

RGS REBAR

BASIC TRAINING



PREFACE

This material is intended to be a Basic Training Workbook for the users of RGS REBAR. The users are advised to workout the exercises given in this book, so that they can understand the Basic features of the software very well. After completing this workbook, the user is expected to use RGSREBAR and detail any project.

RGS-REBAR is developed by RGS Construction Technologies Pvt. Ltd. Our Corporate office is located at Chennai, India.

Address:

Old # 182 / New # 271,
Ankur Manor,
Poonamallee High Road,
Kilpauk, Chennai 600 010.

For more information, visit us at www.viskartech.com



Contents

1. Setting up Job Properties	05	13. Array	28
2. Select Title Block	06	14. Add View for Bar	29
3. Draw Bar	07	15. Add View for Range	30
4. Place Callout	12	16. Base and Relative Elevation	31
5. Place Label	13	17. Modify the Bar Properties	32
6. Draw Range	14	18. Modify the Range Properties	33
7. Draw Donut	22	19. Editing Option For Range	34
8. Draw Leader	23	20. Place Element Mark	44
9. Copy Bars	24	21. Align Callout	45
10. Erase Bars	25	22. Find Callout	46
11. Mirror	26	23. Ensuring Detailing Quality	48
12. Rotate	27	24. Bar Bending Schedule	52



Contents

25. Placing List	54
26. Place Bend Shape	55
27. Scale Area	56
28. Create Error Report File	59
29. Match Properties	62
30. Filter	63
31. Change Bar View	65
32. Change Alpha Code	66
33. Transpose Bend Shapes	67
34. Drawing Weight Report	69
35. Takeoff	70
36. Bar Status	71

Setting Up Job Properties

Concept: - This option is used to select the Detailing code and to enter the Job Details. If the setting is already created for the same Job, Use Load job button to load the settings.

Menu : **Detailing / Job Properties**
Command : jp

Exercise: -

Create a job with the following settings

Detailing code : ACI 315_99
Job Details
Job No : RGS-0408
Client Job No : 1204
Client Name : RGS-CAD ENGG PVT LTD
Job Location : CHENNAI
Job Name : CHURCH BUILDG
Takeoff folder : C:\Takeoff
Job preferences
Detailing settings : ACI 315_99
Job settings file : Default settings
Special bend definition file : RGS_ACI 315_99
Save the settings as save in drawing.
Pass word : aci315

Select Title Block

Concept: - This option is used to select the Title block, to be used in the placing drawing.

Menu : **Detailing / Drawing Properties**

Command : Tb

Exercise: -

Insert the Title block by using the following file path

Select the file path: C : / Program files / RGS-Rebar 3.0 / Setting files / Sample title blocks / A1 / RGS-Rebar Imperial.dwg

Draw Bar

Concept: - This option is used to Draw a new bar with range or without range.

1.1.Menu : Detailing / Draw Bar

Command : NB

Draw Bar Enter an Option [Auto/Manual/Pline to bar]: <Auto> Enter an

Option [Auto/Manual/Pline to bar]: <Auto> M

Exercise: -

Enter the following inputs on the dialog box to draw a new bar without a range

Drawing : 001
Revision No : 0
Element mark : F1
Quantity : 6
Spacing : 12
Draw range : not selected
Bar size : 8
Bend shape : 0
View : side
Remarks : B1
CAD Layer : Default
Bar & Callout : selected

a) Draw bar by picking the points for 22'-06"

b) Draw bar for : B = 15'-9" by entering the value in Rebar entry screen

1.2.Menu : Detailing / Draw Bar

Command : NB

Draw Bar Enter an Option [Auto/Manual/Pline to bar]: <Auto> Enter an Option [Auto/Manual/Pline to bar]: <Auto> M

Exercise: -

Enter the following inputs on the dialog box to draw a new bar without a range

Drawing	: 001
Revision No	: 0
Element mark	: F1
Quantity	: 6
Spacing	: 12
Draw range	: not selected
Bar size	: 8
Bend shape	: 0
View	: side
Remarks	: B1
CAD Layer	: Default
Callout only	: selected (callout will not be placed)

c) Draw bar by picking the points for 22'-06"

d) Draw bar for : B = 15'-9" by entering the value in Rebar entry screen

1.3.Menu : Detailing / Draw Bar

Command : NB

Draw Bar Enter an Option [Auto/Manual/Pline to bar]: <Auto> Enter an Option [Auto/Manual/Pline to bar]: <Auto> M

Exercise: -

Enter the following inputs on the dialog box to draw a new bar without a range

Drawing	: 001
Revision No	: 0
Element mark	: F1
Quantity	: 6
Spacing	: 12
Draw range	: not selected
Bar size	: 8
Bend shape	: 0
View	: side
Remarks	: B1
CAD Layer	: Default
Callout only	: selected (Bars cannot be drawn)

e) Draw bar by picking the points for 22'-06"

f) Draw bar for : B = 15'-9" by entering the value in Rebar entry screen

2.Menu : Detailing / Draw Bar

Command : NB

Draw Bar Enter an Option [Auto/Manual/Pline to bar]: <Auto> Enter an Option [Auto/Manual/Pline to bar]: <Auto> A

Exercise: -

Draw the following shaped bars with Bar size of # 5 and quantity 6

Command : Enter the Quantity :6

Command : Enter the Barsize [6]:5

Command : Draw the Bar shape similar to Polyline and Press Enter to Stop.

Pick Insertion Point of the Bend

Command : Select a Point or [Line/Arc/Semicircle/ARc reverse/SEmicircle reverse /End condition] <L> :

Command : Pick the Insertion Point of Callout:

Try the following shapes: - (Use End conditions for std.hooks)



3.Menu : Detailing / Draw Bar

Command : NB

Exercise: -

Draw plines and change as Rebar entities

DrawBar Enter an Option [Auto/Manual/Pline to bar]: <Auto> Enter an
Option [Auto/Manual/Pline to bar]: <Auto> P

Command : Enter the Quantity: 25

Command : Enter the Barsize [7]: 5

Command :Select the Pline(s)/Line(s) to be converted as Rebar:

Select objects: 1 found

After rebar conversion, deleting the Plines and lines are optional.

Exercise: -

- 1.Draw Plines in the shapes shown above
- 2.Convert these Plines as Bar, Qty = 10, Bar size = #5

Place Callout

Concept: This option is used to place the callout for existing drawn Bars/View

Menu : **Detailing/Place callout/Single**

Command ` : CA

Exercise:

- 1.Copy the existing drawn bars without callout and paste as new bars
- 2.Place the callouts for all copied bars



Place Label

Concept: This option is used to place Label for existing Views/Bars

Menu : **Detailing/Place Label**

Command : LB

Exercise:

- 1.Copy the existing drawn bars as view
- 2.Place Label for the new views

Draw Range

Concept: - This option is used to draw a range for an existing bar

Exercise: -

Draw a single range for a single bar with a spacing of 24", select a bar already drawn.

- | | |
|---------------|---|
| 1.Menu | : Detailing / Range / Draw Range |
| Command | : NR / Single Range |
| Command | : Enter an option [Straight / Radial] <Straight> : S |
| Command | : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : S |
| Command | : Select Bar/View/Callout to draw the Range : |
| Command | : Enter spacing : 24 |
| Command | : Pick Start Point of Range : |
| Command | : Enter start cover distance :0 |
| Command | : Pick End Point of Range : |
| Command | : Enter end cover distance :0 |
| Command | : NR / Single Range |
| Command | : Enter an option [Straight / Radial] <Straight> : S |
| Command | : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : S |

2.Menu : **Detailing / Range / Draw Range**
Command : NR / Single Range

Exercise: -

Draw an alternate range for alternate bars with a spacing of 12" select the alternate bars already drawn.

Command : Enter an option [Straight / Radial] <Straight> : S
Command : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : A
Command : Select First Bar/View/Callout to draw the Range :
Command : Select Second Bar/View/Callout to draw the Range :
Command : Enter spacing : 12
Command : Pick Start Point of Range :
Command : Enter start cover distance :0
Command : Pick End Point of Range :
Command : Enter end cover distance :0

3.Menu : **Detailing / Range / Draw Range**
Command : NR / Single Range

Exercise: -

Draw a single range for multi bars with a multi spacing of 6", 10" and 8". Select the multi bars already drawn.

Command : Enter an option [Straight / Radial] <Straight> : S
Command : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : M
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 6
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 10
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 8
Command : Select the Bar/View/Callout to draw the Range :
Command : Pick Start Point of the Range :
Command : Enter Start cover distance :0
Command : Pick End Point of the Range :
Command : Enter End cover distance :0

4.Menu : **Detailing / Range / Draw Range**
Command : NR / Single Range

Exercise: -

Draw a radial range for single bar with 10" spacing. Select a bar already drawn.

