

CE 1012 CIVIL ENGINEERING DRAWING I
FOR FIRST SEMESTER

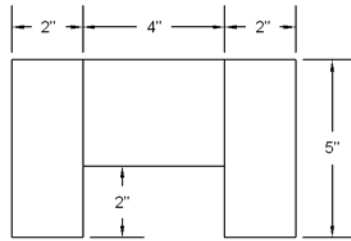
REFERENCE

1. CE 1012 Lecture Notes
2. CE 1012 Simple Questions and Worked – out Examples

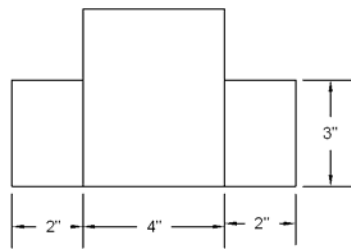
SCOPE

1. Isometric Drawing
 - (a) Front view
 - (b) Side view
 - (c) Plan view
2.
 - (i) Brick Post Footing
 - (ii) Concrete Post Footing
 - (iii) Retaining Wall
3. Brick Step
4. Stair

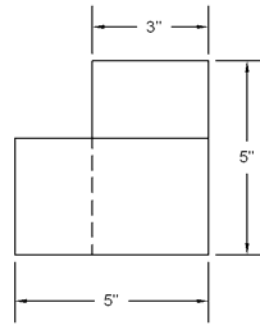
1. Draw isometric drawing for the given orthographic drawing. Scale $\frac{1}{4}'' - 1'-0''$.



PLAN



FRONT



SIDE

Figure 1

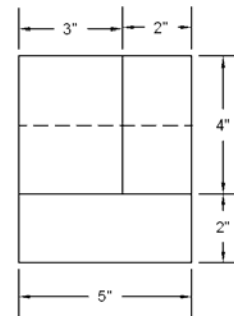
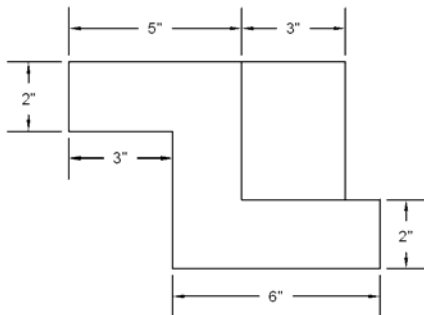
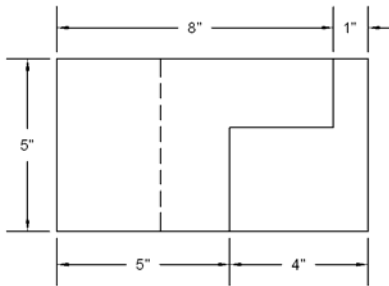
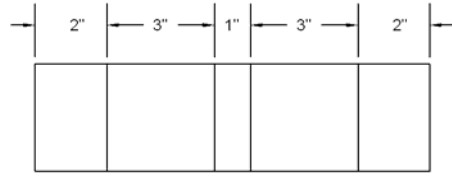
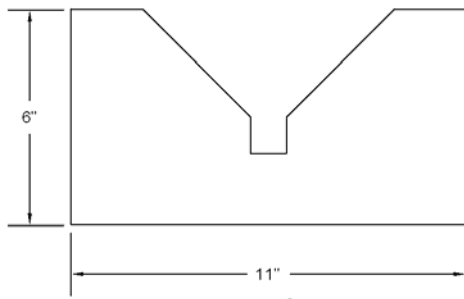


