

Plot data required to produce a naksha (house plan)

A practical intake sheet. Section 1 is what governs the drawing; section 2 is exactly what PLOTVA asks for; section 3 is a form you can print and give to a client; section 4 explains what the program does with each answer. 28 October 2026

1 · The six groups of information

Group	Why the designer cannot proceed without it
A. Plot geometry	Width and depth fix the buildable rectangle. Without both, plus any cut corners or an irregular shape, no setback line and no room grid can be set out.
B. Access & orientation	Which side the road is on decides the entrance, the gate, the porch and the staircase position; north direction decides daylight, Vastu compliance and sun-facing walls.
C. Bylaws & authority	Front / rear / side setbacks, ground coverage, FAR, height limit and the approving authority (CDA, LDA, RDA, TMA, cantonment board, housing society) decide how much of the plot may actually be built.
D. Programme	How many floors, bedrooms, baths, kitchens, drawing/dining, study, servant, store, cars, lift — this is the space brief the plan must satisfy.
E. Site & ground	Soil type, water table, slope, seismic zone and wind decide the foundation type and the structural system.
F. Deliverables & approvals	Submission drawings, BOQ, bar-bending schedule, 3-D view, DWG/DXF for consultants — this decides the output set, not the layout.

2 · The complete data list

Items marked ● are mandatory — the design cannot be generated without them. Items marked ■ change the result but have a sane default.

#	Detail	Req	Unit / format	What it decides
A. Plot geometry				
A1	Plot width (frontage)	●	ft-in or m	Room grid across the plot; car porch width; number of bays
A2	Plot depth (length)	●	ft-in or m	Number of rooms front-to-back; rear open space; staircase zone
A3	Plot area	●	sq ft / sq yd / marla / kanal	Coverage and FAR calculation
A4	Plot shape	opt	rectangle / irregular / corner-cut	Whether the setback offsets stay parallel to the boundary
A5	Corner or through plot	opt	yes / no	Second access point, extra openings, corner-window design
A6	Levels / slope of ground	opt	flat / slope %, level difference	Plinth height, steps, retaining walls, cut-and-fill
B. Access & orientation				
B1	Road side(s) and road width	●	front / left / right / rear; ft	Entrance side, gate position, parking, fire access
B2	North direction on the plot	●	N / NE / E ... or degrees	Daylight, Vastu, sun-facing walls, window sizes
B3	Facing of the house	●	N / S / E / W / NE / NW / SE / SW	Facade treatment, kitchen and stair placement
B4	Neighbouring structures / heights	opt	storeys on each side	Window placement, privacy screens, light wells
C. Bylaws & authority				
C1	City and approving authority	●	e.g. Rawalpindi — RDA / CDA / TMA / society	Which bye-law set is applied
C2	Front setback	●	ft	Buildable line; porch depth
C3	Rear setback	●	ft	Rear ventilation, services, septic/soakage
C4	Left / right setbacks	●	ft each	Side ventilation, stair light, fire access
C5	Maximum ground coverage	opt	%	Footprint limit
C6	Allowed floors / height limit	●	G+1, G+2 ...; ft	Vertical circulation, structure, staircase count
C7	Basement allowed?	opt	yes / no; use (parking, store, servant)	Basement walls, ramp, waterproofing, extra stairs

#	Detail	Req	Unit / format	What it decides
C8	FAR / covered area allowed	opt	ratio or sq ft	Maximum total covered area per floor
D. Programme (space brief)				
D1	Building type	●	residential / commercial / mixed / farmhouse	Room set, entrance, services
D2	Number of floors	●	1 ... 6	Plan repetition, stair flights, structure
D3	Bedrooms	●	count + sizes	Bedroom block, attached baths, wardrobes
D4	Bathrooms	●	count, attached / common	Wet-core stacking, plumbing shafts, drainage
D5	Kitchen, drawing, dining, lounge	●	count / sizes	Service core and guest zone
D6	Study, puja, servant, store, laundry	opt	count	Small-room allocation
D7	Car porch / parking	●	cars, covered or open	Front zone depth, gate width, driveway
D8	Lift required?	opt	yes / no	Core size, structural opening
D9	Stair preference	opt	straight / L / U / dog-leg; position	Circulation core and headroom
E. Site & ground conditions				
E1	Soil type	●	sandy / clayey / silty / rocky / fill	Foundation type and bearing capacity assumption
E2	Water table depth	opt	ft	Basement feasibility, waterproofing, dewatering
E3	Seismic zone	●	BCP-2021 zone 1–4 (or ASCE SDC)	Detailing, ties, confinement, member sizes
E4	Wind / snow / rainfall	opt	basic wind speed, snow load	Roof design, lateral bracing
F. Structure & services				
F1	Structural system	●	RCC frame / load-bearing / steel	Columns, beams, slab thickness, drawings produced
F2	Concrete and steel grade	opt	e.g. C25/30 · Fe500	Member capacities in the audit
F3	MEP level	opt	basic / full	Electrical, plumbing, HVAC layouts and legends
F4	Water supply and drainage	opt	tank capacity, septic / sewer line	Overhead tank position, shafts
F5	Solar / backup / AC provisions	opt	yes / no	Roof loading, conduit routes
G. Style, deliverable, legal				
G1	Architectural style	opt	classic / modern / contemporary	Facade, openings, roof form
G2	Vastu required?	opt	yes / no / strict	Room and entrance orientation rules
G3	Gate and porch style	opt	style, alignment	Front facade and boundary wall
G4	Deliverable set	●	plan / full set / BOQ / BBS / 3-D / DWG-DXF	Which of the 17 exports are produced
G5	Client name, project title, sheet size	opt	text · A4 (fixed)	Title block on every sheet
G6	Approval submission required?	opt	authority name	Standards register and drawing register content