Command : Enter an option [Straight / Radial] <Straight> : R
Command : Draw Range for [Single bar / Alternate Bars / Multi Bars]
q< S > : S
Command : Select Bar/View/Callout to draw the Range :
Command : Enter spacing : 10
Command : Select the Inner Profile of Concrete :
Command : Select the Outer Profile of Concrete :
Command : Select the point to place Radial Range :INT of
Command : Enter Start cover distance :0
Command : Enter End cover distance :0

5.Menu : **Detailing / Range / Draw Range**
Command : NR / Single Range

Exercise: -

Draw a radial range for alternate bars with 10" spacing. Select the alternate bars already drawn.

Command : Enter an option [Straight / Radial] <Straight> : R
Command : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : A
Command : Select First Bar/View/Callout to draw the Range :
Command : Select Second Bar/View/Callout to draw the Range :
Command : Enter spacing : 10
Command : Select the Inner Profile of Concrete :
Command : Select the Outer Profile of Concrete :
Command : Select the point to place Radial Range :
Command : Enter Start cover distance :0
Command : Enter End cover distance :0

6.Menu : **Detailing / Range / Draw Range**
Command : NR / Single Range

Exercise: -

Draw a radial range for multi bars with a multi spacing of 6", 12" and 24". Select the multi bars already drawn.

Command : Enter an option [Straight / Radial] <Straight> : R
Command : Draw Range for [Single bar / Alternate Bars / Multi Bars]
< S > : M
Command : Draw Range for [Single bar/Alternate bars/Multi bars]: <S>M
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 6
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 12
Command : Select the Bar/View/Callout to draw the Range :
Command : Enter spacing : 24
Command : Select the Inner Profile of Concrete :
Command : Select the Outer Profile of Concrete :
Command : Select the point to place Radial Range :
Command : Enter Start cover distance :0
Command : Enter End cover distance :0

7.Menu : **Detailing / Range / Draw Range**
Command : NR / Sloperange

Exercise: -

Draw a slope range for single bar,

a) Start elevation = 0' and End Elevation = 6'3"

b) Angle = 76

Pick the Start & End point of the Slope: Pick the Start
& End point of the Slope: Specify second point:

Command : Select Bar/View/Callout to draw the Range :

Command :

Pick Start Point of Range near to

Command : Enter start cover distance :0

Command : Pick End Point of Range :per to

Command : Enter end cover distance :0

8.Menu : **Detailing / Range / Draw Range**
Command : NR / Multirange

Exercise: -

Draw a multi range for single bar with multi spacing of 10" , 8" and 24" select the multi bars already drawn.

Command : Select the Bar/View/Callout to draw the Range :
Command : Pick Start Point of the Range :
Command : Enter Start cover distance :0
Command : Pick End Point of the Range :
Command : Enter End cover distance :0
Command : Enter spacing : 10
Command : Pick Start Point of the Range :8
Command : Pick End Point of the Range :
Command : Enter Spacing : 8
Command : Pick Start Point of the Range :8
Command : Pick End Point of the Range :
Command : Enter Spacing :24
Command : Pick Start Point of the Range :
Command : Select the Bar/View/Callout to place the Multi Range Callout
Command : Pick the Insertion Point to place the Multi Range Callout:
Command : Pick the Rotation Angle for Multi Range Callout:
Command : To be aligned [Left/Right]: <R> R

Draw Donut

Concept: This option is used to place donut for Bar / Bar View and Callout / Label intersection.

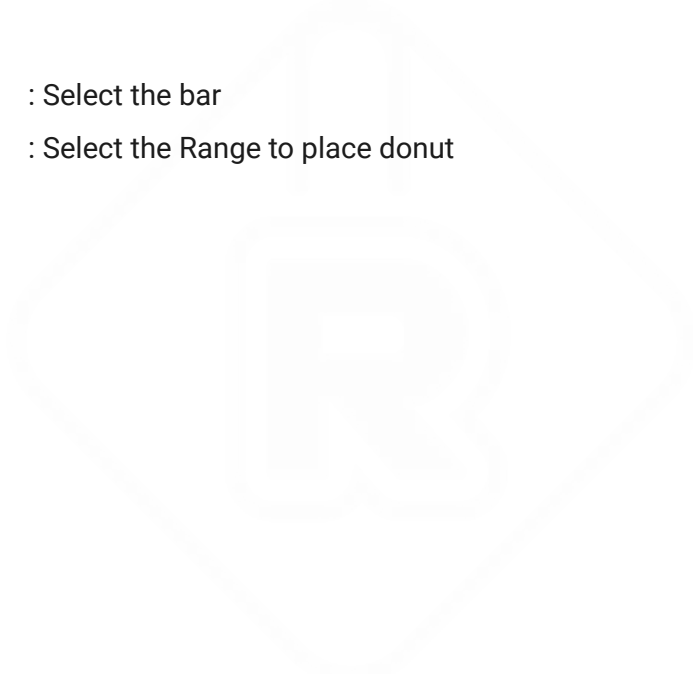
Menu : **Detailing / Draw Donut**

Command : add donut

Exercise:-

Command : Select the bar

Command : Select the Range to place donut



Draw Leader

Concept : This option is used to draw leader from bar/Range/view to callout.

Two types of leader 1.Predefined leader

2.Customized leader

Menu : **Detailing/Draw Leader**

Command : addleader

Exercise:- 1

Draw a leader from bar to callout with 45° bend line + dot small blank

Enter an option [Predefined / Custom Leader] < P>: P

Select the bar to draw the leader:

Exercise:- 2

Draw a leader from Range end to callout with 90° bend line + closed filled

Enter an option [Predefined / Custom Leader] < P>: C

Select the Leader head [Closed Filled / Dot / dot Blank / Without header] < C>: C

Select the bar/Callout/Range/Label/View to draw the leader:

Select the start point of leader

Select the next point of leader

Copy Bars

Concept: - This option is used to copy the Rebar entities as a new bar or a view of an existing rebar.

Menu : **Modify / Copy**

Command : CP , Copy

Shortcut keys : Ctrl+C

Exercise: -

Copy an existing rebar as

- a) A new bar
- b) A view of the copied bar

Use ACAD copy command.

Command : Copy

Command : Select objects

Command : Specify base point

Command : Specify second point or <use first point as displacement>:

Command : Copy Object as : New Bar

Command : Copy Object as : Bar view

Erase Bars

Concept: - This option is used to erase all the views of the selected bar or only the selected views.

Menu : **Modify / Erase**
Command : E, Erase
Shortcut keys : Delete button on key board

Exercise: -

Erase existing drawn bars

- a) Bar set
- b) Bar View

Use ACAD erase command.

Command : erase
Command : Select objects
Command : Erase Object as : Bar set
Command : Erase Object as : Bar view



Mirror

Concept: - This option is used to mirror the rebar

Menu : **Modify / Mirror**

Command : Mi, Mirror

Shortcut keys : -

Exercise: -

Mirror the existing drawn bars

1. Mirror the bars and give erase source object: Yes. Observe what is happening.



Rotate

Concept: - This option is used to rotate the rebars

Menu : **Modify / Rotate**

Command : Ro, Rotate

Shortcut keys : -

Exercise: -

1. Draw a straight bar
2. Draw a slope line, now rotate the bar and align to that sloped line.

Array

Concept: - This option is used to array the rebars

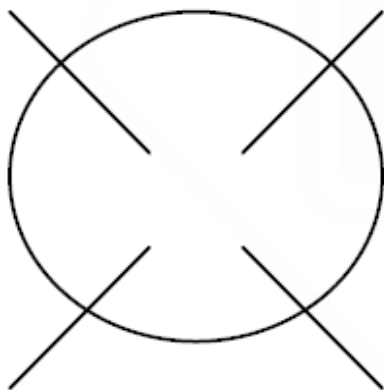
Menu : **Modify / Array**

Command : Ar, array

Shortcut keys : -

Exercise: -

1. Draw a single bar
2. Create 10 rows and also try to array the bars in a circle as shown in the picture.



Array of bars



Add View for Bar

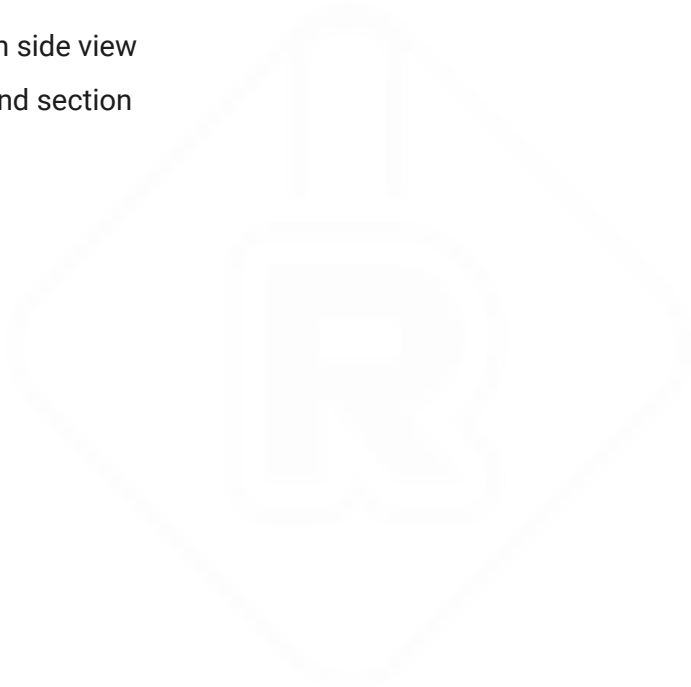
Concept: - This option is used to draw a view for an existing bar.

