



ENTECH
ENGINEERING, INC.

505 ELKTON DRIVE
COLORADO SPRINGS, CO 80907
PHONE (719) 531-5599
FAX (719) 531-5238

June 27, 2018

Premier Homes
200 West First Street, Suite 200
Pueblo, Colorado 81003

Attn: Paul Broussard

Re: Footing and Footing Reinforcing Observation
16190 Reata Road
El Paso County, Colorado

Dear Mr. Broussard:

As requested, Personnel of Entech Engineering, Inc. observed the foundation at the address referenced above on June 18, 2018, in order to observe the footing forms and footing reinforcing prior to placement of concrete.

Continuous footings, widened footings and interior pads of the specified dimensions were formed for placement of concrete. The footing forms were found to have been placed in substantial compliance with the foundation design by Entech Engineering, Inc., dated March 1, 2016, Entech Job No. 170800. The footings were approved for concrete placement.

We trust that this has provided you with the information you required. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Tae Y. Yang

TYY/ds

Encl.

Entech Job No. 170800
AAprojects/2017/170800 fo

Reviewed by:

Bob M. Klingsick, P.E.
Senior Engineer



GENERAL FOUNDATION NOTES:

- Use dimensions from the architectural plans, except for foundation components.
- All miscellaneous details shall be in accordance with instructions from manufacturer or designer.
- Reinforcing should be continuous around the building, as shown.
- Minimum lap of reinforcing should be 30 bar diameters.
- All foundation pads must be formed to the proper dimension.
- Floor slabs must be separated from all structural portions of building with an expansion joint a minimum of 1/2" thickness. All nonbearing partitions above floor slabs must be constructed with a minimum 2" gap at the bottom to permit vertical movement of floor slabs.
- Stairways should not be constructed as rigid connections between floors, but should allow floor slabs to move vertically.
- Door jambs should not be built tight to slabs on grade.
- Mechanically compact all interior backfill to 90% maximum Modified Proctor Dry Density, ASTM D-1557. All exterior backfill should be mechanically compacted to 90% of maximum Modified Proctor Dry Density, ASTM D-1557.
- Walls having backfill on both the interior and exterior faces should have the backfill on either side brought up approximately together. Otherwise, where possible, no exterior backfill should be placed until the floor slab and floor joists are in place or the wall is otherwise properly braced.
- Minimum recommended design strength of foundation concrete shall be 3000 psi. See soils report for additional concrete recommendations.
- Foundation forms should remain in place a minimum of three (3) days.
- A gravel pad beneath floor slabs is not recommended.
- Planters, if any, should be well sealed and drained.
- Slope backfill away from the building a minimum of 5% for the first 10 feet. Carry roof drains across the backfilled areas. Do not allow water to stand or pond near the building. Do not flood the backfill.
- This design has been completed in accordance with pertinent standards, recommended design soil parameters, and accepted engineering design procedures, and is based on the best information available at the time of completion. The design is intended to minimize differential movement resulting from the heaving of expansive soil induced by seasonal moisture changes. It must be recognized that foundation components, and in particular, floor slabs and other fieldwork, will undergo movement. Adherence to those details isolating floor slabs from columns, walls, partitions, or other structural components is extremely important if damage to the superstructure is to be minimized. Any subsequent owners should be apprised of the expansive soil condition, if any, and advised to maintain good practices in the future with regard to surface and subsurface drainage, framing of partitions above floor slabs, drywall and finish work above floor slabs, etc.
- All reinforcing bars are to consist of #4, grade 60 steel unless otherwise noted.
- #5, grade 40 reinforcing bars may be used in place of #4, grade 60 reinforcing bars, if desired.

Standard Designation	SI Designation
#4, Grade 60	#13, Grade 420 MPa
#5, Grade 40	#16, Grade 300 MPa

- Reinforcing must remain continuous above all windows and doors, bundle bars as necessary.
- Verify top of foundation elevations and top of wall steps with Builder prior to placing concrete.
- Verify foundation dimension and pad locations with architectural plans prior to setting forms or placing concrete.
- Verify mudsill locations with architectural plans prior to setting forms or placing concrete.
- Step foundation walls per grade per step details 9, 10, and 11.