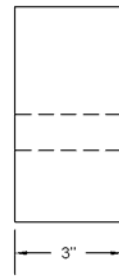
Figure 2



PLAN

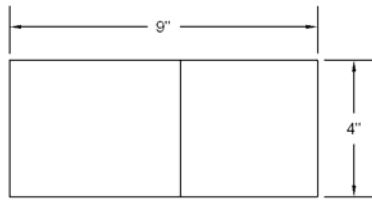


FRONT

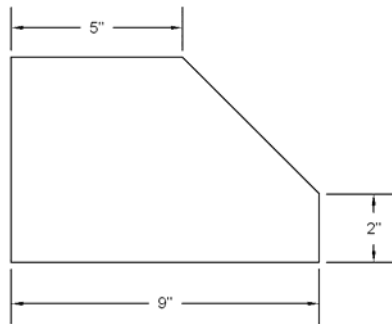


SIDE

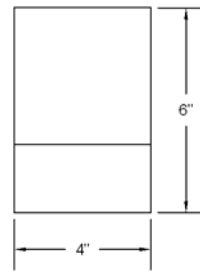
Figure 3



PLAN



FRONT



SIDE

Figure 4

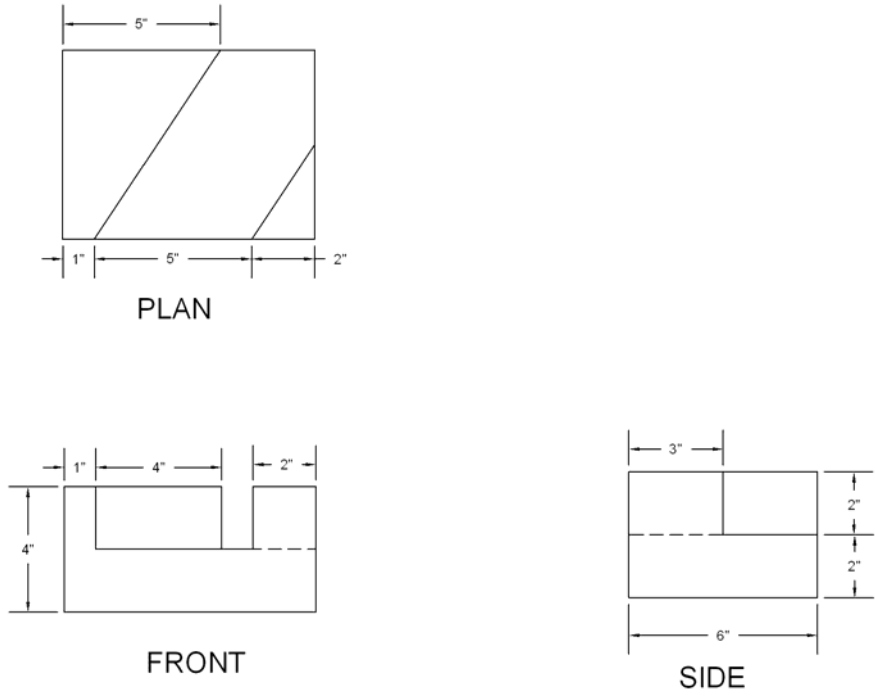


Figure 5

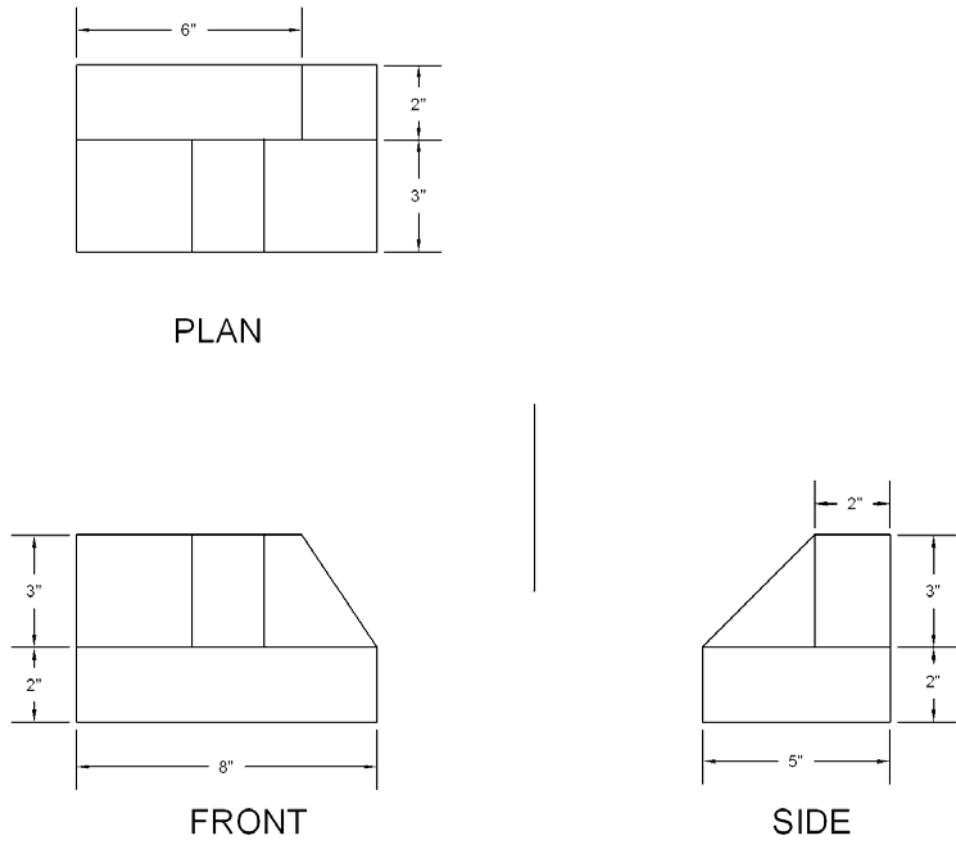
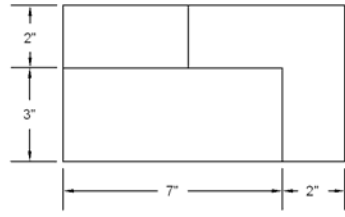
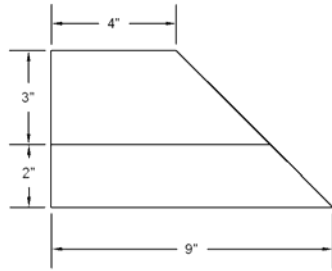