Menu : **Detailing / Add View / Bar**

Command : NVB

Exercise: -

1. Draw a single bar in side view
2. Draw a plan view and section





Add View for Range

Concept: - This option is used to add a range view for an existing range.

Menu : **Detailing / Add View / Range**

Command : NVR

Exercise: -

1. Draw a single bar in plan view with range
2. Add a range view in section

Base and Relative Elevation

Concept: - This menu is used to place the Elevation in the drawing.

Exercise: -

1. Place the Base elevation of value = 120 inches
2. Place Relative elevation by selecting the reference base elevation, at a height of 24 inches from base point.
3. Use acad copy command and copy the base elevation and paste as Base elevation, Use elevation value = 180inches
4. Now edit the first base point value from 120 inches to 150inches, and observe what changes are happening in the relative elevation value and second base point elevation value.

Modify the Bar Properties

Concept: - This option is used to edit or modify the Bar properties. It can be done by Double click on the bar / bar view / callout. Change in length can be done by stretch command also.

Exercise.1.1: -

Double click an existing bar and modify the following properties.

Sl. No	Property	Existing Value	New value
1	Element mark	F1	F2
2	Bar size	5	8
3	Spacing	8	24
4	Quantity	7	15
5	View	Side	Plan/Profile
6	Leg values	B=7'-01"	B = 10'-4"
7	Layer	1	2
8	Remarks	B1	FACE BAR

Exercise.1.2: -

- 1.Draw a new bar for an length of 7'-3"
- 2.Modify the bar length from 7'-3" to 16'9" by stretch.

Modify the Range Properties

Concept: - This option is used to edit or modify the Range properties. It can be done by Double click the Range / Range view. Change in range length and Show bars option can be done by double clicking the range length. Range length can also be modified by Stretch command.

Exercise.2.1: -

1.Single range /Alt Range / Multi Range

a)Draw a new bar with a range length of 4'-09" and modify the range length to 13'-0"

Range length : 4'-09"

New Range length : 13'-0"

Show bars : first, center and last bar

2.Slope Range

a)Draw a new bar with a range, use slope range option with a projected length of 20' and modify it as 25'.

b) Draw a new bar with a range, use slope range option with a range angle of 20 and modify it as 35

Projected length : 20'

New projected length : 25'

Range angle : 20 , new range angle : 35

Exercise.2.2: -

1.Draw a new bar for with range length of 10'-6"

2.Modify the range length from 10'-6" to 14'8" by stretch.

Editing Options for Range

(Exercise sketches were attached, use the command and worked out)

Split range

Concept: - This option is used to split the single range into two individual ranges.

Menu : **Detailing / Range / Split Range**

Command : SPR

Exercise: -

Use Picture-1 of attached drawing sheet-1

1.1.Split range Based on: [Single line/Double line]: <S> Based on: [Single line/Double line]: <S> S

Command : Select the Line/PolyLine to Split the ranges :

Command : Select the Ranges to be Split :

Select objects: 1 found

1.2.Split range Based on: [Single line/Double line]: <S> Based on: [Single line/Double line]: <S> D

Command : Select the First Line/PolyLine to Split the ranges :

Command : Select the Second Line/PolyLine to Split the ranges :

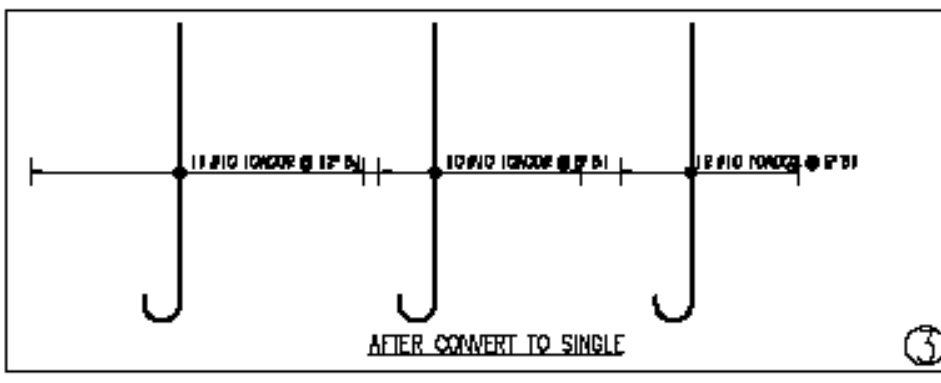
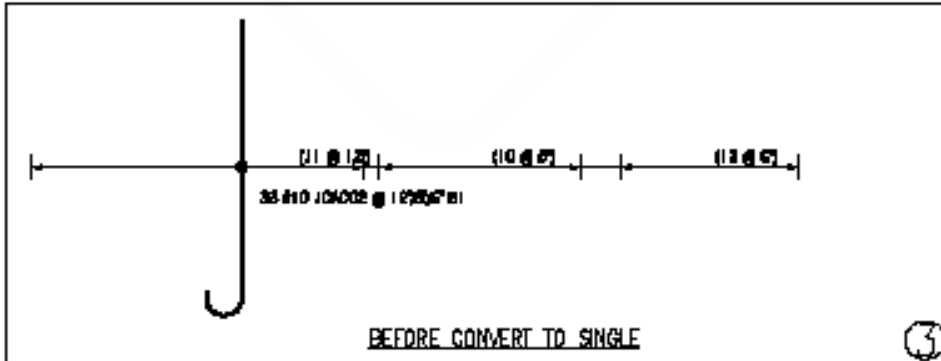
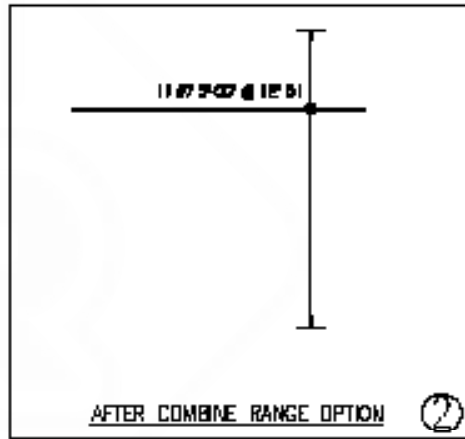
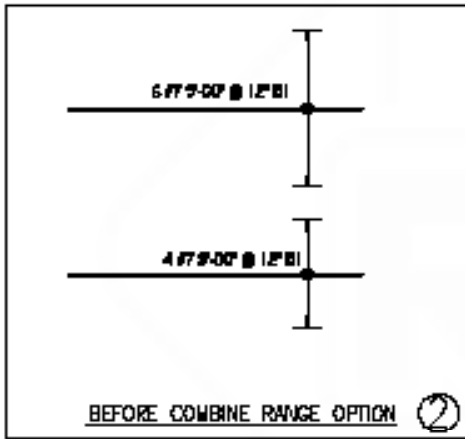
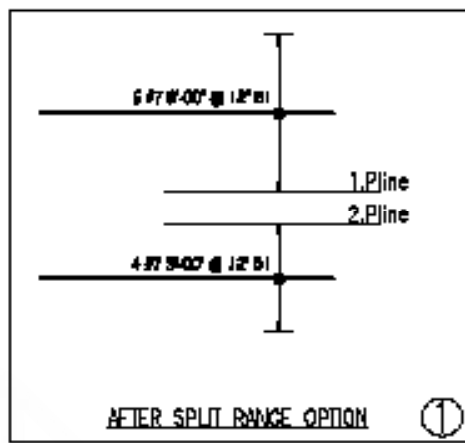
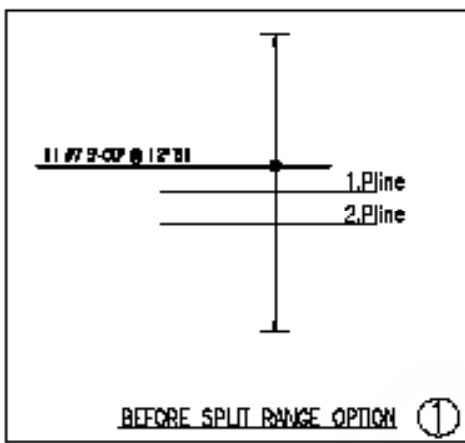
Command : Select the Ranges to be Split :

Select objects: 1 found

Select objects:



Draw a new bars with a range as shown and apply the options indicated in the pictures



Combine range

Concept: - This option is used to combine the individual single ranges into one single range.

Menu : **Detailing / Range / Combine Range**

Command : CR

Exercise: -

Use picture -2 of attached drawing sheet -1

Select the Ranges to be Combined :

Command : Select the Ranges to be combined:

Command : Select the Ranges to be combined:

Convert to Single

Concept: - This option is used to convert Multi range into individual single / normal ranges.

