

DESIGN

- The post tension design of this foundation structure has been evaluated using acceptable engineering practice including consideration of the latest recommendations as set forth by the post tensioning institute's "Design and Construction of Post Tensioned Slabs on Ground".
- Designed beam sizes, beam spacing, strand quantities and spacings shown are minimum requirements needed to allow the structural system to adequately perform. The intent is not to eliminate soil movement, but to limit foundation flexure during inevitable differential movement.
- This design does not allow for improper drainage, or trees located closer than 1/2 their mature height to the foundation, positive drainage must be maintained at all times and ponding of water around the foundation should never be allowed.
- Uniform, systematic watering on all sides of the foundation to maintain a stable foundation.
- A pre-pour inspection must be performed by a Nortex representative or certified lab.

MATERIALS

- Post tensioning material will be 1/2" diameter 270 ksi, seven-wire strand, grease with plastic sheathing. Strand shall be in accordance with A.S.T.M. A416 and shall be stressed to 33 kips and anchored at 28.9 kips. Plastic sheathing shall have a minimum 6 mil thickness.
- All anchorage hardware shall meet test criteria established by the "PTI Guide Specifications for Post-Tensioning Materials".
- All concrete shall have a minimum compressive strength of 3000 psi at 28 days. Strands shall not be stressed to final required force until concrete strength is a minimum of 2000 p.s.i.
- Post Tensioning Institute recommends final stressing within 7-10 days after pouring of foundation.
- All conventional reinforcing shall be intermediate grade and shall conform to A.S.T.M. A615-60.

CONSTRUCTION

- All beams should be excavated as follows unless specified otherwise by the geotechnical report:
 - All beams must extend 12" into undisturbed (virgin) soil, or soil compacted in accordance to the geotechnology report listed on the plan. Beam depths may be sloped or increased to 34" without additional reinforcing. when beam depth exceeds 34" use detail "G" for additional reinforcement.
 - All fill under slab must be compacted to 95% of standard proctor density A.S.T.M.-D698 and conform to FHA sheet 79G. All fill soil under slab shall be placed in accordance with the geotechnical report specifications. The soil engineer shall certify compaction of the fill soil.
- Partial piercing of the foundation is prohibited. Piers may be used only if the are specifically shown in the design. Refer to pier schedule for diameter, depth, and reinforcing required. Piers may be terminated when solid rock (auger refusal) is encountered. Pier tops should be clean and exposed to the beam.
- Final grading shall be done using sand or a non-capillary material. Waterproofing is required in accordance with International Residential Code R406.2 for residential structures or International Building code 1807.3 for commercial structures unless local codes are more stringent. Minimum 6 - mil polyvinyl. Split poly at beams to avoid air pockets and prevent insulation of grounding electrode. No poly allowed in bottom of beams.
- Site grading and drainage around the foundation must be maintained at all times in such a manner the surface or ground water will not collect under, near or adjacent to the slab.
- The contractor is responsible to advise owner of proper foundation maintenance. Moisture content should be kept consistent annually with consideration to seasonal changes of temperature and moisture variations. Proper drainage away from slab is required to preserve the performance of the foundation.
- Trenches for deep plumbing lines should not be located directly under beams. compaction of back fill at plumbing lines is required.
- If plastic sleeve is damaged and strand is exposed for more than 3", it should be repaired to prevent bonding of concrete to cable. Maximum 12" exposed at dead end is acceptable.
- Concrete must be well consolidated around all ends anchors to avoid bearing failures at time of stressing.
- Admixtures should not contain any chemicals in quantity that may have a harmful effect on the pre stressing steel or cement. Chlorides, sulfites and nitrates should not be used.
- Stressing pockets should be grouted within 7 days of the final stressing operation to prevent corrosion of the anchor and wedge assembly.
- It is recommended to use two #4 "L" bars by 2'-0" along exterior corners to avoid fragmentation of concrete between stressing anchors.