SOILS NOTES:

- The foundation excavation must be observed by Entech Engineering, Inc. prior to placing forms or concrete to verify that the design is appropriate for the site.
- The foundation was designed using a minimum soil bearing capacity of 2400 psf.
- The foundation was designed according to the building plans by Premier Homes, dated June 7, 2015, revised July 20, 2015 and the soils report by Entech Engineering, Inc.

LEGEND

FOUNDATION WALL W/
FOOTING & MUD SILL

BEAM

CENTER LINE

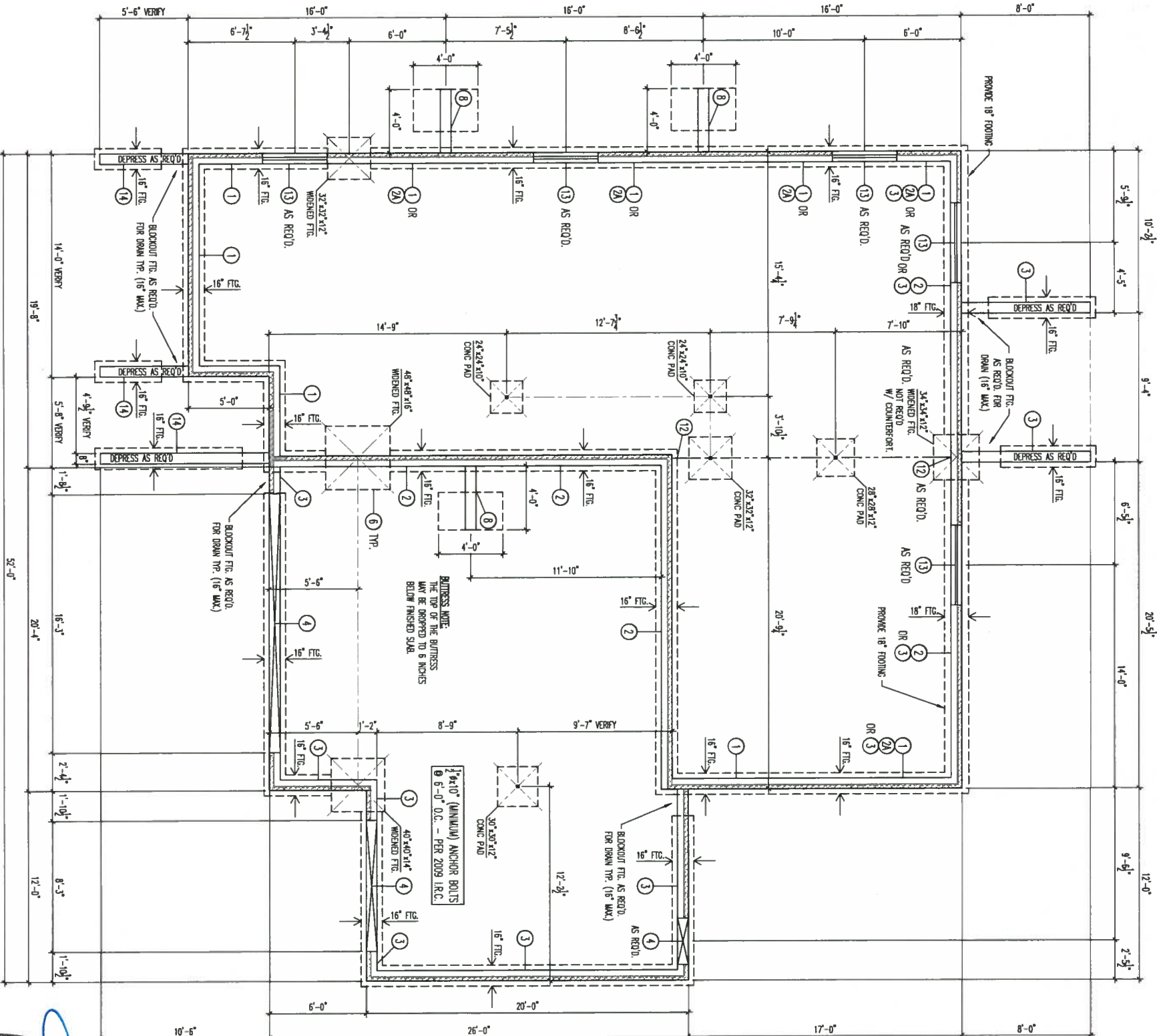
DETAIL REFERENCE

FOUNDATION PAD

Roof Snow Load	Floor Live Load	Deck Live Load
40 psf	40 psf	40 psf
