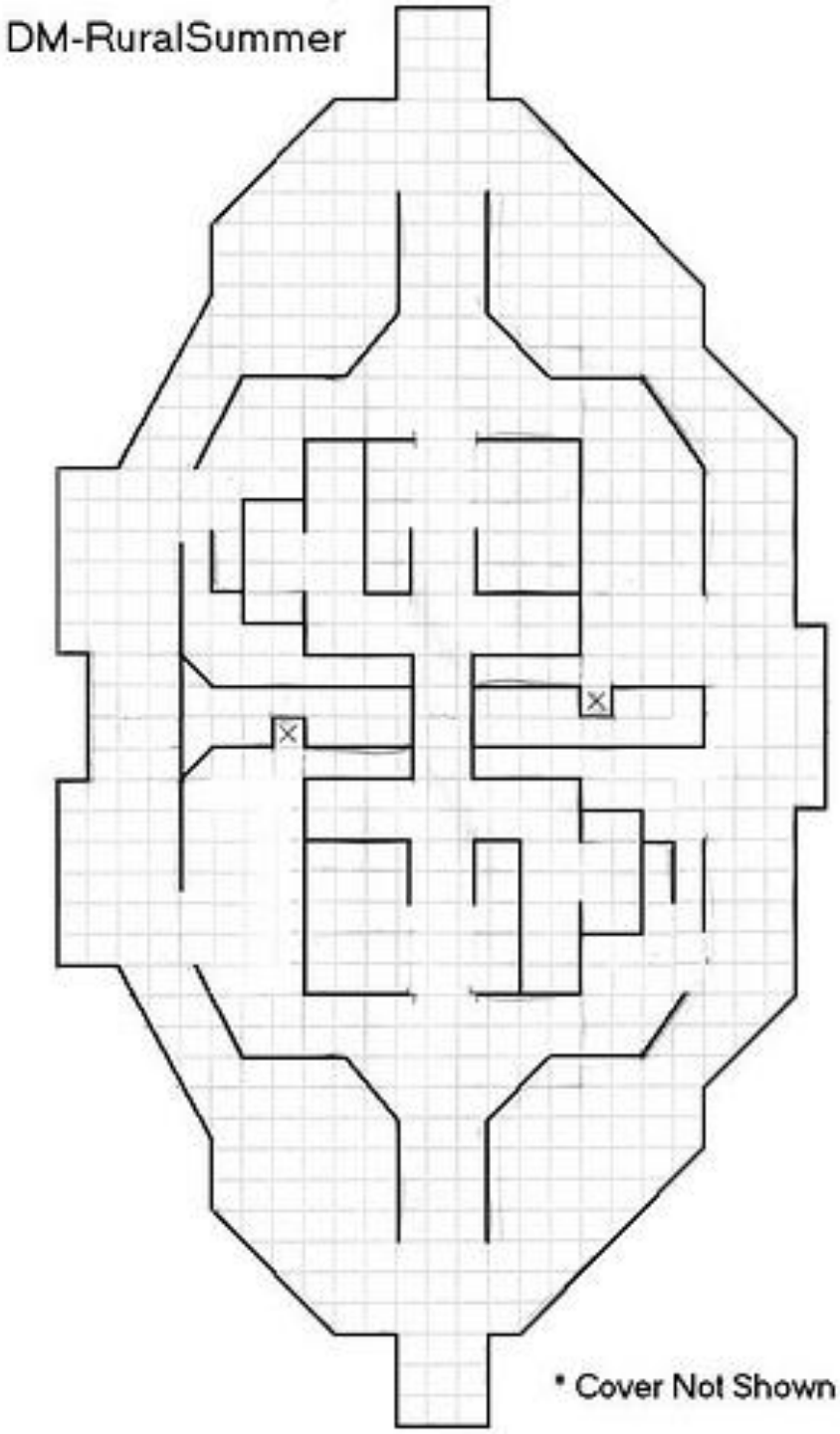
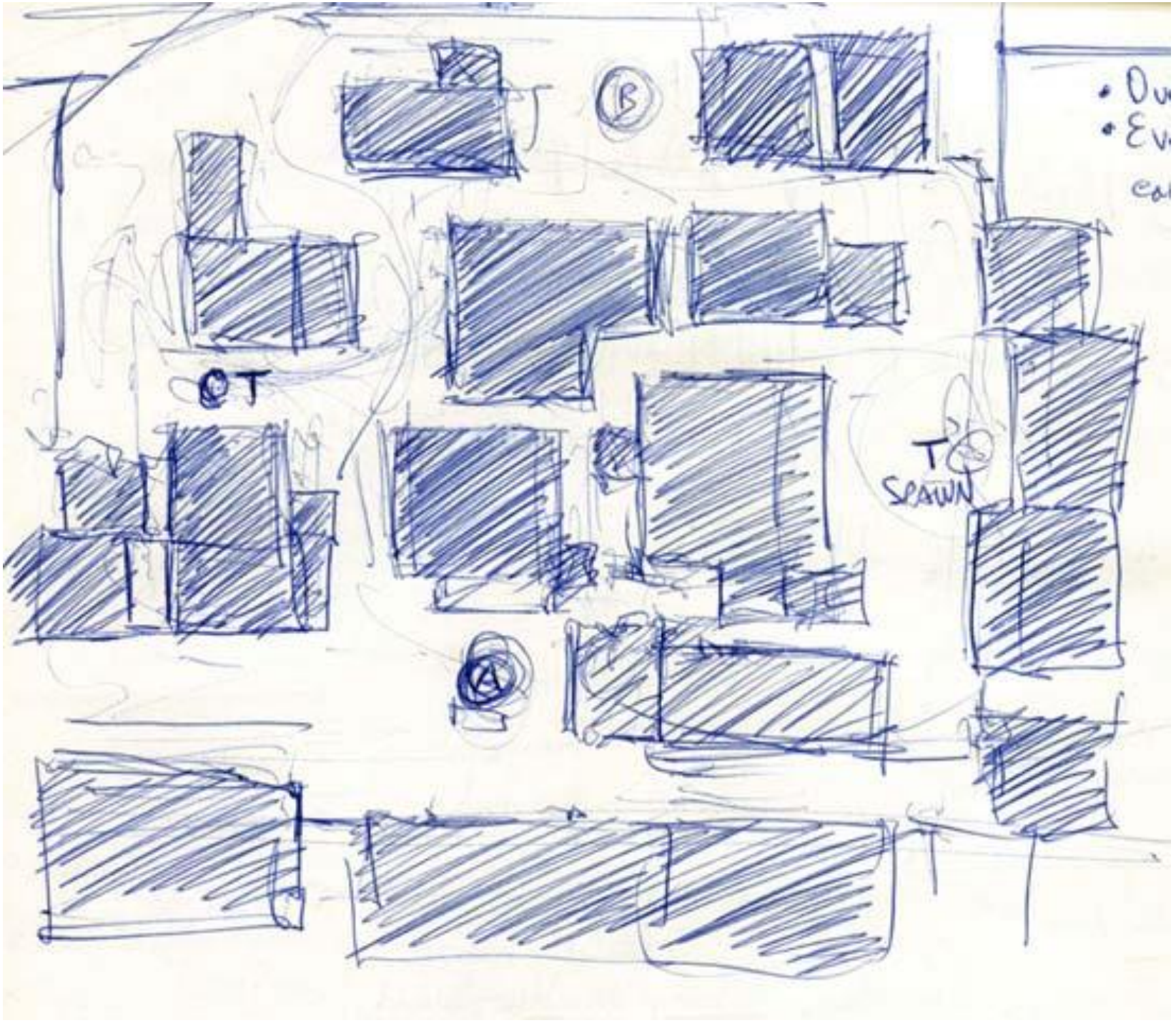
COMP09095 Level Design

