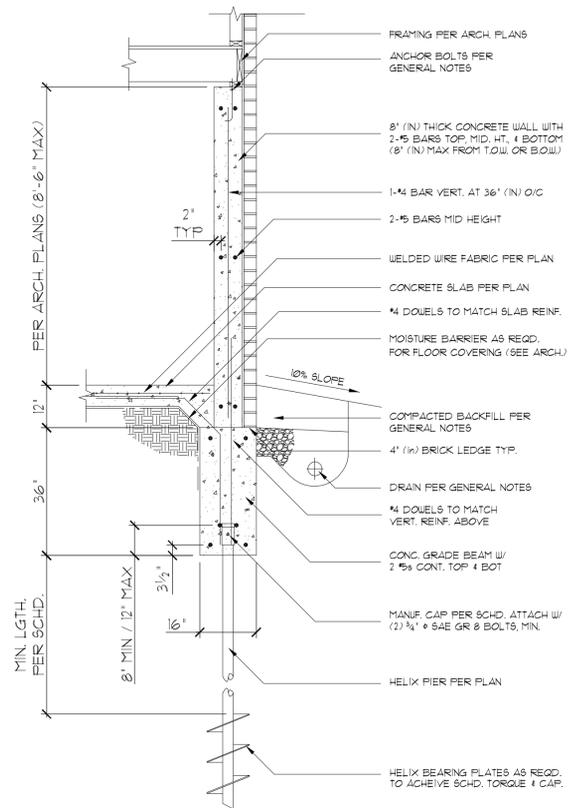
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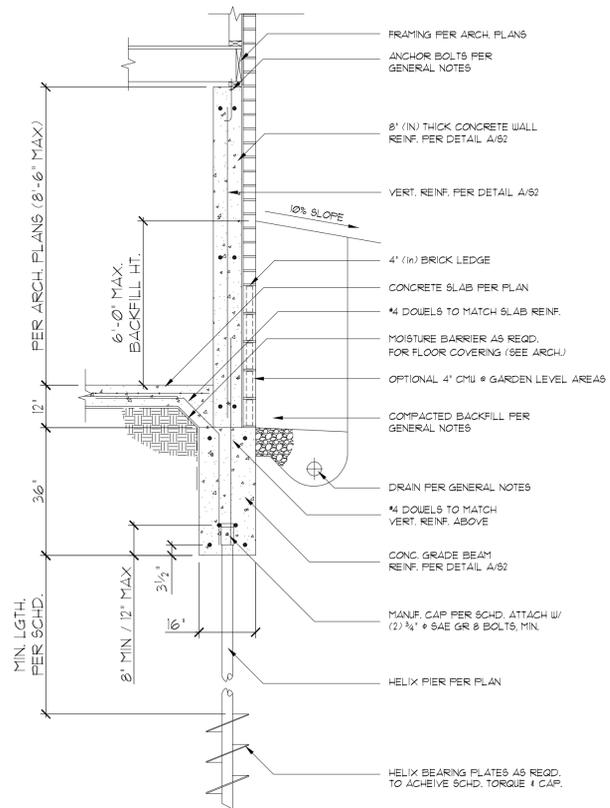
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PROJECT DESCRIPTION  
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 CITY, STATE