INSTALLATION

- All anchors shall be installed a minimum of 4" below required elevation of concrete at edge of slab and a minimum of 4"-12" away from corners.
- Securely fasten anchors with pocket formers to prevent cement paste from entering wedge canal (2-20 d nails are recommended). Fixed anchors should be attached with 3/4" clearance from form board. wiring of anchors is not recommended.
- Plastic sheathing must be stripped a maximum of 1" behind live end anchor assembly.
- Strands must be tied at all intersections starting at fixed end anchors working toward live end to remove slack and eliminate excessive displacement during pour.
- All strands and bars shall be supported on chairs not to exceed 4" on center.

GENERAL

- This drawing is primarily for beam and cable placement. The contractor is required to coordinate this foundation plan with the architectural drawing for offsets, drops, openings and inserted items. Contractor shall verify all dimensions and field conditions before construction of slab. Anchor locations may be adjusted to more than 6" to provide proper clearance from pipes.
- Slab shall be final stressed approximately seven to ten days after pour. Partial stressing 72 hours after pour will reduce (not eliminate) cracks from concrete shrinkage.
- Waterproofing of the foundation, including drops with associated vapor barriers, stem wall drains, perimeter drains, etc. is not included in this design and is the responsibility of others including the owner and builder.
- Care should be taken by the owner and builder to ensure that soils have proper moisture content before the foundation is poured. The presence of dry or wet soils when the foundation is poured, may contribute to excessive foundation movement when moisture is reintroduced or removed. These plans do not account for foundation movement that may result from dry or wet soil conditions that may exist at the time the foundation is poured.
- Owner and builder should follow all recommendations in any soil report to help insure that the foundation functions properly.

**** A PRE-POUR INSPECTION FOR THIS FOUNDATION ****
Must be accomplished by the design engineer of record for the foundation, or a certified lab.

Notice: All post tension materials to be supplied by a post tension institute certified fabricator.

