

GroundKit: Gameplay Simulation

"Community Builder: Real Neighborhoods, Real Change"

Tagline: *Turn Forgotten Spaces Into Amazing Places*

Core Game Identity

Genre: Creative Sandbox / Urban Planning Simulator with Social Impact

Core Loop: Discover → Build → Check → Share → Remix → Impact^{[1][2]}

Target Audience: Hobbyist gamers (16-40), community activists, students, casual builders

Platform: Web (desktop/tablet), Mobile (iOS/Android AR), with seamless Pro upgrade path

Vibe: LEGO meets SimCity meets Real-World Change

Game Modes

Mode 1: Creative Freebuild^{[2][1]}

Description: Unlimited creative mode with no constraints, perfect for experimentation and relaxation.

Features:

- Unlimited parts and materials from full library
- Ghost mode (blocks can clip through each other)
- Infinite undo/redo
- No policy checks or scoring
- Time-of-day slider for lighting experiments
- Save up to 20 creations (Free tier: 3)

Rewards:

- Unlock rare cosmetic parts (vintage lamp posts, unique door colors, seasonal decorations)
- "Creator" badges for milestone builds (10 saves, 50 saves, 100 saves)
- Featured in weekly "Creative Showcase" gallery

Outcomes:

- Develops spatial thinking and design intuition
 - Builds muscle memory for building tools
 - Low-stress entry point for new players
 - Creations can be converted to challenge mode for scoring
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Mode 2: Challenge Cards^{[1][2]}

Description: Goal-oriented scenarios that teach real planning principles through gameplay.

Challenge Tier 1: Beginner Builders (Estimated time: 10-15 minutes each)

Challenge 1.1: "The Backyard Annexe"

Scenario: Help the Torres family add a garden room for elderly grandmother Rosa. The plot is small (6m × 8m) but Rosa loves morning sun and needs level access.

Success Conditions:

- Build structure within plot boundary (48 sqm)
- Ensure level access (no steps, or compliant ramp)
- South-facing windows for morning light
- Community Vibe score: 70%+
- Budget: Under £45k

Constraints Introduced:

- Parcel boundary (red line, cannot cross)
- Daylight to neighbors (45-degree rule visualization)

- Access requirements (1:12 ramp gradient max)

Rewards:

- **250 Studs** (in-game currency)
- **Badge:** "First Build" (shows garden room icon)
- **Unlock:** Elderly-friendly parts pack (grab rails, wider doors, non-slip tiles)
- **XP:** +100 Builder track, +50 Green Thumb track

Educational Outcome: Players learn boundary respect, accessibility basics, and neighbor consideration.

Challenge 1.2: "The Pocket Park"

Scenario: An unused 12m × 12m corner lot behind the high street is covered in concrete and bins. The community wants a small park with seating, greenery, and a bike rack.

Success Conditions:

- Create 80 sqm+ green space (grass, trees, planters)
- Place 3+ benches
- Add bike parking (min 6 spaces)
- Create pedestrian-friendly paths
- Green Score: 75%+

Constraints Introduced:

- Drainage (water cannot pool—system shows flow animation)
- Tree root zones (cannot build within 3m of mature trees)
- Right of way (maintain 2m access corridor)

Rewards:

- **300 Studs**
- **Badge:** "Green Thumb" (shows tree icon)
- **Unlock:** Advanced landscaping pack (climbers, wildflower meadow, water feature)

- **XP:** +150 Green Thumb track, +50 Urbanist track

Educational Outcome: Players learn green space design, drainage principles, and pedestrian priority.

Challenge Tier 2: Community Improvers (Estimated time: 20-30 minutes each)

Challenge 2.1: "The Mews Lane Revival"^[1]

Scenario: Hatherley Mews is a forgotten lane (20m × 40m) behind the high street, currently used for bins and parking. Design a new mews with 4-6 homes and shared community garden.

