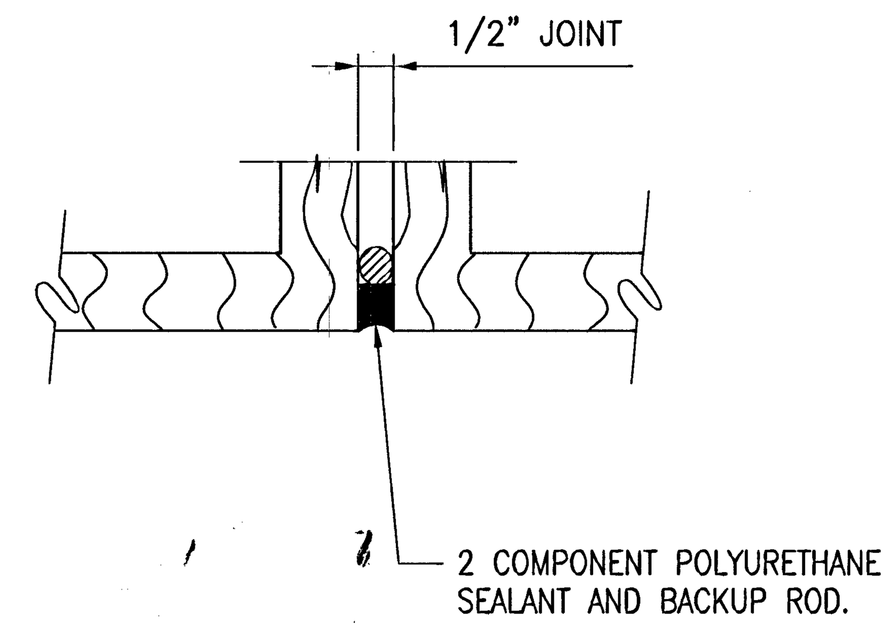
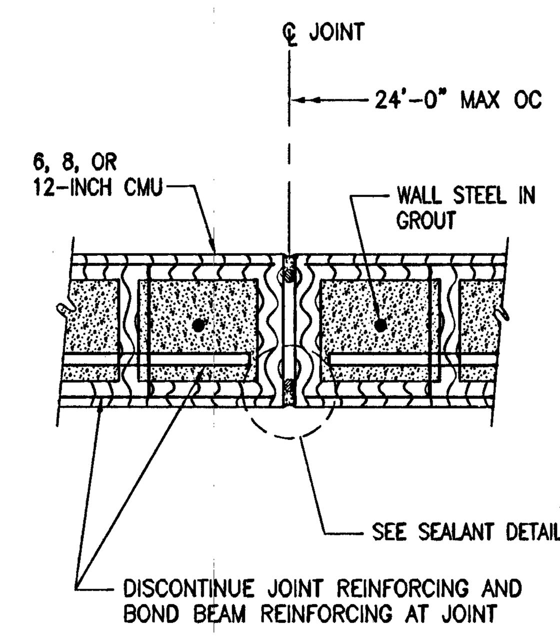
BAR SIZE	TYP LAP LENGTH IN MASONRY, Ld (IN)	STANDARD HOOK LENGTH (IN)
#4	24*	8
#5	30*	10
#6	36*	12
#7	42*	14