Menu : **Detailing / Range / Convert to single**

Command : CNS

Exercise: -

Use Picture-3 of attached drawing sheet -1

Select the Multi Range Callout to Convert the Multi Range as Single Range:

Convert to Multi Range

Concept: - This option is used to convert the individual single ranges into multi range.

Menu : **Detailing / Range / Convert to multi range**

Command : CNM

Exercise: -

Use Picture – 4 of attached drawing sheet-2

Select the Ranges to be converted:

Select the Ranges to be converted:

Command : Select the Ranges to be Converted :

Command : Select the Ranges to be Converted :

Command : Select the Bar/View/Callout to place the Multi Range Callout

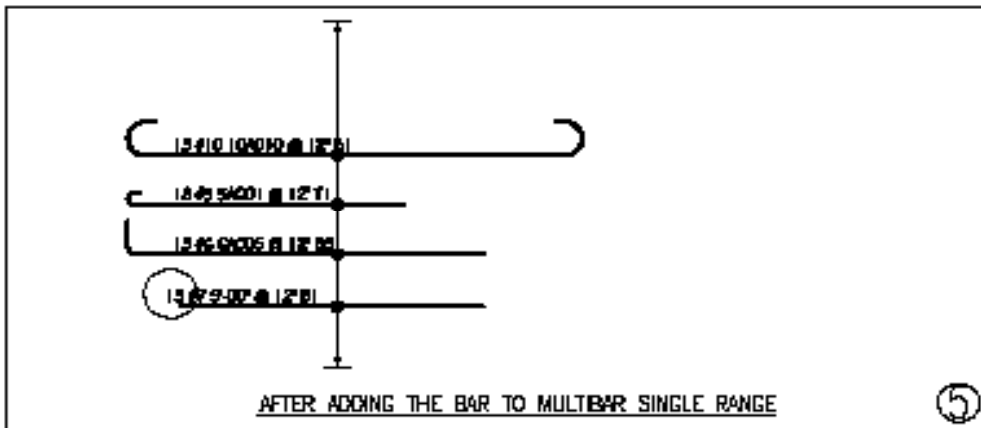
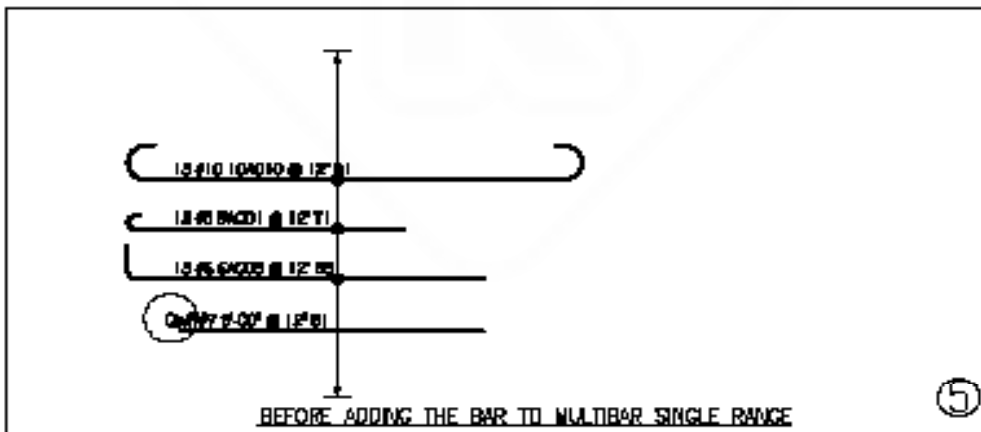
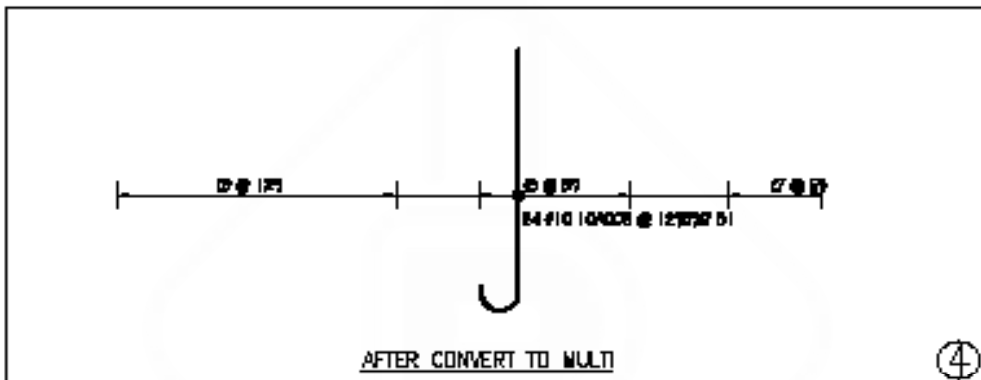
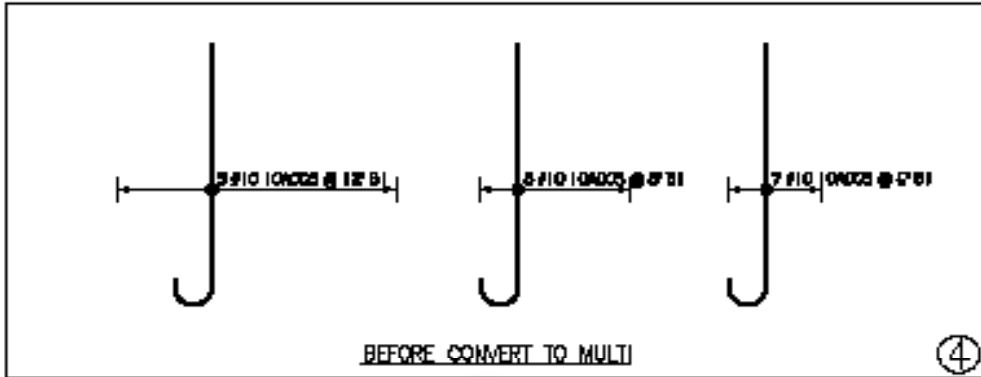
Command : Pick the Insertion Point to place the Multi Range Callout:

Command : Pick the Rotation Angle for Multi Range Callout:

Command : To be aligned [Left/Right]: <R> R



Draw a new bars with a range as shown and apply the options indicated in the pictures



Add bars in Multi bar single range

Concept: - Used to add the bars to the existing range, which is drawn by multibar single range option.

Menu : **Detailing / Range / Add Bars to multi bar single range**

Command : ABA

Exercise: -

Use Picture –5 of attached drawing sheet-2

AddBarsToRange Select the Multi Bar Multi Spacing Range: Select the Multi Bar Multi Spacing Range :

Command: Select the Bar/View/Callout to be added to the selected Range :

Command: Select the Bar/View/Callout to be added to the selected Range :

Remove bars in Multi bar single range

Concept: - Used to remove the bars from the existing range, which is drawn by multibar single range option.

Menu : **Detailing / Range / Remove Bars from multi bar single range**

Command : RBA

Exercise: -

Use Picture –6 of attached drawing sheet-3

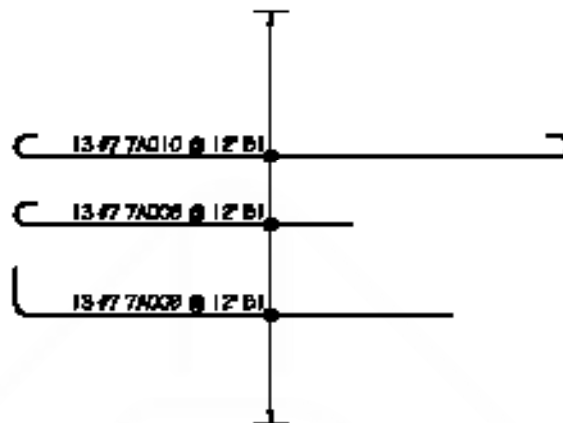
Select the Multi Bar Multi Spacing Range: Select the Multi Bar Multi Spacing Range:

Command : Select the Bar/View/Callout to be removed from the selected Range

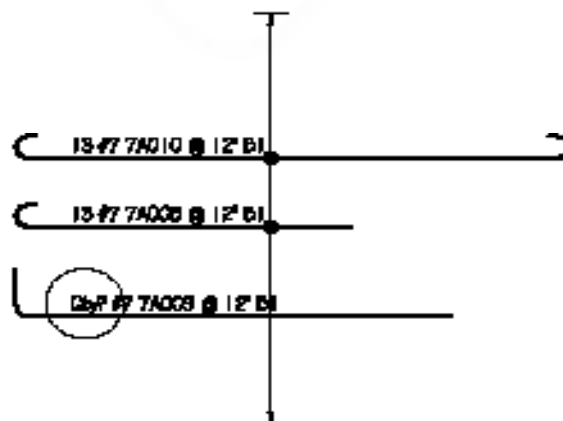
Command : Select the Bar/View/Callout to be removed from the selected Range



Draw a new bars with a range as shown
and apply the options indicated in the pictures