Roof Dead Load	Floor Dead Load	Deck Dead Load
20 psf	10 psf	15 psf

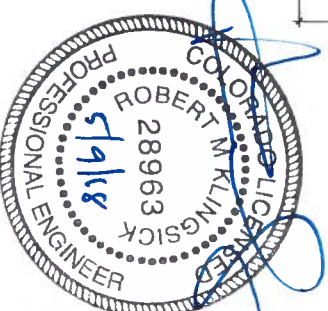
COUNTERSINK NOTES:
1-COUNTERSINK NOT REQUIRED IF WALL STEPS TO 4" OR LESS WITHIN 10" OF THE FRONT CORNER.
2-COUNTERSINK LOCATION MAY BE MOVED DEPENDING ON FOUNDATION STEP LOCATION.
3-THE TOP OF THE COUNTERSINK MAY BE DROPPED TO 6 INCHES BELOW FINISHED GRADE.

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FOUNDATION PLAN

1 1/8" x 17" - SCALE: 1/8" = 1'-0"



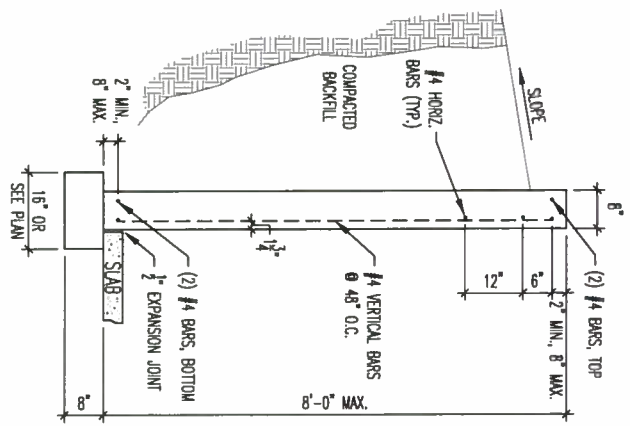
DRAWN BY: C. BLANES
DESIGNED BY: T. YANG
CHECKED BY:
DATE: 05/09/18
SCALE: AS SHOWN
JOB NO.: 170800
SHEET NO.: 3
1 OF 3 SHEETS