Success Conditions:

- Fit 4-6 residential units
- Create 120 sqm+ shared garden space
- Maintain emergency vehicle access (3.7m width, 3.1m height clearance)
- Keep Community Vibe: 80%+
- Don't overshadow the historic bakery next door (Heritage Shadow rule)

Constraints Introduced:

- Heritage Shadow (amber glow on adjacent listed building—building within triggers sensitivity warning)
- Party wall requirements (shared walls between units)
- Sun path analysis (see shadows at different times)
- Emergency access (fire truck toy drives through to test)

Rewards:

- **600 Studs**
- **Badge:** "Mews Master" (shows cobblestone lane icon)
- **Unlock:** Mews-specific parts (cobblestone textures, carriage lamps, arched doorways, courtyard furniture)
- **XP:** +200 Builder track, +100 Urbanist track, +100 Green Thumb track

- **Special:** If Community Vibe reaches 90%+, unlock "Golden Mews" cosmetic set

Educational Outcome: Players balance density, heritage sensitivity, green space, and emergency access—core urban design trade-offs.

Challenge 2.2: "The Corner Shop Revival"

Scenario: A vacant corner building (10m × 12m footprint) has been empty for 3 years. Design a mixed-use development with ground-floor retail and 2-3 flats above.

Success Conditions:

- Ground floor: Commercial space (min 60 sqm)
- Upper floors: 2-3 residential units
- Dual street frontage (corner plot)
- Accessible entrance (level or ramped)
- Total floor area: 200-300 sqm
- Mixed-Use Vibe: 75%+

Constraints Introduced:

- Floor-to-ceiling heights (3.2m ground floor for retail, 2.6m+ for residential)
- Dual aspect design (windows on two facades)
- Refuse storage (wheelie bins must fit, collection access required)
- Bike parking (1 space per flat + 2 for shop)

Rewards:

- **700 Studs**
- **Badge:** "Urban Mixer" (shows shop + flat icon)
- **Unlock:** Commercial parts pack (shop fronts, awnings, signage, larger windows)
- **XP:** +250 Builder track, +150 Urbanist track
- **Feature:** Best designs featured in "High Street Heroes" gallery

Educational Outcome: Players learn mixed-use principles, commercial vs. residential requirements, and corner plot opportunities.

Challenge Tier 3: Advanced Urbanists (Estimated time: 45-60 minutes each)

Challenge 3.1: "Brownfield Transformation"

Scenario: A 0.4 hectare (4,000 sqm) former factory site is contaminated but cleared. Create a 12-16 unit development that balances homes, green space, and community benefit. Budget: £1.2M.

Success Conditions:

- Build 12-16 residential units
- Affordable housing: min 30% (4-5 units)
- Green space: min 500 sqm (courtyard or linear park)
- Parking: 0.5 spaces per unit (encourage sustainable transport)
- Community facility (optional but boosts Vibe): 50-100 sqm (nursery, workshop, community room)
- Carbon footprint: < 150 kgCO₂e/sqm embodied
- Total cost: Under £1.2M

Constraints Introduced:

- Contamination remediation cost (adds £80k to budget)
- Affordable housing policy (specific unit sizes and rent levels)
- Parking ratios (policy encourages car-free or car-lite)
- Transit proximity bonus (site is within 400m of bus stop—unlocks density bonus)
- Carbon calculator (real-time feedback on material choices)

Rewards:

- **1,200 Studs**
- **Badge:** "Brownfield Hero" (shows reclaimed land icon with green shoots)
- **Unlock:** Sustainable materials pack (hemp-lime blocks, recycled plastic panels, green roofs, solar panels)

- **XP:** +400 Builder track, +300 Urbanist track, +200 Green Thumb track
- **Special Reward:** If affordable housing reaches 40%+ and carbon < 130 kgCO₂e/sqm, unlock "Eco Champion" badge and featured case study

Educational Outcome: Players experience real developer trade-offs—cost, density, affordability, sustainability, community benefit. Introduces affordable housing policy and carbon accounting.