BEFORE REMOVING THE BARS FROM MULTIBAR SINGLE RANGE



AFTER REMOVING THE BARS FROM MULTIBAR SINGLE RANGE





Place Dimension for Range

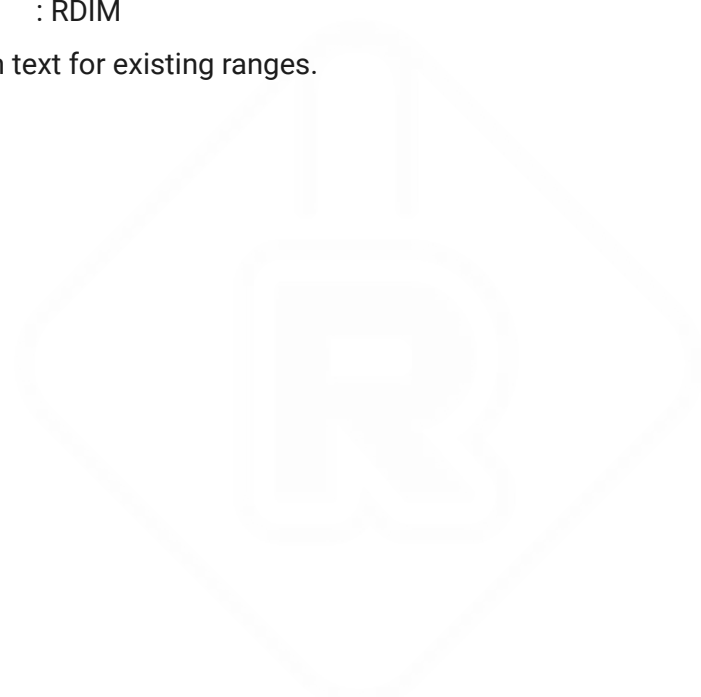
Concept: - Used to show the dimension value for Selected range line.

Exercise: -

Menu : Detailing / Range / Place range Dimension

Command : RDIM

Place the dimension text for existing ranges.



Place Element Mark

Concept: - Helps to count the number of members

Menu : **Detailing / Element Mark / Place Element mark**

Command : EM

Exercise: -

- 1.Detail the bars with an element mark of C1, and Place the Element mark on the base plan
- 2.Add the grid names in the Element mark as A-1.1, B-2.1
- 3.Hide the grid name by using Hide element location.

Align Callout

Concept: - Helps to align the callouts as required

Menu : **Rebar tools / Align Callout**

Command : ACA

Exercise: -

Use attached drawing sheet-4 and workout the following

- i) Align callouts based on x-axis
- ii) Align callouts based on y-axis
- iii) Align callouts based on rotated
- iv) Align callouts based on line

Find Callout

Concept: - This menu is used to find out the existence of specific detail in the Callout. For example if you want to find the Callout which has got the Bar Mark as 30, then enter the string - 30 - in the field and click Search button. It will find the existence of callout and you can zoom to that Callout.

Exercise: -

Create the callouts as given below.

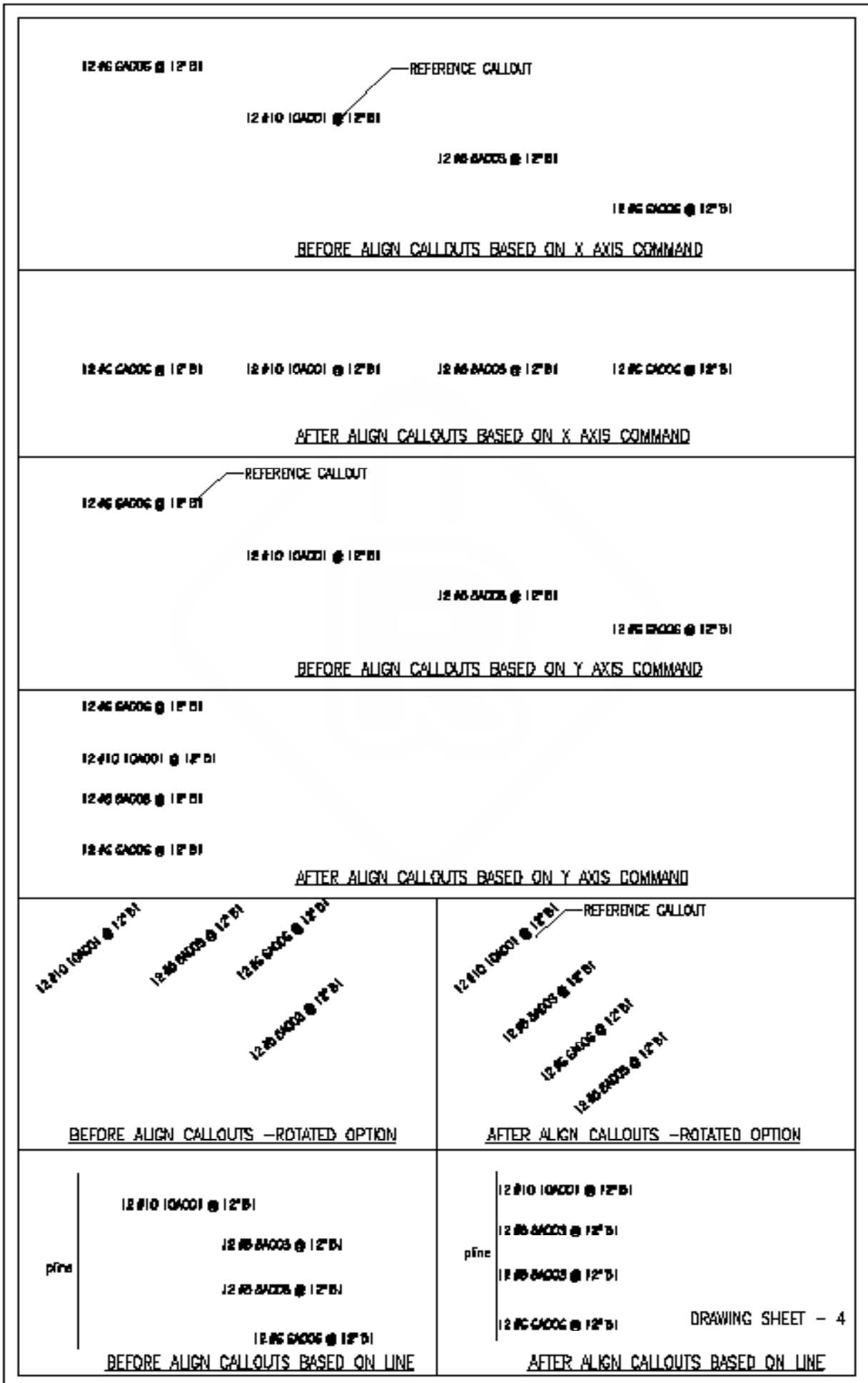
12 #6 6A006 @ 12" B1, 8# 4 4A002 @ 8" TOP, 10 #6 6A006 @ 12" B1,

4 # 6 6A002 @ 24" Bot, 22 #6 6A006 @ 12" T1,

6# 4 4A002 @ 8" Bot,

1. Find the callouts by value of = 6, 6A

2. Find the callouts by value of = B



Ensuring the Detailing Quality

Concept: - These options are used to ensure the quality of work after completing the Detailing.

1. Redraw rebar Entities

Menu : Rebar tools / Redraw entities

Command : RES

Exercise: -

1. Donuts can be drawn based on bar sizes or same size of donuts can be used for presentation.
2. For Presentation use visibility factor = 0.05 inches and redraw the donuts.
3. Now again redraw the donut size for bar sizes

2. Reassign Bar marks

Concept: - It will compact the Bar marks used in the drawing, There will not be jumping in the sequence of Bar marks.

Menu : Rebar tools / Reassign Bar marks

Command : RAS

Exercise: -

1. Use Draw bar option
2. Use copy command, to create new bars with different bar mark
3. Use Erase command, to delete some intermediate bar marks
4. Now use Reassign bar marks and check what happened in the bar mark sequence order.

3. Clash detection

Concept: - It will help to check the callout, range and bar are exist one over the other.

Menu : **Rebar tools / Clash detection**

Command : CLS

Exercise: -

- 1.Copy the callout or range or bar and paste it one over the other.
- 2.Use this option and note down what has happened.

4. Audit Drawing

Concept: - This option helps to control the quality by finding the bars, which are detailed without quantity, callout, bar mark and for maximum detailing length.

Menu : **Rebar tools / Audit Drawing**

Command : ADWG

Exercise: -

- 1.Detail the bars without bar mark / quantity / callout and check this option, how it controls.
- 2.Place the callouts without bars and views and check this option, how it controls.
- 3.check the callout positions also (If the callout is not placed as per Job preferences, that callouts can be identified)

Bar Bending Schedule

Concept: - This Menu is used to place the BBS for Straight Bars and Bend Bars separately or to place the Combined BBS, which will have both straight and Bend bars as per the settings in Job Preferences.