FOUNDATION PLAN
 16190 REATA ROAD
 EL PASO COUNTY, CO
 FOR: PREMIER HOMES

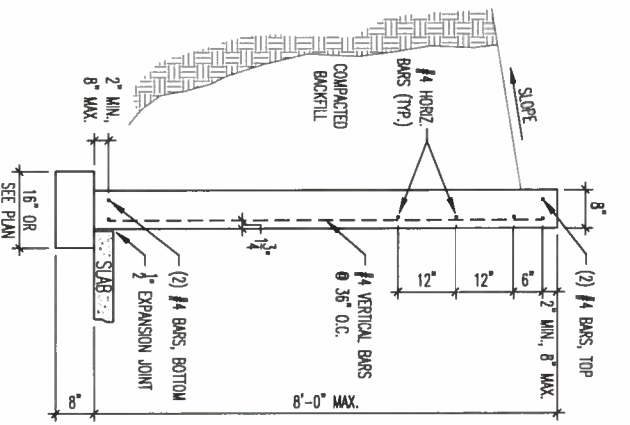


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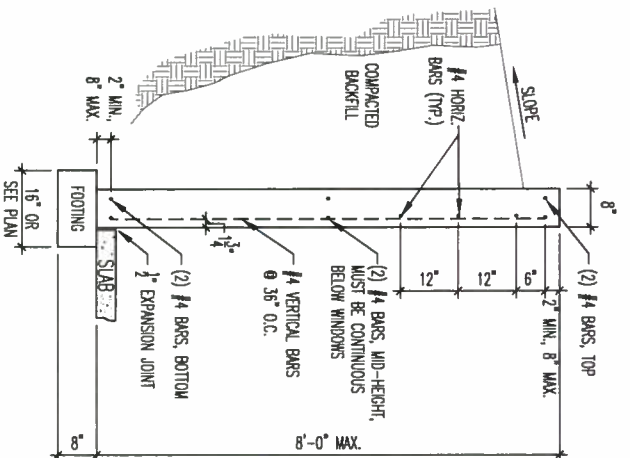
REVISIONS	BY:



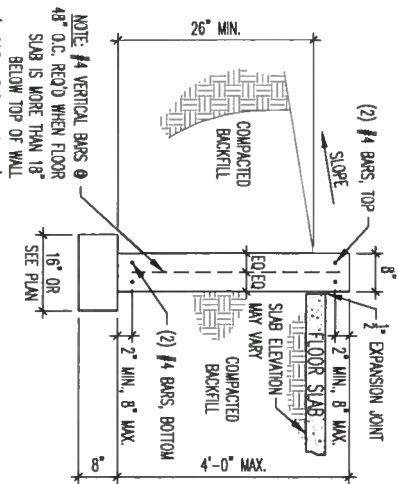
1 FULL BASEMENT WALL



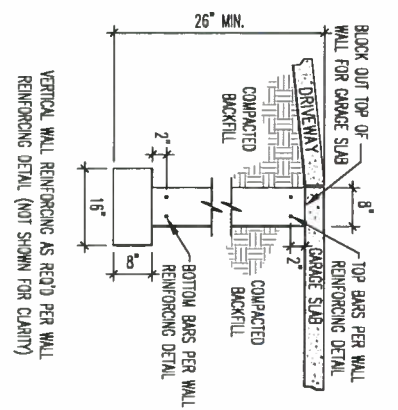
2 FULL BASEMENT WALL



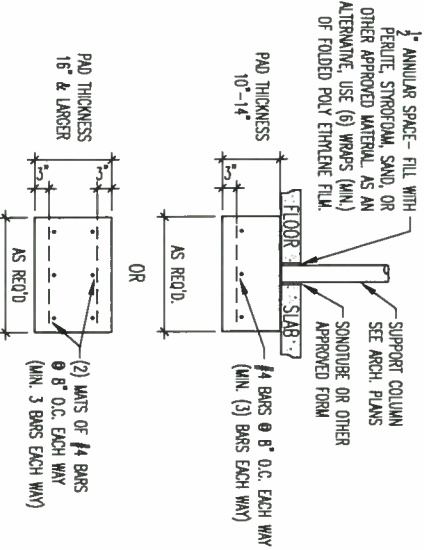
2A FULL BASEMENT WALL @ T.O.W. STEPDOWN CONDITIONS



