



DEVELOPMENT MODEL

USER GUIDE

Using the Bluepencil Development Model

From site feasibility to detailed design, value and viability: what each level is for, what it saves you, and how to use it, step by step.

1 Overview and getting going

2 Feasibility

3 Outline

4 Detailed Design

Using the Bluepencil Development Model

One linked model takes a site from the first question, "is it worth pursuing?", to a priced, phased scheme ready for delivery. This guide shows what each level is for, what it saves you, and how to use it, step by step.

The benefits

What the Model does for you, whichever level you use.

Time saved

A first answer in 5 minutes, and a complete site in days rather than weeks. No spreadsheet to rebuild for each site.

One set of numbers

Capacity, land budget, policy, appraisal and cashflow share the same figures, so they can never disagree.

Honest about certainty

A confidence range shows how firm the figures are, and narrows as you replace defaults with evidence.

Sourced figures

Every policy figure is marked Verified or Default, and the reports print your source, so advice stands up in front of a council.

Grows with the site

Start at Feasibility and move up a level when better information arrives. Your figures carry across.

Reports ready to send

A PDF report at every level, for a client, a landowner, a board or the council.

How long it takes

Typical times with the Model, for a competent user who knows it and has the site's information to hand.

LEVEL	STARTING POINT	TIME WITH THE MODEL
Feasibility	The default figures, with only the site area, council and land price entered	5 minutes
Feasibility	With your own figures in place of the defaults	20 minutes
Outline	A complete Outline site, with the relevant policy, cost and value information to hand	1 day
Detailed Design	A complete Detailed Design site, with a masterplan and the figures carried over from Outline	1 to 2 days

Getting going

Every level works the same way. Learn these five things once.

1 Open a site from My sites

Log in at bluepencilmodel.com. **My sites** lists every site you have saved. Choose **New site** to start from the Model's worked example figures, **New blank site** to start with no site figures (at Feasibility the Model's standard figures are kept; at Outline and Detailed Design every figure starts at zero), or open a saved site by its name.

2 Start here: three things about your site

The panel at the top asks for the **gross site area**, the **local authority** and the **land price per hectare**. Everything else starts from sensible defaults. The box underneath says straight away whether the site is viable at that price, and the most it could pay for the land.

The level switch, **Feasibility** **Outline** **Detailed Design**, sits at the top right of the panel.

The Start here panel on a demonstration site.

3 The results stay on screen

The land-use donut, the confidence ring and the four headline figures (dwellings, GDV, costs and profit) stay in view as you work. Change anything and they update at once. The checklist beside the ring shows which steps would narrow the range.



4

Open one section at a time

Under the results, each part of the site is a card showing its headline figure. Click a card to open its tables beneath it, and click again (or **Close ▲**) to put them away. Long sections have a row of smaller buttons, so you see one part at a time.

Your site, section by section Open a section to see and change its figures. The results above update as you go.

SITE AND HOUSING Site overview Capacity, key figures and the checklist ±23% Open ▼	SITE AND HOUSING Housing mix 27.0 dph net · mix and density 259 homes Open ▼	SITE AND HOUSING Land budget From 14.80 ha gross to the land for homes 9.61 ha net Open ▼
OPEN LAND Landscape & Open Space Open space, play and habitat to the local standard 3.71 ha Open ▼	OPEN LAND Strategic Infrastructure None needed under 700 homes 0.00 ha Open ▼	OPEN LAND SuDS & Drainage Attenuation basins and swales 1.48 ha Open ▼
OTHER LAND USES Education No school site on this scheme — Open ▼	OTHER LAND USES Commercial No shops or workspace yet — Open ▼	OTHER LAND USES Other Uses Care homes, surgeries and other uses — Open ▼
MONEY Appraisal Clears the 17.5% target. £18.3m Open ▼		

5

Save, and save each level under its own name

Name the site in the box at the top and press **Save**. It is saved to your account and opens on any computer. A saved site is saved again automatically as you work.

Before moving up a level, type a new name in the name box, such as "Mill Lane O" after "Mill Lane F", and press **Save**. The earlier version stays saved under its old name, so each stage of your advice stays on record. **Duplicate** on My sites does the same.

Reports: **PDF report** at the top opens the report for your level. Tick the sections you want, then **Print / Save as PDF**. Print from Chrome or Edge for the best page breaks.

Feasibility: should we pursue this site?

A first look at a site before anything has been measured. Three inputs give a realistic capacity range, the land budget, a rough appraisal and a clear answer on viability at the land price being asked.

What it is for

Use Feasibility when a site first comes up and you need to know quickly whether it deserves more time and money. Nothing needs to be measured: the Model works from the site area, the council and a land price, with sensible defaults for everything else.

Typical uses

- A landowner asking what their land could be worth for housing
- A first client call or a call for sites submission
- Screening several sites to decide which to promote
- Checking whether an asking price could ever work

What you get

- A capacity range by the character of the place
- The land budget: how much of the site can be homes
- A rough appraisal and a viability verdict at your land price
- The Feasibility PDF report

The benefits

An answer in minutes

Site area, council and land price give a complete first answer. About 5 minutes on the default figures, or 20 minutes with your own.

A realistic number of homes

Capacity comes from the character of the place and real house type densities, not a rule-of-thumb figure across the whole site, which usually overstates it.

The land budget done for you

Open space to the council's standard, drainage and roads come off automatically, leaving the land that can actually be homes.

A straight answer on price

Viable or not at the price asked, and the most the scheme could pay per hectare, before anyone spends money on surveys.