Menu : Reports / Bar bending schedule / Place BBS

Command : BBS

Exercise.1: -

- Detail the foundation drawing, which is attached or given.
- Prepare the Bar bending Schedule for bend bars separately and combined one for both straight bars and bend bars.
- Place the BBS for the bars using select objects method

Use the following inputs: -

Report Format : Format_5 Bend bars only

Job Number : 1204

Job Name : Church building

Customer Name : RGS-CAD ENGG PVT LTD

Job location : chennai

Detailing code : ACI 315_99

Drawing No : 001

Revision No : 0

Prepared by :

Prepared date :

Checked by :

Checked date :

- Prepare the BBS based on Control code
- Export the BBS to spread sheet

Exercise.2: -

Use the following inputs: -

Report Format : Format_1 Bend bars and straight bars only
Job Number : 1204
Job Name : Church building
Customer Name : RGS-CAD ENGG PVT LTD
Job location : chennai

Detailing code : ACI 315_99
Drawing No : 001
Revision No : 0
Prepared by :
Prepared date :
Checked by :
Checked date :

- Prepare the BBS based on Control code
- Place the BBS Based on Member
- Export the BBS to spread sheet

Placing List

Concept: - This Menu is used to place the placing list, as per the settings in Job Preferences.

Exercise.1: -

Use the following inputs:-

Report Format : Format 1
Job Number : 1204
Job Name : Church building
Customer Name : RGS-CAD ENGG PVT LTD
Job location : chennai

Detailing code : ACI 315_99
Drawing No : 001
Revision No : 0
Prepared by :
Prepared date :
Checked by :
Checked date :

- Prepare the placing list based on Control code
- Prepare a placing list Based on Member
- Export the Placing list to spread sheet

Place Bend Shape

Concept: This option is used to place Bend shapes are used in the drawing files

Menu : **Reports/Place bend shapes**

Command : placebendshapes

Exercise:

Place a bend shapes used in the BBS in vertical direction for $\frac{1}{4}$ scale.

Pick the Insertion point to place the Bend Shapes used :

Enter Direction to place the Bend Shapes(Horizontal/vertical): V

Enter Scale factor : $\frac{1}{4}$

Create Scale Area

Concept: - Scale Area is the closed boundary, in which the Rebar Objects will be scaled automatically as per the scale of the scale area. Rebar Objects can be drawn in Model Space without the Scale Area or it can be drawn directly inside the Scale Area.

Menu : **Scaling / Create scale area**

Command : CSC

Exercise: -

- Create the scale area for 1/8 scale (it has dimension of 50'0" x 75'-0" in model space)

Resize Scale Area

Concept: - Created scale area's boundary size can be changed.

Menu : **Scaling / Resize scale area**

Command : RSC

Exercise: -

- Create the scale area for 1/8 scale (it has dimension of 50'0" x 75'-0" in model space)
- Resize the scale area by 30'-0"x60'-0"

Copy Scale Area

Concept: - Created scale area can be copied and used.

Menu :Scaling / Copy scale area

Command : COS

Exercise: -

- Create the scale area for 1/8 scale (it has dimension of 50'0" x 75'-0" in model space)
- Double click the scale area and change the scale by 1/4, and closely observe what happening to the Callouts and range blocks.

Create Error Report File

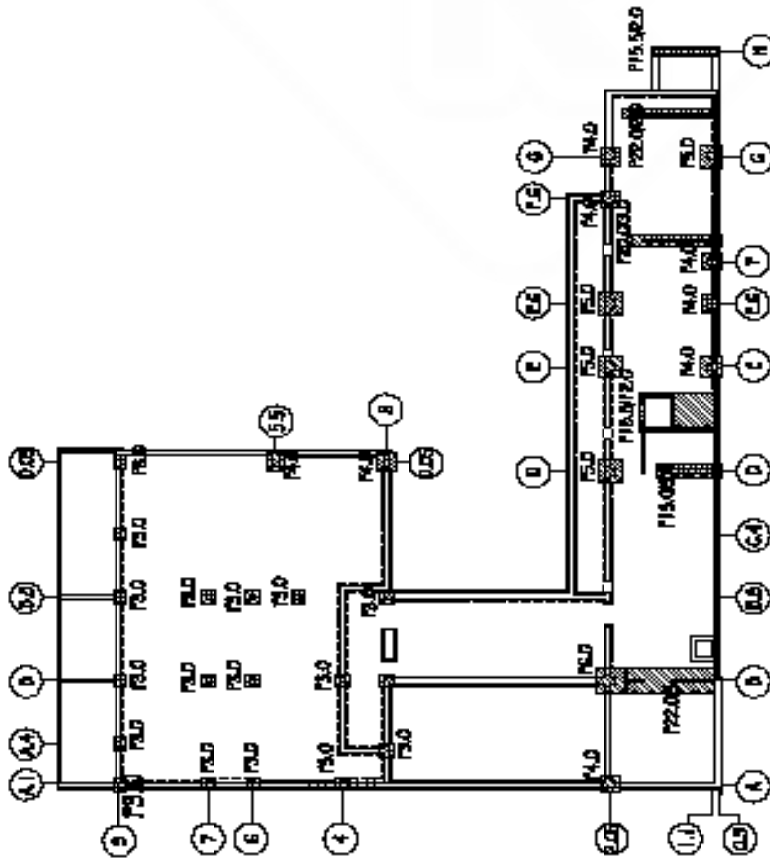
Concept: This option is used to generate support files to report errors to software design team. The error files will be saved in corresponding drawing file location.

Menu : **Reports /Create error report file**

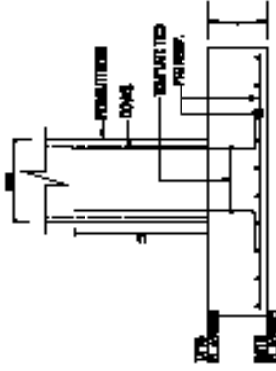
Command : createerrorlogfile

Exercise: -

- Detail the Isolated Footings by using the attached drawings and place the BBS in the drawing, create a drawing in Paper Space
- Detail the Wall footings by using the attached drawings and place the BBS in the drawing, create a drawing in Paper Space



