













**GENERAL NOTES - SITEWORK**

- 1) SITE PREPARATION BEFORE THE FOUNDATION SYSTEM SHALL BE IN ACCORDANCE WITH THE SOIL REPORT AND FOUNDATION SYSTEM BEING CONSTRUCTED OR SHOULD MEET THE FOLLOWING MINIMUM REQUIREMENTS:
  - A.) STRIP ALL VEGETATION DOWN TO NATURAL SOIL. REMOVE ALL TREES WITHIN A CLOSE PROXIMITY OF THE FOUNDATION.
  - B.) PROPOSED EXPOSED SURFACES, BACKFILL AND COMPACT TREE-HOLETS OR SOFT SPOTS WITH MATERIAL SIMILAR TO THE SITE MATERIALS.
  - C.) BRING SUBGRADE TO REQUIRED ELEVATION WITH SELECT FILL MATERIAL. SELECT FILL SHALL BE SAND, LOESS OR SILTY SAND. FREE OF ORGANIC MATERIAL HAVING A PLASTICITY INDEX GREATER THAN 1 BUT LESS THAN 20.
  - D.) FILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. LARGE DEPOSITS OF FILL OCCUR FIELD DENSITY TESTS ARE REQUIRED FOR EACH LIFT LOCATED AT OR BELOW THE BOTTOM OF THE SLAB.
  - E.) THE LEVING BED SHALL BE FIRM STABLE BANK SAND OR OTHER CLEAN GRANULAR MATERIAL.
- 2) OTHER CLEAN GRANULAR MATERIAL.
- 3) INITIAL SITE GRADING SHALL BE COMPLETED PRIOR TO SETTING FORMS. FINAL GRADE SHALL SLOPE AWAY FROM THE FOUNDATION DRAINAGE AWAY FROM THE SLAB IS ASSURED.
- 4) DURING CONSTRUCTION A DRAINAGE TRENCH SHALL BE FORMED SUCH THAT ANY WATER WHICH INTRUDES INTO THE FOUNDATION MADE UP WILL IMMEDIATELY DRAIN OUT OF THE BOTTOM OF THE BEAMS.
- 5) IF A SOIL REPORT CONTAINING FOUNDATION DESIGN RECOMMENDATIONS HAS BEEN PROVIDED FOR THIS PROJECT, THE SOIL REPORT SHALL CONTROL. IF A CONFLICT OCCURS BETWEEN THESE MIN. REQUIREMENTS AND THE SOIL ENGINEER'S RECOMMENDATIONS.
- 6) THE CLIENT AND CONTRACTOR SHALL READ THE SOIL REPORT(S) REFERENCED BELOW AND BE THOROUGHLY FAMILIAR WITH AND UNDERSTAND ALL THE SITE AND FOUNDATION INFORMATION AND MAIN TAKEAWAY REQUIREMENTS AND RECOMMENDATIONS CONTAINED THEREIN.

**GENERAL NOTES - REINFORCING STEEL**

1. REINFORCING STEEL SHALL BE ASTM A636 GRADE 60 WITH DEFORMATIONS PER ASTM A636 AND SHALL BE DETAILED AND INSTALLED PER ACI 318 LATEST EDITION.
2. REINFORCING FABRIC SHALL BE 6" X 6" X 1/2" X 1/2" W/ 2" W/ 2" GALVANIZED STEEL REINFORCING STEEL AND W/ 2" W/ 2" GALVANIZED STEEL REINFORCING STEEL.
3. MINIMUM REINFORCING STEEL AND W/ 2" W/ 2" GALVANIZED STEEL SHALL BE AS FOLLOWS: SLABS ON-GROUND 2" W/ 2" FROM EARLY GRADE BEAMS.
4. WHERE FIELD SPLICES IN THE CONTINUOUS REINFORCING OCCUR, W/ 2" W/ 2" SHALL BE 10" MINIMUM.
5. PROVIDE CORNER BARS IN THE OUTSIDE FACE OF EXTERIOR GRADE BEAMS TO ANCHOR THE REINFORCING STEEL FROM THE INTERIOR AND EXTERIOR BEAMS OR BEND CONTINUOUS REINFORCING STEEL AROUND CORNERS AND OVERLAP SPLICES 30 BAR DIAMETERS.
6. AT ALL RE-ENTRANT CORNERS PLACE 2" X 5" X 6" IN THE SLAB.