Week 06 Lecture – From Diagram to Template

The Level Diagram

- The blueprint for your level
- No standard for a level diagram, can be very simple drawings or very complex 3D scenes
- Normally top-down or “plan” view
- First need to understand:
  - Level context
  - Level scope
  - Level progression


DM-RuralSummer
* Cover Not Shown


B
CT
T
SPAWN
A

Level Context

- Most games are released with a number of levels
- They need to work together to teach player skills to allow smooth progression
- Levels work together to tell the overall story of the game
- Level context is its relationship to the other levels in the game

Level Context

- World diagram shows all levels in the game
- Game Design Document details the outline scope of each level, the order of levels in the game, and any special-case levels
- Order of level determines skills and obstacles to be included
- Special-case levels add variety to gameplay

Level Scope

- Refers to the amount of gameplay in the level and the percentage of the game it contains
- Not related to size of the level
- Defined by:
  - Total playing time for the entire game
  - Number of levels in the game
  - Is this level played just once, or can it be revisited (e.g. hub level)?

Level Scope

- May take extensive playtesting with a mix of player experience to determine the right amount of gameplay for a level
- Players like to experience change in a game around every 15 minutes
- Try to limit level gameplay to 30 minutes or less
- Level scope determines the amount of development time that should be spent on it

Level Progression

- How the player character moves through the level
- First step in creating a level diagram is to place level areas in order and give them an organisational structure
- Use the level narrative and context to decide where the character needs to go to complete the level

Level Progression

- Linear levels guide the player along a path from beginning to end
- May contain some open areas, but no real choice
- Typically flow in a straight line from beginning to exit
- Often necessary to propel the game and game story forward
- Allows you to control the player experience to a large extent – often used for early levels in a game

Level Progression

- Nonlinear levels give the player much more choice
- Tasks can be performed in any order
- Much more difficult to design
- Scripted sequences need to work in any order
- Difficulty/balancing issues can be very challenging for the level designer