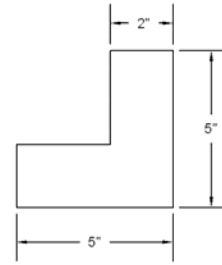
Figure 6



PLAN

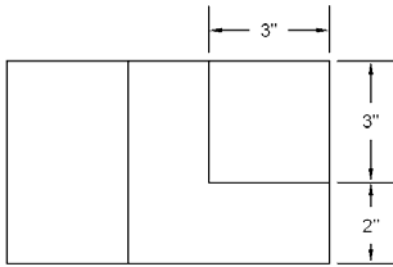


FRONT

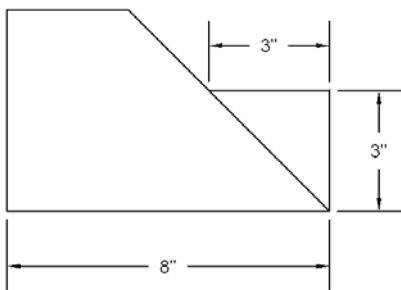


SIDE

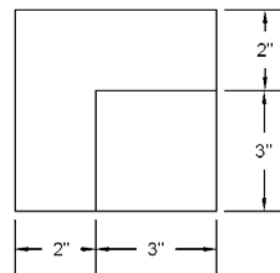
Figure 7



PLAN

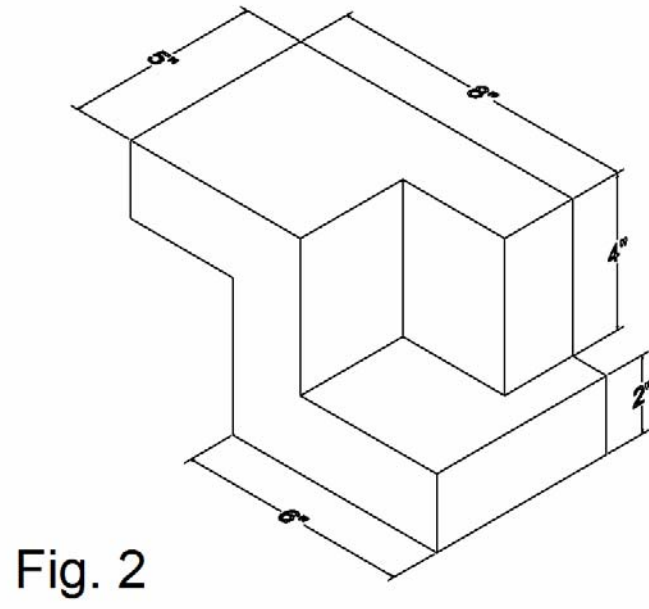
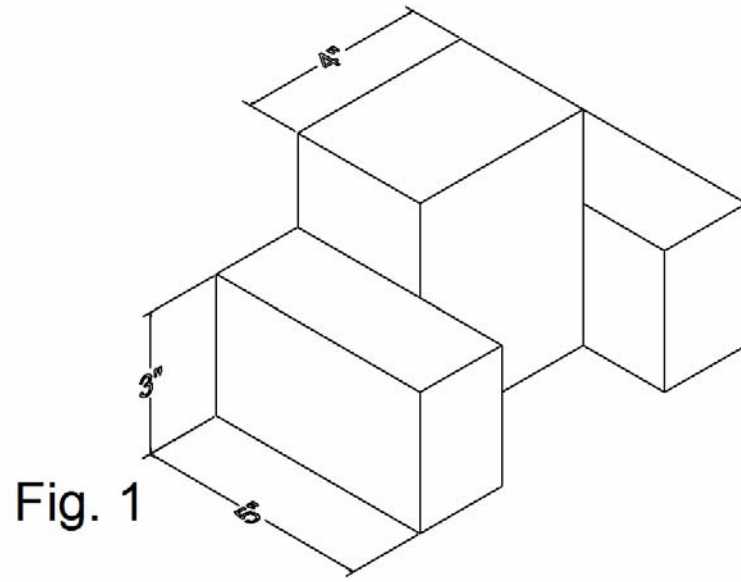