**GENERAL NOTES - CONCRETE**

1. CONCRETE SHALL BE SUPPLIED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 LATEST EDITION AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. IF MORE WORKABILITY IS NEEDED, CONTRACTOR SHALL SPECIFY REQUIRED SUPPLEMENTARY ADJUTANTS TO THE PORTLAND CEMENT ADDITIONAL CEMENT OR OTHER APPROVED ADJUTANTS.
3. WHERE FLYASH IS USED ONLY TYPE C FLYASH SHALL BE ACCEPTED.
4. CONCRETE SHALL NOT BE PLACED AT TEMPERATURES BELOW 40°F OR RAINY WEATHER OR OTHER ADVERSE WEATHER CONDITIONS.
5. A 6 MIL POLYETHYLENE VAPOR RETARDING LAYER SHALL BE PLACED UNDER ALL SLABS. ALL LAPS SHALL BE TIED.
6. FORMS TO BE STRIPPED NO LESS THAN 24 HOURS AND NO MORE THAN 6 DAYS AFTER PLACEMENT OF CONCRETE.
1. CURE ALL SLABS WITH A CHEMICAL CURING COMPOUND OR KEEP MOIST FOR 7 DAYS AFTER PLACEMENT.
2. BUILDER SHALL VERIFY ALL DIMENSIONS, DEPTHS, OFFSETS, BRICKLEDGES, INSERTS AND OPENINGS WITH ARCHITECTURAL DRAINGS.
3. PLACE 9/8" DIA. X 10' LONG ANCHOR BOLTS W/ 2" X 2 SQUARE WAGERS @ 4' O.C.
- REF. PLAN FOR ADDITIONAL HOLD-DOWNS AND THEIR LOCATIONS.

**GENERAL NOTES - DESIGN**

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE I. R. C. CODE, LATEST EDITION OR LOCAL BUILDING CODES WHERE APPLICABLE.
2. THIS FOUNDATION IS DESIGNED IN ACCORDANCE WITH CURRENT ACCEPTABLE ENGINEERING PRACTICES FOR THE SITE SLOPE ON THE PLANS AND MAY NOT BE USED IN ANY OTHER LOCATION.
3. AS WITH ALL GROUND SUPPORTED SLABS, THIS FOUNDATION IS DESIGNED TO MOVE WITH THE UNDERLYING SOILS WHILE SUSTAINING NORMAL TEMPERATURE AND SHRINKAGE CRACKS AS A RESULT OF THE CONCRETE CURING PROCESS.
4. THE DESIGN IS BASED ON THE FOLLOWING ASSUMPTIONS:
  - A. FINAL GRADING IS COMPLETED AS OUTLINED IN THE GENERAL NOTES.
  - B. FINISH GRADE AND A FAIRLY UNIFORM MOISTURE LEVEL.
  - C. THE FOUNDATION IS NOT INSTALLED DURING A DRY OR WET PERIOD WHICH IS NOT CONSIDERED EXTREME OR ABNORMAL FOR THE AREA. IF SUCH IS THE CASE, BUILDER SHALL NOTIFY THE ENGINEER PRIOR TO TRENCHING FOR A POSSIBLE RE-DESIGN.
  - D. A SLOPE IS GREATER THAN 5% IF SUCH IS THE CASE, BUILDER SHALL NOTIFY THE ENGINEER PRIOR TO TRENCHING FOR A POSSIBLE RE-DESIGN.
5. PERIMETER OF FOUNDATION MUST BE LOCATED A MINIMUM OF 40" FROM EXISTING FOUNDATION AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.