Creating a Level Diagram

1. List the areas in your level

2. Lay them out in a sequence matching your level progression

3. Connect all the areas

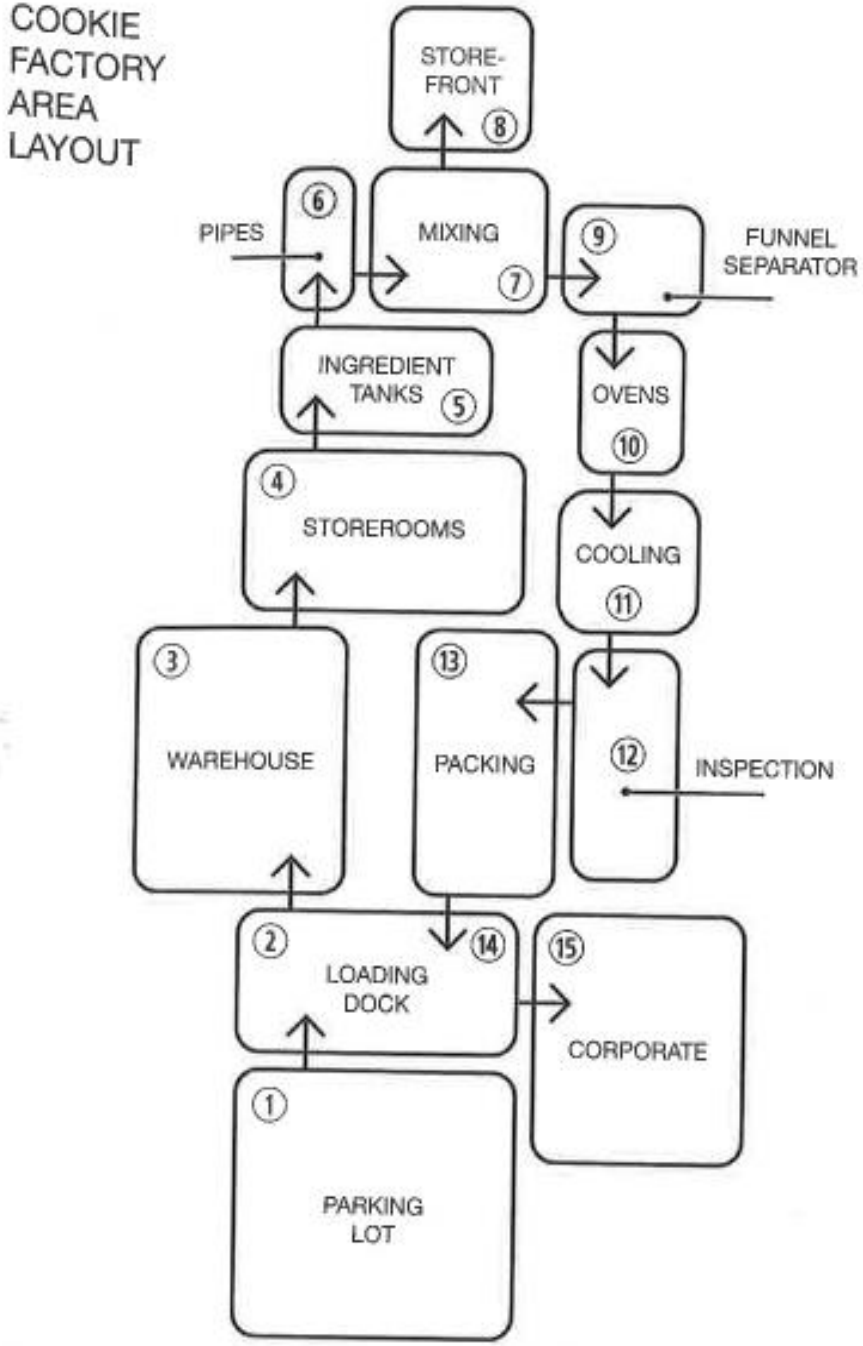
4. Evaluate and revise the diagram

5. Clean up and add concept art etc

Laying Out The Areas

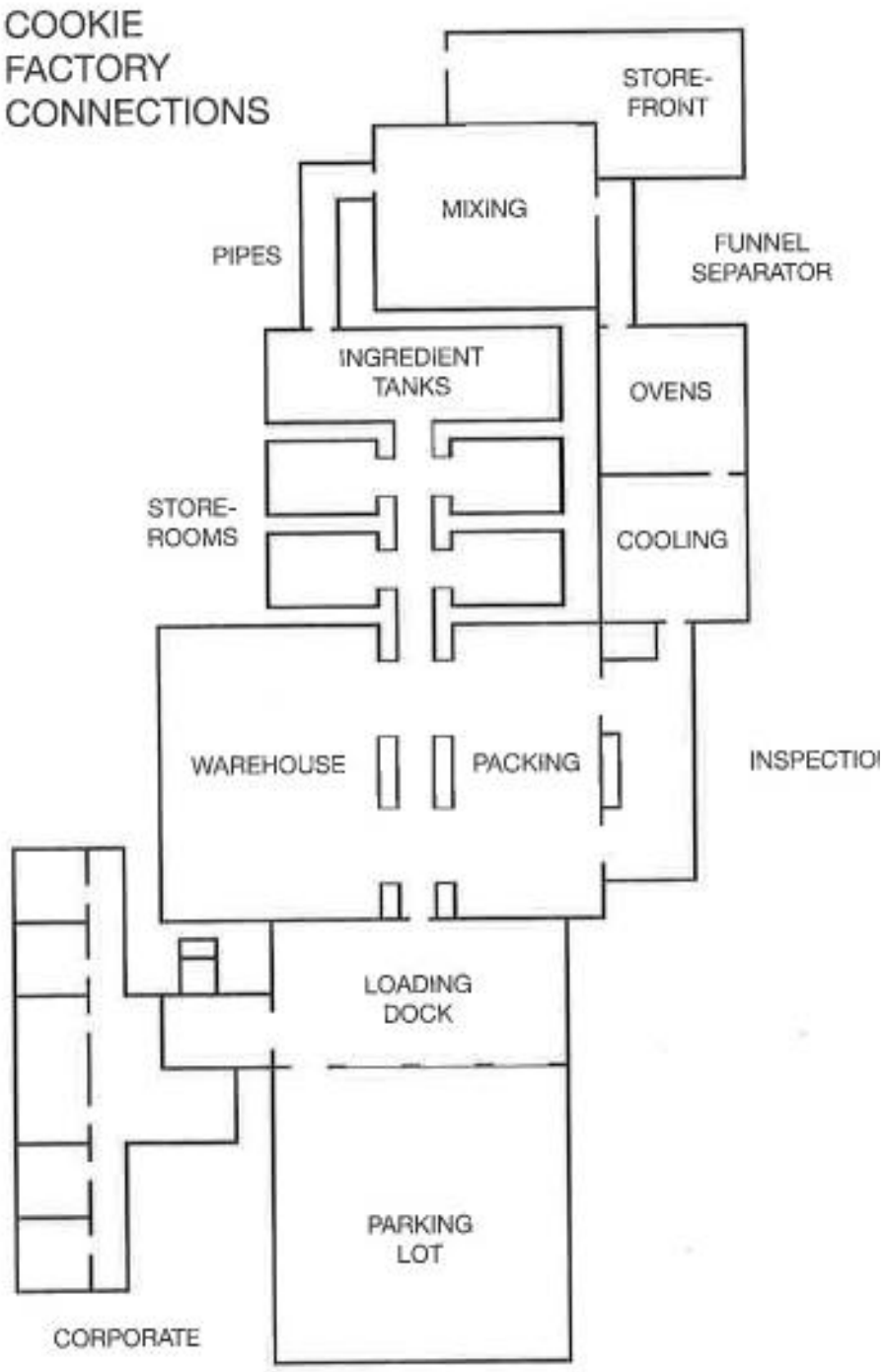
- Create basic geometric shapes (e.g. rectangles, circles) for all major areas and label them to correspond with your Level Design Description
- Helps if you make these to scale
- If you have time, create multiple layouts and evaluate them
- “Cookie Factory” example (Co, P., 2006. Level designs for games: creating compelling game experiences. New Riders Games, Berkeley, CA.)