Challenge 3.2: "The Vacant Terrace Reimagined"

Scenario: A Victorian terrace (6 units, 600 sqm total) has been vacant for 5 years. The council wants adaptive reuse proposals. Design conversion to modern flats while retaining heritage character.

Success Conditions:

- Retain existing facade and structural shell (70%+ of original fabric)
- Create 8-10 modern flats (mix of 1-bed and 2-bed)
- Meet modern energy standards (U-value < 0.18 for walls)
- Respect heritage designation (original windows, brick, roofline)
- Add accessible entrance (1 ground-floor wheelchair-accessible unit)
- Budget: £480k (reuse is cheaper than demolish + rebuild)

Constraints Introduced:

- Heritage restrictions (cannot change facade, must match materials)
- Structural retention (existing walls marked—cannot remove load-bearing elements without expensive steel reinforcement)
- Energy retrofit (insulation options: internal, external, or hybrid)
- Rights to light (adjacent neighbors have protected daylight—cannot add roof extension without check)

Rewards:

- **1,000 Studs**

- **Badge:** "Heritage Guardian" (shows protected building with heart icon)
- **Unlock:** Victorian parts pack (sash windows, ornate cornices, period doors, cast iron railings)
- **XP:** +350 Builder track, +250 Urbanist track
- **Special:** Compare your reuse design carbon vs. "demolish + rebuild" baseline—if reuse saves 40%+ carbon, unlock "Reuse Champion" badge

Educational Outcome: Players learn adaptive reuse principles, heritage sensitivity, embodied carbon benefits of retention, and energy retrofit strategies.

Mode 3: Time Trials^[2]

Description: Speed-building micro-challenges (5-10 minutes) that test fluency with tools.

Time Trial 1: "Terrace Sprint"

Challenge: Build a 3-unit terrace on a 12m × 15m plot in 10 minutes.

Scoring:

- **Speed Bonus:** Complete in under 8 minutes = +100 Studs
- **Quality Bonus:** All units have 2 bedrooms + gardens = +50 Studs
- **Style Bonus:** All units match materials and rhythm = +50 Studs

Leaderboard: Weekly "Fastest Terrace" leaderboard (global and city-specific)

Rewards:

- Top 10 global: **500 Studs** + "Speed Builder" badge
 - Top 100: **200 Studs**
 - All participants: **50 Studs** + XP based on completion time
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Time Trial 2: "Park Makeover Madness"

Challenge: Transform a concrete carpark (15m × 20m) into a green oasis in 5 minutes.

Scoring:

- **Green Coverage:** 60%+ = +50 Studs, 80%+ = +100 Studs
- **Amenities:** 3+ benches, 1+ bike rack, 2+ trees = +50 Studs
- **Creativity:** Unique path layouts or water feature = +50 Studs (community vote)

Leaderboard: "Greenest Makeover" based on Green Score

Rewards:

- Top 10: **400 Studs** + "Flash Green Thumb" badge
 - All participants: **30 Studs** + Green Thumb XP
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Mode 4: Before & After Restoration^[2]

Description: Start from a real messy, vacant, or derelict site and transform it. Emphasizes reuse, restoration, and community impact.

Restoration 1: "The Abandoned Shop"

Before State: Boarded-up corner shop with graffiti, broken windows, overgrown weeds.

Mission: Restore to vibrant community use (cafe, bookshop, community hub, or mixed-use).

Success Conditions:

- Remove all dereliction markers (boards, graffiti, weeds)
- Repair facade (replace windows, paint, clean brickwork)
- Create welcoming entrance
- Add greenery (planters, window boxes)
- Community Vibe: 85%+

Rewards:

- **800 Studs**
- **Badge:** "Restorer" (shows before/after split icon)

- **Unlock:** Restoration parts pack (original Victorian windows, vintage signage, heritage paint colors)
- **XP:** +300 Builder track, +200 Urbanist track
- **Photo Mode:** Special "Before & After" side-by-side export for social sharing

Educational Outcome: Players see tangible neighborhood improvement and learn restoration vs. replacement trade-offs.