How to use it

Work from the top down. The first three steps give you an answer; the rest refine it.

1 Enter the gross site area

Type the whole site inside the red line, in hectares, in step 1 of the Start here panel. It is then locked, because everything else is worked out from it. If the boundary changes, click **Locked** to unlock it.

Start here: three things about your site
Everything else starts from sensible defaults you can change in the sections below.

1 Gross site area
14.8 ha **Locked**
The whole site within the red line, including roads and open space.

2 Local authority
Colchester City Council **LOCAL FIGURES LOADED**
Change
North East Essex - Essex policy figures loaded as illustrative defaults

3 Land price
£ 100000 per hectare
£1,480,000 for 14.80 ha. Benchmark land value £32,400 per ha: existing use value plus the 20% landowner premium.

Viable at £100,000 per hectare
Profit after land £18.3m, 18.4% of GDV, against a 17.5% target. The most this scheme can pay for the land and still meet the target is about £158,000 per hectare (£2.3m in total).

2 Choose the local authority

Start typing the council's name in step 2 and pick it from the list. Essex councils load their local figures for open space and contributions. Any other English authority starts on a national baseline, and you can enter its local figures at Outline.

See the figures it uses: open **Site overview**. At the bottom, **Policy figures used** lists the six that move the answer most: affordable housing, the open space standard, Section 106, CIL, habitats contributions and biodiversity net gain. Each is marked **Default, not verified** until you check it at Outline. The same list goes in the Feasibility report.

3 Enter the land price per hectare

Type the price asked or offered in step 3; the total for the site is shown underneath. Until you enter one, the Model uses the benchmark land value: the existing use value plus a 20% landowner premium.

The box below the three steps then gives the verdict: **viable** or **not viable** at that price, the profit as a percentage of GDV against the 17.5% target, and the most the scheme could pay for the land.

4 Check the land budget

Open the **Land budget** card to see how the gross site becomes the land for homes. The Model takes out:

- **Landscape & Open Space**, to the council's standard, growing with the number of residents
- **SuDS & Drainage**, for attenuation basins and swales
- **Strategic Infrastructure**, only on schemes of 700 homes or more

Add a school, shops or a care home in the **Education** , **Commercial** or **Other Uses** cards. What is left is the Net Residential Area.

5

Choose the character of the place

Open **Site overview** and pick the character: **Rural edge**, **Village**, **Edge of settlement** or **Suburban**. The Model gives a capacity range from that character's house types, applied to this site's own Net Residential Area, and compares it with the rule of thumb.

Use **Use looser mix** or **Use tighter mix** to carry either end of the range into the housing mix.

Site overview

Close ▲

What could this site realistically accommodate?

Pick the character of the place. The density range follows from that character's house types in the Bluepencil Manual of Housing Density, applied to this site's own Net Residential Area, so the answer is a range rather than one rule-of-thumb figure.

Rural edge

18.4–20.7 dph

NMDC: Rural settlements - no density set

Village

20.4–22.5 dph

NMDC: Villages - no density set

Edge of settlement

21.0–23.3 dph

NMDC: Outer suburbs - 20–40 dph

Suburban

25.2–29.4 dph

NMDC: Suburbs - 40–60 dph

Site	14.80 ha gross	<p>INDICATIVE CAPACITY</p> <p>202–223</p> <p>dwelling, at 21.0–23.3 dph net</p> <p>Equivalent to 13.6–15.1 dph across the gross site</p> <p>Current Quick Estimate: 259 dwellings, 27.0 dph net</p> <p>Use looser mix Use tighter mix</p>
Net developable land	9.61 ha	
Net residential land	9.61 ha	
Character	Edge of settlement	
NMDC area type	Outer suburbs, 20–40 dph net	
Housing typology	Predominantly 2-storey family housing	
Indicative mix	Detached / semi-detached / terraced	
Density range	21.0–23.3 dph net	<p>14.80 ha × 35.0 dph =</p> <p>518</p> <p>Rule of thumb, gross area</p>
Indicative capacity	202–223 dwellings	<p>9.61 ha × 21.0–23.3 dph =</p> <p>202–223</p> <p>This site, this character</p>

The rule of thumb is 295 homes above the top of this site's range. It counts the open space, SuDS and roads as if homes could be built on them, and assumes a density this character's house types do not reach.

This range sits within the Code's 20–40 dph for Outer suburbs.

The rule of thumb across the gross site suggests 518 homes; this site and character support 202 to 223.

6

Adjust the housing mix

Open **Housing mix** . Move the density slider, or type the number of homes of each type by units or by percentage. Land required and the achieved density update as you go.

- **Balanced** returns the slider to the Model's balanced default density and rebuilds the mix from it.
- **Lock area** holds the Net Residential Area fixed while you test different mixes.
- **Sales value / home** shows the average price of each type. Type over it to use your own figure; it carries into Outline as the starting sales values.

Housing mix

Close

Residential

Target Units and the mix are driven by the density slider against the remainder of the site. Areas are shown to one decimal place, so a total may read a little above or below the sum of the rows behind it. Switch to Detailed Design depth for GIA, tenure split and parking against your own house type range.

9.6 ha

NET RESIDENTIAL AREA

27.1

27.0

1

DENSITY SLIDER — TARGET 27.1 DW/HA

54

NUMBER OF DWELLINGS (UNITS)

Target

Actual

259

Lock area

Balanced

Net Residential Area unlocked. Open space follows the population: every dwelling you add raises the open space requirement, and because Residential is the remainder of the site, the Net Residential Area falls a little as unit numbers go up. Lock it to hold the open space at its current 3.7 ha and test mixes against a fixed residential area. Changes on other tabs still flow through either way.