COOKIE FACTORY AREA LAYOUT



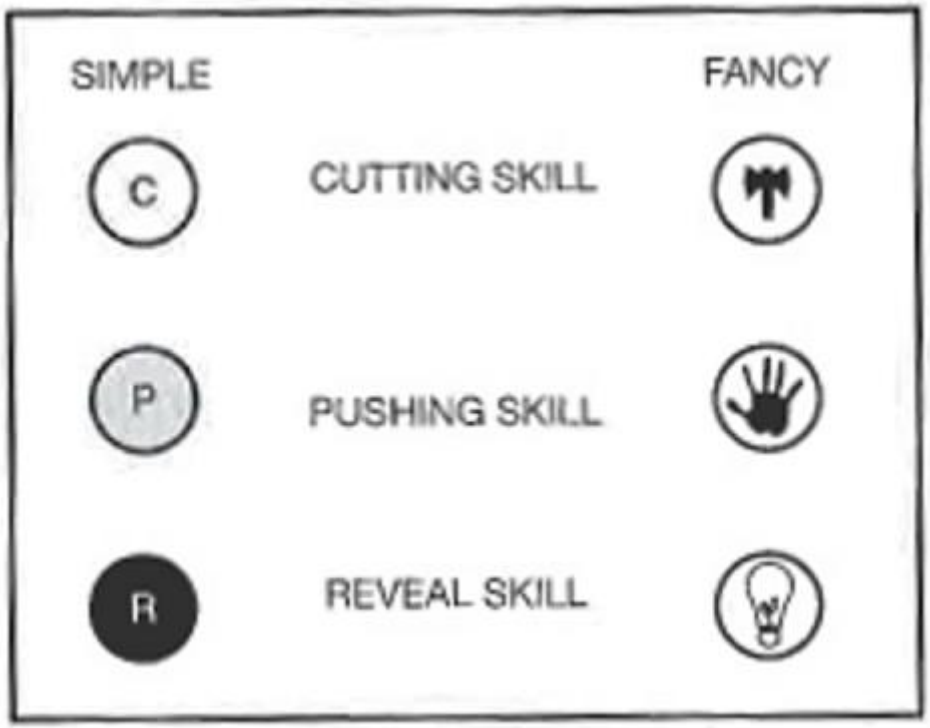
Adding Connectors

- Create connectors between areas
- Connector depends on the kind of level you are creating
- Add variety in the types of connection
- Might be additional spaces
- Could add a cinematic or cut-scene
- Connection types may change once you add obstacles


COOKIE
FACTORY
CONNECTIONS
STORE-
FRONT
MIXING
PIPES
FUNNEL
SEPARATOR
INGREDIENT
TANKS
OVENS
STORE-
ROOMS
COOLING
WAREHOUSE
PACKING
INSPECTIO
LOADING
DOCK
PARKING
LOT
CORPORATE