**GENERAL NOTES: MISCELLANEOUS & LIMITATIONS**

1. BEC-LIN ENGINEERING, LP ADVISES THE BUILDER AND ALL CLIENTS THAT INSPECTION SERVICES ARE AVAILABLE PRIOR TO CONCRETE POUR DURING THE POUR AND DURING THE STRESSING OF THE POST-TENSIONING STRANDS. IF THESE INSPECTIONS ARE NOT PERFORMED BY BEC-LIN, THEN BEC-LIN ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR THE PROPER PERFORMANCE AND SPECIFICATIONS PROVIDED BY IT ARE FOLLOWED.
2. IN THE EVENT A SOIL REPORT IS PROVIDED BY THE CLIENT TO BEC-LIN ENGINEERING, LP, THE STRUCTURE IS TO BE CONSTRUCTED ON THE SPECIFIC TRACT OF LAND UPON WHICH THE PROPOSED FOUNDATION IS TO BE CONSTRUCTED. BEC-LIN ENGINEERING, LP HAS NO RESPONSIBILITY FOR THE CLIENT UNLESS BEC-LIN ENGINEERING, LP DOES NOT ASSUME OR TAKE RESPONSIBILITY IN ANY WAY FOR THE ACCURACY OF THE SOIL REPORT PROVIDED OR ANY INFORMATION CONTAINED THEREIN WHICH MAY BE RELIED UPON BY BEC-LIN IN DESIGNING THE FOUNDATION FOR THE PROPOSED STRUCTURE.
3. A CURRENT SOIL REPORT HAS BEEN REQUESTED FROM THE CLIENT BY BEC-LIN ENGINEERING, LP. IF NO SOIL REPORT IS PROVIDED BY THE CLIENT, BEC-LIN ENGINEERING, LP DESIGN WILL BE BASED SOLELY ON THE AVERAGE SOIL CONDITIONS IN THE GENERAL LOCATION OF THE PROPOSED CONSTRUCTION SITE IN THESE INSTANCES, THE DESIGN ARE TO BE NOTED AS BEING SPECIFIC ONLY FOR THE AVERAGE SOIL CONDITIONS IN THE GENERAL LOCATION OF THE PROPOSED CONSTRUCTION SITE. SOIL CONDITIONS IN THE GENERAL LOCATION REFERENCED ONLY FOR THE BONDING LOSS AND RAW SOIL DATA CONTAINED THEREIN IN ORDER TO DETERMINE THE AVERAGE SOIL CONDITIONS, ALL SITEWORK, GRADING OR COMPACTATION, ETC. SHOULD BE AS PER THE SPECIFICATIONS LISTED ON THIS DETAIL SHEET.
4. WARNINGS:
  - A. THE FOUNDATION SYSTEM WILL SLOPE OR TILT AND BEND IF THE BEARING SOILS UNEVENLY SETTLE, SWELL OR SHRINK DUE TO UNEVEN MOISTURE CONTENTS. SOME OVERALL TILTING OF SLAB-ON-GRADE FOUNDATIONS, AS WELL AS SOME FLEXURE OR BENDING, IS EXPECTED AND ALLOWED.
  - B. THE HOMEOWNER MUST INSURE THAT THE MOISTURE CONTENT OF THE SOIL IS MAINTAINED AT A CONSISTENT LEVEL. DRAINAGE SHOULD BE MAINTAINED SUCH THAT FLOODING DOES NOT OCCUR. IF WATER IS FOUND, THE BUILDER SHOULD BE CONTACTED TO IMPROVE DRAINAGE.
  - C. SYSTEMS CAN UNDERMINE THE SLAB.
  - D. THE HOMEOWNER SHOULD NOT PLANT TREES ADJACENT TO THE SLAB SUCH THAT THE ROOTS ENDURE DURING HOT AND DRY PERIODS TO INSURE THAT ADEQUATE WATERING IS BEING PERFORMED.
  - E. FINISH GRADE BETWEEN ANY PORCH POOL, AND THE PERIMETER BEAMS SHOULD BE 15" TO 2" BELOW THE FINISH GRADE OF THE SLAB. FINISH GRADE SHOULD BE 15" TO 2" BELOW THE FINISH GRADE OF THE SLAB. FINISH GRADE SHOULD BE 15" TO 2" BELOW THE FINISH GRADE OF THE SLAB. FINISH GRADE SHOULD BE 15" TO 2" BELOW THE FINISH GRADE OF THE SLAB.