FOUNDATION PLAN



TYPICAL FOOTING REINFORCEMENT DETAIL

REF: 301 (RGS) 1000

FOOTING SCHEDULE			
FOOTING MARK	FOOTING SIZE	BAR SIZE & COUNT	LOWEST ELEVATION
F15.0	18071807110	44# 12 c/c	44# 12 c/c
F16.0	4071407110	49# 12 c/c	49# 12 c/c
F17.0	18071807110	46# 12 c/c	46# 12 c/c
F18.0R1	18071807110	46# 12 c/c	46# 12 c/c
F18.0R2	19071907110	47# 12 c/c	47# 12 c/c
F18.0R3	18071807110	46# 12 c/c	46# 12 c/c
F18.0R4	18071807110	46# 12 c/c	46# 12 c/c
F18.0R5	18071807110	46# 12 c/c	46# 12 c/c
F18.0R6	18071807110	46# 12 c/c	46# 12 c/c
F18.0R7	18071807110	46# 12 c/c	46# 12 c/c
F18.0R8	18071807110	46# 12 c/c	46# 12 c/c
F18.0R9	18071807110	46# 12 c/c	46# 12 c/c
F18.0R10	18071807110	46# 12 c/c	46# 12 c/c
F18.0R11	18071807110	46# 12 c/c	46# 12 c/c
F18.0R12	18071807110	46# 12 c/c	46# 12 c/c
F18.0R13	18071807110	46# 12 c/c	46# 12 c/c
F18.0R14	18071807110	46# 12 c/c	46# 12 c/c
F18.0R15	18071807110	46# 12 c/c	46# 12 c/c
F18.0R16	18071807110	46# 12 c/c	46# 12 c/c
F18.0R17	18071807110	46# 12 c/c	46# 12 c/c
F18.0R18	18071807110	46# 12 c/c	46# 12 c/c
F18.0R19	18071807110	46# 12 c/c	46# 12 c/c
F18.0R20	18071807110	46# 12 c/c	46# 12 c/c
F18.0R21	18071807110	46# 12 c/c	46# 12 c/c
F18.0R22	18071807110	46# 12 c/c	46# 12 c/c
F18.0R23	18071807110	46# 12 c/c	46# 12 c/c
F18.0R24	18071807110	46# 12 c/c	46# 12 c/c
F18.0R25	18071807110	46# 12 c/c	46# 12 c/c
F18.0R26	18071807110	46# 12 c/c	46# 12 c/c
F18.0R27	18071807110	46# 12 c/c	46# 12 c/c
F18.0R28	18071807110	46# 12 c/c	46# 12 c/c
F18.0R29	18071807110	46# 12 c/c	46# 12 c/c
F18.0R30	18071807110	46# 12 c/c	46# 12 c/c
F18.0R31	18071807110	46# 12 c/c	46# 12 c/c
F18.0R32	18071807110	46# 12 c/c	46# 12 c/c
F18.0R33	18071807110	46# 12 c/c	46# 12 c/c
F18.0R34	18071807110	46# 12 c/c	46# 12 c/c
F18.0R35	18071807110	46# 12 c/c	46# 12 c/c
F18.0R36	18071807110	46# 12 c/c	46# 12 c/c
F18.0R37	18071807110	46# 12 c/c	46# 12 c/c
F18.0R38	18071807110	46# 12 c/c	46# 12 c/c
F18.0R39	18071807110	46# 12 c/c	46# 12 c/c
F18.0R40	18071807110	46# 12 c/c	46# 12 c/c
F18.0R41	18071807110	46# 12 c/c	46# 12 c/c
F18.0R42	18071807110	46# 12 c/c	46# 12 c/c
F18.0R43	18071807110	46# 12 c/c	46# 12 c/c
F18.0R44	18071807110	46# 12 c/c	46# 12 c/c
F18.0R45	18071807110	46# 12 c/c	46# 12 c/c
F18.0R46	18071807110	46# 12 c/c	46# 12 c/c
F18.0R47	18071807110	46# 12 c/c	46# 12 c/c
F18.0R48	18071807110	46# 12 c/c	46# 12 c/c
F18.0R49	18071807110	46# 12 c/c	46# 12 c/c
F18.0R50	18071807110	46# 12 c/c	46# 12 c/c
F18.0R51	18071807110	46# 12 c/c	46# 12 c/c
F18.0R52	18071807110	46# 12 c/c	46# 12 c/c
F18.0R53	18071807110	46# 12 c/c	46# 12 c/c
F18.0R54	18071807110	46# 12 c/c	46# 12 c/c
F18.0R55	18071807110	46# 12 c/c	46# 12 c/c
F18.0R56	18071807110	46# 12 c/c	46# 12 c/c
F18.0R57	18071807110	46# 12 c/c	46# 12 c/c
F18.0R58	18071807110	46# 12 c/c	46# 12 c/c
F18.0R59	18071807110	46# 12 c/c	46# 12 c/c
F18.0R60	18071807110	46# 12 c/c	46# 12 c/c
F18.0R61	18071807110	46# 12 c/c	46# 12 c/c
F18.0R62	18071807110	46# 12 c/c	46# 12 c/c
F18.0R63	18071807110	46# 12 c/c	46# 12 c/c
F18.0R64	18071807110	46# 12 c/c	46# 12 c/c
F18.0R65	18071807110	46# 12 c/c	46# 12 c/c
F18.0R66	18071807110	46# 12 c/c	46# 12 c/c
F18.0R67	18071807110	46# 12 c/c	46# 12 c/c
F18.0R68	18071807110	46# 12 c/c	46# 12 c/c
F18.0R69	18071807110	46# 12 c/c	46# 12 c/c
F18.0R70	18071807110	46# 12 c/c	46# 12 c/c
F18.0R71	18071807110	46# 12 c/c	46# 12 c/c
F18.0R72	18071807110	46# 12 c/c	46# 12 c/c
F18.0R73	18071807110	46# 12 c/c	46# 12 c/c
F18.0R74	18071807110	46# 12 c/c	46# 12 c/c
F18.0R75	18071807110	46# 12 c/c	46# 12 c/c
F18.0R76	18071807110	46# 12 c/c	46# 12 c/c
F18.0R77	18071807110	46# 12 c/c	46# 12 c/c
F18.0R78	18071807110	46# 12 c/c	46# 12 c/c
F18.0R79	18071807110	46# 12 c/c	46# 12 c/c
F18.0R80	18071807110	46# 12 c/c	46# 12 c/c
F18.0R81	18071807110	46# 12 c/c	46# 12 c/c
F18.0R82	18071807110	46# 12 c/c	46# 12 c/c
F18.0R83	18071807110	46# 12 c/c	46# 12 c/c
F18.0R84	18071807110	46# 12 c/c	46# 12 c/c
F18.0R85	18071807110	46# 12 c/c	46# 12 c/c
F18.0R86	18071807110	46# 12 c/c	46# 12 c/c
F18.0R87	18071807110	46# 12 c/c	46# 12 c/c
F18.0R88	18071807110	46# 12 c/c	46# 12 c/c
F18.0R89	18071807110	46# 12 c/c	46# 12 c/c
F18.0R90	18071807110	46# 12 c/c	46# 12 c/c
F18.0R91	18071807110	46# 12 c/c	46# 12 c/c
F18.0R92	18071807110	46# 12 c/c	46# 12 c/c
F18.0R93	18071807110	46# 12 c/c	46# 12 c/c
F18.0R94	18071807110	46# 12 c/c	46# 12 c/c
F18.0R95	18071807110	46# 12 c/c	46# 12 c/c
F18.0R96	18071807110	46# 12 c/c	46# 12 c/c
F18.0R97	18071807110	46# 12 c/c	46# 12 c/c
F18.0R98	18071807110	46# 12 c/c	46# 12 c/c
F18.0R99	18071807110	46# 12 c/c	46# 12 c/c
F18.0R100	18071807110	46# 12 c/c	46# 12 c/c

DETAIL THE ISOLATED FOOTINGS BY USING THE INFORMATIONS GIVEN AND PLAE THE BBS AND SUBMIT THE DWG



RGS REBAR

www.viskartech.com



Match Properties

Concept: - This option is used to match one bar's property to selected bars.

Menu : **Rebar Tools / Match Properties**

Command : mp

Select a Reference Bar/View/Callout/Label:

1. Exercise: -

1. Detail the reinforcement mat for this attached shape.
2. Element mark = Slab
3. Reinforcement details = #10 @ 14" c /c for B1 and # 8 @ 14" c/c B2

Lap values

DIA	TOP	BOT
#8	6'-8"	5'-2"
#10	8'-6"	6'-7"

2. Exercise: -

Use Match properties and change the following

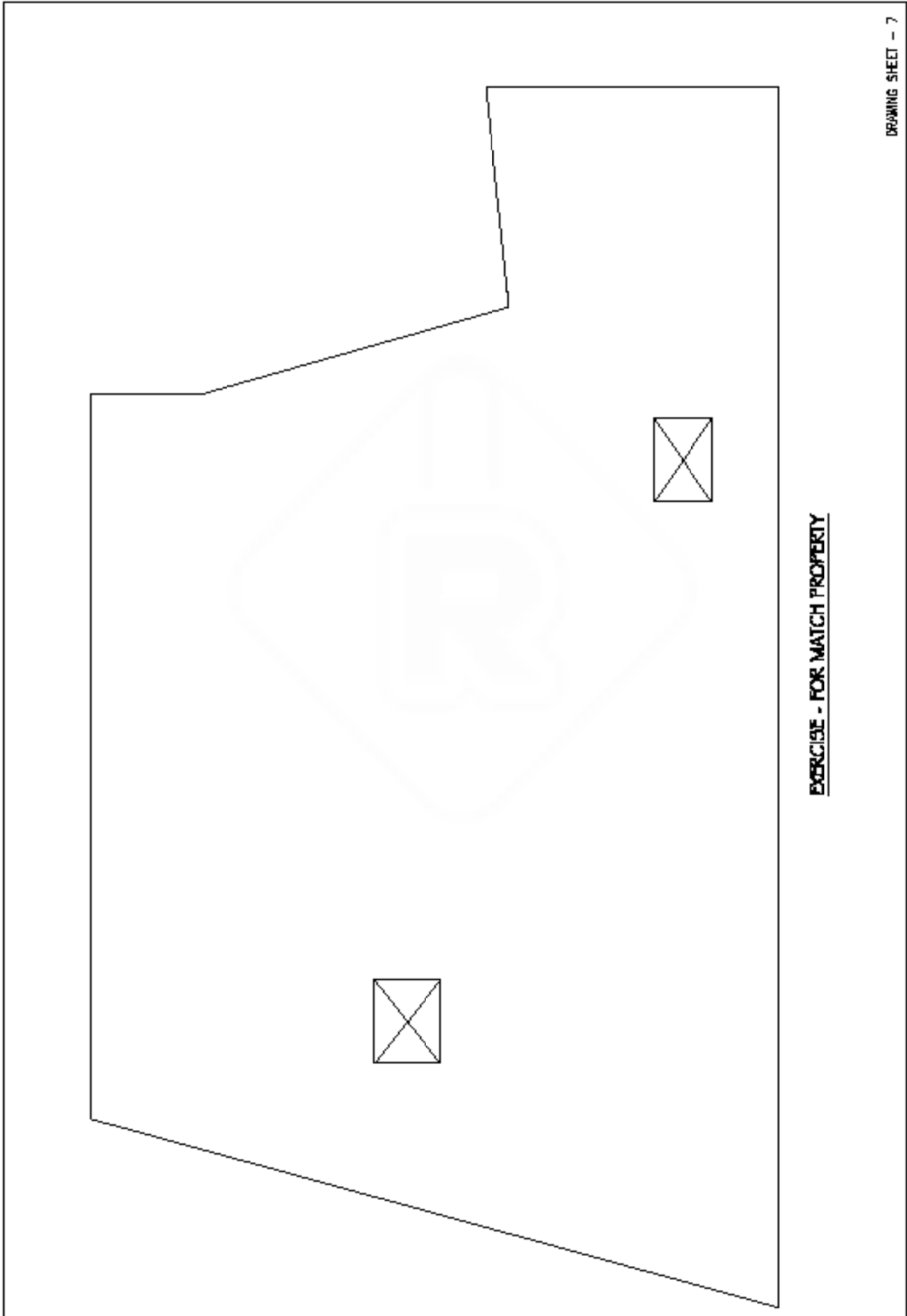
- a) Element mark
- b) Spacing
- c) Remarks
- d) Bar size
- e) Use Add / Sub leg value option

Filter

Concept: - Selection of bars can be done based on Bar size, Revision No, Element mark, Grade, Coating, Bar mark and bend shape.