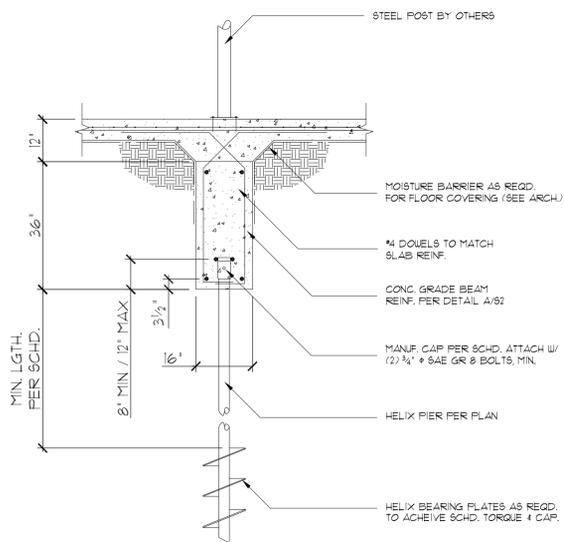
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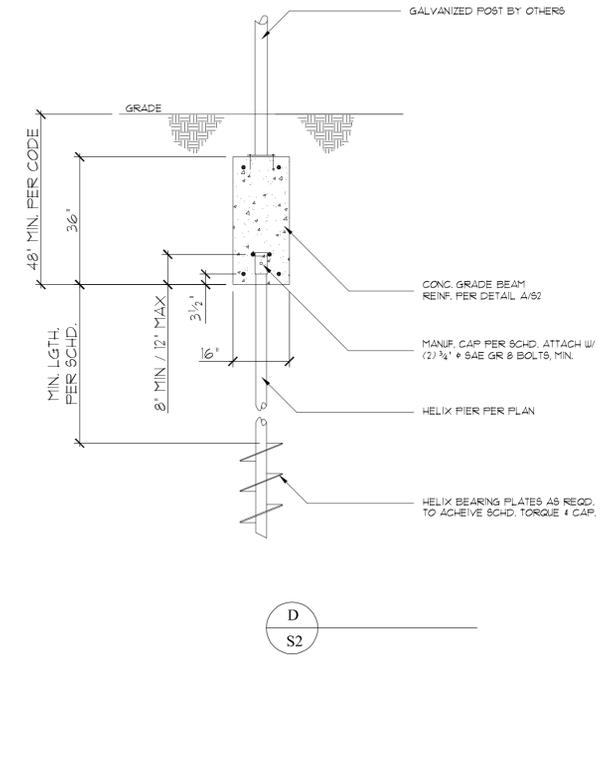
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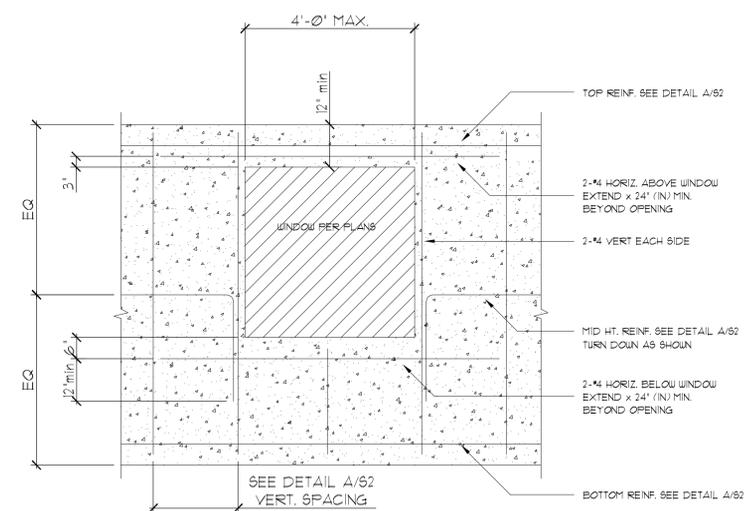
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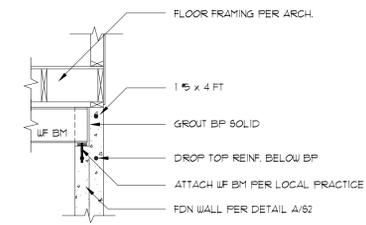
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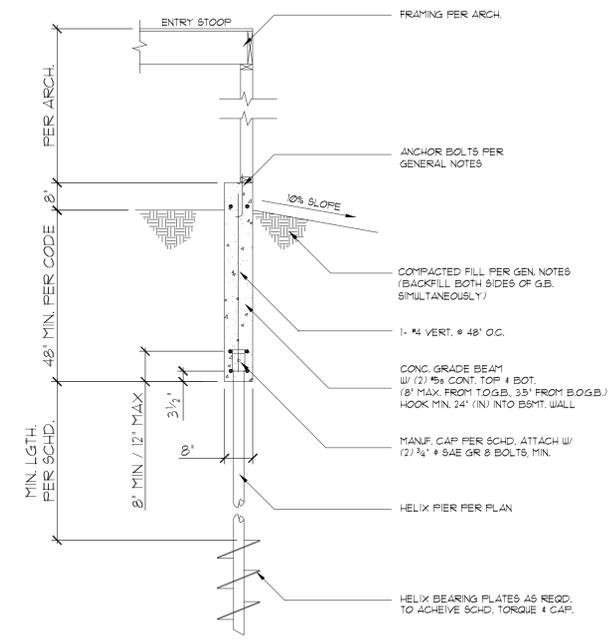
D  
S2



TYPICAL REINFORCING AT WINDOW OPENINGS (SIM. AT DOORS)



BEAM POCKET DETAIL



E  
S2

FOUNDATION AND PILE DETAILS

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