Housing Mix, Area & Density

Reset

Edit the mix per typology by units or by percentage — the two stay in sync. Density is fixed per typology; land required and overall density update as you go, checked against the Net Residential Area above.

Target density 27.1 dw/ha. Achieved density 27.0 dw/ha: 259 dwellings on 9.61 ha of Net Residential Area. The mix needs 9.58 ha, so it fits. Rows stay editable.

TYPOLGY	STOREYS	UNITS	% OF UNITS	
1 Bed Apartments	3	16	6.2	×
2 Bed Apartments	3	13	5.0	×
2 Bed Houses	2	80	30.9	×
3 Bed Houses	2	128	49.4	×
4 Bed Houses	2	22	8.5	×
5 Bed Houses	2	0	0.0	×
Total			100.0%	9.6 ha

Land is shown to one decimal place, so the Total may read a little above or below the sum of the rows above it.

MIX BY UNITS

Units Land Density

1 Bed Apartments

16 · 6.2%

2 Bed Apartments

13 · 5.0%

2 Bed Houses

80 · 30.9%

3 Bed Houses

128 · 49.4%

4 Bed Houses

22 · 8.5%

5 Bed Houses

0 · 0.0%

259 dwellings across 6 typologies.

Parking Requirement

7

Read the appraisal

Open **Appraisal**. At Feasibility it is a rough appraisal: eleven cost lines, one profit rate, land in and land out. Use the buttons along the top to look at one part at a time, from **GDV** to **Result**.

- **Residual Land Value** mode answers "what can the scheme pay for the land?"
- **Profit Test** mode answers "does the deal clear the target at this price?"
- **Density & profit** tests the scheme at different densities. It often shows that more homes per hectare does not mean more profit.

Appraisal

GDV

Build cost

Infrastructure, SuDS & planting

Land, sales & other costs

Off-site highways

Abnormals

All costs

Result

Density & profit

Show all

Close

Appraisal

Gross Development Value is all sales revenue with nothing deducted. Land value is not a deduction from it — in a residual appraisal the land value is the answer. Both modes below are the same equation solved for a different unknown.

MODE

Residual Land Value

Profit Test

Profit test. The land value is fixed at what has been offered or paid and profit becomes the output, measured against the target below. Use this when there is a price on the table — it answers whether the deal clears the hurdle.

DETAIL

Rough

Full detail opens at Outline and Detailed Design.

Rough appraisal — the back of an envelope. Eleven cost lines, one profit rate, land in and land out. Enough to decide whether a site is worth an afternoon. Switch to Full to add marketing, promotion, purchaser's costs, a benchmark land value and sensitivity.

Confidence range $\pm 23\%$ at Feasibility: 1 of 5 Feasibility steps evidenced. The range starts at $\pm 25\%$ and narrows to $\pm 15\%$ as each step is evidenced. Order of magnitude. Defaults throughout, nothing measured. Outputs are rounded to £0.1m because the inputs do not support any more precision. It never reaches zero: the inputs can be exact, but sales values, build costs, sales rates and finance still move between the appraisal and completion.

Gross Development Value

£80,500,000

£447,222

180 PRIVATE UNITS

AVERAGE MARKET VALUE

AFFORDABLE TRANSFER %

55

£19,431,806

£0

£0

79 AFFORDABLE UNITS

OTHER USES RECEIPTS

COMMERCIAL VALUE

£99,931,806

GROSS DEVELOPMENT VALUE

Residential £99,931,806 - Non-residential £0

Other Uses receipts: none entered. When a facility such as a care home or a GP surgery is sold as a serviced plot to its operator, enter what that plot sells for under Landowner receipt on the Other Uses tab. It is added to Gross Development Value here.

Open Other Uses

Private values come from the sales values on the Residential tab. Affordable homes are valued at a percentage of the market average as a transfer price to a registered provider, which is the same figure used by the Section 106 viability check.

8

Narrow the confidence range

Feasibility starts at $\pm 25\%$. Each step you evidence narrows it, down to $\pm 15\%$. The checklist beside the confidence ring ticks them off:

1. Site area typed for this site
2. Local Authority picked
3. Density or mix changed from the default
4. Land price entered
5. A cost line changed from its default

9

Take the Feasibility report

Click **PDF report**, choose **Feasibility**, tick the sections you want and click **Print / Save as PDF**. The report includes the land budget, capacity by character, the housing mix, the rough appraisal and the confidence range, so the reader always sees how firm the figures are.

Outline: what could we get permission for, and what is the land worth?

Figures that stand up in front of a council. Outline adds verified local policy, Section 106 and CIL, your own house types with density tiles to prove them, a full appraisal with a benchmark land value, and a comparison of land deals.

What it is for

Use Outline once a site is worth pursuing: for promotion, pre-application advice, an outline application, Section 106 heads of terms, or agreeing a land price. Your Feasibility figures carry straight across; Outline lets you replace the defaults with evidence.

Typical uses

- Pre-application discussions and an outline planning application
- Section 106 heads of terms and affordable housing negotiations
- Agreeing a land price, or choosing between selling, an option and a promotion agreement
- A housebuilder testing a site with their own house type range

What you get

- The Local Authority Policy Profile, with every figure sourced
- Section 106 and CIL, linked to the appraisal
- Full Typology & Tenure, with your own house types and density tiles
- A full appraisal with benchmark land value and sensitivity
- The land deal comparison and the Outline PDF report

The benefits

A complete Outline in a day

With the policy, cost and value information to hand, a complete Outline site takes about a day. Each policy figure is marked Verified or Default, and the report prints your source.