Exercise: -

1. Place BBS for bar size #8 and # 10 only
2. Use this tool on Match property Command



EXERCISE - FOR MATCH PROPERTY

DRAWING SHEET - 7

Change Bar View

Concept: Six type of views are available.

1. Side
2. Plan
3. Left
4. Right
5. Section
6. Profile

This option is used to change the bars from any one view to other view.

Views can be changed for single bar or multiple bars at single time.

Menu : **Detailing / Change bar view**

Command : **changebarview**

Exercise: - 1

1. Draw a bar in side view
2. Draw a bar in Plan view
3. Select these 2 bars and change the view to Right side view

Exercise: - 2

1. Draw a bar in side view
2. Press enter or space bar to toggle the views till to get the required view

Command : Enter the mode of selection of objects (Single/Multiple): S

Select the bar/view to be changed:

Press enter or space bar to toggle the views till to get the required view . Press Esc key to retain the selected view.

Command : Enter the mode of selection of objects (Single/Multiple): S

Select the bar/view to be changed:

Specify the required view (Side/Plan/Left/Right/sEction/proFile): E

Select the objects:

Press Enter to retain the selected view

Change Alpha Code

Concept: This option is used to change the alpha code

Menu : **Rebar Tools/Change alphacode**

Command : **changealphacode**

Exercise: -

1. Draw a bar with following properties. Use Alphcode = A

#6 L = 13'0"

#7 L = 9'6" LINE

#10 L 16'-6"

2. Copy the bars and paste as new bars in multi places

3. Use filter option and change #10 alpha code as 'C'

Command : Enter an option to change (All/Selected/Fence/FILter): I
Select bar size and Enter #10 in filter screen

Command : Select bar\view\callout\Label : (Select all the bars in
the drawing, from #10 can be filterd).

Transpose Bend Shape

Concept: - This option is used to change one Bend Shape to other Bend Shape of the same Bend File or Other Bend file of the same Detailing code or other Detailing Codes irrespective of the Bar properties. While Changing the Bend shape, Legs can also be changed. For example, A leg can be changed to D, B can be changed to C.

Menu : **Rebar tools / Transpose bend shape**

Command : TBS

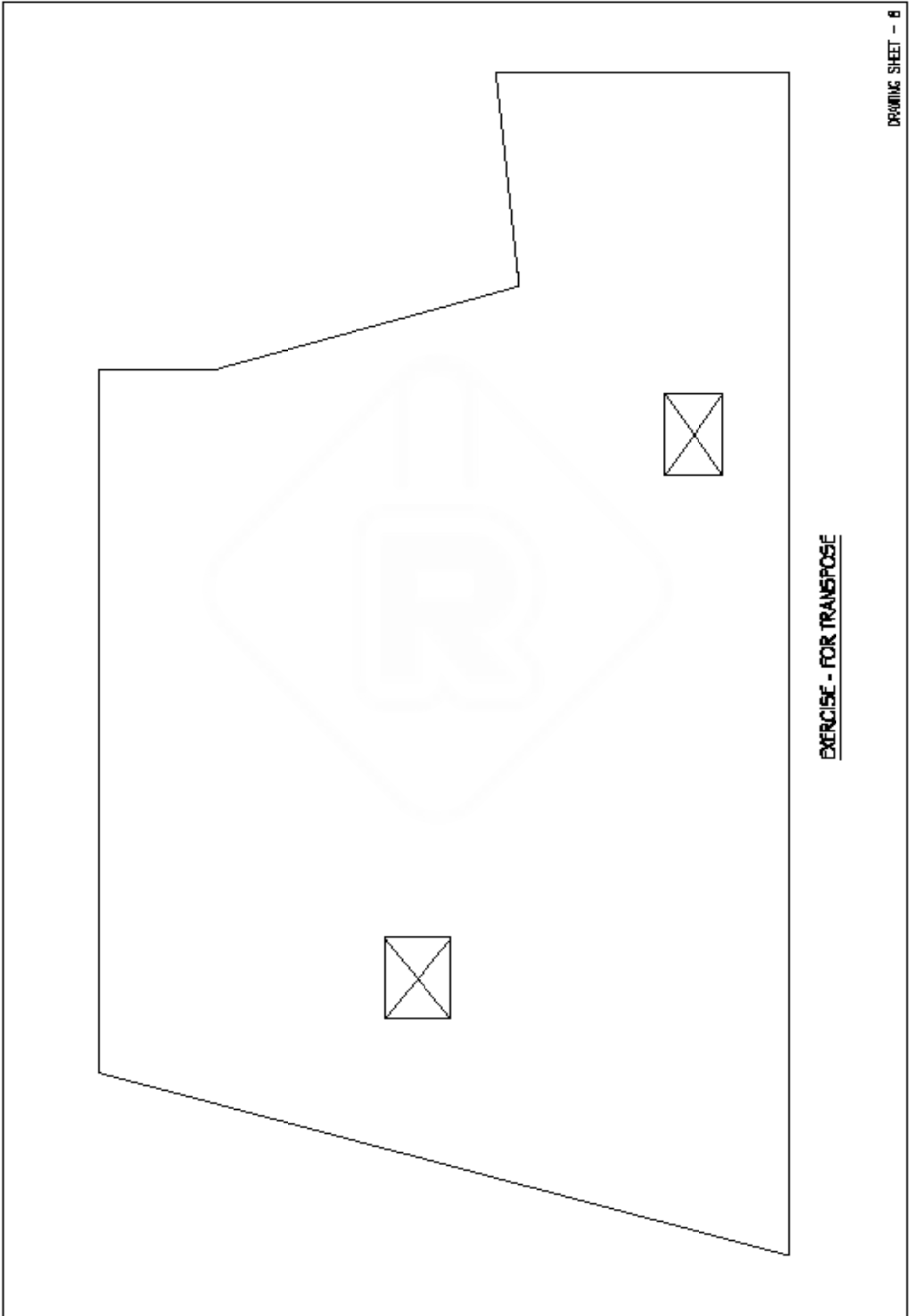
Exercise: -

All bars are having varying leg values; it cannot be done by match property.

- 1.Detail the bars as Type 1A and transpose it as Type 2A
- 2.Detail T1 bend type and Transpose as T6 Bend type

DIAGRAM

- 3.Detail Type 2 bends and Transpose as 17 bends



EXERCISE - FOR TRANSPOSE

DRAWING SHEET - B

Drawing Weight Report

Concept: - Weight report can be placed in a Drawing for selected bars / callouts and Element marks.

Menu : **Report / Drawing Weight Report**

Command : PWE

Exercise: -

1. Rebars
2. Element marks
3. Fence
4. Filter
5. All
6. Summary
7. Grade/ bar size report

Takeoff

Concept: - This menu is used to find out the details of the callouts based on Take Off, Un Take Off and Partial Take off (Take off based on Element Mark).

By selecting Partial Take off option, bar list can be created only for the selected Element Marks. For example, if Pile cap PC1, exist in 10 places, we can create the Bar list for 4 places alone as required.

Menu : **Reports / Takeoff**
Command : BST

Exercise: -

Client Number : 1204
Job Name : Church building
Customer Name : RGS-CAD ENGG PVT LTD
Job location : chennai

Description 1 : FOOTING REINFT DETAILS
Description 2 :
Control code : FTG
Release No : 001

Detailing code : ACI 315_99
Drawing No : 001
Revision No : 0
Prepared by :
Prepared date :
Checked by :
Checked date :

- a) Create a bar list file for the selected bars
Select bars callouts : Selected

Bar Status

Concept: - This menu is used to find out the details of the callouts based on Take Off, Un Take Off and Partial Take off (Take off based on Element Mark).

Menu : Reports / Bar status

Command : BST

Exercise.1: -

1. Draw a new bar with range of #7 @ 24" c/c
2. Copy the bar as new bar and paste it 5 places.
3. Totally 6 callouts are there in your drawing now.
4. Prepare a bar list for 3 callouts.
5. Open the bar status dialog box, and observe the 6 callouts status.

Exercise.2: -

1. Draw a new bar with range of #6 @ 16" c/c with Element mark = B1
2. Copy the bar as new bar and paste it 8 places.
3. Use Place element mark option, and place the element mark at 10 places.
4. Prepare a bar list for 5 B1 only by selecting Element mark option
As Partial takeoff
5. Open the bar status dialog box, and observe the callouts status.