* – UNLESS NOTED OTHERWISE

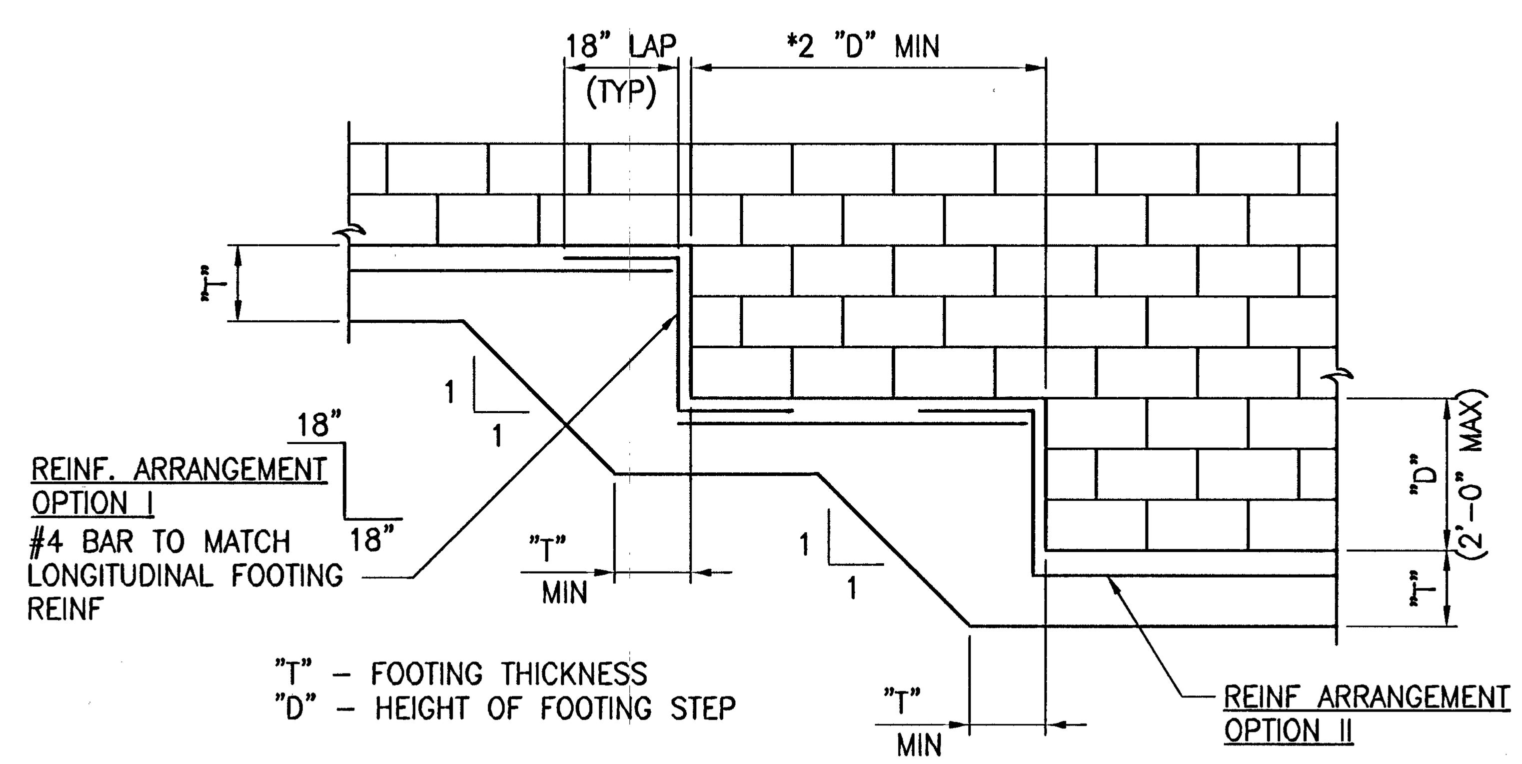
5 TYP REBAR LAP SCHEDULE
SCALE: NTS



4 SEALANT DETAIL
SCALE: 1/2" = 1'-0"