Contributions linked to value

Change a Section 106 contribution or the affordable housing share, and the land value and profit move with it at once.

Your own house types, proved

Load a housebuilder's range and draw a density tile for any new type, so the land it needs is shown, not assumed.

The land deal, compared

See what the landowner actually receives from a sale now, an option or a promotion agreement, and what each is worth today.

How to use it

Switch to **Outline** in the Start here panel. The three steps at the top work as before; the section cards now include Section 106 & CIL and Land deal.

1 Check the Local Authority Policy Profile

Open **Site overview** and click **Show Local Authority Policy Profile**. It lists the eleven policy figures the Model uses, such as the open space standard and the affordable housing percentage. Each is marked **Default** until you check it against the council's adopted policy, record your source and mark it **Verified**.

Why it matters: the Essex figures are illustrative defaults. The reports state how many figures you have verified, and responsibility for policy accuracy rests with the user.

2 Set Section 106 and CIL

Open **Section 106 & CIL**. The buttons along the top take you through the **Contribution basis**, the **Heads of terms**, **Affordable housing**, the **Package & viability** and **CIL**. Every quantity is read from the sections already completed: dwellings, population, open space and SuDS.

The **Contributions to: Unitary / Tiered** switch beside the site name decides which council secures each contribution. Thurrock and Southend-on-Sea start as Unitary, the rest of Essex as Tiered.

Section 106 & CIL Close ▲

Contribution basis Heads of terms Affordable housing Package & viability CIL Show all

Contribution Basis AUTHORITY STRUCTURE **Tiered** [Change on Site overview](#) [Reset](#)

Every quantum below is read from the tabs already completed — dwellings and population from Residential and Landscape, SuDS area from the SuDS tab, open space shortfall from the requirement table. Rates are indicative benchmarks in the Essex range, not adopted figures: check each against the authority's current SPD before the total is relied on.

259	594	
DWELLINGS	POPULATION	INDEXATION
		<input type="text" value="1.00"/> ×

Tiered area: the county council secures education, transport, libraries and lead local flood authority obligations under a separate agreement or as a joint party, while the district secures open space, sport, community facilities and affordable housing. Health money is collected by the district as local planning authority and passed to the integrated care board. Monitoring and legal fees are payable to each authority, so they are apportioned above in proportion to each one's share of the package.

3 Open Full Typology & Tenure

Open **Housing mix** and choose **Full Typology & Tenure**. Each house type now has its own GIA, density, units, sales value and build cost, split by tenure into private, First Homes, affordable rent and shared ownership. Totals for sales value and build cost show for every row.

Type over any figure to match your own evidence; edited figures carry a gold border. **Optimise for** tests which single house type gives the most homes, GDV or profit: treat it as a ceiling, then bring the mix back to something buildable.

Full Typology & Tenure

OPTIMISE FOR

Unit Numbers

GDV

Profit

↺ Reset

Tests every typology filling the whole Net Residential Area on its own and keeps whichever gives the best result on the measure picked, recalculated through the same GDV, build cost and appraisal figures used elsewhere in this tool. This almost always lands on a single typology, since that is what actually maximises the number — treat the result as a ceiling to test ideas against, then dial the mix back towards something buildable.

Twelve typologies from the Bluepencil Manual of Housing Density. Name, GIA, density and sales value are editable per row to match a developer's own house type range, and you can add your own house types below the table. Edited figures carry a gold border; ↺ Reset returns every row to the Manual.

FROM QUICK ESTIMATE

Units opened out from the Quick Estimate mix using the Manual's standard split within each band. Editing any row here makes this table authoritative and the Quick Estimate follows it.

TYPOLOGY	GIA (SQM)	DENSITY (DW/HA)	UNITS	% OF TOTAL	LAND REQ. (HA)	ROW GIA (SQM)	SALES VALUE / DWELLING (£)	TOTAL SALES VALUE (£)	BUILD COST / DWELLING (£)	TOTAL BUILD COST (£)	PRIVATE	FIRST HOMES	AFFORDABLE RENT	SHAFT OWNERS
— 3 Bed —														
<div> <div>Ashdown</div> <div>Tile</div> <div>×</div> </div>	88	30	0	0.0%	0.00	0	389995	£0	189200	£0	0	0	0	

ADD A HOUSE TYPE

3 bed

+ Add typology

Opens in its bedroom group with that group's Manual figures as a starting point. Set its name, GIA and value to match the house type.

Density tile

Don't know its density? Add the house type, then click Tile beside its name. Enter its footprint and parking, and the Model works out the density on a standard 1 ha tile and applies it to the row.

4

Add your own house types

- Under the table, at **Add a house type**, choose the bedrooms (1 to 5 bed) and click **+ Add typology**. The bedroom choice places the house type in its group and can't be changed later, so pick it carefully.
- The new row opens with the Manual's middle figures for that size, called "New 3 Bed Type 1". Type over its name, GIA, units, sales value and build cost.
- If you know its density, type it in. If not, draw a density tile (next step).
- To remove a house type, click the × beside its name.

Naming: use exactly the house type name on the architect's plot schedule, such as "Ashdown". The plot pricing import at Detailed Design matches plots to house types by name. Capitals don't matter; spelling and spaces do. Handed versions use the same row.

