

SIMPLIFIED RULES FOR CURTAILMENT OF BARS IN SECTION THROUGH MIDDLE STRIP OF SLAB

NOTE :

1. USE M25 (1:1.5:2) GRADE CONCRETE FOR COLUMNS & M20 (1:1.5:3) FOR BEAMS & SLAB
2. USE FE415 GRADE TOR STEEL.
3. PROVIDE CLEAR COVER OF 1.5" FOR COLUMNS , 1"FOR BEAMS & 3/4" FOR SLAB
4. PROVIDE 1" CAMBER AT FREE END FOR CANTILEVER BEAMS & SLABS.
5. IN SLAB EXTEND -VE STEEL UPTO 0.30L FROM FACE OF SUPPORT.
6. DO NOT PROVIDE EXTRA REINFORCEMENT AT SIMPLY SUPPORTS.
7. LAP LENGTH 48 D (D- IS THE DIA OF THE BAR) IN COMPRESSION.
8. LAP LENGTH 52 D (D- IS THE DIA OF THE BAR) IN TENSION.
9. ONLY FIGURED DIMENSIONS SHALL BE FOLLOWED.
10. ALL THE DIMENSIONS ARE IN INCHES & FEET. DO NOT SCALE THE DRAWING.
11. REFER ARCHITECT DRAWING FOR CENTER LINE DIMENSIONS.
13. LAP LENGTH INCLUDING ANCHORAGE VALUE OF HOOKS FOR BARS IN FLEXURAL TENSION SHALL BE L_d OR 30Ø WHICHEVER IS GREATER. THE STRAIGHT LENGTH OF THE LAP SHALL NOT BE LESS THAN 15Ø OR 200mm. WHEN BARS OF TWO DIFFERENT DIAMETERS ARE TO BE SPLICED, THE LAP LENGTH SHALL BE CALCULATED ON THE BASIS OF DIAMETER OF THE SMALLER BAR.
14. LAP / DEVELOPMENT LENGTH FOR MAIN REINFORCEMENT BARS FOR DIFFERENT GRADES OF CONCRETE MIX SHALL BE AS FOLLOWS:

STEEL GRADE	M30	M35	Fe-415	Fe 500
DESCRIPTION	47 d	41 d	38 d	34 d
DATE				

WHERE d IS THE DIAMETER OF THE BAR.



Client
MODI PROPERTIES & INVESTMENTS PVT.LTD

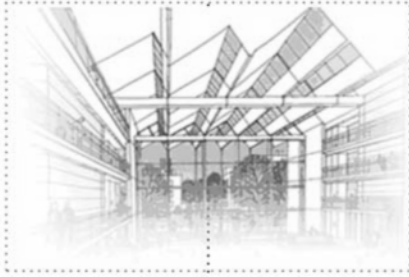
Project
PARAMOUNT AVENUE AT NAGARAM

KULKARNI CONSULTANTS
STRUCTURAL ENGINEERS, ARCHITECTS & PROJECT CONSULTANTS
W/216, KASBAHA TOWERS, NARAYAN GODA, HIRDEBAND, CONTRACTORS, DORNAKAL, GUNDEKUR, GUNDEKUR, GUNDEKUR

DATE: 16-1-2017
DESIGN: MADHURIA
CHECKED: KULKARNI
APPROVED: KULKARNI

TITLE: BASEMENT FLOOR SLAB DETAIL

DWG. NO.: KC/WPA/50/3/7
REV. NO.: 0



*Drawing the architectural plan in DWG
format as per AutoDCR software requirements.*

User Manual

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USE SPECIAL TOOLS

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Installation and Registration

System Requirements -

- Pentium IV or better (or compatible processor)
- 1 GB RAM (Mini. Requirement)
- Windows 98/2000/XP
- CD-ROM drive
- AutoCAD 2000 and onwards

Installation -

To install PreDCR software on your computer follow the given steps :

1. Insert the supplied PreDCR CD in CD drive of the computer.
2. Run the PreDCR installer by double clicking on set up file.
3. Follow the steps in installer wizard to complete the installation.

After successful installation, a PreDCR shortcut will be placed on your computer desktop as shown below.

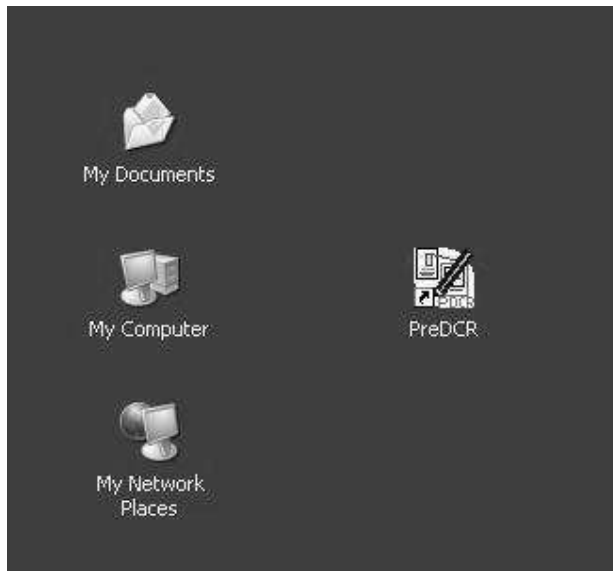


Figure 1: PreDCR Shortcut on Desktop

Registering and running PreDCR

To run PreDCR software, follow the given steps.

Step 1: Double click or right click on PreDCR icon and select open menu.

In Fig 1. You can also run it from **Start-->Programs-->SEPL->PreDCR**

Step 2: PreDCR will start under AutoCAD-2000 & onward versions and ask to register the software if you have taken the "SoftLock Set of PreDCR".

Step 3: Click on **Register** button to register PreDCR. You will see registration form with Reference code and key as shown below in Figure 2.

Figure 2: PreDCR Registration form

Step 4: Now you have to send this Reference Code generated on your computer to given email address support_dcr@softTech-engr.com or <mailto:sarika@softtech-engr.com>

Or contact

SoftTech Engineers Pvt. Ltd. on Phone : 2421-7676 / 2421-8747

Against that reference code you will get the Key from our office which you have to enter in the blank space provided.

KEYS will not be provided in any circumstances if you have taken it ONCE from our office

Note: From next time PreDCR will start directly until you format your computer.

Introduction

PreDCR is software application used to create the architectural plan as per **AutoDCR** software requirements. It works under AutoCAD environment with additional menu & toolbar.

Using PreDCR commands user can create all the required layers in one click. Once all the layers are created in the drawing user can use AutoCAD commands to draw layout plan. As per AutoDCR requirement all building items like proposed plot, proposed work should be drawn on corresponding layer. Short commands are provided to activate any layer in PreDCR. At any time user can verify if the drawn entities are properly closed or not, if proper name text has been written inside all closed poly or not etc. PreDCR will highlight all the failed entities if any.

PreDCR can be used to modify/make and verify the existing or new proposal drawing as per **AutoDCR** software requirements. Users are free to use AutoCAD commands and or PreDCR commands to achieve the main purpose which is:

Drawing the architectural plan in DWG format as per AutoDCR software requirements.

For Automating the process of Development Control Regulations user/draughtsman/architect have to follow some specifications. The following are the list of specifications that the user should follow.

- Plot layout, detailed floor plan and building section for all the floors should be there in one AutoCAD drawing file. And there must be in 1:1 mt. Scale.
- All building items like proposed plot, proposed work, proposed parking etc must **be drawn using closed polyline.**
(i.e. Every entity must be closed LWPOLYLINE except Center Line of Main Road, Internal Road, Railway Line , Drain line, Water Line and Electric Line).
- Building Sub-Items **must be exactly inside of outer closed polygon as per their place in architectural plan.**
This means none of the edge or vertex of inside entity should be drawn outside its container entity.

For example Parking or Open Space poly must be exactly inside the main plot poly.
Tools are provided in **PreDCR** to verify this check.

- **Every Building Sub-Items should be given a specific/unique name (Text or MText entity) on the same layer & inside the entity poly.** If name not found then AutoDCR will generate the name automatically. Naming Conventions should be followed properly.
e.g. Each Room should be given the concerned name Living, Kitchen, Bedroom..Etc.
- **Floor Name:** *GROUND FLOOR; TYPICAL FLOOR 1,2 & 5-8; TERRACE FLOOR;*
Floor Items: *Room Names should be given properly without using abbreviations so the software can identify perfect entity. This can be done by Assign name facility provided by the software.*
- Floor Poly line must be having all the Arch details inside it
- User shall use only following kind of entities for Building Items :-
LWPOLYLINE / TEXT / MTEXT
- If in a plan two proposed work are mirrored in that case user should provide two separate building plan for each proposed work.
- Proposal drawing must be having **_OtherDetail** poly having the other details to be taken in final printing such as Elevation. Septic Tank Detail etc.

