

## Project Final Goals and Deliverables Framework

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Preliminary framework to be discussed and elaborated on Tuesday March 31<sup>st</sup> 2009

### Goal:

- The creation of a manual/tool for neighborhood and infrastructure design 2030
  - that is derived from (Tama) New Towns' typologies

### Objectives:

- Rather than providing a single plan, the purpose of the manual is to create a flexible set of codes/typologies that account for site variability. Just as we used transects to identify typical site conditions across Tama, this manual should allow users to determine intervention points through condition resolution.
- The proposals in the manual should not be conventional; instead, they should test the boundaries of infrastructure and site design
- This manual will illustrate how stated objectives (example: the use of ecology and natural systems for sewage treatment) can be translated into design interventions in a variety of conditions, and multiple scales.
- The manual will use a common format and graphics to systematically communicate process, possible design principles and design solutions in both the micro (site) and macro (neighborhood) scales.
- In addition to outlining techniques and intervention points, the manual would include a few permutations of how these techniques could be synthesized and employed at the neighborhood scale.

### Management:

- Final Product: publishable book as well as sets of display drawings.
  - The class should discuss and organize the various tasks and assign responsibilities for the final product. These should include, but are not limited to:
    - Table of Contents -
    - Layout Templates (Written and Graphics)
    - Graphic style (color, etc)
    - Composition of text (fonts, etc)
    - Language and Vocabulary
    - Others

Each person must take a leading role and be responsible as a coordinator for a particular task (larger/complex tasks may require more than one coordinator). This **MUST** be organized by the class as a whole - **take initiative!**

### Process/Tasks:

#### Task 1. Framing 'large scale' general goals (Class)

- The class (as a whole) should establish general goals for the project's design/plan. These goals should emphasize performance (ie not necessarily a set of, "this is what we want" but "this is the performance that we want") These should be larger in scale and scope, for example:

"Create integrated/diffused natural infrastructure networks that require less energy input yet perform at a known and desirable standard"

"Configure structures; make use of appropriate plant material and shape topography to lessen energy use for heating and cooling"

#### Task 2. Prioritize and reassess alternative technologies (Class)

- The class (as a whole) should reexamine the 10 technologies/criteria we have worked on through the course of

this semester. You should decide whether all should remain, or if less relevant ones should be negated, and if there are others that should be included.

The current topics/technologies are:

- Waste Water Systems: sewers
- Waste Water Systems grey water
- Storm Water Systems
- Streams, Water Body Restorations
- Energy supply (and reduction) technologies at the community level.
- Food production technologies at the community level.
- Passive and active climate mitigation
- Mobility and travel
- Innovative Materials (surface , paving, walls)
- Earthworks – Soils

### **Task 3. Assign coordinators and specific tasks related to the final product and class process -**

#### **Manual OUTLINE**

(see 'Management' section above)

### **Task 4. Develop different site typologies for each alternative technology (Individual)**

- Generate 4-5 Design and Plan Typologies within your specific individual alternative approach (see task 3)

Process:

- Define your specific Goals /Objectives
- Generate a list of Challenges and Opportunities
- Generate a priority list/matrix  
This is not about doing everything. Ask yourself why do you want to do it? Eg: why do you want local agriculture? Local ownership or living off the land, etc. Think about flexibility vs. optimization. If it's too flexible, nothing is optimized (ie If you take flexibility to the extreme you may end up with a bare bones system. What is flexibility within a range? Consider limitations and tradeoffs

Such a matrix could be divided into four categories: Scale/Objectives/Actions/Examples

- Generate a list of principles (eg "create riparian areas and vegetation buffers along reconstructed stream and floodplain" "revegetate streams with native species to improve the valley's Biodiversity" etc.)

Product:

Note: scale and graphics to be determined

(all of which must be coordinated for graphic and written consistency (scale, colors, fonts etc))

- Typical (4-5) Sections (transects) at the Building – 'Yard'- 'Street' – Open Space – 'Nature' scale
- Typical (2-3) Plans at the Building – 'Yard'- 'Street' – Open Space – 'Nature' scale
- Process and concept diagrams
- Typical (3-4) Vignettes
- A write-up describing the proposed typologies, process (goals, priority, principles, scientific/researched data, etc)

### **Task 5. Synthesis - Neighborhood Site Plan Assemblies (Group Task– 3 groups)**

- Develop 3 permutations/examples of how these various approaches/techniques could be synthesized and employed at the neighborhood scale.

Product:

Note: scale and graphics to be determined

- Neighborhood Site Plan, Diagrams, Sections/Transects, vignettes, etc.

**Initial Due Dates/Timeline:**

- Week of March 30- April 3  
Due: Task 1, 2 and 3 Establish Overall Goals/Prioritize Alternative Technologies/Management Team
- Week of April 6 – 10  
Task 4  
Preliminary Outline (Task 3) due on April 7
- Week of April 13 – 17
- Week of April 20 – 24  
20-21 Patriots day  
Due: Task 4 –Completed By April 23
- Week of April 20 - 24  
Task 5
- Week of April 27 - May 1
- Week of May 4 - 8
- Week of May 11 - 15  
May 14 Last day of classes
- Week of May 18 - 22  
Final Exam Week – Presentation Day to be determined / Manual Due

**Examples:**

See Stellar for Examples of Section/Plan Typologies/Prototypes

Possible Outline:

- Overview
- Goals /Vision
- Frameworks for (design Planning)
  - Objectives
  - Methodology
  - Site Synthesis (abstractions constraints/opportunities)
- Alternative Technologies Systems-
  - Assessment
  - (Research)
  - (Cases)
  - (Preliminary Synthesis)
- Site Scale Typologies
  - Objectives
  - Principles
  - Design interventions
  - Implementation/Guidelines
- Synthesis
  - Site (Neighborhood) Permutations

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11.304J / 4.225J Site and Infrastructure Systems Planning  
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