5

Make a density tile

A density tile shows where a house type's density comes from. The Model lays it out on a standard one-hectare tile, 100 × 100 m with 1,684 m² of roads and paths, and counts the whole homes that fit.

- Click **Tile** beside the new house type's name. The tile opens under the table.
- Choose the **arrangement**: Detached, Semi-detached or Terrace (with the number of homes in each terrace row).
- Enter the house's **frontage width** and **depth** in metres, from its plans.
- Choose the **parking**: tandem beside the house (2 spaces), two bays beside (4 spaces, needed for 4 and 5 bed homes), or undercroft with a room over.
- Leave the **tile settings** as they are unless a local standard differs: bay including M4(2) access 3.3 m, end buffer 1 m, front set-back 2 m, minimum rear garden 12 m.

Bluepencil Development Model · User guide · © 2026 Bluepencil Designs Ltd, protected by copyright

12 of 20

- Read the plotting density and check each band says **Fits**. If **Turned 90°** offers a higher figure, click **Use turned**.
- Click **Apply**. The density goes into the table, the button changes to **Tile ✓**, and the land the house type needs follows.

Density tile: Ashdown

A STARTING POINT Real sites are irregular and no one would design a place like this tile. It is a consistent, repeatable test that shows how each house type's density is arrived at. The Model uses these densities as its evidence to work out the **minimum** land area needed for any mix of house types. The figures are refined once a site layout is drawn.

ARRANGEMENT

☐ Detached
 ☒ Semi-detached
 ☐ Terrace

Frontage width (m) Depth (m)

PARKING

TILE SETTINGS

Bay incl. M4(2) (m) End buffer (m)

Front set-back (m) Min. rear garden (m)

PLOTTING DENSITY

30 dw/ha

Whole homes on the 1 ha tile: 3 bands x 10 homes

Width per home	9.90 m
Homes per band	10
Blocks in each band	2 + 2 + 2 + 2 + 2
Bands that fit	3 of 3

DEPTH CHECK

Band 1: plot 26.0 m, house up to 12.0 m	Fits
Band 2: plot 28.7 m, house up to 14.7 m	Fits
Band 3: plot 28.7 m, house up to 14.7 m	Fits

Applied: 30 dw/ha

Ashdown now plots at 30 dw/ha in the Full Typology table, and the land it needs follows. The tile is listed as evidence in the reports.

The Ashdown, a semi-detached 3 bed, plots at 30 dwellings per hectare.

Real sites are irregular and nobody would design a place like the tile. It is a consistent, repeatable test, so house types can be compared fairly. Every applied tile is listed as **Density tile evidence** in the reports: the evidence for the minimum land any mix needs.

6

Run the full appraisal

Open **Appraisal**. At Outline the appraisal adds marketing, promotion and purchaser's costs, the profit target split by tenure (17.5% on private sales and 6% on affordable homes, by default), the benchmark land value and a sensitivity table.

- Benchmark land value:** enter the existing use value per hectare (default £27,000) and the landowner premium (default 20%). This is the planning viability test: the least a landowner is assumed to accept.
- Sensitivity:** a grid of the land value (or profit) with sales values from 10% down to 10% up and build costs from 5% down to 10% up, plus the fall in each that would break even.

7

Compare the land deals

Open **Land deal**. The same scheme is tested three ways: **sell now**, an **option agreement** and a **promotion agreement**. Each shows what the landowner receives, when it arrives, and what it is worth in today's money. The land value with consent comes straight from the appraisal, so any change to the scheme flows through.

Land deal: what does the landowner actually receive?

The same scheme, tested three ways. The land value with planning permission is the residual land value from the Appraisal, so any change to the mix, affordable housing, sales values or costs flows through to every route below.

Residual land value with consent
£1,111,286

What the scheme can afford to pay for the land after costs and profit. From the Appraisal.

Benchmark Land Value
£479,520

The planning viability test: existing use value plus a premium, the minimum a landowner is assumed to accept. From the Appraisal.

Contract price (option)
£944,593

What the option agreement says the developer pays, set by its own terms below. It is rarely the full residual value.

Test the deal
Move the land value with consent to see which route holds up. This is a quick test only; it does not change the Appraisal.

Land value used: **£1,111,286**

Sell now
Sell today, without planning permission, at its hope value.

Price offered today £

Landowner's own costs £

No offer entered, so the benchmark land value is used as the price. Own costs start at 1.5% of the price.

Price	£479,520
Less your own costs	-£7,193
Net to landowner	£472,327

Option agreement
The developer gets planning, then chooses whether to buy at the agreed price.

Best in today's money

Option fee paid at signing £

Discount to market value %

Minimum price £

Developer's recoverable costs (cap) £

Years to exercise yrs

Landowner's own costs £

Option fee is credited against the price

No minimum price entered, so the benchmark land value is used as the floor. Figures in grey start as a share of the land value with consent: option fee 1%, recoverable costs 7.5%, own costs 1%. Type over any of them.

Market value with consent	£1,111,286
Less 15.0% discount	-£166,693
Price at exercise	£944,593
Less recoverable costs	-£83,346
Less option fee already paid	-£11,113
Balance at completion	£850,133
Plus option fee at signing	+£11,113
Less your own costs	-£11,113
Net to landowner	£850,133

Promotion agreement
A promoter gets planning, then sells the land on the open market.

Open-market bidding above value %

Sale costs (agents, legal) %

Promoter's costs repaid (cap) £

Promoter's fee %

Years to sale yrs

Landowner's own costs £

Figures in grey start as a share of the land value with consent: promoter's costs 8.5%, own costs 1%. Type over any of them.