3 · Client intake form — print this and fill it in

Hand this page to the client. Filled correctly, it is enough to produce the first full design without going back to the site.

Project / client name		Date	
Plot address / society		City	
Approving authority		Plot no. / block	
Plot width (front)	____ ft ____ in	Plot depth	____ ft ____ in
Plot area	____ sq ft / ____ marla	Corner plot?	Yes No
Road side(s)	Front Left Right Rear	Road width	____ ft
North direction	N NE E SE S SW W NW	House facing	_____
Setbacks (front / rear / left / right)	____ / ____ / ____ / ____ ft	Coverage allowed	____ %
Floors allowed	G+ _____	Basement	Yes No Use: _____
Bedrooms	_____	Bathrooms	_____ attached: _____
Kitchen / drawing / dining	____ / ____ / ____	Study, puja, store, servant	____ / ____ / ____ / ____
Cars / porch	_____ cars	Lift	Yes No
Structural system	RCC Load-bearing Steel	Concrete / steel grade	____ / ____
Soil type	Sandy Clayey Silty Rocky Fill	Water table	____ ft
Seismic zone (BCP-2021)	Zone _____	Vastu	No Preferred Strict
Style	Classic Modern Contemporary	Gate / porch style	_____
Deliverables	Plan Full set BOQ BBS 3-D DWG/DXF	Sheets	A4 (fixed)
Special requirements / notes			

4 · What the program does with each answer

You enter	PLOTVA computes
Width + depth + setbacks	The buildable envelope, then a structural column grid on that envelope, then the room adjacency graph — bedrooms against external walls, wet areas stacked over each other, kitchen at the service side.
Road side + facing + north	Entrance, gate, porch and stair core placement; window sizing on each exposure; Vastu-weighted room ordering (puja north-east, kitchen south-east, master bedroom south-west) when Vastu is switched on.
Authority + coverage + FAR	Which bye-law set and which entries of the 107-item standards register apply, whether the design fits the coverage limit, and the compliance column of the audit.
Floors, bedrooms, baths	Room schedule, plan per floor, staircase flights and headroom, plumbing shaft alignment, total covered area.
Soil + seismic zone + grades	Foundation type and footing schedule, member sizes, reinforcement detailing, and the member-by-member integrity report with clause references.
Structural system	Whether the output is a framed plan with columns and beams, or a load-bearing plan with pilasters and lintels — the drawing set changes accordingly.

You enter	PLOTVA computes
Deliverables	Which of the 17 exports run: A4 PDF set, DXF AC1032, DWG R12, PNG, SVG, LISP/SCR, BOQ, bar-bending schedule, standards and drawing registers, revision history, integrity report.

5 · Minimum data to start today

If the client cannot answer everything, these **eight** items are enough to produce a first full design: **plot width, plot depth, road side, north direction, number of floors, bedrooms, bathrooms, approving authority (for setbacks)**. Everything else has a documented default that can be corrected later without redrawing the whole plan — the program recalculates from the inputs, so a corrected setback or soil type simply re-runs the layout and the audit.

Rule of practice. Setbacks, coverage and height limits must always be confirmed in writing with the approving authority for that specific plot; the program applies the profile you select but cannot verify a plot's legal status. Structural output is a first-pass check and must be reviewed and stamped by a licensed engineer before construction.