FRONT



SIDE

Figure 8



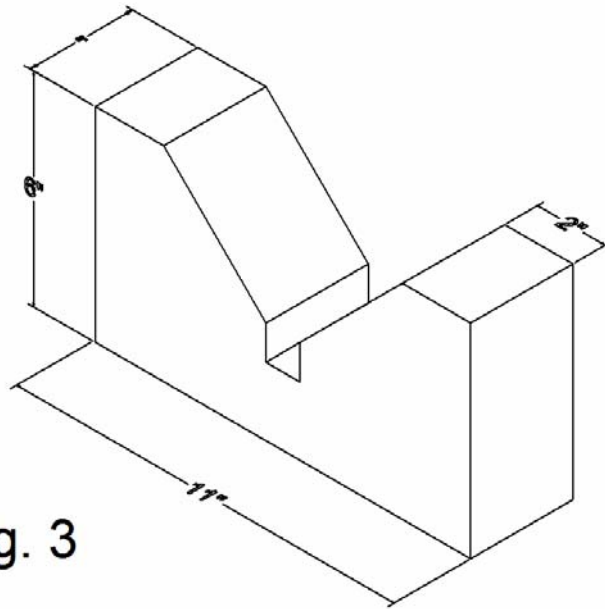


Fig. 3

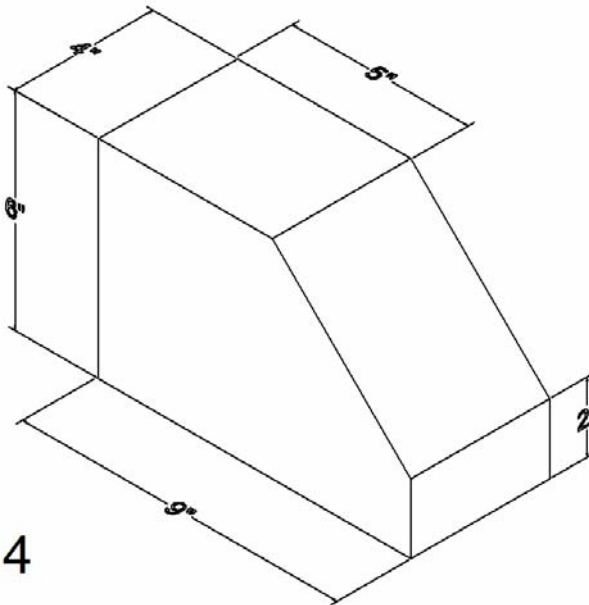


Fig. 4

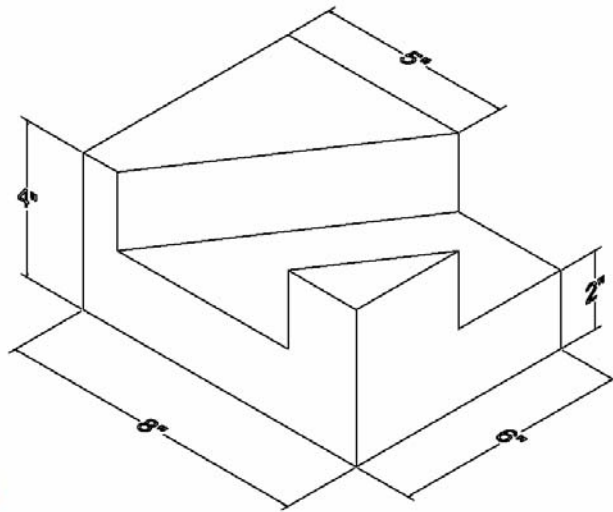


Fig. 5

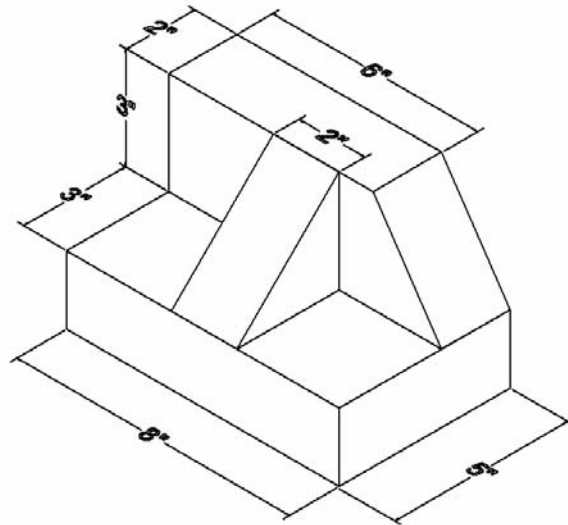


Fig. 6

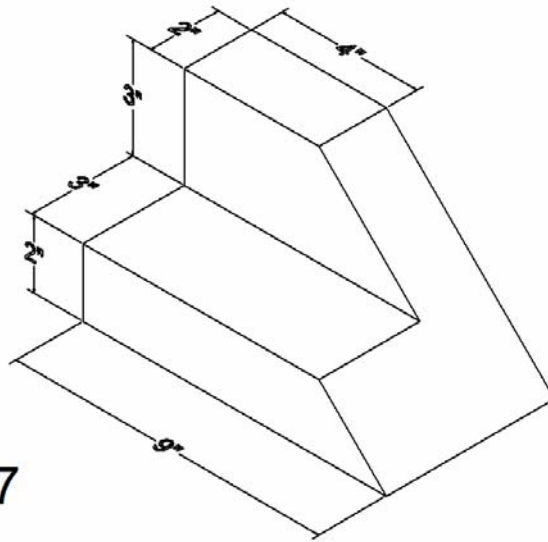


Fig. 7

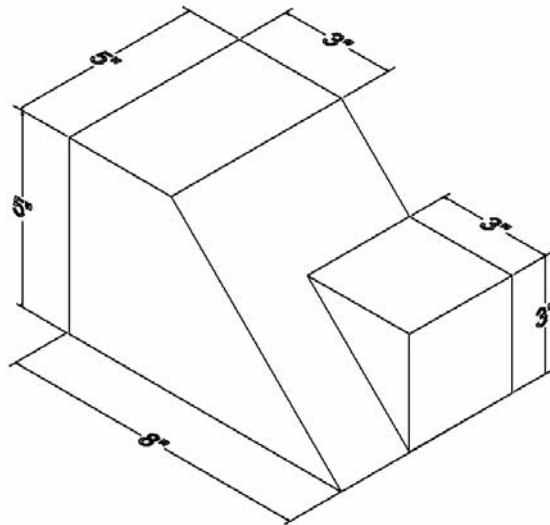


Fig. 8

2. (i) Draw the detail cross – section of brick post footing to a scale of 1”- 1’-0”. General Specification are as follow.

Depth of foundation	- 3’-6”
Plinth level	- 1’-0”
Brick post footing	- 18” x 18”x 4’-0”
Timber post	- 6”x 6” Pyinkado post
M.S strap	- 2” x ¼”x 3’-6” M.S strap with 2/ 5/8”Øbolt&nut.