  - F. THE ORIGINAL BUTTER OR OCCUPANT OF THE RESIDENCE OF THE TYPE OF FOUNDATION SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE FOUNDATION FROM DAMAGE AND THE MAINTENANCE AND DRAINAGE REQUIREMENTS AS NOTED HEREIN. (INCLUDING THE HOMEOWNER'S MAINTENANCE RESPONSIBILITIES AND THE SPECIFICATIONS NOTED).
  - G. ONE OF THE WAYS THIS IS TYPICALLY DESCRIBED IS THROUGH A HOMEOWNER GENERAL INCORPORATION ABOUT THE CONSTRUCTION AND MAINTENANCE OF VARIOUS COMPONENTS OF THE HOME, INCLUDING THE FOUNDATION SYSTEM. THIS MANUAL STAYS WITH THE HOME AND IS PASSED FROM EACH PREVIOUS OWNER TO THE NEXT OR NEW BUYER/OWNER.
  - H. THE DESIGN PROCEDURES AND CRITERIA USED BY BEC-LIN ARE IN ACCORDANCE WITH THE GENERAL ACCEPTED STANDARDS AND PRACTICES FOR A STRUCTURE OF THIS TYPE.
  - I. THE SERVICES PROVIDED BY BEC-LIN ENGINEERING, LP INCLUDE ONLY THE DESIGN AND THE FOUNDATION SYSTEM AND ARE LIMITED TO THE SCOPE OF SERVICES AS REQUESTED AND ALLOWED BY BEC-LIN AGREEMENT WITH BEC-LIN AND/OR CONTRACTUAL WITH THE CLIENT. BEC-LIN ENGINEERING, LP DOES NOT PROVIDE PROFESSIONAL SERVICES AS REQUESTED AND INCLUDES BUT ARE NOT LIMITED TO, INSERTS AND EMBEDDED TIES (IE ANCHOR BOLTS, HOLD-DOWNS, CONDUIT SLEEVES, WATERSTOP, ETC.) FILL PLACEMENT, LOT FIREPARTITION OR VERIFICATION FOR CORRECT DENSITY OF SOLS, CORROSION OR THE SUPPLEMENTARY INSTALLATION.
5. PER AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530) AND SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530) FOR THE BONDING LOSS AND RAW SOIL DATA CONTAINED THEREIN IN ORDER TO DETERMINE THE AVERAGE SOIL CONDITIONS, ALL SITEWORK, GRADING OR COMPACTATION, ETC. SHOULD BE AS PER THE SPECIFICATIONS LISTED ON THIS DETAIL SHEET.
- 6) ANY TREES WHICH WERE REMOVED FROM THE BUILDING SITE ITSELF WITHIN THE FORMS OR WERE CLOSER THAN THE TREE'S CANOPY OVERHANG TO THE FORM EDGE MAY HAVE LOANED THE BEARING SOIL'S MOISTURE CONTENT WITHIN THE TREE ROOT ZONE(S) TO LEVELS BELOW THOSE OF THE SURROUNDING BEARING SOILS. THE EXPANSION POTENTIAL OF THESE LOCALIZED ROOT ZONE SOILS COULD BE LARGER THAN THE VALUES NOTED IN THE SOIL REPORT. IF TREES WERE REMOVED WITHIN THE PROXIMITY NOTED ABOVE, THE BUILDER SHOULD CONSIDER REMOVAL OF THESE SOILS TO OBTAIN THE ROOT ZONE(S). THE BUILDER SHOULD CONTACT THE GEOTECHNICAL ENGINEER FOR SPECIFIC RECOMMENDATIONS AND PROCEDURES.

**FOR REVIEW**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSES OF THE PRELIMINARY REVIEW UNDER THE AUTHORITY OF KRAM BECKON, P.E. 13405. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.  
DATE: 1/10/17

NO.	REVISION	DATE
A	ISSUED FOR REVIEW	1-10-17
B	ISSUED FOR REVIEW	1-11-17

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**FOUNDATION DETAILS**

DATE: 1/12/17

DESIGNED BY: JS

CHECKED BY: RS

SCALE: KB

PLAN NO: S-4