Sale price	£1,166,850
Less sale costs	-£23,337
Less promoter's costs	-£94,459
Net proceeds	£1,049,054
Less 20.0% promoter's fee	-£209,811
Less your own costs	-£11,113
Net to landowner	£828,130

NET TO LANDOWNER
£472,327
On completion, now

VALUE TODAY
£472,327
at 6.0% a year

NET TO LANDOWNER
£850,133
Fee now, balance in about 4.0 years

VALUE TODAY
£675,696
at 6.0% a year

NET TO LANDOWNER
£828,130
On sale, in about 4.5 years

VALUE TODAY
£637,121
at 6.0% a year

Illustrative only: it doesn't include tax, overage or every clause of a real agreement. Take advice from a land agent and a specialist property solicitor before agreeing heads of terms.

8

Narrow the confidence range

Outline starts at $\pm 10\%$ and narrows to $\pm 7\%$ as you evidence these steps:

1. Local Authority picked
2. Policy figures verified
3. Sales values changed from the defaults
4. Build costs priced to your own house types
5. Existing use value evidenced rather than assumed

9

Take the Outline report

Click **PDF report** and choose **Outline**. It adds the policy profile with your sources, Section 106 and CIL, the housing mix by tenure, density tile evidence, the full appraisal with benchmark land value and sensitivity, and the land deal.

Detailed Design: what will the scheme cost, and what will it return?

Once there is a layout, Detailed Design prices it properly: measured infrastructure and drainage, a plot-by-plot price list, the cost of looking after the open space, and a cashflow showing the money the scheme needs and when.

What it is for

Use Detailed Design when a layout has been drawn: for reserved matters, the final Section 106 negotiation, funding, and running the delivery of the scheme. Everything from Feasibility and Outline carries across; Detailed Design replaces estimates with measured quantities.

Typical uses

- Reserved matters and the final Section 106 agreement
- Pricing plots for the sales team, phase by phase
- Deciding who looks after the open space, and what it costs residents
- Funding: peak debt, interest and return for a lender or a board

What you get

- Measured infrastructure, SuDS and planting costs
- Plot Sales Pricing and a price list for each phase
- Open space management: council adoption or a management company
- Cashflow, programme and delivery triggers, with an Excel download
- The Detailed Design and Viability & Contributions reports

The benefits

A price list the same day

The architect's plot schedule becomes a phased price list in minutes, not days of typing by hand.

Upkeep costed up front

Maintenance of the open space, play and drainage is costed from the layout, so the commuted sum or the residents' yearly charge is known before it is negotiated.

The money, month by month

Peak debt, interest on the drawn balance, return and the month the scheme turns cash positive, from the figures already entered.

A complete site in one to two days

With a masterplan and the figures carried over from Outline, a complete Detailed Design site takes one to two days.

The tightest figures

Confidence of $\pm 5\%$, narrowing to $\pm 3\%$ as quantities are measured: the figures to put in front of a funder or a council's viability adviser.

How to use it

Switch to **Detailed Design** in the Start here panel. Three new cards appear: Open space management, Plot pricing and Cashflow.

1 Measure the infrastructure and drainage

Take the quantities from the layout instead of the Model's estimates:

- In **Strategic Infrastructure**, enter the street lengths from the layout.
- In **Appraisal**, open **Infrastructure, SuDS & planting** and type the measured quantity for each item: roads, footpaths, drainage, basins and swales, planting and street trees.

Each measured quantity replaces an estimate, and the itemised build-up goes into the report.

2 Confirm the full typology and tenure mix

In **Housing mix**, make sure **Full Typology & Tenure** holds the scheme's actual house types and numbers, named as on the plot schedule. At Detailed Design, plot externals (drives, fencing, gardens and service connections) are priced in three bands by plot type rather than one blended allowance.

3 Price the plots

Open **Plot pricing**. Each plot is priced from its house type's sales value, adjusted for its position.

1. **Get the plots in.** The Model starts with a schedule generated from the Full Typology table. To use the real layout, click **Import architect's schedule (CSV)**: a spreadsheet saved as CSV with columns headed **Plot** and **House type**, and optionally **Tenure** and **Phase**. Any house type it can't match is listed, so you can correct the name. **Use generated schedule** switches back.
2. **Choose the phases to price.** On larger schemes, prices are set phase by phase. Click a phase to mark it **Priced** or **Not yet priced**. Phase size comes from the Cashflow, or from the schedule's own Phase column.
3. **Mark each plot's position.** Click a plot and tick what applies: faces open space, south or west-facing garden, corner plot, main road frontage, parking court and so on. Each adds or takes off a percentage. The defaults are illustrative: set your own and every plot reprises.
4. **Let the sales team have the last word.** A **Sales override** on a plot wins over the calculated price. **Record revision** keeps a dated price history, and **Show design grading** scores plots on kerb appeal, layout, buildability and specification.
5. **Link it to the appraisal.** **Check against GDV** compares the schedule with the appraisal and changes nothing. **Schedule drives GDV** puts the plot prices into GDV, profit and the cashflow.
6. **Take the price list.** **Export price list (CSV)** gives the priced phases, ready for the sales team, and the report adds a price list page for each priced phase.

Plot Sales Pricing

Generated from the Full Typology table, 259 plots. Each plot is priced from its house type's sales value, adjusted for position. Premiums and discounts are illustrative defaults: set your own and every plot reprises.