Restoration 2: "The Vacant Lot Garden"

Before State: Fly-tipped waste, abandoned vehicles, overgrown weeds on 200 sqm plot.

Mission: Transform into community garden with growing beds, compost, seating, and tool shed.

Success Conditions:

- Clear all waste and weeds
- Create 6+ growing beds (raised or ground-level)
- Add compost bins
- Place garden shed (tool storage)
- Install rainwater harvesting (water butt)
- Green Score: 90%+

Rewards:

- **600 Studs**
- **Badge:** "Community Gardener" (shows raised bed with vegetables)
- **Unlock:** Community garden pack (raised beds, tool shed, compost bins, greenhouses, fruit trees)
- **XP:** +250 Green Thumb track, +150 Urbanist track
- **Special:** Top community garden designs featured in "Growing Together" showcase

Educational Outcome: Players learn community-led land activation, urban agriculture, and waste-to-resource thinking.

Mode 5: Photo Diorama Mode^{[1][2]}

Description: Capture the perfect postcard shot of your creation with advanced visualization tools.

Features:

- **Time-of-Day Slider:** Adjust sun position for golden hour, blue hour, midday
- **Weather Effects:** Clear, overcast, light rain, snow (seasonal)
- **Mini-Fig Placement:** Add stylized people (walking, cycling, sitting, chatting, playing)
- **Vehicle Props:** Cars, bikes, buses (animated or static)
- **Decorative Props:** Flower pots, bicycles leaning on walls, cats on windowsills, bunting, fairy lights
- **Camera Controls:** Fly cam, ground-level view, drone view (aerial), tilt-shift effect
- **Filters:** Enhance colors, vintage film, high contrast, soft focus

Rewards:

- Share directly to social media with #GroundKitBuilds hashtag
- **Weekly Photo Contest:** Community votes on "Most Cozy," "Most Inventive," "Best Use of Light"
 - Winners: **500 Studs** + featured on homepage gallery + "Photographer" badges
- High-quality exports (4K resolution) available for Pro tier

Mode 6: Community Build Jams^{[2][1]}

Description: Time-limited collaborative events where all players build on the same site with a theme.

Build Jam Example: "Pocket Park Week"

Theme: Transform a 15m × 15m concrete lot into a pocket park.

Time Limit: 24 hours (real-time)

Rules:

- All players use the same parcel and constraints
- No templates allowed (custom builds only)
- Must include 3+ seating areas, 5+ trees, 1 water feature or art installation

Community Voting:

- After 24 hours, all submissions go to public gallery
- Community votes on:
 - **Most Cozy** (warmth, intimacy, inviting)
 - **Most Inventive** (creative layouts, unexpected solutions)
 - **Best Small Site** (maximizes every sqm)
 - **People's Choice** (overall favorite)

Rewards:

- **Category Winners (4 total): 1,000 Studs** + "Build Jam Champion" badge (gold tier) + featured homepage spotlight
- **Top 10: 400 Studs** + "Build Jam Champion" badge (silver tier)
- **Top 50: 150 Studs** + "Build Jam Participant" badge
- **All Participants: 50 Studs** + XP bonus

Remix Feature: After voting closes, all submissions become public—players can "Remix" (fork) any design with automatic credit to original creator.

Build Jam Example 2: "Terrace Takeover"

Theme: Design a 5-unit terrace on a 20m × 12m plot with character and charm.

Time Limit: 1 hour (speed build)

Special Twist: Each unit must have unique door color and at least one distinguishing feature (bay window, balcony, porch, etc.).