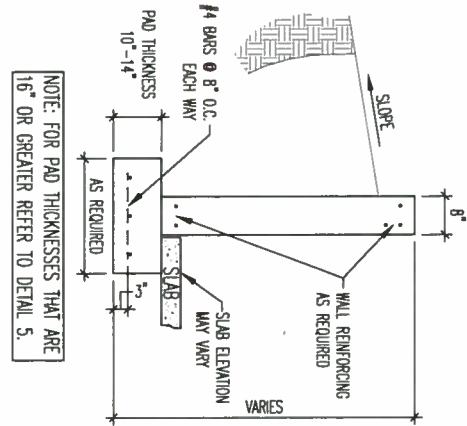
3 LOW WALL



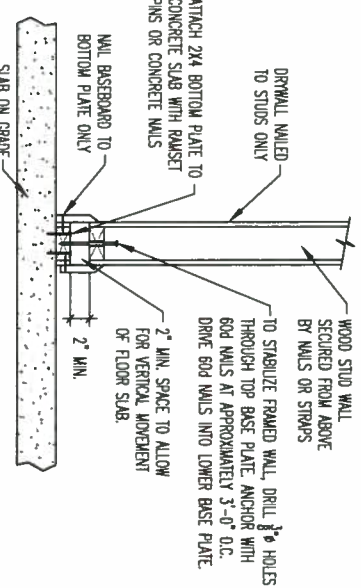
4 LOW WALL AT GARAGE DOOR



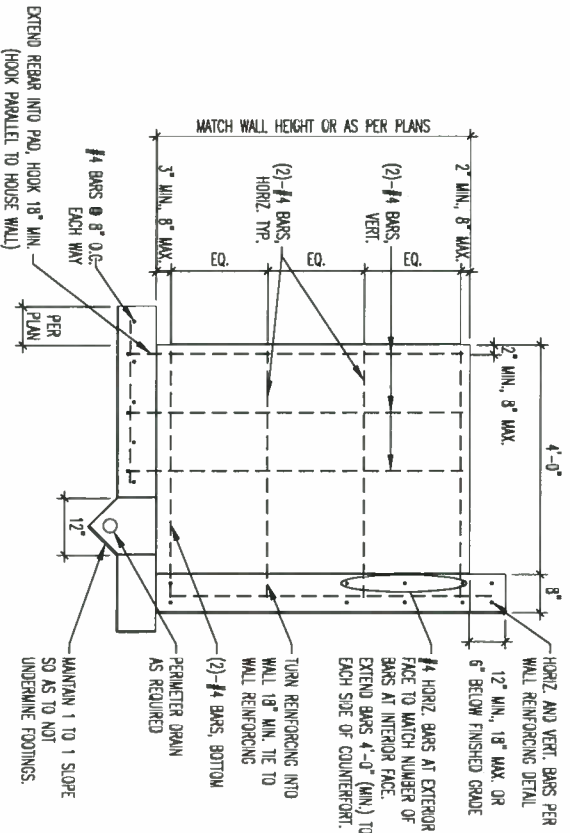
5 INTERIOR CONCRETE PAD



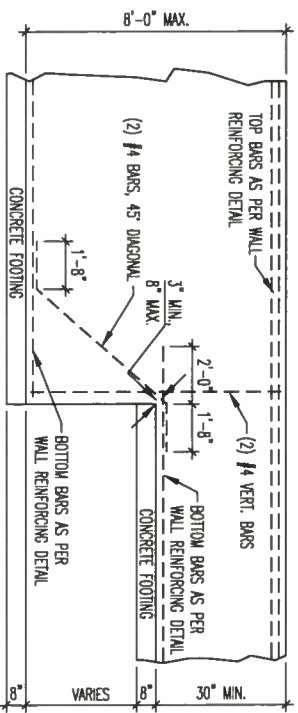
6 WIDENED CONCRETE FOOTING



7 NON-BEARING PARTITION VOID

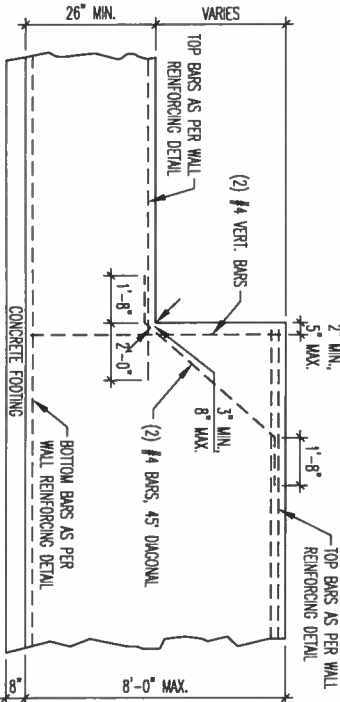


8 COUNTERFORT W/ DRAIN BLOCKOUT



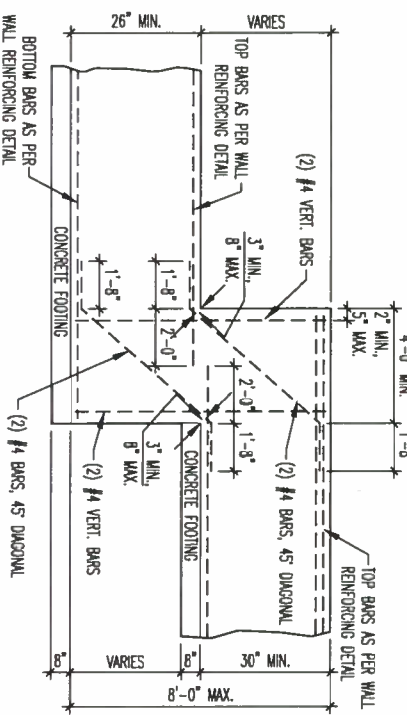
9 FOUNDATION STEP AT BOTTOM

VERTICAL WALL REINFORCING NOT SHOWN FOR CLARITY