Import architect's schedule (CSV)
Export price list (CSV)

LINK TO APPRAISAL
Check against GDV
Schedule drives GDV

All plots
Phase 1
Phase 2
Phase 3
Affordable
Show design grading

Phase 1
100 plots
Priced

Phase 2
100 plots
Not yet priced

Phase 3
59 plots
Not yet priced

Phase size 100 dwellings, set on the Cashflow. Click a phase to mark it priced or not yet priced.

Check against GDV. The appraisal carries £80,500,000 of market sales at the house types' sales values. This schedule comes to £80,500,000, +£0 (0.0%). Nothing in the appraisal changes.

180	£80,500,000	£80,500,000	+£0	£100,011,250
MARKET PLOTS	SCHEDULE, MARKET SALES	APPRAISAL, MARKET SALES	POSITION PREMIUM	TOTAL WITH AFFORDABLE
79 affordable - 1 of 3 phases priced	Average £412 per ft²	House-type sales values	0.0% on sales values	Affordable £19,511,250

PLOT	HOUSE TYPE	TENURE	PHASE	FT²	BASE POSITION	ADJ.	PRICE	£/FT²
1	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
2	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
3	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
4	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
5	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
6	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
7	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
8	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
9	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
10	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
11	1 Bed Apartment	Market	P1	657	£250,000	0.0%	£250,000	£381
12	1 Bed Apartment	Affordable Rent	P1	657	—	Transfer	£137,500	£209
13	1 Bed Apartment	Affordable Rent	P1	657	—	Transfer	£137,500	£209
14	1 Bed Apartment	Affordable Rent	P1	657	—	Transfer	£137,500	£209
15	1 Bed Apartment	Shared Ownership	P1	657	—	Transfer	£137,500	£209
16	1 Bed Apartment	Shared Ownership	P1	657	—	Transfer	£137,500	£209
17	2 Bed Apartment	Market	P1	753	£300,000	0.0%	£300,000	£398
18	2 Bed Apartment	Market	P1	753	£300,000	0.0%	£300,000	£398

Plot 1 - 1 Bed Apartment

Market - Phase 1 - 657 ft² (61 m²)

Sales value, 1 Bed Apartment	£250,000
Calculated price (to nearest £1,000)	£250,000
Price per ft²	£381

SALES OVERRIDE (£)

Leave blank to use the calculated price

The sales team's figure wins over the calculated price, as typed figures do elsewhere in the Model.

POSITION

☐ Faces open space +4.0%
☐ South or west-facing garden +2.5%
☐ Corner or end plot +1.5%
☐ Larger than standard garden +2.0%
☐ Double garage +1.5%
☐ Main road frontage -3.0%
☐ Faces parking court -2.0%
☐ Overlooked garden -1.5%

4

Cost the open space management

Open **Open space management**. The open space, play, sport, allotment and SuDS areas are costed for maintenance, using quantities read from the layout and published council rates indexed to today. Type over any quantity or rate, and enter a rate for SuDS basins and trees, which have no published default.

The Model then compares the two ways the land can be looked after:

- **Adoption by the council:** the developer pays a commuted sum once, through the Section 106. **Add the commuted sum to the Section 106 costs** carries it into the appraisal.
- **Management company:** the land stays private, and residents pay a yearly estate charge, including the managing agent's fee, a reserve fund and insurance.

Open space management: who pays, and how much?

The open space, play, sport, allotment and SuDS areas in this scheme are costed for maintenance, then tested two ways: adopted by the council with a commuted sum the developer pays once, or kept by a management company that residents pay for every year.

Policy direction. In 2025–26 the government consulted on new protections for freehold homeowners over estate charges, under the Leasehold and Freehold Reform Act 2024, and on reducing private estate management on new developments, with more adoption by public bodies. Both consultations closed on 12 March 2026. Check the current position before relying on the management company route.

Dwellings 259 Index from 2008 prices × 1.77

ITEM	QUANTITY	25-YEAR RATE	SOURCE OF RATE	PER YEAR	25 YEARS
Amenity greenspace quantity from the Model	22,300 m²	£ 8.60 /m²	Braintree SPD, informal open space (£4.86 at 2008 prices)	£7,673	£191,829
Natural and semi-natural greenspace quantity from the Model	14,800 m²	£ 8.60 /m²	Braintree SPD, informal open space (£4.86 at 2008 prices)	£5,093	£127,313
Equipped play areas quantity from the Model	0 m²	£ 89.39 /m²	Braintree SPD, equipped playgrounds (£50.50 at 2008 prices)	£0	£0
Outdoor sport quantity from the Model	0 m²	£ 23.98 /m²	Braintree SPD, outdoor sport (£13.55 at 2008 prices)	£0	£0
Allotments quantity from the Model	0 m²	£ 1.03 /m²	Braintree SPD, allotments (£0.58 at 2008 prices)	£0	£0
SuDS basins and swales quantity from the Model	14,800 m²	£ enter 1a /m²	No published default: enter your council's or a contractor's rate	–	–
Trees quantity from the Model	0 trees	£ enter 1a /tree	No published default: enter your council's or a contractor's rate	–	–
Total maintenance				£12,766	£319,142

▲ No rate entered yet for SuDS basins and swales, so it is left out of every total.

Quantities are read from the Landscape & Open Space and SuDS sections; type over any of them. Rates for open space, play, sport and allotments are Braintree District Council's 25-year maintenance sums (Open Space SPD, November 2009, 2008 prices), indexed to today. The default index of 1.77 is the 2008 to April 2024 uplift Rosendale Borough Council applied to its own maintenance sum using RPI and CPI. Replace any rate with your council's current published figure or a contractor's quote.