Leaderboard:

- Real-time leaderboard during event
- Scoring based on completion time + Community Vibe score

Rewards:

- **Top 3: 800 Studs** + "Terrace Master" badge + exclusive Victorian door knocker cosmetics
 - **Top 20: 300 Studs**
 - **All Participants: 80 Studs** + Builder XP
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Mode 7: Co-Build Multiplayer^[2]

Description: 2-4 players collaborate in real-time on the same site with voice chat.

Features:

- Real-time presence indicators (see collaborators' cursors and avatars)
- Role assignment: Lead Builder, Landscaper, Interior Designer, Constraints Checker
- Voice chat integration (optional push-to-talk)
- Shared undo/redo stack (prevents edit conflicts)
- Live celebration effects when team completes milestones (confetti, cheers)

Co-Build Challenges:

Co-Build 1: "The Street Upgrade"

Mission: Team of 3 renovates a 50m street with 6 buildings—each player takes 2 buildings.

Time Limit: 30 minutes

Success Conditions:

- All 6 buildings restored and cohesive (matching style)

- Street furniture added (benches, bike racks, trees)
- Pedestrian-friendly (widened sidewalks, crossings)
- Team Vibe Score: 80%+

Rewards (Team-Based):

- **Team Completion: 1,200 Studs** (split equally) + "Street Team" badge
- **Speed Bonus:** Under 25 minutes = +300 Studs (team total)
- **XP:** All team members earn XP in Builder and Urbanist tracks

Co-Build 2: "Courtyard Community"

Mission: Team of 4 designs a 16-unit courtyard development (0.5 hectare) with central shared garden.

Roles:

- **Builder 1:** North block (4 units)
- **Builder 2:** South block (4 units)
- **Builder 3:** East + West blocks (4 units each)
- **Landscaper:** Central courtyard garden (300 sqm)

Time Limit: 45 minutes

Success Conditions:

- All blocks harmonize (similar heights, materials, rhythm)
- Central garden has seating, play area, and greenery
- Vehicle access at corners only (courtyard is car-free)
- Community Vibe: 85%+

Rewards (Team-Based):

- **Team Completion: 2,000 Studs** (split) + "Courtyard Crew" badge
- **Best Courtyard Design:** Weekly winner featured in gallery = +500 Studs per team member

- **XP:** All team members earn significant Builder, Urbanist, and Green Thumb XP
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Progression System

Skill Tracks^{[1][2]}

Players earn XP in three parallel tracks. Each track unlocks specific perks and parts.

Builder Track (Structural and Construction Focus)

Level 1-5: Beginner Builder

- Unlocks: Basic structural parts (walls, roofs, doors, windows)
- Perks: None yet

Level 6-10: Confident Builder

- Unlocks: Auto-Terrace tool, Auto-Stack tool (vertical repetition)
- Perks: Faster snapping (reduced placement delay by 20%), +1 undo step (21 total)

Level 11-20: Skilled Builder

- Unlocks: Advanced structural parts (curved walls, large windows, complex roofs), Stair-Core Generator
- Perks: Bulk material swap (change entire model materials in one click), Parametric stretch (walls and roofs stretch dynamically)

Level 21-30: Master Builder

- Unlocks: Rare architectural styles (Victorian, Art Deco, Modernist, Industrial Conversion parts)
- Perks: Ghost Mode (collision toggle for experimental builds), Precision Mode (0.1m grid snapping), Custom Material Editor (create and save material combinations)

Level 31+: Legendary Builder

- Unlocks: All parts library, exclusive cosmetic sets (neon signs, custom sculptures, kinetic art)

- Perks: Instant Template Creation (save your designs as reusable templates), Advanced Physics Toys (structural stability visualization, wind load simulation)
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Urbanist Track (Community, Policy, and Systems Focus)

Level 1-5: Curious Resident

- Unlocks: Basic policy overlays (height limits, setbacks)
- Perks: None yet

Level 6-10: Community Advocate

- Unlocks: Accessibility checker (ramps, door widths, turning circles), Mini-Fig people (stylized human scale visualization)
- Perks: Enhanced policy explanations (more detailed "what this means" tooltips), Community poll creation