Types of proposal that can be submitted using Pre-DCR

(Separate drawing files are required for Land-division (Sub-div. & Reconstitution) cases and for Building Development Case

- 1) **Reconstitution** - By drawing initial plots (with unique plot names) on _Plot layer and amalgamated plot on _Reconstitution layer. Give unique name to amalgamated plot on '_Reconstitution' layer.e.g.Recon1.
- 2) **Land Division** - By drawing initial plots (with unique plot names) on _Plot layer and subdivided plot on _Subdivision layer. Give unique name to all sub-divided plot on '_sub-division' layer.e.g.SD1, SD2 etc.
- 3) **Proposed Development** - By drawing plot on plot layer with pwork inside plot having all the Proposed Bldg details

PreDCR layers information

Layer name	Description	Naming Convention	short command
_Reconstitution	For Reconstitution Proposal, Draw resulting Plot as a closed Polyline having Text/MText on Reconstitution Layer		AMLG
_ArchProj	Draw Architectural projections such as Chhajjas, Flower-Bed, Cupboards, Lofts, Canopies, Otta and Front Steps as Closed Polyline .By Using "Mark>Arch.Projections" Tool, concerned Text will be inserted automatically inside the polyline. Canopy/porch will come in plot & other projections will come with floor plans.		AP
_AirShaft	Draw a closed poly with Text for Artificial Ventilation Shaft or Duct.		AVD
_Balcony	Draw Each individual Balcony as closed Polyline with Text on same layer. Balcony can be present in: Plot: It must overlap with PWork(if not enclosed) Floor: It must overlap ResiFAR. Enclosed Balcony can be Marked by using Tool "Mark>Balcony>Enclosed"		BL
_Building	Building poly is used to group all floor plans and sections of the same Building. (This is just a logical Group of Building). If the Building is Typical for Multiple Pworks or Wings, Naming Convention should be as Below. (Note: Area or size of Building Poly doesn't have any meaning in AutoDCR)	Naming Convention will be provided by Tool> Assign Name A (Bld.Name) inside Bldg.Poly & A-1 (Bldg.Name) inside Pwork Poly	BLD
_CarpetArea	A Closed poly with Text on this layer represents a BuiltUp Area or Tenement Area. It should cover total area of one Tenement.		CPT
_OTS	Draw OTS area as a closed Polyline with Text inside FARArea & inside Section Poly on _OTS Layer. All inner and outer OTSs should be drawn on this layer. OTS can be be present in the floor plan and its section in the Section poly but on the same "_OTS" layer.		CWK
_CommFAR	Draw a closed FAR PolyLine, which is used as a Commercial Purpose.		CMFS
_CompoundWall	Closed polyline of compound wall to be drawn on this layer overlapping plot.	0.0m. high compound wall.	CW
_Door	Door shall be drawn as a closed polyline with Text & specified DoorHeight. (Note: Default DoorHeight will be 2.1 mt.)	D-2.2mt. , D1-2.4 mt.	DR
_ElectricLine	Electric line shall be drawn as open Polyline with Text whose insertion Point lies on the Polyline. (Note : High or Low Voltage capacity must be written at a starting of Text)	High Tension Line	L1
_ExStructure	Draw an Existing Structure as a closed Polyline		ES

	with Text inside it.		
_Floor	<p>Floor poly should be drawn as a closed Polyline with Text on same Layer. This is just a logical Group of all floor Entities.</p> <p>Direction Ref Circle: Insert Dimension Ref Circle inside each floor poly at the same point. You can insert it on common areas of the bldg. such as lobby, staircase, lift etc.</p> <p>(Note: Area or size of Floor doesn't have any meaning in AutoDCR)</p> <p>Floor Name: Floor Plan will be automatically link with Section by matching the Floor Name. If the Floor is Typical Floor, It should be Named with Proper Naming convention.</p>	<p>Naming Convention will be provided by Tool>Assign Name>Floor name</p> <p>Name of floor should be in given format:</p> <p>TYPICAL-1,4 FLOOR PLAN</p> <p>TYPICAL-1-5 FLOOR PLAN</p> <p>TYPICAL-2&3 FLOOR PLAN</p> <p>Ground Floor Plan</p>	FLR
_FloorInSection	Section floor poly will represent each floor section with its name inside SectionFloor : Floor Plan will be automatically link with SectionFloor by matching the Floor Name. If the FloorPlan is Typical Floor Plan, It should be Named with Proper Naming Convention.	Inside SectionFloor: SECOND FLOOR, THIRD FLOOR, GROUND FLOOR.	SECF
_GroundLevel	The Ground level line should be drawn as an open polyline in the section poly.		GL
_CarpetArea	<p>A Closed poly with Text on this layer represents a BuiltUp Area or Tenement Area.</p> <p>It should cover total area of one Tenement.</p>		INDU
_IndFAR	Draw a closed FAR Polyline, which is used as a Industrial Purpose.		IFSI
_IndivSubPlot	For plotting layout draw individual subplots on '_indivsubplot' layer inside main plot which will be on '_Plot' layer.		
_IntDPRoad	<p>Draw an Existing/Proposed DP Road as a closed Polyline with text inside it.</p> <p>(Note: Road width must be written at a starting of Text)</p>	12.00 m. wd. internal DP Road	R3
_InternalRoad	Draw Each Internal Road as a Closed Polyline with Centre Line (Ltype-CentreLine) & Single Text inside each.	7.50 m wd. Internal Road	R2
_Lift	<p>A closed polyline on the inner dimensions of the lift should be drawn on this layer with Text. Lift. Machine Room shall be also drawn in same Layer with Text "Machine Room".</p> <p>(Note: If the premium is paid, lift should be marked "Free from FAR" from "MARK" menu.)</p>		LFT
_MainRoad	<p>Draw Main Road as a closed Poly with Text, which should be abutting with the Plot closed Poly.</p> <p>(Note: Road width must be written at the starting of Text)</p>	24.00 m wd. Main T.P. Road	R1
_Marginline	<p>Margin Polyline will be created by PreDCR by using Tool "Mark>Margins"</p> <p>(Note: User need not do anything on this layer.)</p>		L3
_NetPlot	No need to draw NETPLOT. This layer will be auto generated by PreDCR		NPLT

_NotInProposal	Plot area which is not in possession or which is not in proposal to be drawn as a closed polyline on this layer.		NIP
_OtherDetail	Make one Boundary/Closed Poly Line around the Details which is to be taken in final Printout		OTRD
_Parking	Draw a closed Polyline for Parkings on “_Parking” Layer. U can also use Insert tool to insert desired Parking Poly in your drawing.		PK
_Passage	Draw a closed polyline on “_Passage” Layer to represent passage. (Note: If Premium for Passage is going to be Paid, Passage should be marked by using Tool "Mark>Passage>Free from FAR"		PAS
_AccessRoad	Draw AccessRoad as a closed polyline with text specifying its width.eg.1.5 m. wide AccessRoad.		R6
_Plot	Draw a closed poly which will represent the Plot layout		PLT
_PropWork	PWork is a building profile and shall be drawn inside plot. Draw a closed polyline for Proposed Work on “_PropWork” Layer. Direction Ref Circle: Insert Dimension Ref Circle inside PWork poly at the same point as in Floor polye. You can insert it on common areas of the bldg. such as lobby, staircase, lift etc.		PW
_RailLine	Railway line shall be drawn in the layout plan as a Open Poly (Ltype-CentreLine) & Text which insertion point lies on the Polyline.		L2
_Ramp	Draw a Ramp as a closed polyline with CentreLine (L-type-Centre Line) & Text inside it in Plan. Draw RampSection as a closed polyline with Text same as in Plan.		SECR
_RecreationalGnd	Draw a closed polyline on “_OpenSpace” Layer to represent reserved as recreational space.		OPS
_Recreational SpacelnBldg	Draw a closed polyline on “_RecreationalSpacelnBldg” Layer to represent the area in Building on any floor for recreational purpose.		RSIB
_ReservArea	If there in any Reservation Area in Plot, it should be drawn as a closed Polyline with Text inside same Layer.		RSA
_ResiFAR	A Closed poly with Text on this layer represents a Residential FAR or Floor FAR. It will cover whole area which is considered in FAR Area per Floor. Note: - It is same as previous “_ResiFAR” Layer.		MFS
_Roadwidening	Road Acquisition/Road Widening area shall be drawn as a closed Polyline with Text on same layer inside Plot Entity. Margin will be generated & checked from Roadwidening Poly by AutoDCR software.		R5
_Room	A closed polyline for each room with its text inside should be drawn on this layer.		RU
_Section	Section poly should be drawn as a closed Polyline with Text on same Layer. It is used to group all Sectional detail like Floor Sections, Plinth, Staircabin, Tank etc. (This is just a logical Group of Sectional Entity). (Note: Area or size of Floor doesn't have any meaning in AutoDCR)		SEC
_SitePlan	The encapsulating poly around the Site/Key Plan		STP