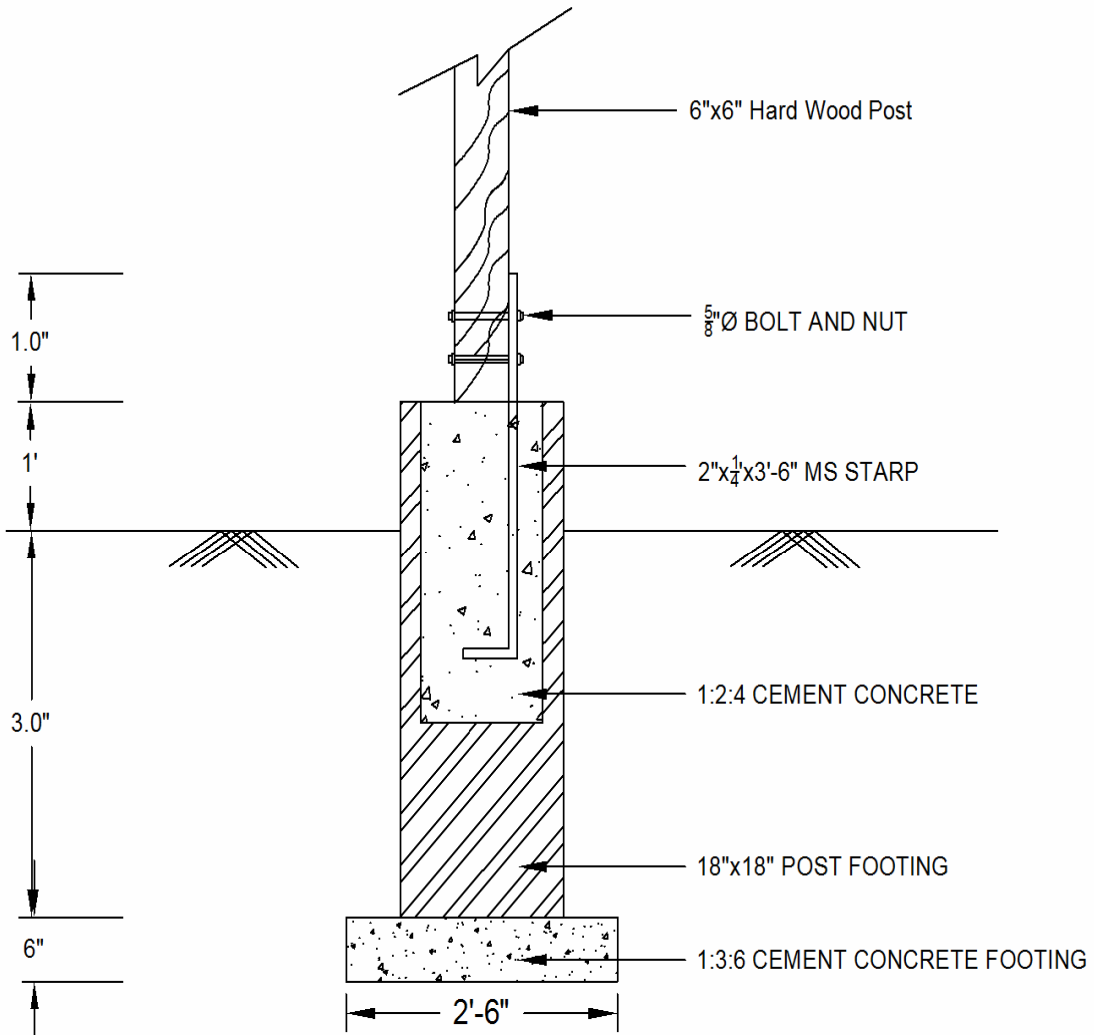
- (ii) Draw the detail cross – section of cement concrete post footing to a scale of 1”-1’-0”
General specifications are as follow.

Depth of foundation	- 2’-6”
Plinth level	- 1’-0”
Concrete post footing	- 15”x15”x3’-6”
Timber post	- 5”x 5 Pyinkado post
M.S strap	- 2”x ¼”x 3’-6” M.S strap with 2/ 5/8”Ø bolt&nut