Level 11-20: Planning Enthusiast

- Unlocks: Transit overlay (bus stops, walking radii), Mixed-use templates, Traffic toy (simulate vehicle and bike movements)
- Perks: Scenario comparison (side-by-side up to 3 scenarios with metrics), Public proposal pages (publish for community feedback)

Level 21-30: Urban Designer

- Unlocks: Full policy engine access (all encoded rules with citations), Density calculator, Affordability tracker
- Perks: Advanced AI checks (first-pass cost, carbon, timeline), Officer collaboration mode (invite planning officers for review)

Level 31+: Master Planner

- Unlocks: Custom policy encoding (create your own rules for fictional cities or future scenarios), Scenario automation (AI generates 3 options based on brief)
- Perks: Planning Pack Pro (enhanced PDF exports with professional branding), BIM export (IFC format for handoff to architects)

Green Thumb Track (Sustainability and Landscape Focus)

Level 1-5: Seedling

- Unlocks: Basic landscaping (grass, standard trees, simple planters)
- Perks: None yet

Level 6-10: Gardener

- Unlocks: Advanced landscaping (climbers, wildflower meadow, water features), Green Score tracker
- Perks: Greenery brush (paint areas with foliage quickly), Seasonal toggle (see site in spring, summer, autumn, winter)

Level 11-20: Ecologist

- Unlocks: Biodiversity pack (bird boxes, insect hotels, hedgehog highways), Rain gardens, Green roofs
- Perks: Carbon calculator (real-time embodied + operational carbon), Material sustainability filter (highlight low-carbon options)

Level 21-30: Sustainability Champion

- Unlocks: Renewable energy pack (solar panels, ground-source heat pumps, wind turbines), Passive house components (triple-glazed windows, super-insulation)
- Perks: Lifecycle carbon analysis (60-year projection), Reuse vs. new build comparison (visualize carbon savings)

Level 31+: Eco Visionary

- Unlocks: Future-tech pack (living walls, urban farms, circular economy systems), Net-zero templates
 - Perks: Climate resilience overlay (flood, heat island, renewable potential), Biodiversity net gain calculator
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Badges and Achievements

Milestone Badges:

- **First Build:** Complete first scenario
- **10 Builds Club:** Save 10 scenarios
- **Century Club:** Save 100 scenarios
- **Collaborator:** Invite 5 collaborators
- **Community Voice:** Publish 3 public proposals
- **Remix Artist:** Remix 10 community designs

Challenge Badges:

- **Annexe Ace:** Complete all Tier 1 challenges
- **Community Improver:** Complete all Tier 2 challenges
- **Urban Master:** Complete all Tier 3 challenges

Skill Badges:

- **Builder Badges:** Beginner → Confident → Skilled → Master → Legendary
- **Urbanist Badges:** Resident → Advocate → Enthusiast → Designer → Planner
- **Green Thumb Badges:** Seedling → Gardener → Ecologist → Champion → Visionary

Special Event Badges:

- **Build Jam Champion** (Gold, Silver, Bronze tiers)
- **Time Trial Legend** (Top 10 in any time trial)
- **Photo Contest Winner** (Weekly photo contest categories)
- **Before & After Hero:** Complete 5 restoration challenges

Impact Badges:

- **Brownfield Hero:** Build on 10 brownfield sites
- **Reuse Champion:** Complete 5 adaptive reuse projects with 40%+ carbon savings
- **Affordable Housing Advocate:** Include 30%+ affordable housing in 5 projects
- **Car-Free Pioneer:** Design 5 developments with <0.3 parking spaces per unit

Currency: Studs^[2]

Earning Studs:

- Complete challenges: 250-1,200 Studs depending on difficulty
- Time trials: 50-500 Studs based on performance
- Build jams: 50-1,000 Studs based on placement
- Daily login: 10 Studs
- Share to social media: 20 Studs per share (max 3 per day)
- Community votes on your designs: 5 Studs per "Love" (max 100 per design)