Adoption by the council

The council, or a town or parish council, takes the land. The developer pays a commuted sum once, through the Section 106.

Years the commuted sum covers 25 yrs

Maintenance for 25 years £319,142

Per dwelling £1,232

Paid by residents £0 a year

Add the commuted sum to the Section 106 costs

Management company

The land stays private. Residents pay an annual estate charge set from this budget.

Managing agent's fee 15 % of costs

Reserve fund for future repairs 10 % of costs

Insurance, inspections and accounts £ 3,000 a year

The fee, reserve and fixed costs are starting assumptions, not sourced rates. Replace them with a managing agent's quote.

Maintenance £12,766

Check the policy position: the government has consulted on new protections for homeowners over estate charges. Check the current position before relying on the management company route.

5

Set the programme and read the cashflow

Open **Cashflow**. Under **Programme & sales rate**, set the lead-in, build period, months to first completion, sales rate and number of outlets. The Model builds the cashflow from the costs and values already entered and shows:

- **Peak debt** and the month it happens
- **Interest and finance fees** on the drawn balance, compared with the flat figure in the appraisal
- **Profit after real interest**, the IRR and the **net present value**
- The month the balance turns **cash positive**

The other buttons cover phasing, payment timing, finance, the cumulative balance and sales rate sensitivity. **Download cashflow (Excel)** gives the monthly and annual cashflow, assumptions and triggers as a workbook.

Cashflow

Close

Programme & sales rate

Phasing

Payment timing

Finance

Cumulative balance

Period by period

Sales rate sensitivity

Show all

Cashflow

TIME STEP

DETAIL

MONTHLY FIGURES

Monthly

Quarterly

Simple

Detailed

Download cashflow (Excel)

£10.3m

PEAK DEBT

deepest point, month 15 of 81

£2.98m

INTEREST AND FINANCE FEES

below the flat £4.74m in the appraisal

£16.5m

PROFIT AFTER REAL INTEREST

16.5% of GDV over 6.8 years

30.1%

IRR, ANNUALISED

on the cashflow before interest

month 64

CASH POSITIVE

the month the balance turns positive

£10.6m

NET PRESENT VALUE

discounted at 8.0% a year

Programme and Sales Rate

Defaults are read from the 259 dwellings already entered: 1 outlet at 4 sales a month, a 9-month lead-in and a 65-month build. Every one of them is editable — type over any field and the whole cashflow re-reads.

LEAD-IN TO START ON SITE

BUILD PERIOD

START ON SITE TO FIRST COMPLETION

SALES RATE

OUTLETS

9 months

65 months

6 months

4 per outlet per month

1 open at once

At 4.0 completions a month the 259 dwellings take 65 months to sell, with the first completion in month 16 and the programme running 81 months in all.

CONSTRUCTION SPEND PROFILE

WEIGHT THE CURVE

AFFORDABLE RECEIPTS

S-curve

Straight line

0 -50 early, +50 late

Golden brick drawdown

On completion

6 Check the delivery triggers

In **Section 106 & CIL**, **Delivery Triggers** set when each payment and obligation falls due. Most heads follow one blanket schedule; a facility residents need, such as a nursery or community hall, can be given its own trigger, set by the number of completions. Each payment is placed in the cashflow in the month it falls due, and the sales rate sensitivity shows how far a trigger moves if sales slow.

7 Narrow the confidence range

Detailed Design starts at $\pm 5\%$ and narrows to $\pm 3\%$ as you evidence these steps:

1. Street lengths taken from the layout
2. Infrastructure quantities measured, not estimated
3. SuDS quantities measured, not estimated
4. Full typology and tenure mix
5. Programme and sales rate set

8 Take the reports

Click **PDF report**. Detailed Design offers every report:

- **Detailed Design:** everything, including the itemised infrastructure and SuDS build-up, the full appraisal, the plot price list and the cashflow with its delivery triggers. Send it when the reader will ask how a figure was reached.
- **Viability & Contributions:** the pack for a Section 106 negotiation with the council.

Everything, including the itemised infrastructure and SuDS build-up, the full appraisal, and the cashflow with its delivery triggers. The longest of the three and the one to send when the recipient will ask how a figure was reached.

Print / Save as PDF

Back to the Model

- ☒ Site areas and land use
- ☐ Capacity by character
- ☒ Housing mix and tenure
- ☒ Open space provision
- ☒ Section 106 and CIL
- ☒ CIL, education and value
- ☒ Infrastructure and SuDS build-up
- ☒ Development appraisal
- ☒ Plot price list
- ☒ Cashflow and delivery triggers
- ☒ Local authority policy profile
- ☒ Assumptions and disclaimer

bluepencil

BLUEPENCIL DEVELOPMENT MODEL

From site feasibility to detailed design, value and viability.

DEVELOPMENT CAPACITY REPORT

Demonstration site

Colchester City Council · North East Essex

Local planning authority	Colchester City Council
Area	North East Essex
Open space standard applied	Colchester City Council — Policy DP16 (10% of site area)
Stage of work	Detailed Design
Report date	22 October 2026

14.80 GROSS SITE AREA (HA)	9.61 NET RESIDENTIAL AREA (HA)
259 TOTAL DWELLINGS	27.0 NET DENSITY (DW/HA)

Figures are calculated from the inputs held in the Model on the date above. Every rate is
editable and must be checked against the authority's adopted plan and current