	with the Text & Scale inside it. (Note: Scale should be written as described. Scale:1:500)		
_SpecialUseFAR	FAR play for all other building uses like educational, institutional etc. except resi.,comm. ind. use should be drawn on this layer.		SUF
_StairCase	Total Staircase area should be drawn as a closed polyline with text inside it. This Main Stair Poly should contain Intermediate Landing, Floor Landing & Each Tread as an open polyline. Intermediate & Floor Landing Poly can be Marked by PreDCR Tool "Mark>Staircase>Int. or Floor Landing"		STR
_StreetLevel	The Street level line should be drawn as an open polyline in the section poly.		SL
_SubDivision	For Land Division Proposal, Draw each SubPlot (Subdivided Plot) as a Closed Polyline having Text/Mtext on _SubDivision layer		SBD
_AccessoryUse	AccessoryUses which are allowed in Margins or Layout & Free from FAR should be drawn as a closed polyline with text inside it.	Name of the AccessoryUse can be assigned from Mark>AccessoryUse tool.	SSTR
_Terrace	A closed polyline on _Terrace layer is a terrace. All kind of terraces like common top floor terrace as well as common terrace on any floor should be drawn on this layer.		TER
_Void	Draw a closed polyline on “_Void” Layer to represent void.		VD
_WaterBody	Draw Water Body as closed polyline.		R4
_Window	Draw a closed polyline on _Window” Layer to represent window. You can also use Insert tool to insert window poly for particular size.		WND

PreDCR Tools

While running the PreDCR software, you will get option to select AutoCAD version. You can select any of AutoCAD version to run the PreDCR Application. You will get PreDCR Tool bar and PreDCR Menu in that AutoCAD Application only. A detail for each tool is described below.



Figure 3: PreDCR Tool Bar

Create New Project:

Create Layers in the drawing (PDCRCL):

Fix Poly (PDCRPE):

Mark Margin (PDCRMARGIN):

Verify close Poly (PDCRVLD):

Verify the Current Drawing (PDCRVT):

Show Objection List (PDCROLST):

Show PreDCR Report:



Create New Project:

This command will Create New project for current drawing. As soon as you active this tool the following dialog appears. In which you have to fill all the Proposal details. Also it is mandatory to select Type of Project as

a. Prop. Development: Proposal having Development. It should not involve any LandDivision or Reconstitution

b. Land Division/Recostitution: Proposal having Land Subdivision or Reconstitution

Note: It is always compulsory to add your drawing to new Project.

Project Information

Project Detail

BA No :

Case Type Information

Nature Of Construction : Project Type :

Ward : Street/Road Name :

Zone : Nearest Landmark :

LBS Name : LPADTP No. / Regularized Layout No :

Site Information

Locality / Village : Owner's Details

Survey Field No : AE/JE Name :

Town Survey No : ATPD Name :

Door / Plot No : AC Name :

Proposal Type : Owner's Name :

Address :

OK Cancel

Figure 4: Create New Project



Create Layers in the drawing (PDCRCL):

This command will create layers required for AutoDCR and as per the Project Type you have selected. i.e. For Proposed Development type Proposal listed layers will be generated in drawing file.

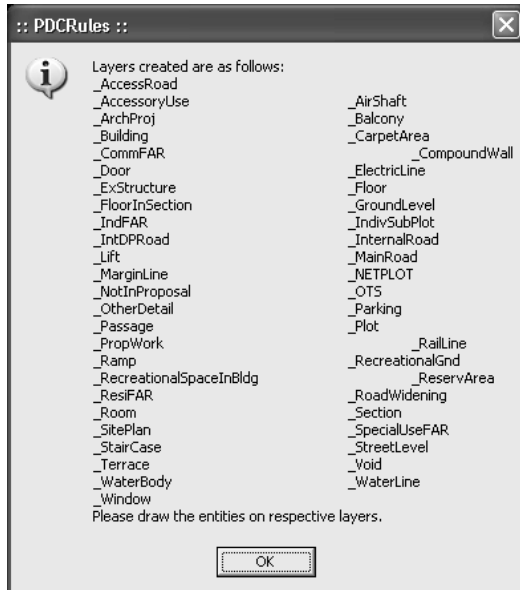


Figure 5: Create Layers



Fix Poly (PDCRPE):

Use this command once on the final drawing which will process all the polylines on the PreDCR layer and remove extra vertices found on polyline or duplicate entity. This command should be used (before verifying the drawing) every time you add any new entity in the drawing.



Mark Margin (PDCRMARGIN):

Use this command to mark side of the plot as Front, Rear or Side. Also you have to assign Plot width and Plot depth in drawing using same tool.

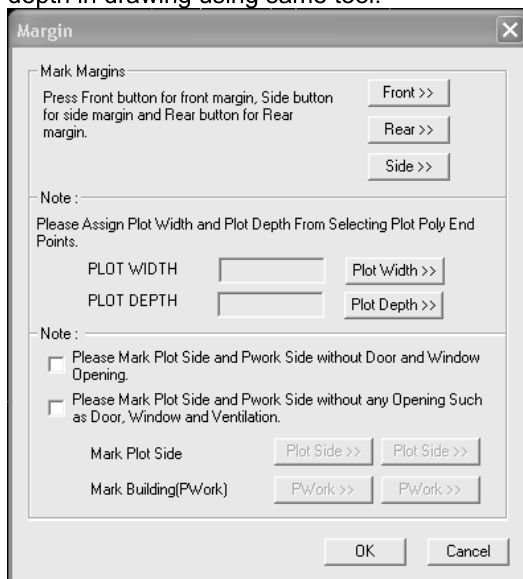


Figure 6: Mark Margin

Mark the Plot side which is overlapped with MainRoad as Front , opposite side as Rear & other sides as Side Margin. Assign Plot width & Depth in Drawing.

Mark the Plot side and PWork when No Door/Window or Ventilation is taken from any side of the Plot.



Verify close Poly (PDCRVD):

This command will verify the current drawing as required by AutoDCR. It will Verify that LWPOLYLINE entities on the selected layers are closed and contain one text.

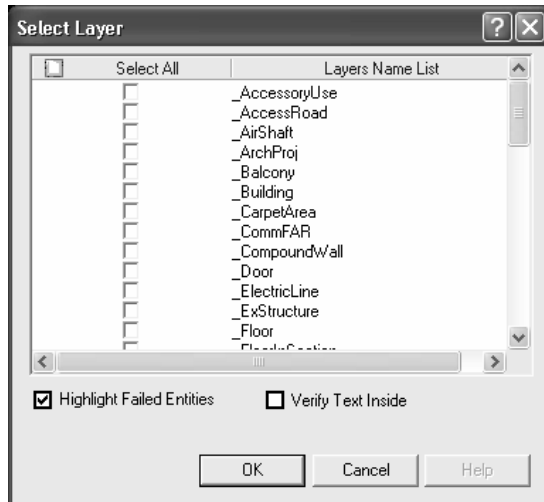


Figure 7: Verify Close Poly



Verify the Current Drawing (PDCRVT):

Use this command to verify the layout and building level objects in the current drawing plan. Major checks are as follows:

- Check if these entities are drawn as closed LWPOLYLINE.
- Name text is given to all objects.
- Entities are placed exactly inside their parent objects (container).
- Naming conventions are followed properly.

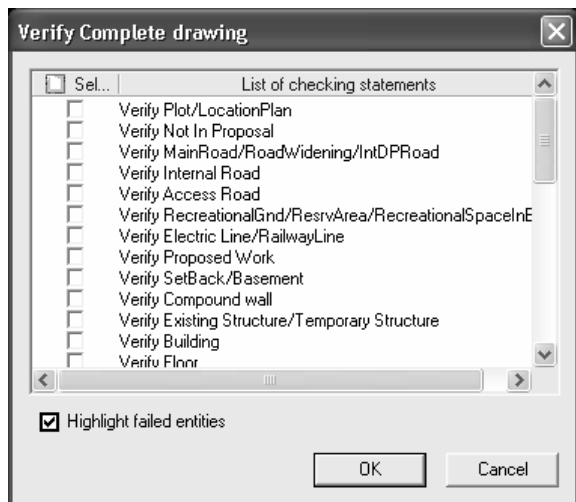


Figure 8: Verify the Current Drawing

In the "Verify All Drawing Dialog" you can select the layout or building objects to be checked. To view the result, press OK button. PreDCR will start checking all corresponding objects in the currently open drawing and then display the status as OK or list of failed objects with the reason of failing in the dialog as shown in Figure.