Spending Studs:

- **Cosmetic Parts:** 100-500 Studs (unique door colors, vintage lamp posts, decorative sculptures, seasonal items like fairy lights or pumpkins)
- **Parts Packs:** 800-1,500 Studs (themed bundles like "Canal-side Kit," "Industrial Loft Pack")
- **Photo Mode Props:** 50-200 Studs (animated mini-figs, vintage cars, cafe furniture)
- **Custom Avatars:** 300 Studs (choose your builder avatar appearance)

NO Pay-to-Win: Studs buy only cosmetics and fun extras—never gameplay advantages or faster progression.

Social and Community Features

Remix Culture^{[1][2]}

Remix Button: Any public design can be forked with one click, automatically crediting the original creator.

Attribution Chain: If Player B remixes Player A's design, and Player C remixes Player B's version, the attribution shows: "Originally by Player A → Remixed by Player B → Remixed by Player C"

Remix Leaderboards:

- **Most Remixed Design (Weekly):** 500 Studs to original creator
 - **Best Remix (Weekly):** 300 Studs to remixer
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Community Gallery

Gallery Sections:

- **Featured Builds:** Staff picks and challenge winners
- **Trending This Week:** Most viewed and loved designs
- **Local Builds:** Designs on sites near you (geo-located)
- **Before & After:** Restoration showcases
- **Build Jams Archive:** Past jam submissions

Engagement:

- **Love:** One-click appreciation (♥)
 - **Comment:** Leave feedback or questions
 - **Share:** Export link to social media or WhatsApp
 - **Report:** Flag inappropriate content
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Leaderboards^[2]

Not Just High Scores—Focus on Vibe:

- **Most Cozy Builds (Weekly):** Warm, inviting, human-scale designs
- **Most Inventive (Weekly):** Creative solutions and unexpected layouts
- **Best Small Sites (Weekly):** Maximizing tight plots
- **Greenest Designs (Monthly):** Highest Green Score + carbon performance
- **Community Favorite (Monthly):** Most loves + comments

Why This Works: Celebrates diverse design approaches rather than one "optimal" solution.

Bridge to GroundKit Pro^{[1][2]}

Seamless Upgrade Path:

In-App Upgrade Prompts (Non-Intrusive)

Trigger 1: After completing 3 projects and hitting Free tier limit

- **Prompt:** "You're on a roll! Upgrade to Pro for unlimited projects, private mode, and full cost + carbon analysis. **7-day free trial**"

Trigger 2: When attempting to export Planning Pack PDF

- **Prompt:** "Turn 'Hatherley Haven' into a real planning proposal with detailed cost estimates, policy citations, and professional PDF export. Upgrade to Pro."

Trigger 3: After receiving 50+ community loves on a public design

- **Prompt:** "Your designs are loved by the community! Pro members can collaborate with architects and planning officers. Upgrade to take it further."

One-Click Project Conversion

Hobbyist Mode → Pro Mode:

- Game assets (blocks, materials) automatically map to real material types with full performance data (cost/sqm, carbon kgCO₂e/sqm, U-values)
- Stylized constraints (amber heritage glow, dotted access lines) become professional GIS overlays with precise geometries
- Community Vibe Score converts to compliance dashboard with policy citations
- All design geometry preserved—no rebuilding required

Visual Toggle: "See the Real Data"^[1]

Available in Free Tier:

- Settings toggle: "Game View" ↔ "Map View"
- **Game View:** Stylized graphics, vibrant colors, game-like UI

- **Map View:** Satellite imagery, OS mapping, official constraint layers, professional interface
 - **Why:** Lets hobbyists peek "under the hood" and understand the real-world grounding without overwhelming them
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Educational and Classroom-Friendly Features^[2]

Guided Build Paths

Step-by-Step Assembly (like LEGO instruction booklets)