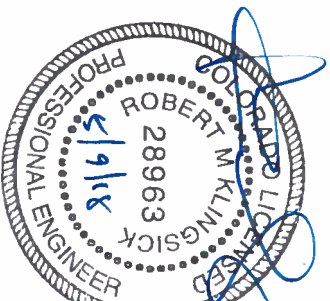
10 FOUNDATION STEP AT TOP

T.O.W. STEP GREATER THEN 5'-0" SHOULD BE REVIEWED BY ENGINEER. VERTICAL WALL REINFORCING NOT SHOWN FOR CLARITY.



11 FOUNDATION STEP AT TOP AND BOTTOM

T.O.W. STEP GREATER THEN 5'-0" SHOULD BE REVIEWED BY ENGINEER. VERTICAL WALL REINFORCING NOT SHOWN FOR CLARITY.



FOUNDATION DETAILS
16190 REATA ROAD
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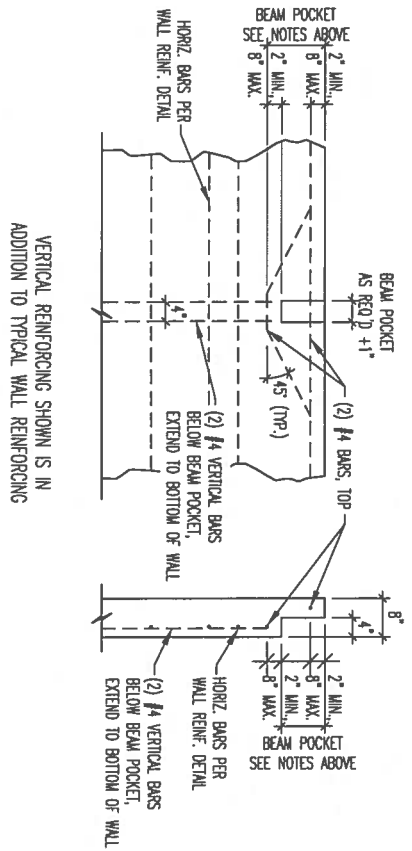