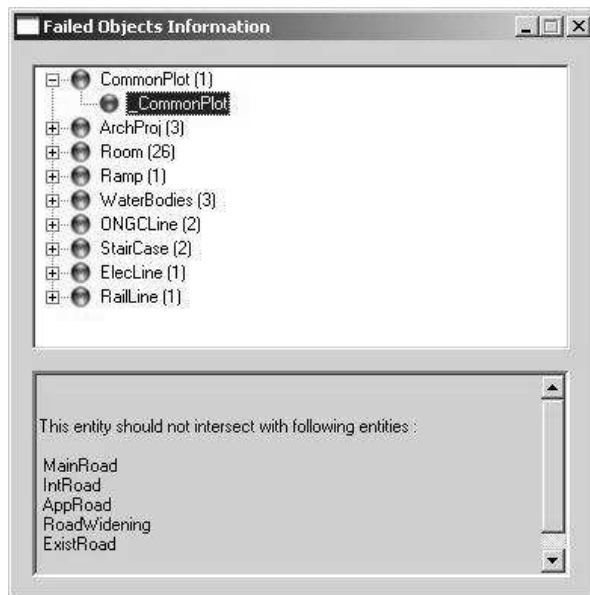


Figure 9: Failed Entity Information



Show Objection List (PDCROLST):

This command gives the list of all minimum required entities which are not there in your drawing. If all required entities found then it gives a message that minimum required entities are present in drawing.



Show PreDCR Report (PDCRRPT):

This command will generate the PreDCR Report having all the Project details. All the verified and Failing entities having Information will be shown in this Report.

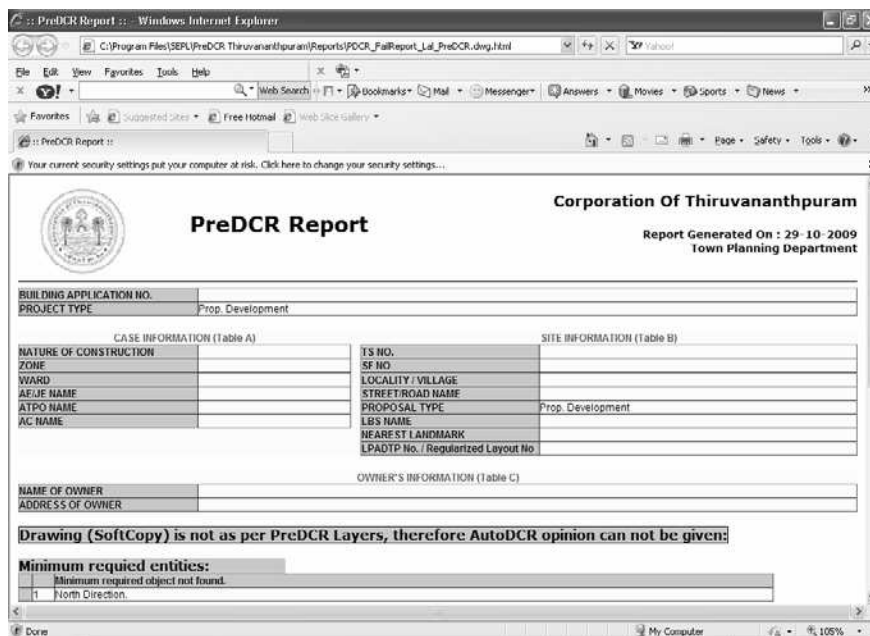


Figure 10: PreDCR Report

Use Special tools using PreDCR Menu

Mark:

Insert:

Assign Name:

Tool:

Use Mark tool using PreDCR Menu

Marking adds some extra meaning in entity. Following commands are provided to mark different entities as per requirement.

Floor in Section:

Staircase:

FAR:

CarpetArea:

Balcony:

Projection:

Main Road:

Road Widenings:

Existing Work:

Existing Structure:

AccessoryUse:

OtherDetail:

Margin:

- **Floor Section:**
 - **Floor to be demolished:** Mark Section floor as Floor to be Demolished when required.
- **Staircase:**
 - **Fire Escape Staircase:** Mark staircase as Fire Escape Staircase
 - **Spiral Staircase:** Mark Staircase as Spiral Staircase
 - **Marking to be provided in each Staircase**
 - **Intermediate Landing (PDCRMIL):** Mark Intermediate Floor Landing Width (Open Poly) inside staircase as Intermediate Landing.
 - **Flight Width (PDCRMFW):** Mark Flight width (Open Poly) inside staircase as Flight Width.
 - **Floor Landing (PDCRMFL):** Mark Floor Landing width (Open Poly) inside staircase as Floor Landing.

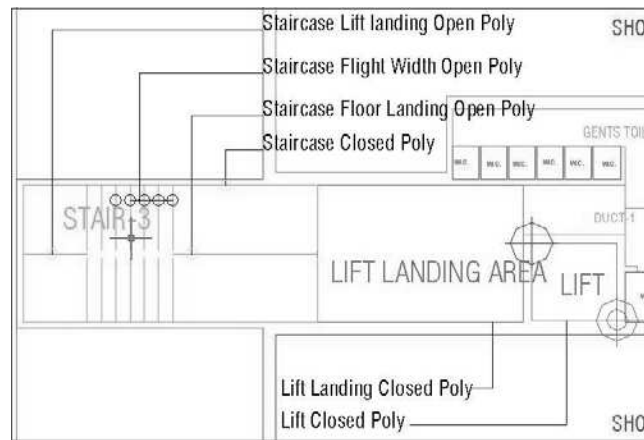


Figure 11: Staircase & Lift markings

- **FAR:**

- **FAR-> Free FAR@ Basement Area:** Mark FAR as free FAR at Basement Floor.
- **FAR-> Existing FAR:** Mark FAR as Existing FAR in case of Addition/Alteration
- **FAR-> FAR to be Demolished:** Mark FAR as FAR to be Demolished in case of Demolition and Construction.
- **FAR-> Normal (Default):** Use this marking to unmark above listed FAR

- **Carpet Area:**

- **Spited Tenement:** Mark more than one Ind.Unit for Splitted Tenement. i.e. When Tenement is having more than one Ind.Unit Poly e.g. Bungalow, Double Floor Flat.
- **Normal (PDCRMNT):** Mark Ind.Unit as individual tenement (Default)

- **Balcony:**

- **Service Verandah:** Mark Balcony as Service Verandah
- **Normal (Default) :** Use this marking to unmark above marking

- **Projection:**

- **F.Bed :** Mark Architectural Projection as Flower Bed
- **Weather Shed:** Mark Architectural Projection as Weather Shed
- **Loft:** Mark Architectural Projection as Loft
- **Cantilever Portico:** Mark Architectural Projection as Cantilever Portico
- **Otta:** Mark Architectural Projection as Otta
- **Arch. Projection:** Mark Architectural Projection as Arch. Projection

(Note: Even though any Projection is considered in FAR Area, Each Projection (except Loft) must be drawn outside & overlapped with the FAR Poly at Floor Lvl or with PWork at Layout Lvl and each Arch. Projection must be marked through PreDCR Mark>Projection Option)

- **MainRoad:**

- **Street Length [Cul-De-Sac] not exceeding 75 mt:** Mark Main Road when its having Street Length [Cul-De-Sac] not exceeding 75 mt
- **Street Length [Cul-De-Sac] from 75 mt to 150 mt:** Mark Main Road when its having Street Length [Cul-De-Sac] from 75 mt to 150 mt.
- **Street Length [Cul-De-Sac] from 150 mt to 250 mt:** Mark Main Road when its having Street Length [Cul-De-Sac] from 150 mt to 250 mt.
- **Street Length [Cul-De-Sac] exceeding 250 mt:** Mark Main Road when its having Street Length [Cul-De-Sac] exceeding 250 mt.

- **Road Widening:**

- **Surrendered Free of Cost:** Mark RoadWidening poly as Surrendered Free of Cost when RoadWidening area is considered for calculationg the Permissible FAR Area/Coverage area

- **Existing Work:**

This command is used to mark the part of Building as an Existing work.