3 TYPICAL WALL JOINT
SCALE: 1/2" = 1'-0"



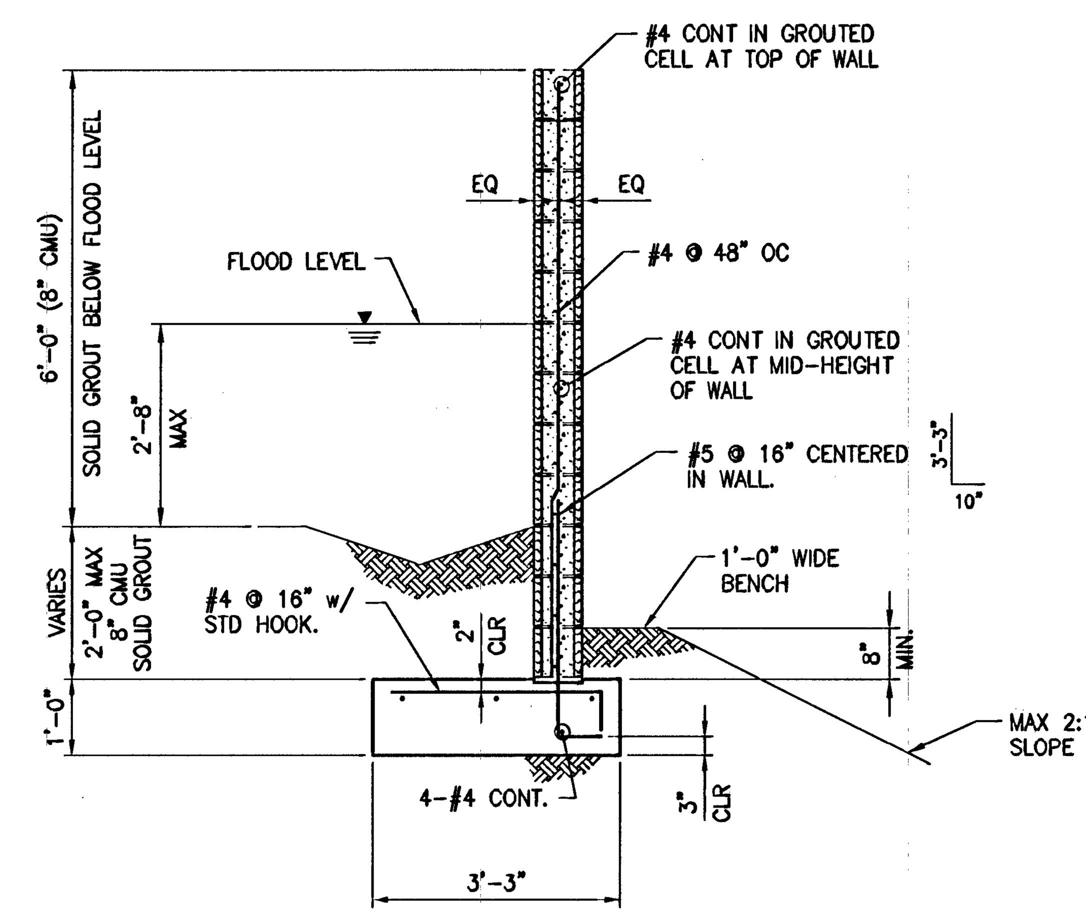
* WALLS SHALL BE STEPPED ONLY AS SHOWN ON THE PLANS