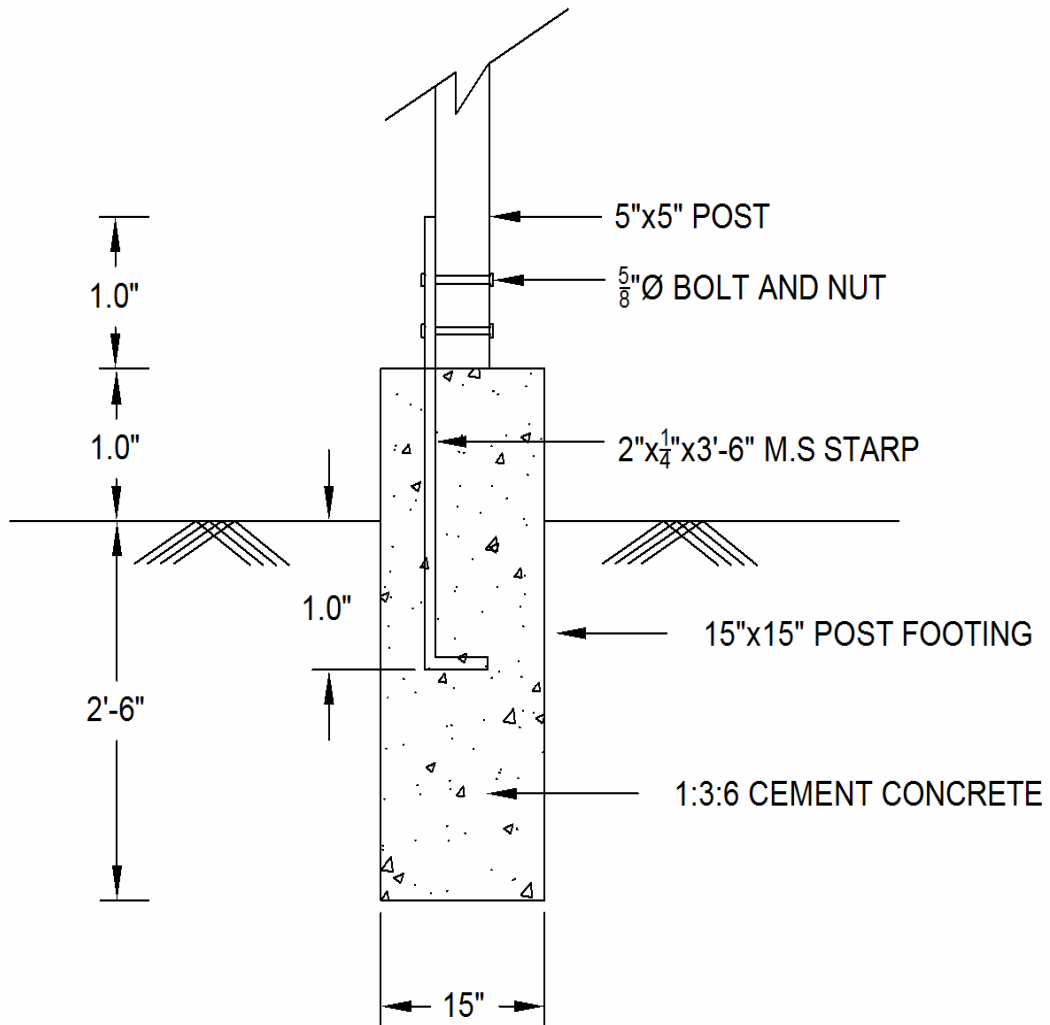
- (iii) Draw the detail cross- section of retaining wall for 4 ½” TK brick wall to a scale of 1”-1’-0”. General specifications are as follow.

Depth of foundation	- 2’-6”
Plinth level	- 2’-0”
The width of foundation	- 2 -6”
Thickness of foundation	- 9”
Thickness of retaining Wall	- 9”