When Any Existing Bldg detail is provided, draw each entity on PreDCR Layer and mark each of them as "Existing Work"

- **Existing Structure:**

- **To be demolished** (PDCRMREXWD): Mark an Existing work which is to be demolished as "To be demolished".
- **To be retained** (PDCRMREXWR): Mark an Existing work as to be Considered for calculation without any corresponding Bldg Detail as "To be retained"

- **AccessoryUse:**

- **Electric Room:** Mark Accessory Use Poly as Electric Room
- **Transformer:** Mark Accessory Use Poly as Transformer
- **WatchMan Cabin/Security Room:** Mark Accessory Use Poly as Watchman cabin or Security Room
- **Servant Quarter :** Mark Accessory Use Poly as Servant Quarter
- **Garage:** Mark Accessory Use Poly as Garage
- **Rain Water Harvesting:** Mark Accessory Use Poly as Rain Water Harvesting
- **Motor Room:** Mark Accessory Use Poly as Motor Room
- **A C Plant Room:** Mark Accessory Use Poly as AC Plant Room
- **Lumber Room:** Mark Accessory Use Poly as Lumber Room
- **Lavatory:** Mark Accessory Use Poly as Lavatory
- **Generator Room:** Mark Accessory Use Poly as Generator Room
- **Garbage:** Mark Accessory Use Poly as Garbage
- **Sheds:** Mark Accessory Use Poly as Sheds
- **StoreHouse:** Mark Accessory Use Poly as Store House
- **Toilet:** Mark Accessory Use Poly as Toilet
- **BathRoom:** Mark Accessory Use Poly as Bath Room
- **Accessory Bldg/Accessory Shed:** Mark Accessory Use Poly as Accessory Bldg/Shed

- **Other Details:**

- **Elevation:** Mark closed Polyline around Elevation Detail
- **Site Plan:** Mark closed Polyline around Site Plan
- **Location Plan:** Mark closed Polyline around Location Plan
- **Septic Tank Detail:** Mark closed Polyline around Septic Tank Detail
- **Rain Water Tank Storage Detail:** Mark closed Polyline around Rain Water Tank Storage Detail
- **Certificate:** Mark closed Polyline around Certificate

Note: User has to make one Boundary around the details as above and any other which details are need to be taken in final Printing and which are not used while PreDCR Conversion.

- **Margin:**

Refer [Mark Margin Tool](#)

Use Insert tool using PreDCR Menu

Following commands are provided to insert various blocks/Text in your drawing.

Parking:

Door:

Window:

Sanitation Text:

Direction Reference Circle:

- **Parking:**

- **Car:** Insert Car Parking Unit
- **Two Wheeler:** Insert Two Wheeler Parking Unit
- **Cycle:** Insert Cycle Parking Unit
- **Transport Vehicle :** Insert Transport Vehicle Parking Unit
- **Loading/UnLoading:** Insert Loading/UnLoading Vehicle Parking Unit

- **Door:**

- **Door (PDCRIDRNAM):** Use this command to insert Door Poly at specific point. Door must be overlapped with Room at one side

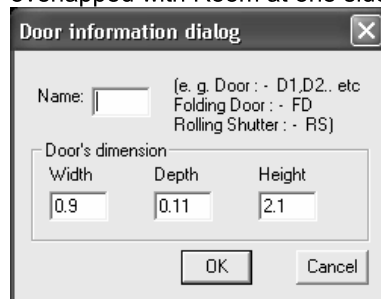


Figure 12: Insert Door

Give Door Name and Dimension as per drawing. Door Poly with Text will be inserted in drawing.

- **Window:**

- **Window (PDCRIWNDNAM):** Use this command to insert Window Poly at specific. Window must be overlapped with Room at one side & at other side with the Entity from which Room is getting ventilation



Figure 13: Insert Window

Give Window Name and Dimension as per drawing. Window Poly with Text will be inserted in drawing. Ventilation taken from Slab/Top must be named as SkyLight

- **Sanitation Text:**

- **Urinals:** Use this command to insert Text for Urinals for Sanitation for any Use except Residential Use.
- **Water Closet:** Use this command to insert Text for WC used for Sanitation for any Use except Residential Use.

- **Wash Basin:** Use this command to insert Text for WB used for Sanitation for any Use except Residential Use.
- **Bath:** Use this command to insert Text for Bath for any Use except Residential Use.
- **Direction Reference Circle:**
 - **Direction Ref Point :** Use this command to insert Direction Ref Point (Orientation) inside Floor and PropWork.
- **North Direction:**
 - **North Direction:** Insert North Direction in Drawing

Use Assign Name tool using PreDCR Menu

Building and Prop.Work:

Room:

Floor Name:

Professional Office:

- **Building and Prop.Work:**
 - **Building and PropWork (PDCRBLDPWNL):** Use this command to assign the names to Building and its corresponding PropWork at Layout.

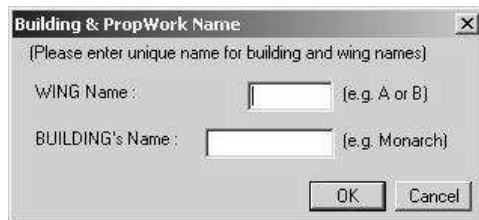


Figure 14: Assign Building & Pwork Name

Note: Each Bldg & PWork(BUA in Layout) entity name must be assigned through PreDCR.

- **Room:**
 - Use this command to assign names to Different Room

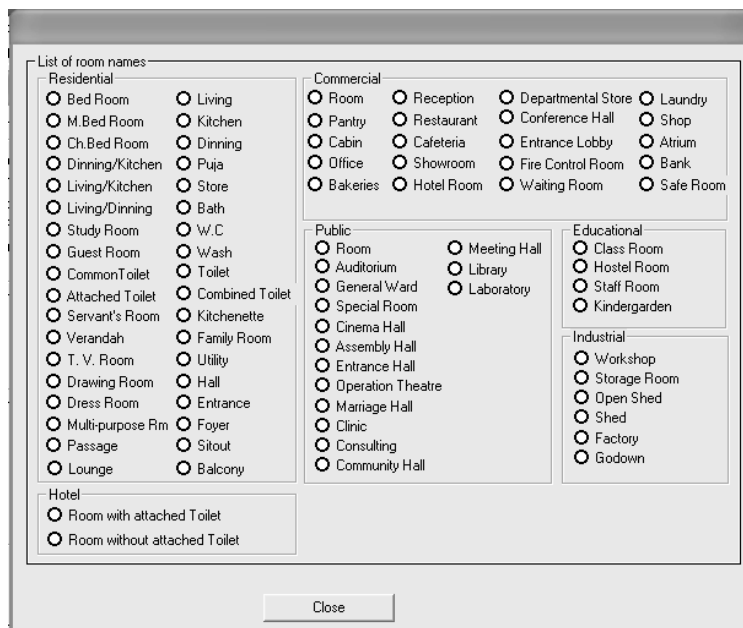


Figure 15: Assign Room Name

- **Floor Name:**

- Use this command to assign names to Floor and it's corresponding SectionFloors.

As soon as you use this command the following Dialog Box appears. Now select particular floor name which you want to assign.



Figure 16: Assign Floor Name

- Each Floor-SectionFloor name must be assigned through Assign Name>Floor Tool.
- Each Floor & SectionFloor must be having same Floor name without any Spelling Mistake
- Typical Floor Name must be assign by using Comma, Hyphen and & through Assign Name>Floor

- **Professional Office:**

Use this command to assign name to Room as Professional Office

Use other tool using PreDCR Menu

- **Give Unique no. to Parking (PDCRPKN):** This command is used to give unique numbers to different Parking Poly
- **Shortest distance (PDCRFSD):**
This command will find the shortest distance between two entities.
- **Show Only PreDCR Layers:**
 - **All PreDCR layers (PDCRSPL):**
This command will turn off all the layers in the drawing except PreDCR layers.
 - b. Building level layer (PDCRSBL):**
This command will turn on all the building plan level PreDCR layers in the drawing.
 - c. Layout level layer (PDCRSLL):** This command will turn on all the Layout plan level PreDCR layers in the drawing.
- **Show Only DCR Layers (PDCRSDL):**
This command will turn off all the layers in the drawing except DCR layers.
- **Show Only Other Layers (PDCRSOL):**
This command will turn off all the DCR and PreDCR layers in the drawing.
- **Show All layers (PDCRSAL);**
This command will turn on all layers in the drawing.
- **Show Objection List:**
This command will show you Objection List. Refer [Show Objection List](#)
- **Calculate Total Area (PDCRCTA):**
This command will compute the total area of all selected closed polygons.
- **Calculate Deducted Area (PDCRCDA):**
This command will compute the area of closed polygon after deducting closed polygons found inside.

- **Get All Inside Poly (PDCRFIP):**
This command will highlight all polygons, which found exactly inside selected polygon under test.
- **Get All Overlapping Poly (PDCRGOP):**
This command will highlight all polygons, which are overlapping with selected polygon under test.
- **Get All Intersecting Poly (PDCRGIP):**
This command will highlight all polygons, which are intersecting with selected polygon under test.
- **Find Open Entities (PDCRFNDO):** Highlight open entities on PreDCR layers
- **Find Closed Entities (PDCRFNDC):** Highlight closed entities on PreDCR layer.
- **Shortest distance (PDCRFSD):**
This command will find the shortest distance between two entities.
- **Spelling check (_spell):** This tool is used for spelling checking.
- **Find Object (PDCRFOBJ):** This command zoom & highlight object of a given handle.