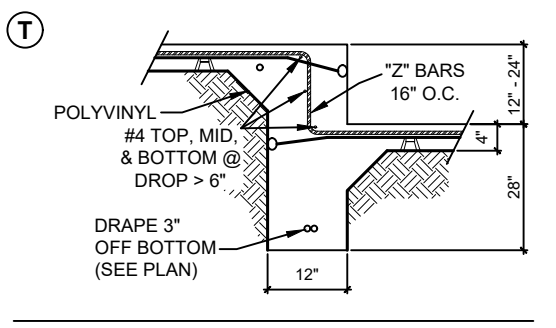
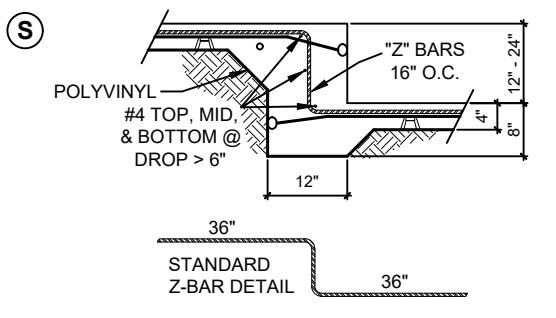
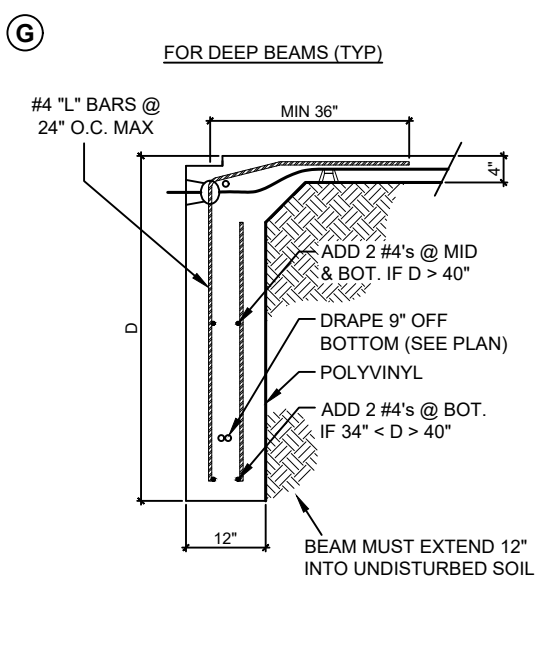
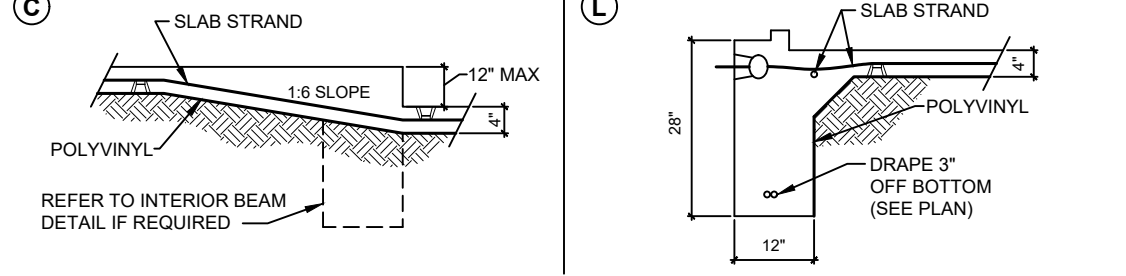
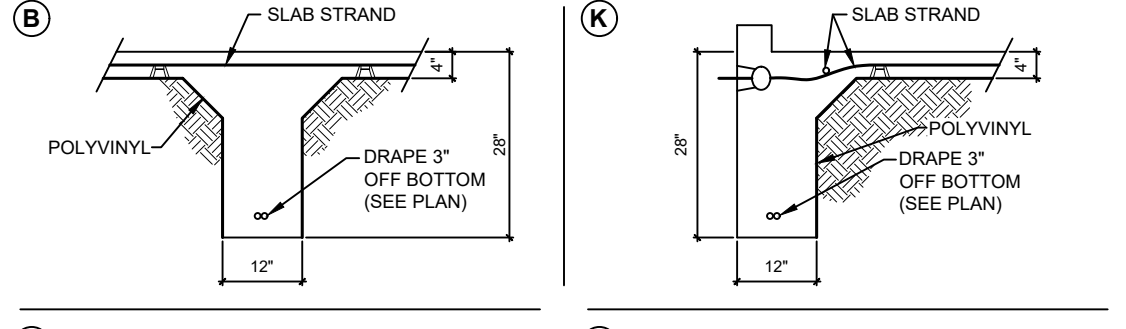
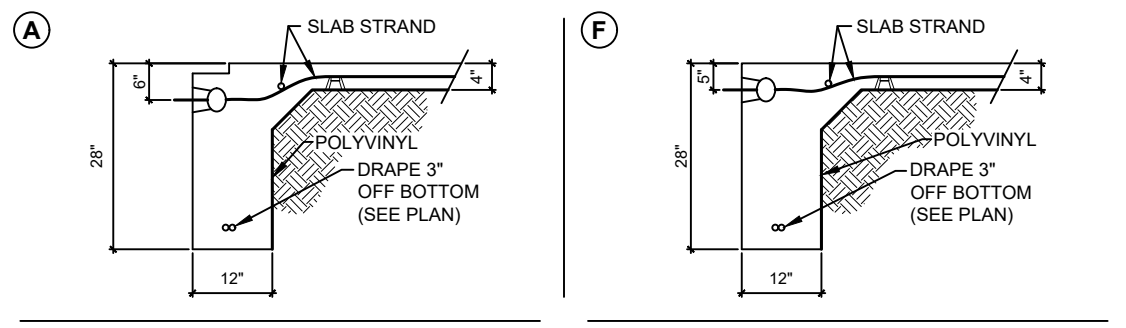
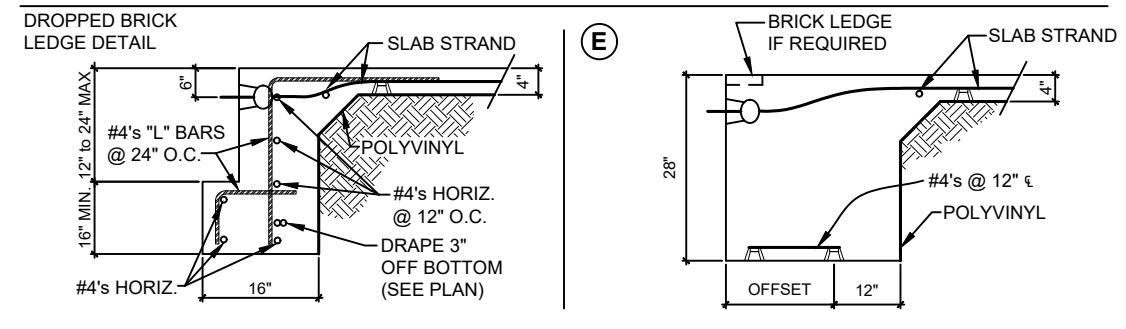
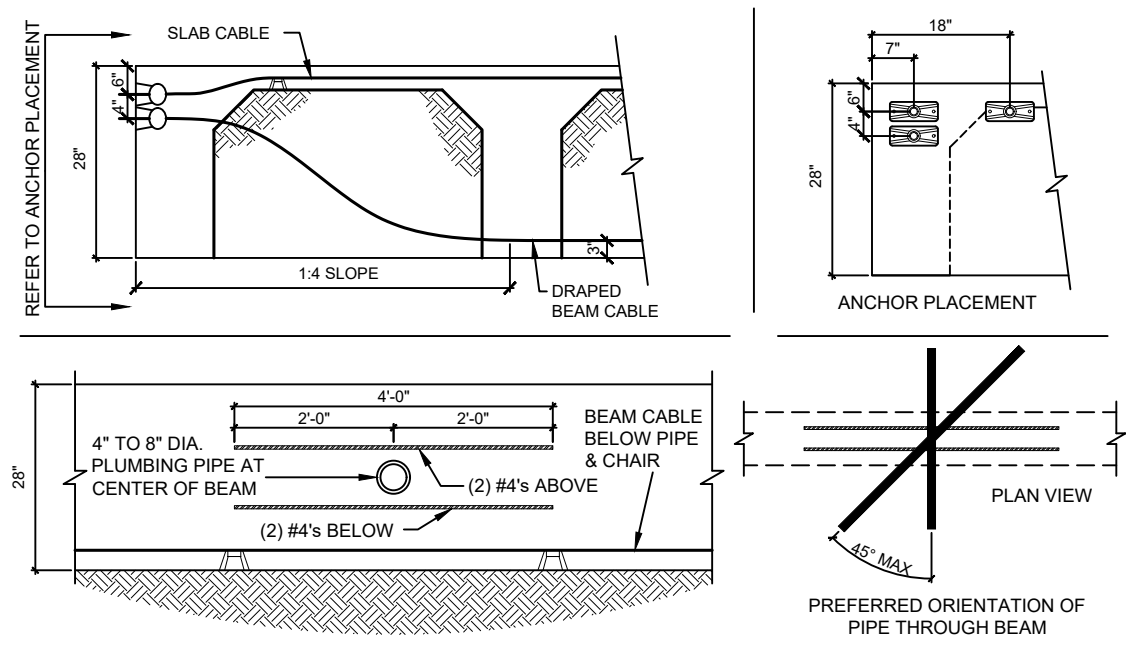
DO NOT USE THIS PLAN TO SET FORM BOARDS

INSPECTION NOTES:

- Engineered prints must be present or obtainable on job site in order to provide a pre-pour inspection.
- Inspections should be scheduled 24 hours in advance. However, we will make every attempt to schedule same day inspections called in before 8:00 a.m. Inspections outside the metroplex require a 24 hour notice.
- Pre-pour inspections must be done after the installation is complete and at least 24 hours prior to pouring concrete foundation.
- Inspections are required for all Nortex foundation designs.

NORTEX INSPECTIONS CAN BE ORDERED AT 817-379-0866

NOTE:
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TX FIRM REGISTRATION#: F-6417

NFD
NORTEX FOUNDATION DESIGNS, INC.
4416 KELLER HICKS ROAD
FORT WORTH, TX 76244
(817) 379-0866
info@nortexfoundation.com

KENDAL GARZA
PLAN #: FOREST LANE
NORTH WOODS
LOT: 432 BLOCK: ---
25639 FOREST LANE
CLEVELAND, TX

BEAM SCHEDULE		DEPTH	28"
WIDTH	12"	INT	12"
		EXT	28"
DATE:	3/14/2023	SCALE:	NOT TO SCALE
SIZE:	2561 SQFT		