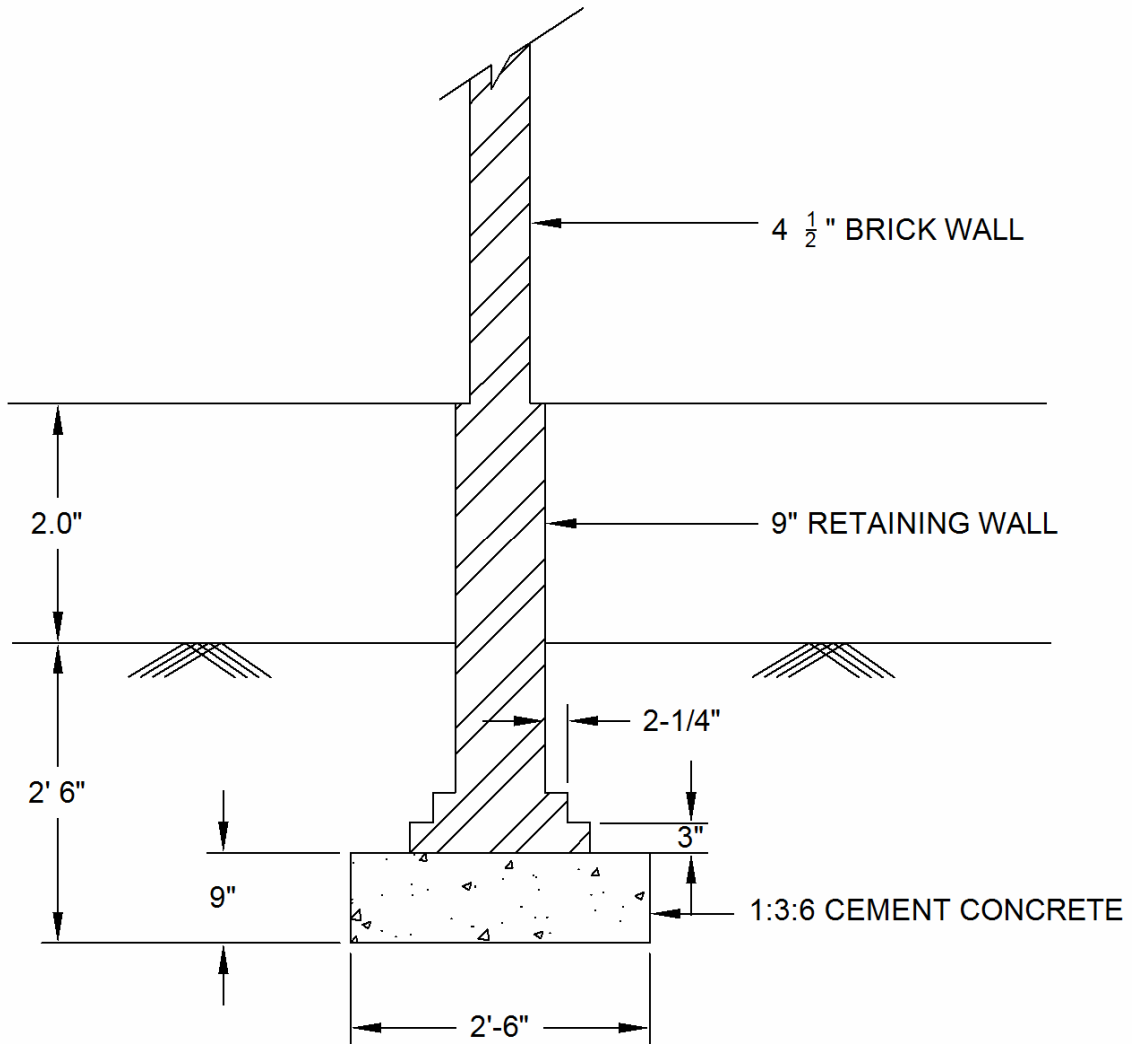
SAMPLE 1 2 4



DETAIL OF BRICK POST FOOTING



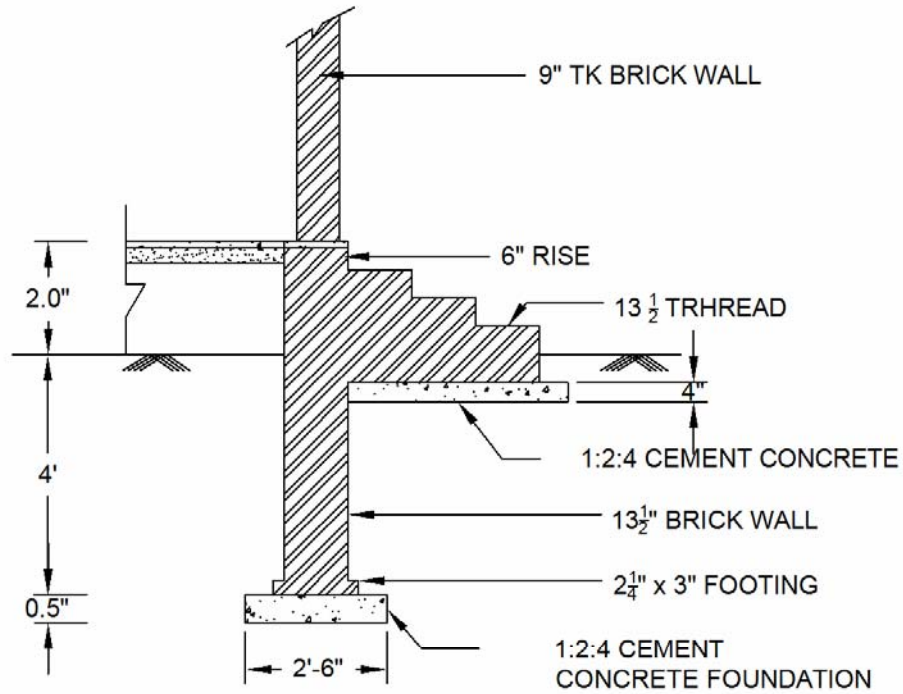
DETAIL OF CEMENT CONCRETE POST FOOTING



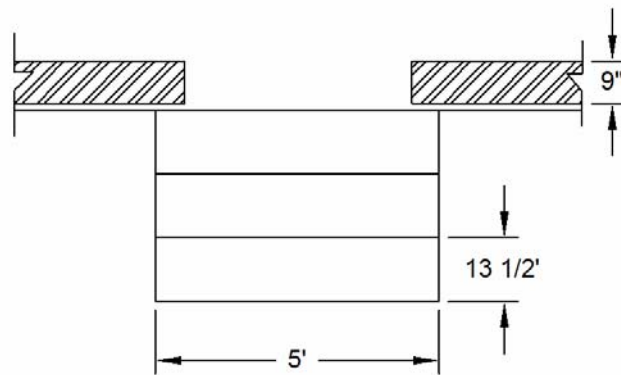
DETAIL CROSS- SECTION OF RETAINING WALL

3. Draw the cross – section of brick steps with following specifications.

- Walling - 9" TK (Brick work 1:3 cement mortar)
- Retaining wall - 13 1/2" TK
- Plinth level - 2'-0"
- Depth of foundation - 3'-6"
- Conc: footing foundation - 2'-6"x 2'-6"x 0'-6" (1:2:4)
- Brick step - 6" Rise, 13 1/2" Trade