Instructions:

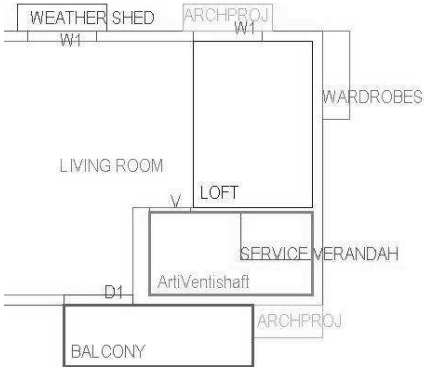
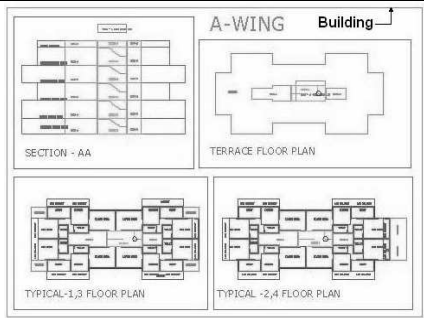

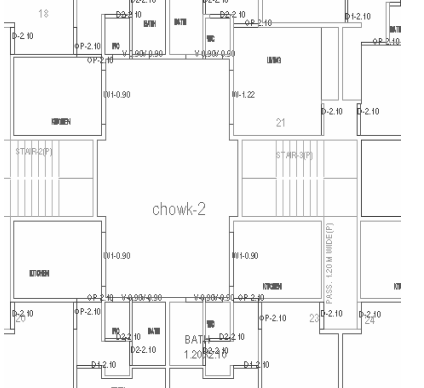
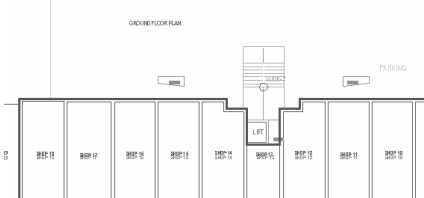
The following are some modifications & basic Instructions to be followed while making the drawing in PreDCR format.

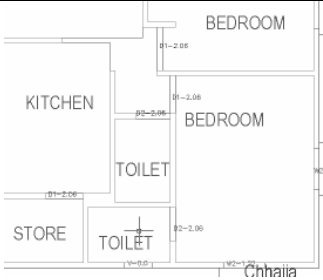
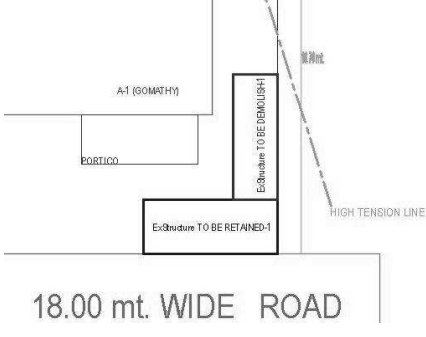
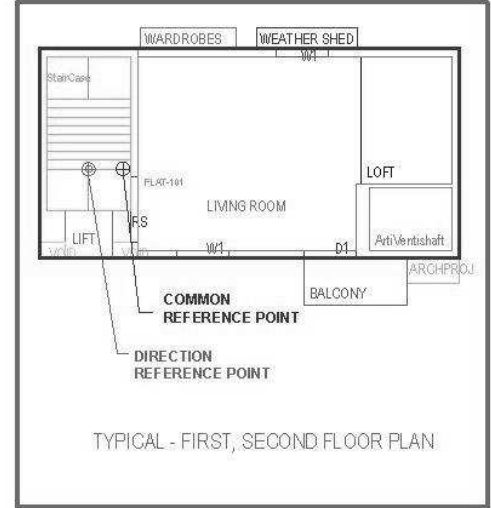
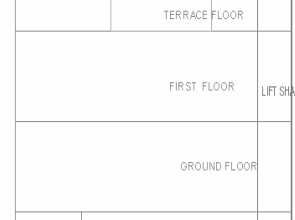

- FAR Area used for Residential purpose only should be drawn on **_ResiFAR layer**
- FSI Area used for Commercial purpose only should be drawn on **_CommFAR layer**
- FSI Area used for Industrial purpose only should be drawn on **_IndFAR layer**
- FSI Area used for any other purpose should be drawn on **_SpecialUseFAR layer**
- Reference Blocks on **_ResiFAR, _Floor**, layers shall be inserted from PreDCR Insert tool instead of Making Circles on such Layers.
- Plot layout Plan, Detailed floor plan and building section for all Buildings should be there in one AutoCAD drawing file & must be in 1:1 Scale
- If in Layout plan two Mirror Proposed work are provided, user has to provide two separate building details for both Mirror-Proposed work.
- Each side of the Plot must be marked by Mark Margin tool.
- Each Reference Blocks on **_ResiFAR & _Floor** Layer must be located at same place on each Floor & corresponding PWork
- Parking below Building must be drawn inside Building & Parking provided at any Open space in Layout Plan must be drawn at Plot.
- Each Floor-Section Floor & Bldg-Pwork Name must be assigned by PreDCR Assign Name tool only.
- Each Internal Road must be drawn as an Individual IntRoad Poly having Centre Line inside.
- Stair cabin detail must be drawn at Terrace Floor Plan only.
- No FAR should be drawn at Basement/Cellar Floor, if Such Basement/Cellar Floor is to be used for parking purpose only.
- No FAR or Hollow Plinth should be drawn at Ground floor, if Such Floor is to be used for parking purpose only.
- Two Separate floor having individual Section Floor shall be provided for Ground Floor having partly FAR & partly Hollow Plinth/Parking area & should be names as "Ground Floor Plan" & "Hollow Plinth/Parking Floor Plan" respectively
- Development for each Plot should be proposed in Separate drawing file only.
- Drawing for Development, Land Division, Amalgamation Proposals for same Project must be provided in Separate drawing file.

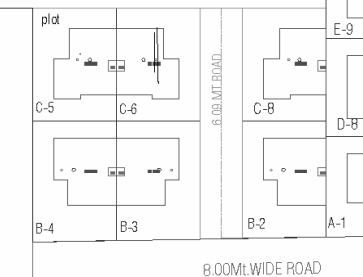

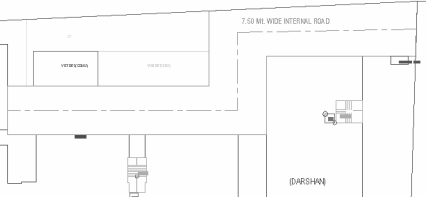
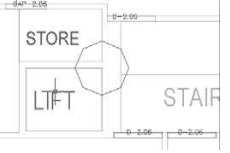
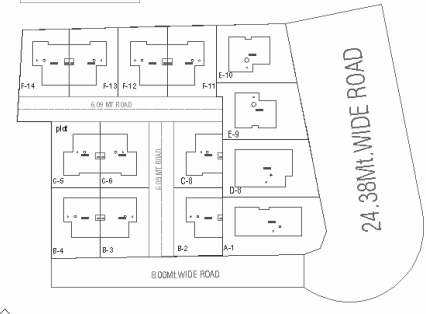
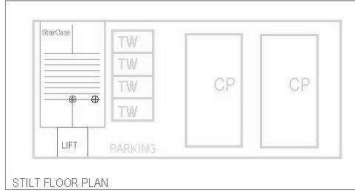
How To Draw As per AutoDCR requirement

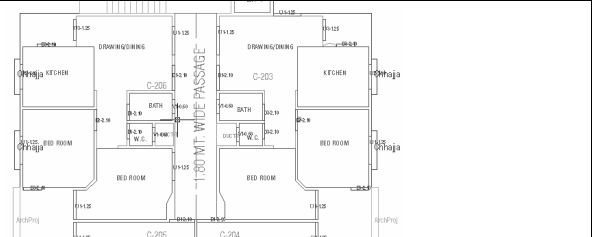
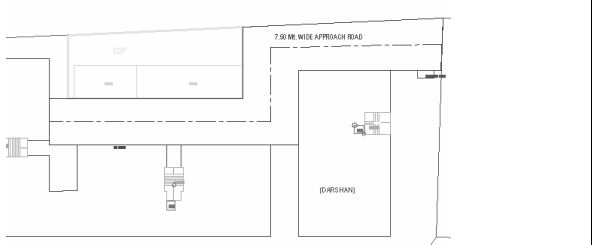