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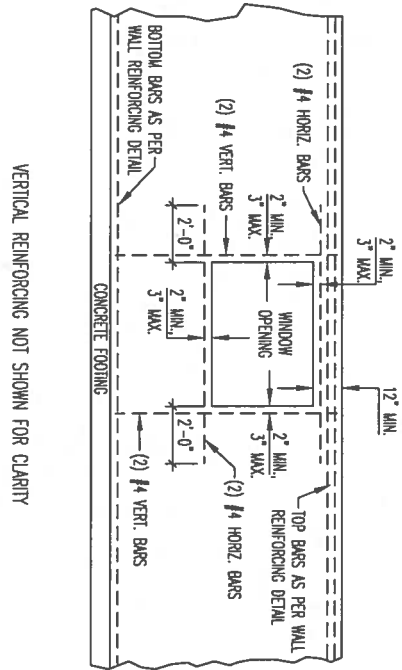
REVISIONS	BY:

DESIGNED BY: C. BARNES
CHECKED BY: F. YANG
DATE: 05/09/18
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OF 3 SHEETS

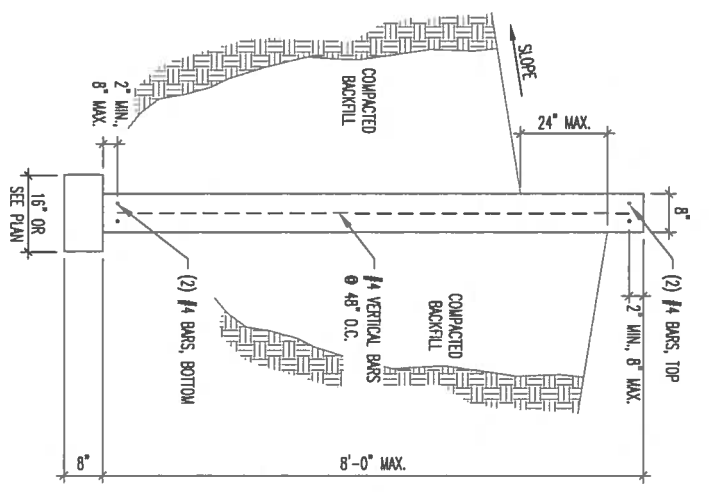
NOTES:
 - BEAM BEARING PER CODE OR STRUCTURAL SHEETS (3" MIN.)
 - DEPTH OF BEAM POCKET = DEPTH OF BEAM + 1/2"
 - REDUCE BEAM POCKET DEPTH ALLOWING FOR MULTIPLE SILLS, FIELD VERIFY.
 - WIDTH OF BEAM POCKET = WIDTH OF BEAM + 1"



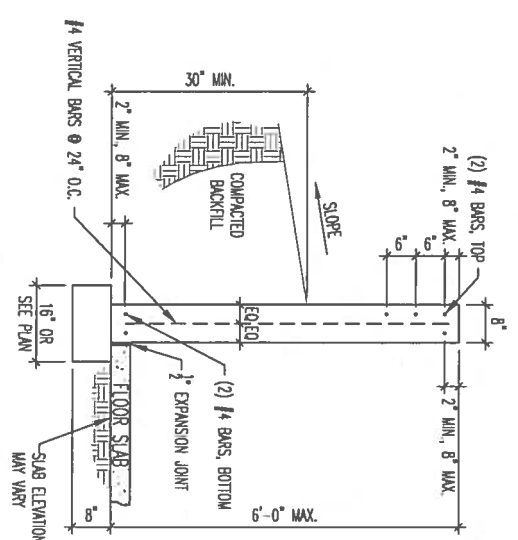
12 FULL BASEMENT WALL BEAM POCKET



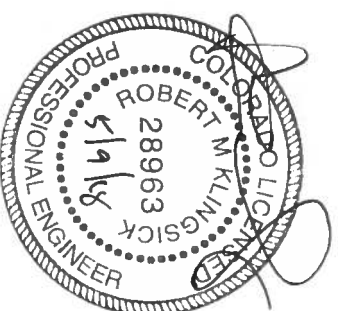
13 WINDOW OPENING



14 FULL HEIGHT T-WALL



15 BASEMENT WALL



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