2 TYPICAL FOOTING STEP
SCALE: 1/2" = 1'-0"

GENERAL STRUCTURAL NOTES

1. ALL WALLS ARE DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2009 (IBC 2009) AND ARE SUBJECT TO APPROVAL BY THE CLARK COUNTY, NEVADA, BUILDING DEPARTMENT. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL CONFORM TO THE IBC, AND PER STANDARD SPECIFICATIONS FOR THE CLARK COUNTY, NEVADA, BUILDING DEPARTMENT.
2. REFER TO CIVIL PLANS FOR FINISH GRADE, TOP OF FOOTING, AND TOP OF WALL ELEVATIONS. WALLS SHALL BE STEPPED ONLY AS NOTED ON THE CIVIL PLANS.
3. CONTRACTOR SHALL PROVIDE SLOPE STABILIZATION, SHEETING, BRACING, AND/OR SHORING AS REQUIRED TO PROTECT EXISTING EMBANKMENTS, STRUCTURES, AND UNDERGROUND ITEMS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN THE WORK AREA AND PROVIDING PROTECTION FOR THE VARIOUS UTILITIES AFFECTED PRIOR TO PROCEEDING WITH WORK.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. PROVIDE HOOKS IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE WHERE HOOKS ARE SHOWN, UNLESS NOTED OTHERWISE. MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 3" WHERE CONCRETE IS POURED AGAINST EARTH AND 2" ELSEWHERE, UNLESS NOTED OTHERWISE. HOOKS MAY BE ROTATED OR TILTED AS NECESSARY TO PROVIDE PROPER CLEARANCES.
6. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4500 psi AT 28 DAYS (DESIGN BASED ON f'c=2500 psi, NO SPECIAL INSPECTION IS REQUIRED) AND A MAXIMUM WATER-CEMENT RATIO BY WEIGHT OF 0.45. CEMENT SHALL CONFORM TO ASTM C-150 TYPE V.
7. MASONRY UNITS SHALL CONFORM TO ASTM C-90, GRADE N-1 MEDIUM WEIGHT HOLLOW CONCRETE UNITS. MASONRY DESIGN STRESS IS AS FOLLOWS: f'm=1500 psi. SPECIAL INSPECTION PER IBC 2009 SECTION 1704 SHALL BE PROVIDED.
8. MORTAR SHALL CONFORM TO ASTM C270, TYPE "M" OR "S" WITH A MINIMUM STRENGTH OF 1900 psi AT 28 DAYS.
9. GROUT SHALL HAVE A MINIMUM STRENGTH OF 2000 psi AT 28 DAYS. CEMENT SHALL CONFORM TO ASTM C-150 TYPE V.
10. SOLID GROUT ALL MASONRY UNITS UNLESS NOTED OTHERWISE ON DETAILS.
11. ALL CORNERS OR ANGLES SHALL BE TIED TOGETHER WITH REINFORCING STEEL AND GROUTED SOLID.
12. WHERE VERTICAL GROUT POURS ARE NOT CONTINUOUS FOR THE FULL WALL HEIGHT, TERMINATE LIFT 1 1/2" BELOW TOP OF BLOCK TO FORM A KEY FOR FUTURE LIFTS.
13. PROVIDE CMU WALL CONSTRUCTION JOINTS AS SHOWN IN THE TYPICAL DETAILS AT A MAXIMUM SPACING OF 24'-0". BOND BEAMS AND JOINT REINFORCING SHALL NOT BE CONTINUOUS THROUGH WALL CONSTRUCTION JOINTS.
14. EMBED FIRST COURSE 1/2" INTO FOOTING.
15. ALL RETAINING WALLS SHALL BE DAMPPROOFED. AS A MINIMUM, PROVIDE THOROSEAL OR OWNER APPROVED EQUAL. PLEASE CONTACT ENGINEER FOR ADDITIONAL PRODUCTS AND RECOMMENDATIONS IF WALL AESTHETICS IS AN ISSUE.
16. BACKFILL BEHIND WALLS AND FOUNDATION SUBGRADE SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
17. THE DESIGN IS BASED ON SOILS REPORT PREPARED BY GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC., PROJECT NO. 20133175E1, DATED APRIL 10, 2013, AND THE FOLLOWING SOILS PROPERTIES:

    ALLOWABLE SOILS BEARING PRESSURE = 2,500 psf
    SOIL ACTIVE PRESSURE, EFP = 34 psf/ft (LEVEL)
    SOIL PASSIVE PRESSURE, EFP = 280 psf/ft
    COEFFICIENT OF FRICTION = 0.42



NOTES:

1. DAMPPROOF BACK OF RETAINING WALL PER GENERAL STRUCTURAL NOTES.
2. NO WEEPHOLES ARE REQUIRED.

1 CMU RETAINING WALL
SCALE: 1/2" = 1'-0"

#52144

ERIC G. GILES
STATE OF NEVADA
PROFESSIONAL ENGINEER
Exp. 06/30/2015
CIVIL / STRUCTURAL
No. 14570
DATE: 2/18/14

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A105
DESIGN: EGG
DRAWN: EGG
CHECK: DAT
PLOT DATE: 02-18-14
PLOT TIME: 10:38:11

G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1555 S. RAINBOW BLVD · LAS VEGAS, NV 89146
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Hao Nguyen

PULTE HOMES
NORTHSTAR
CMU FLOOD WALL / RETAINING WALL

DRAWING
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9 OF 9 SHTS