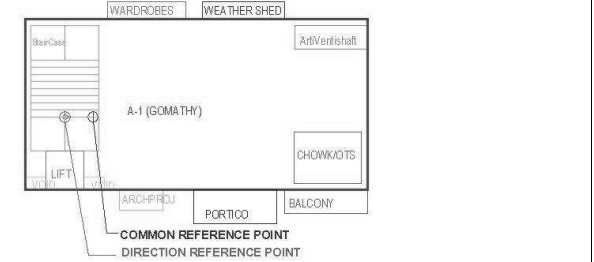

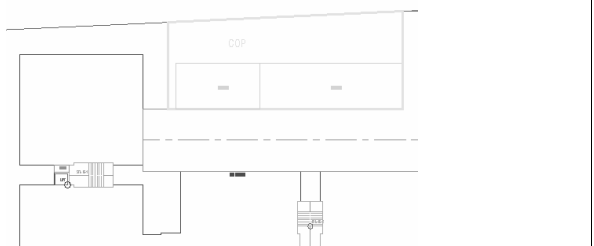
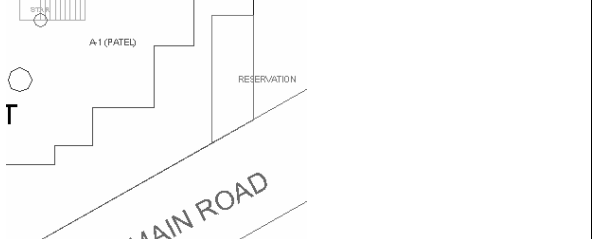
(Note : Main Entity Color must be ByLayer color , Where SubEntity on the same Layer would be having a different color)

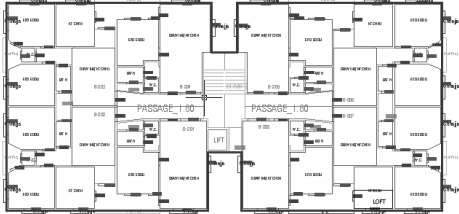
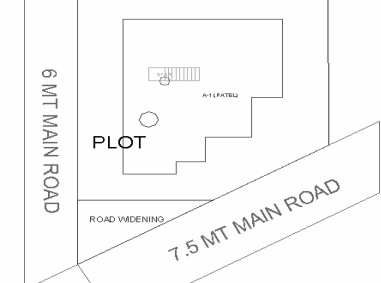

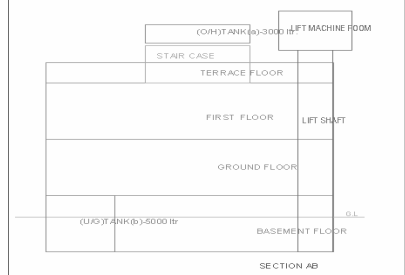
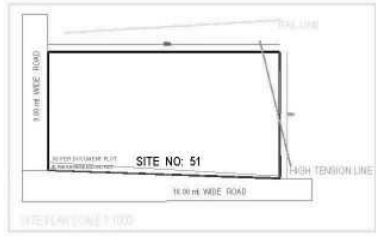

For Proposed Development Proposal:

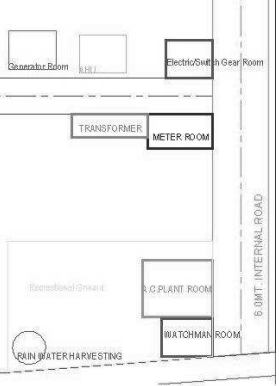
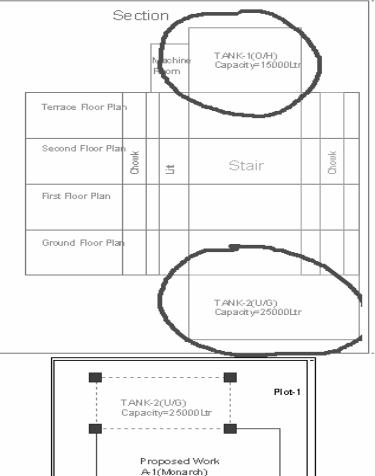
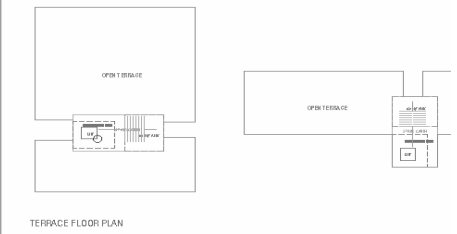
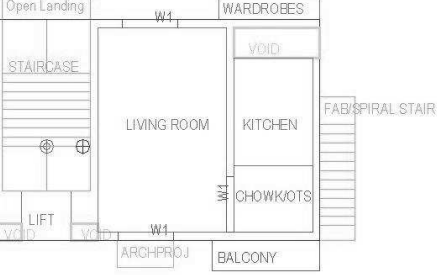
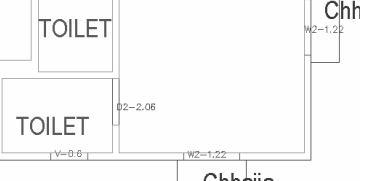
Layer name	Description	Naming Convention	
_Amenity	Draw amenity Space as closed polyline with Single Text/Mtext inside it on same layer.		
_ArchProj :	Draw Architectural Projections such as Weather shed		
_AirShaft	Draw a closed poly with Text for Artificial Ventilation Shaft or Duct.		
_Balcony • Service Verandah	Draw Each individual Balcony as closed Polyline with Text on same layer. • Service Verandah can be Marked by using Tool "Mark>Balcony> Service Verandah "		
_Building	Building poly is used to group all floor plans and sections of the same Building.(This is just a logical Group of Building). (Area or size of Building Poly doesn't have any meaning in AutoDCR)	Naming Convention Should be Provided A(Bldg.Name) inside Bldg. Poly	
_Carpet Area	A Closed poly with Text on this layer represents a Builtup Area or Tenement Area. (It should cover total area of one Tenement) In case of Bungalow(Splited Tenement) give same text to all carpet poly inside one Bldg.		
_OTS	Draw OTS area as a closed Polyline with Text on _OTS Layer.		
_CommFAR • Free FAR @Basement • Existing FAR	Draw a closed FAR PolyLine, which is used as a Commercial Purpose. (Line type of Existing FAR poly should be ACAD_IS102W100)		
_CompoundWall	Closed polyline of compound wall to be drawn on this layer overlapping plot.	0.0m. high compound wall.	

<p>_Door</p>	<p>Door shall be drawn as a closed polyline with Text. Door Height should be given in Text as described here. (Text's Insertion Point must be Inside Poly)</p>	<p>D-2.10 D1-2.10 FD-2.40 RS-2.50</p>	
<p>_Electricline</p>	<p>Electric line shall be drawn as open Polyline with Text whose insertion Point lies on the Polyline. (Note : High or Low Voltage capacity must be written at a starting of Text)</p>	<p>High Tension Line</p>	
<p>_ExStructure :</p> <ul style="list-style-type: none"> Exist.work To be Demolished Exist.work To be Retained 	<p>Draw an Existing work as a closed Polyline with Text inside it.</p>		
<p>_Floor</p>	<p>Floor poly should be drawn as a closed Polyline with Text on same Layer. This is just a logical Group of all floor Entities.</p> <p>Common Reference Point Draw a circle on _ResiFAR layer inside each floor poly at the same point. You can draw it on common areas of the bldg. such as lobby, staircase, lift etc.</p> <p>Direction Reference Point Draw a circle on _Floor layer inside each floor poly at the same point. You can draw it on common areas of the bldg. such as lobby, staircase, lift etc.</p> <p>Note: Common Reference point & Direction Reference point must be inside Each Floor at same location</p> <p>Floor Name: Floor Plan will be automatically link with Section by matching the Floor Name. If the Floor is Typical Floor, It should be Named with Proper Naming convention.</p> <p>Naming Convention for Floors</p> <ul style="list-style-type: none"> Normal Floor: X Floor Plan Typical Floor: TYPICAL-X,Y & Z FLOOR PLAN <p>Note:</p> <ul style="list-style-type: none"> X represents the Floor Name or No. e.g. First or 1st Typical Floor Name should be provided by using Hyphen(-), Comma (,) and (&) in proper manner. Each Floor Plan must be having a corresponding Section Floor. 	<p>Naming Convention will be Provided as per shown in Description</p>	
<p>_FloorInSection</p>	<p>Section floor poly will represent each floor section with its name inside SectionFloor : Floor Plan will be automatically link with SectionFloor by matching the Floor Name. If the FloorPlan is Typical Floor Plan, It should be Named with Proper Naming Convention.</p>	<p>Inside SectionFloor: SECOND FLOOR, THIRD FLOOR, GROUND FLOOR.</p>	
<p>_GroundLevel and _Strret Level</p>	<p>The Ground level and Strret Level line should be drawn as an open polyline in the section poly.</p>		