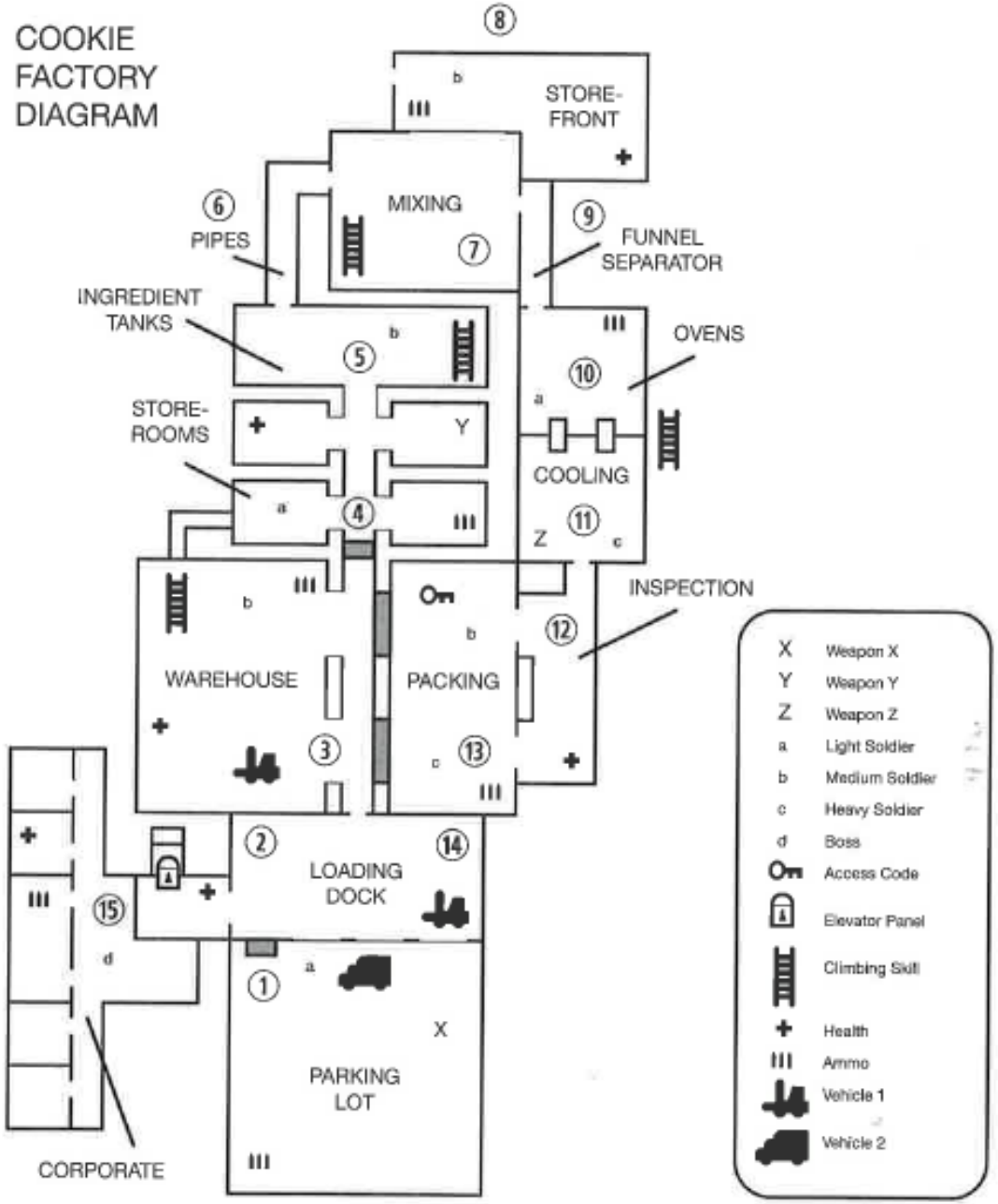
Adding Gameplay Elements

- Place skills, obstacles, enemies and scripted sequences into your diagram
- Use symbols for:
  - The skills the character will use
  - Each of the obstacles/enemies
  - Items the player needs
- Group symbols according to category: skill or obstacle



Examples of symbols

COOKIE FACTORY DIAGRAM



Evaluating the Diagram

- Design team looks at e.g. level size, feasibility of gameplay, overall level flow and progression
- Need to visualise actually playing the level – needs imagination!
- Cheaper, easier and faster to make changes at this stage than during later stages – take the time to evaluate thoroughly

Creating a Level Template

- The template is the rough draft of the level in three-dimensional form
- Marks the transition from pre-production to production phase of the project
- Should follow the level diagram as closely as possible
- Use simple geometry (boxes, cylinders, wedges) and placeholder textures
- Start playtesting once the template is complete