- Challenges can be set to "Guided Mode"
- Each step highlights which parts to place and where
- Perfect for younger players or classrooms

Build Journals

Auto-Capture Progress:

- System takes screenshots at key milestones
- Generates simple report: "First block placed → Ground floor complete → Roof added → Landscaping finished"
- Useful for reflection or teaching portfolios

Age Toggles

- **Simplified Mode (Ages 10-13):** Fewer parts, larger grid, auto-correct on common mistakes
 - **Standard Mode (Ages 14+):** Full feature set
 - **Advanced Mode (Ages 16+):** Policy checks, cost/carbon, complex materials
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Outcomes and Impact Tracking

Player Impact Dashboard

Personal Stats:

- **Brownfield sites activated:** X sites explored and built on
- **Carbon saved through reuse:** X tonnes CO₂e (compared to new build baseline)
- **Affordable housing included:** X units across all projects
- **Green space created:** X sqm of parks, gardens, and landscaping
- **Communities engaged:** X public proposals published, Y total votes/comments received

Community Impact (Aggregated):

- **GroundKit community has reimaged:** 10,000+ forgotten sites
- **Total carbon savings:** 150,000 tonnes CO₂e through reuse designs
- **Affordable homes designed:** 25,000+ units
- **Green space envisioned:** 500,000 sqm

Why This Matters: Players see their hobby contributing to real-world awareness of urban issues—brownfield reuse, affordable housing, sustainability.

Real-World Pathways

Top Community Designs → Real Pilot Projects

Process:

1. Monthly, GroundKit staff review top-voted community designs on actual opportunity sites
2. Select 1-2 designs with strong Community Vibe and policy alignment
3. Contact creator and local council to explore turning design into real pre-application or pilot
4. If pilot proceeds, creator receives:
 - **5,000 Studs** bonus
 - **"Real Impact Pioneer" badge** (rarest badge—gold with star)
 - Free Pro account upgrade (1 year)
 - Credit in real planning documents and media coverage

- Invitation to site visit and community consultation

Educational Case Studies:

- Designs that reach pilot stage become teaching examples in educational mode
 - Students analyze: "What made this design successful? How did it balance community needs and policy?"
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Summary: Game Loop and Reward Cycles

Short Loop (5-15 minutes):^[1]

Discover site → Build with blocks → Check vibe/rules → Share screenshot → Earn Studs & XP

Medium Loop (20-60 minutes):^[1]

Complete challenge → Unlock parts/badges → Compare with leaderboard → Remix community designs → Level up skill track

Long Loop (Weeks-Months):^[2]

Master all challenges → Reach Legendary Builder → Dominate build jams → Convert hobby project to Pro → Submit design for real-world pilot → Create lasting community impact

Why This Gameplay Works

For Hobbyist Gamers:

- LEGO-like satisfaction of snapping blocks^[2]
- Creative freedom with optional constraints
- Social sharing and remix culture
- Progression that feels rewarding without grind
- No pay-to-win—cosmetics only

For Community Activists:

- Empowers non-experts to visualize neighborhood change
- Public proposals gather real community feedback
- Transparent policy checks build planning literacy
- Real-world impact potential (pilot pathways)

For Educators and Students:

- Hands-on learning grounded in real sites
- Challenges teach urban design principles through play
- Build journals support reflection and assessment
- Age-appropriate difficulty scaling

For GroundKit Business:

- Free tier drives user acquisition and viral sharing
- Natural upgrade path to Pro when users hit limits or seek depth
- Community-generated content (builds, photos) provides marketing and SEO value
- Data on popular sites and design patterns informs roadmap and partnerships

This gameplay simulation creates a compelling, socially engaging, and educationally valuable experience that serves as the perfect on-ramp to GroundKit Pro—turning players into community builders, and eventually, into real-world changemakers.^{[1][2]}

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1. Gameplay-simulation.docx
 2. Idea-Snapshot-5.docx
 3. SRS.docx