**Game Design Document (GDD)**

**Project Title:** Stonewood

**Version:** 0.2

**Developer:** Darius Piatakovas

**Table of Contents**

1. Introduction
2. Game Concept
3. Gameplay and Controls
4. Game World, Levels, and Environments
5. Story and Narrative
6. Art and Assets
7. User Interface (UI) and User Experience (UX)
8. Audio Design
9. Monetization
10. Multiplayer Features
11. Testing and Quality Assurance
12. Marketing and Promotion
13. Budget and Resources
14. Appendices

**1. Introduction**

Stonewood is a peaceful city-builder where players guide AI villagers to transform untamed wilderness into thriving settlements through strategic resource management and thoughtful building placement. Unlike combat-focused city- builder RTS games, Stonewood offers a zen-like experience focused purely on growth, creativity, and optimization.

**Executive Summary:** Players manage resources and AI workers to harvest materials and expand a village. The game emphasizes relaxing, meditative village building with intelligent worker AI that operates autonomously while allowing strategic player intervention.

**Key Features:**

* **Peaceful Focus:** No combat or conflict - pure city-building experience
* **Intelligent Worker AI:** Workers automatically seek resources but can be manually directed
* **Visual Feedback Systems:** Real-time progress bars, resource depletion, and worker activities
* **Intuitive Building System:** Simple B-key menu with visual placement and resource requirements

**2. Game Concept**

* **Platform:** PC (Windows)
* **Genre:** RTS / City Builder / Simulation
* **Perspective:** Top-down camera with mouse and WASD movement
* **Core Loop:** Build → Workers Spawn → Resources Gathered → Expand Village
* **Win/Loss Conditions:** Sandbox-style creative building (no formal win conditions)

**Target Audience:**

* **Primary:** Peaceful builders (ages 25-45) seeking relaxing creative gameplay
* **Secondary:** Strategy game enthusiasts who enjoy resource management without time pressure

**Unique Selling Points:**

* Automatic worker AI with manual override capabilities
* Visual resource depletion and regeneration system
* Construction progress bars providing satisfying build feedback
* Settlers-inspired gameplay with modern UX improvements

**3. Gameplay and Controls**

**Core Controls:**

* **Mouse:** Camera control and selection
* **WASD:** Camera movement across the game world
* **Left Click:** Select individual workers or buildings
* **Right Click:** Assign specific tasks to selected workers
* **B Key:** Toggle building menu (primary construction interface)

**Building Mechanics:**

* **Menu System:** B key opens right-side building panel with available structures
* **Resource Requirements:** Buildings display required materials (e.g., 15 wood for Mason)
* **Visual Preview:** Selected buildings show placement preview before confirmation
* **Construction Progress:** Buildings display progress bars during construction phase
* **Free Placement:** Buildings can be placed anywhere on suitable ground

**Worker AI System:**

* **Automatic Spawning:** Completed buildings automatically generate appropriate workers
* **Resource Seeking:** Workers autonomously find and harvest nearest available resources
* **Carrying System:** Workers visually transport resources back to their originating building
* **Manual Override:** Players can select individual workers and direct them to specific resources
* **Resource Depletion:** Workers automatically move to next available source when current depletes

**Resource Management:**

* **Wood Collection:** Lumber House workers chop trees and return with logs
* **Stone Collection:** Mason workers gather rocks and transport stone
* **Visual Feedback:** Resources visually diminish as workers harvest them
* **Counter System:** Left-side UI displays current resource totals
* **Building Requirements:** Structures require specific resource amounts to construct

**4. Game World, Levels, and Environments**

**Terrain Features:**

* **Clearings:** Open spaces suitable for building placement
* **Forests:** Dense tree areas providing renewable wood resources
* **Rocky Areas:** Stone deposits for construction materials
* **Natural Boundaries:** Terrain features that guide village expansion

**Building Types:**

* **Lumber House:** Spawns lumberjack workers, who gather wood, requires 5 wood to construct
* **Mason Building:** Generates stone-gathering workers, requires 15 wood to construct

**Resource Types:**

* **Wood:** Primary building material harvested from trees by lumberjacks
* **Stone:** Construction resource gathered from rocks by mason workers

1. **Story and Narrative**

**Setting and Context:**

* Players are establishing a new village in an untamed wilderness
* Focus on peaceful expansion and harmony with natural resources
* No character dialogue or complex narrative elements
* Environmental storytelling through village growth and development

**Atmospheric Goals:**

* Create sense of peaceful accomplishment through village building
* Emphasize cooperation between player strategy and worker autonomy
* Visual progression from wilderness to thriving settlement
* Meditative gameplay experience promoting creativity over competition

1. **Art and Assets**

**Visual Style:**

* **Art Direction:** Low-poly, colorful, cartoonish aesthetic
* **Color Palette:** Warm, inviting colors promoting relaxation

**Required Asset Categories:**

**Character Assets:**

* Worker character models with basic animations (idle, walking, working)
* Carrying animations for resource transportation