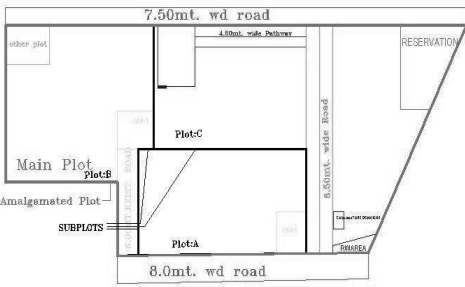
<p>_IndFAR</p> <ul style="list-style-type: none"> • Free FAR @Basement • Existing FAR 	<p>Draw a closed FAR Polyline, which is used as a Industrial Purpose.</p> <p><i>(Line type of Existing FAR poly should be ACAD_IS102W100)</i></p>		
<p>_IndivSubPlot</p>	<p>For plotting layout draw individual subplots on '_indivsubplot' layer inside main plot which will be on '_Plot' layer.</p>		
<p>_IntDPRoad</p>	<p>Draw an Existing/Proposed DP Road as a closed Polyline with text inside it. (Note: Road width must be written at a starting of Text)</p>	<p>12.50 m wd. Existing Road</p>	
<p>_InternalRoad</p>	<p>Draw Each Internal Road as a Closed Polyline with Centre Line (LType-CentreLine) & Single Text inside each. <i>(Road Width should come first in Text.)</i></p>	<p>7.50 mt. wd. Internal Road</p>	
<p>_Lift</p>	<p>A closed polyline on the inner dimensions of the lift should be drawn on this layer with Text. Lift. Machine Room shall be also drawn in same Layer with Text "Machine Room"(In Dashed line-line type) At terrace Floor & draw corresponding Machine room at Section</p>		
<p>_MainRoad</p>	<p>Draw Each Main Road (Abutting the Plot) as a Closed Polyline with Single Text inside each. <i>(Road Width should come first in Text) (Building Line of Road can be mark by Mark>Bldg.Line tool)</i></p>	<p>12.00 mt. wd. Main Road</p>	
<p>_Marginline</p>	<p>Margin Polyline will be created by System <i>(User need not do anything on this layer.)</i></p>		
<p>_NETPLOT</p>	<p>Netplot area is a Net area after Deduction of RoadWidening/Reservation From Gross Plot area</p>		
<p>_NotInProposal</p>	<p>Plot area which is not in possession or which is not in proposal to be drawn as a closed polyline on this layer.</p>		
<p>_Parking</p>	<p>Draw a closed Polyline for Parkings on "_Parking" Layer. You can also use Insert tool to insert Parking Poly in your drawing. Car Parking-CP, Two-Wheeler Parking-TW, Transport vehicle-TV</p>		

<p>_Passage</p>	<p>Draw Passage as a Closed Polyline with Centre Line (Ltype-CentreLine) & Single Text inside each.</p>	<p>Text should be start with width of Passage Ex.- 1.80mt. wide Passage</p>	
<p>_AccessRoad</p>	<p>Draw Approach road or AccessRoad as a Closed Polyline with Centre PLine (Ltype-CentreLine) & Single Text.</p>	<p>Text should be start with width of AccessRoad Ex.- 1.50mt. wide AccessRoad</p>	
<p>_Plot</p>	<p>Draw Plot as a closed Polyline with Text inside it. At Layout Plan & Key Plan</p>		
<p>_PropWork</p>	<p>Prop.work is a Built up area(Max.Coverage Area) For Each Building. Draw Prop.work as a closed Polyline with Text inside it. At Layout Plan Note: Common Reference point & Direction Reference point must be inside Prop.Work</p>	<p>Naming Convention Should be Provided A(Bldg.Name) inside Bldg. Poly & A-1(Bldg.Name) Inside Prop.Work Poly</p>	
<p>_RailLine</p>	<p>Railway line shall be drawn in the layout plan as a Open Poly (Ltype-CentreLine) & Text which insertion point lies on the Polyline. (Note: Railway Gauge must be written at a starting of Text)</p>	<p>XXX Metre Gauge Railway Line</p>	
<p>_Ramp</p>	<p>Draw a Ramp as a closed polyline with CentreLine (L-type-entreLine) & Text inside it in Plan. Draw RampSection as a closed polyline with Text same as in Plan.</p>	<p>At starting of ramp name you mention ramp Length n Height Ex.- 30.0mt. Long 1.80mt. High Ramp</p>	
<p>_RecreationalGnd</p>	<p>Draw a closed polyline on "_RecreationalGnd" Layer to represent reserved as recreational space.</p>		
<p>_ReservArea</p>	<p>If there is any Reservation Area in Plot, Reservation Area should be drawn as a closed Polyline with Text inside same Layer.</p>		

<p>_ResiFAR</p> <ul style="list-style-type: none"> Free FAR @Basement Existing FAR 	<p>A Closed poly with Text on this layer represents a Residential FAR or Floor FAR. It will cover whole area which is considered in FAR Area per Floor. <i>(Line type of Existing FAR poly should be ACAD_ISI02W100)</i></p>		
<p>_RoadWidening</p> <ul style="list-style-type: none"> Surrendered Free of Cost 	<p>A closed polyline with Text around the RoadWidening area should be drawn on same Layer. Margin will be generated & checked from Roadwidening Poly by AutoDCR If Roadwidening area is marked as Surrendered Free of Cost</p>		
<p>_Room</p>	<p>A closed polyline for each room with its text inside should be drawn on this layer.</p>		
<p>_Section</p>	<p>Section poly should be drawn as a closed Polyline with Text on same Layer. It is used to group all Sectional detail like Floor Sections, Plinth, Staircabin, Lift ,machine Room etc. This is just a logical Group of Sectional Entity. <i>(Note: Area or size of Floor does't have any meaning in AutoDCR)</i></p>		
<p>_SitePlan</p>	<p>The encapsulating poly around the Site/Key Plan with the Text & Scale inside it. (Note: Scale should be written as described. Scale:1:500)</p>		
<p>_SpecialUseFAR</p> <ul style="list-style-type: none"> Free FAR @Basement Existing FAR 	<p>FAR poly for all other building uses like educational, institutional etc. except resi.,comm. industrial use should be drawn on this layer. <i>(Line type of Existing FAR poly should be ACAD_ISI02W100)</i></p>		
<p>_StairCase</p> <ul style="list-style-type: none"> Intermediate landing Flight Width Floor Landing 	<p>Total Staircase area should be drawn as a closed polyline with text inside it. This Main Stair Poly should contain Intermediate Landing as well as Floor Landing area inside. <i>(Intermediate Landing & Floor Landing Poly color should be as described)</i></p>	<p>Give Proper Naming convention for other staircase like Open staircase, Open Landing, Fabricated/spiral staircase</p>	

<p>_AccessoryUse:</p> <ul style="list-style-type: none"> • Elect.room • Transformer • Watchman cabin/ SecurityRoom • Servant Quarters • Garage • Rain water Harvesting • Motor room • A C Plant Room • Meter Room • Septic Tank • Sewage Treatment Plant • Lumber Room • Gate Pillar • Lavatory • Pebble Bed • Solar Heating System • Gymnasium • Generator Room • AHU • Electric/Switch Gear Room • Letter Box Room 	<p>AccessoryUses which are allowed in Margins or Layout & Free from FAR should be drawn as a closed polyline with text inside it.</p> <p>(Each AccessoryUse should be drawn As per described Colour)</p>		
<p>_Tank</p>	<p>Tank clear size should be drawn as a closed Polyline with Text on this Layer in Floor Plan/Layout Plan as well as Section with same Text.</p> <p>(Note: Tank No. & Capacity should be written in Text)</p> <p>For Overhead tank-</p> <p>(O/H)Tank(1)-5000Ltr. (* 1 is tank No.)</p> <p>For Underground tank-</p> <p>(U/G)Tank(1)-5000Ltr. (* 1 is tank No.)</p>	<p>Naming Convention will be Provided as per shown in Description</p>	
<p>_Terrace</p>	<p>Terrace should be drawn as a closed Polyline with Text on same Layer.</p>		
<p>_Void</p>	<p>Void should be Draw as Closed Poly with Text inside in same layer</p>		
<p>_WaterBodies</p>	<p>Water body should be Drawn in Close poly with text inside</p>		
<p>_WaterLine</p>	<p>Waterline shall be Drawn As open poly on this Layer</p>		
<p>_Window</p>	<p>Draw Closed Poly & insert Text in same Layer with window ht.</p>	<p>W-1.20,W1-0.90,V-0.60</p>	

For Land Division Proposal :

Layer name	Layer Colour	Description	Naming Convention	
_Reconstitution	ByLayer:33	<p>For Reconstitution Proposal, Draw resulting Plot as a closed Polyline having Text/MText on _Reconstitution Layer</p> <p>Draw All Plots inside Reconstitution poly</p>		
_SubDivision	By Layer:100	<p>For Land Division Proposal, Draw each SubPlot (Subdivided Plot) as a Closed Polyline having Text/Mtext on _SubDivision layer</p> <p>Draw All Subplots inside Plot poly</p>		