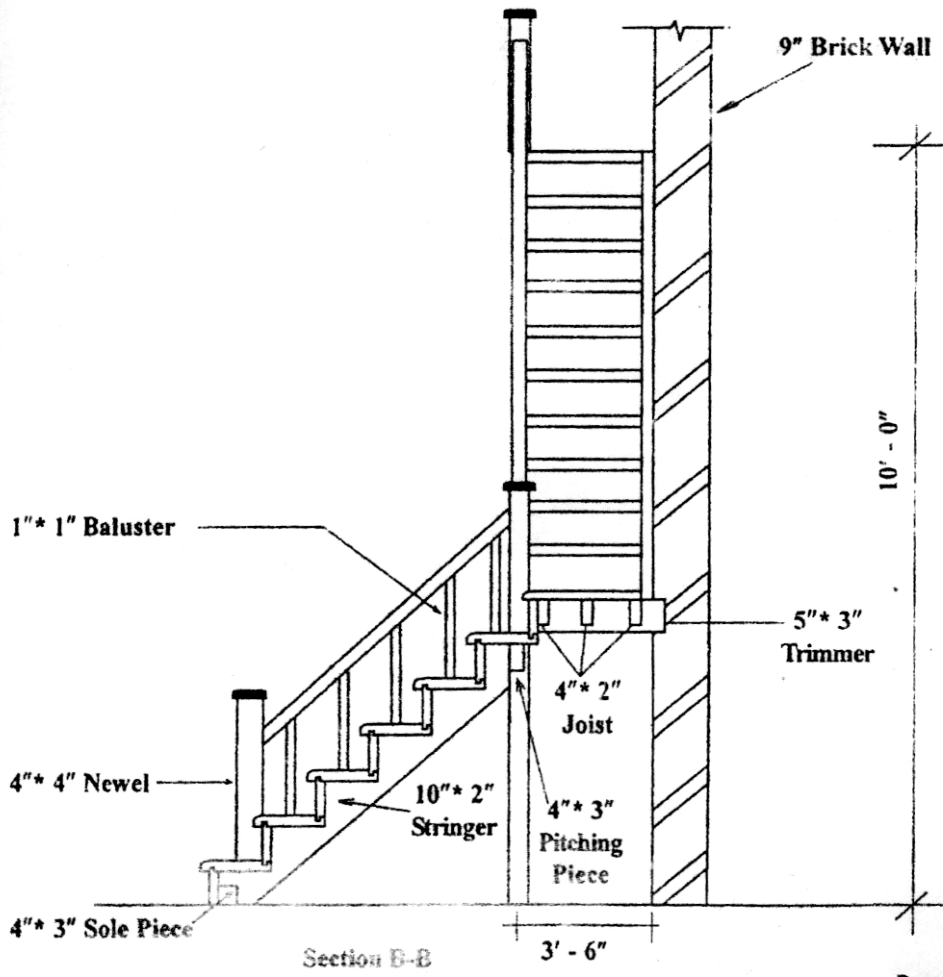
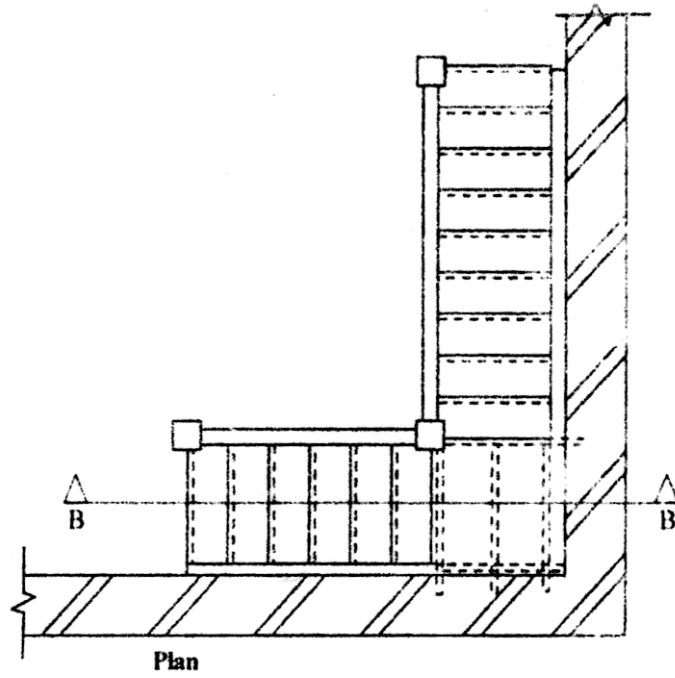
CROSS SECTION OF BRICK STEPS



PLAN

4. Draw plan and section of a Quarter Turn Stair. Give data are as follow:
Scale $\frac{1}{2}$ " – 1'-0"

Floor to Floor height	- 10'-0"
Terdadive rise	- 7"
Width of stair	- 3'-6" (C/C of stringers)
Height of handrail	- 3'-0" , size 3"x 2"
Thickness of thread	- 1"
Thickness of rise	- 1"
Thickness of brick wall	- 9"
Pitching piece	- 4"x 3"
Sole piece	- 4"x 3"
Trimmer	- 5"x 3"
Newel	- 4"x 4"
Stringer	- 10"x 2"
Joist	- 4"x 2"
Nosing	- 1 $\frac{1}{2}$ "
Baluster	- 1"x 1"



BY
TU (Kyaukse)
kyauksetu@gmail.com
066-50418/50447/50557
09-2015319