**Assets:**

* Tree models
* Rock models
* Terrain textures for clearings and natural areas

**Building Assets:**

* Lumber House model
* Mason building
* Progress bar visual elements

**Building placement preview materials UI Assets:**

* Resource counter icons (wood, stone)
* Building menu panel with structure icons
* Construction progress indicators
* Worker selection and task assignment visual feedback

**7. User Interface (UI) and User Experience (UX)**

**Interface Layout:**

* **Left-Side HUD:** Resource counters with clear iconography
* **Right-Side Panel:** Building menu accessed via B key
* **Central Viewport:** Main game world with minimal UI overlay
* **Context Menus:** Building-specific information and controls

**User Experience Goals:**

* **Intuitive Discovery:** B key building system easily discoverable
* **Clear Feedback:** Visual progress bars and resource changes
* **Minimal Complexity:** Simple controls with powerful underlying systems
* **Satisfying Interactions:** Smooth building placement and worker management

**Specific UX Features:**

* **Building Requirements Display:** Show resource costs before placement
* **Construction Progress:** Visual bars indicating building completion status
* **Worker Activity Indicators:** Clear visual feedback for worker actions
* **Resource Depletion Visualization:** Trees and rocks show harvesting impact

**Menu Systems:**

* **Main Menu:** Game start, options, and exit functionality
* **Pause Menu:** In-game options and save system access
* **Building Menu:** Primary construction interface with category organization
* **Options Menu:** Audio, visual, and control customization

**8. Audio Design**

**Musical Design:**

* **Calm Medieval Loops:** Peaceful instrumental tracks promoting relaxation
* **Dynamic Audio:** Music adapts to village activity and growth
* **Seamless Transitions:** Smooth audio flow supporting meditative experience

**Sound Effects:**

* **Spatialized Audio:** 3D positioned sounds enhancing world immersion
* **Work Sounds:** Wood chopping, stone striking, resource collection
* **Construction Audio:** Building placement and progress feedback
* **Ambient Sounds:** Nature atmosphere (birds, wind, distant water)
* **UI Audio:** Satisfying click sounds and menu navigation feedback

**Audio Implementation:**

* **Resource Gathering:** Distinct sounds for different harvesting activities
* **Worker Movement:** Footsteps and movement audio for worker characters
* **Environmental Audio:** Atmospheric sounds supporting peaceful gameplay
* **Feedback Systems:** Audio cues for successful actions and building completion

1. **Monetization**

**Business Model:** No monetization planned

**Distribution Strategy:** Student portfolio showcase and learning demonstration

1. **Multiplayer Features**

**Multiplayer Support:** Single-player experience only

**Design Philosophy:** Focus on personal creative expression and meditative gameplay rather than competitive or collaborative multiplayer systems

1. **Testing and Quality Assurance**

**Core Testing Priorities:**

* **Building Placement Logic:** Ensure collision detection and placement validation
* **Worker AI Behavior:** Test autonomous resource seeking and manual override systems
* **Resource Flow Accuracy:** Verify correct resource collection and storage
* **UI Responsiveness:** Confirm building menu and selection systems function smoothly

**Performance Validation:**

* **Construction Progress:** Ensure progress bars accurately reflect building status
* **Resource Depletion:** Test visual feedback systems for harvesting
* **Worker Pathfinding:** Validate collision-aware movement and task completion
* **System Scalability:** Test performance with multiple workers and buildings

**User Experience Testing:**

* **Control Intuitiveness:** Verify B key building system discoverability
* **Visual Clarity:** Confirm resource requirements and building feedback are clear
* **Gameplay Flow:** Test satisfying progression from building to resource collection

**12. Marketing and Promotion**

**Target Audience Definition:**

* **Primary Audience:** City-building game enthusiasts seeking relaxing experiences
* **Secondary Audience:** Strategy game fans interested in peaceful resource management
* **Demographic Focus:** Players aged 25-45 who value creativity over competition

**Distribution Strategy:**

**Portfolio Showcase:** Primary focus on demonstrating game development skills

**13. Budget and Resources**

**Development Team:**

* **Developer:** Solo development
* **Project Scope:** Educational and portfolio-focused development

**Technical Resources:**

* **Engine:** Unreal Engine 5
* **3D Modeling:** Blender for work with models
* **Audio Tools:** AI-generated music and sound effect libraries
* **Version Control:** Git for project and asset management

**Asset Strategy:**

* **Mixed Approach:** Combination of custom-made assets and marketplace resources
* **Quality Focus:** Prioritize visual consistency over asset complexity
* **Scalable Pipeline:** Efficient asset creation process for future expansion

**14. Appendices**

**Future possible features roadmap:**

* Basic day-night cycle (only visual)
* Speed controls (1x / 2x / pause)
* Building upgrades and tier systems
* Extended Resource Chains

**Design Philosophy:**

* **Player Agency:** Balance between automatic systems and manual control
* **Visual Communication:** Prioritize clear feedback over complex mechanics
* **Peaceful Gameplay:** Maintain stress-free, creative experience throughout development
* **Educational Value:** Document development process for learning demonstration