

1. WALL TYPES:

- I-TOE SUPPORT
- II-HEEL SUPPORT
- III-TOE AND HEEL SUPPORT
- L-LEVEL BACKFILL
- S-SLOPING BACKFILL

2. DESIGN CONDITIONS:

WALLS ARE TO BE USED FOR THE LOADING CONDITIONS SHOWN FOR EACH TYPE WALL. DESIGN H SHALL NOT BE EXCEEDED. FOOTING KEY IS REQUIRED EXCEPT AS SHOWN OTHERWISE. SPECIAL FOOTING DESIGN IS REQUIRED WHERE FOUNDATION MATERIAL IS INCAPABLE OF SUPPORTING TOE PRESSURE LISTED IN TABLES.

3. REINFORCEMENT:

INTERMEDIATE GRADE, HARD GRADE OR RAIL STEEL DEFORMATION SHALL CONFORM TO ASTM A615, A616, A617. BARS SHALL LAP 40 DIAMETERS, WHERE SPLICED, UNLESS OTHERWISE SHOWN ON PLANS. BENDS SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE, A.C.I. BACKING FOR HOOKS IS FOUR BAR DIAMETERS. ALL BAR EMBEDMENTS ARE CLEAR DISTANCES TO OUTSIDE OF BARS. SPACING FOR PARALLEL BARS IS CENTER TO CENTER OF BARS. ALL REINFORCING SHALL BE 3" CLEAR UNLESS OTHERWISE SHOWN.

4. MASONRY:

ALL MASONRY SHALL CONFORM TO THE REQUIREMENTS OF SUB-SECTION 311.13 "MASONRY CONSTRUCTION" OF THE "STANDARD SPECIFICATIONS FOR PUBLIC CONSTRUCTION". ALL MASONRY SHALL CONFORM TO THE REGULATIONS OF THE U.B.C.

5. FOOTINGS:

BOTTOM OF FOOTINGS WILL BE PLACED AT LEAST 24" BELOW FINISHED GROUND SURFACE. CHANGES IN FOOTING ELEVATIONS SHALL BE MADE IN EQUAL INCREMENTS OF MASON BLOCK HEIGHT.

6. TESTING:

SUFFICIENT TESTING WILL BE CONDUCTED TO VERIFY DESIGN DATA.

7. DESIGN DATA:

EARTH = 120 PCF AND EQUIVALENT
FLUID PRESSURE = 36 PSF PER
FOOT OF HEIGHT

REINFORCED MASONRY:
F'm = 600 PSI
Fm = 200 PSI
Fs = 20,000 PSI
n = 50

REINFORCED CONCRETE:
Fc = 1,200 PSI
F'c = 3,000 PSI
Fs = 20,000 PSI
n = 10

WALLS SHOWN FOR 1 1/2:1 UNLIMITED SLOPING SURCHARGE ARE DESIGNED IN ACCORDANCE WITH RANKINE'S FORMULA FOR UNLIMITED SLOPING SURCHARGE WITH $\phi=33^{\circ}42'$.



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.

NOTES - MASONRY RETAINING WALLS

R-604C

APPROVED BY: JF | DATE: 12/2019