

## Introduction

- Contents
- Introduction / Committee
- Issues

- i
- ii
- iii

## Palette

- Landscape
- Structure
- Water
- Surface
- History

- page iv**
- v
- vi
- vii
- viii
- ix

## Vision Plan

- Overview
- Overlay
- Vision Plan

- page x**
- x
- xi
- xii

## Vision Plan Components

- **West Arbor Lake Overall Plan**
  - o Performance Structure vignette
  - o Performance Structure section & plan
  - o Event Gazebo & Pier vignettes
  - o Promenade vignette with Old Village Hall
  - o Rock Outcroppings vignette & detail plan
  - o Lion's Pavillion details
  - o Native Landscaped areas

- page 1**
- o 2
- o 3
- o 4
- o 5
- o 6
- o 7
- o appendix

### Town Green Overall Plan

- o The Lawn vignette
- o Perennial Garden details
- o Library images
- o Town Green Trellis vignette

- page 8**
- o 9
- o 10
- o 11
- o 12

### North Arbor Lake Overall Plan

- o Crosswalk Staple & Details
- o Residential Island
- o Native Landscaped areas

- page 13**
- o 14
- o 15
- o appendix

### Arbor Lake Overall Plan

- o Island & Bridge
- o Retail Promenade
- o Native Landscaped areas

- page 16**
- o 17
- o 18
- o appendix

## Attachments

- Civic Campus & Arbor Lakes Management Plan *by the City of Maple Grove* o 19
- Existing Conditions
  - o Existing Topography o 23
- Proposed Future Developments o 24
- Material/Texture examples for bollards, tree grates, & site furniture o 25
- Sections of Native Landscaped areas o 26
- Perennial Garden Plantings and Information o 30
- Costs Summary: o 31
  - o **West Arbor Lake**

- Project 1. Performance Structure
- Project 2. Gazebo and Pier
- Project 3. Government Center Promenade with old Village Hall Building
- Project 4. Rock Outcroppings
- Project 5. Putting Course (In Development)
- Project 6. Town Green
- Project 7. Perennial Garden (Completed)
- Project 8. Native Landscaped Areas - West Arbor Lake

### North Arbor Lake

- Project 9. Main Street Staple from West Arbor Lake to North Arbor Lake
- Project 10. Promenade from North Staple
- Project 11. Gazebo North
- Project 12. Native Landscaped Areas - North Arbor Lake

### Arbor Lake

- Project 13. Promenade Retail
- Project 13A. Arbor Promenade A
- Project 14. Retail Trail
- Project 15. Island Gazebo
- Project 15A. Arbor Promenade B
- Project 16. Staple Arbor Lake to North Arbor Lake
- Project 17. Native Landscaped Areas - Arbor Lake

I n t r o d u c t i o n :

Through a series of visioning sessions, the committee worked with BKV to develop a plan for the Public Spaces of Arbor Lakes--the Vision Plan. The Vision Plan is a framework for development of the public spaces surrounding West Arbor Lake, North Arbor Lake, and Arbor Lake; Three Lakes in the heart of Maple Grove collectively called The Arbor Lakes. The committee developed a list of several issues to guide the development of the design guidelines. These issues are briefly summarized on the following pages. The intent and purpose of the guidelines is not only to encourage and support a high level of quality and design throughout the various projects within the vision plan, but also to tie the lakes together; corresponding to their uses; commercial, residential and civic; fully bringing them into the public realm and creating an identity that is uniquely Maple Grove.

As part of the process of defining any community or place, one often looks to history for clues that aid in the creation of a genuine place rather than one that is just imposed on the site. Of course, throughout history architects and planners have walked a fine line between interpreting history and creating it. In the case of Maple Grove and the Arbor Lakes specifically, gravel mining has a significant historical influence on the site. The vision plan recognizes this, but it also realizes the evolving and changing nature of the site and the community. The vision plan represents the potential of what the site can become as it transitions from a gravel mine and integrates itself as the center of a larger park system and community.

The grand vision *and* practicality of the vision plan are reflected in the ever-changing scope seen within these guidelines. The breadth and scope of the vision plan is intended to be grand and encompassing, a vision plan is not meant to show a mediocre level of development, but rather the potential of the site and the opportunities that exist. With that in mind, the plan and its many components can be developed at will. As the lakes exist now, people can enjoy them with the current walking paths. As the plan is realized, people will also be able to enjoy a concert at the performance structure, walk along a promenade, attend a wedding on the pier or spend an afternoon strolling through gardens. None of these activities rely on the completion of the entire plan. Rather as each piece of the plan is realized, the lakes become more interesting places to be and can accommodate various users having a multitude of varied experiences. While it is not imperative that any particular piece of the plan be built, it is very important that the plan is not compromised by encroaching developments. The Arbor Lakes can take a very important lead in setting the tone for development around other lakes. These lakes will have a great impact on the quality of life for future residents as density increases on the site of the former gravel mine.

C o m m i t t e e :

City of Maple Grove  
**Chuck Stifter**  
**Terry Just**  
**Debbie Coss**  
**Patty Anderson**  
**Bob Waibel**  
**Dick Edwards**

BKV Group  
**William M. Baxley, A.I.A.**  
**Jeremiah K. Smith**

i n t r o d u c t i o n

## I s s u e s :

### **Create/reinforce the identity of Maple Grove**

The development of the Vision Plan is an opportunity to develop a vision and implement it through architecture & landscape architecture by creating a public realm that is easily identified as uniquely Maple Grove.

### **Incorporate Vision Plan in the development of the entire Arbor Lakes area**

To create a strong and cohesive series of public spaces, all development that occurs within the area encompassed by the Plan should consider the goals of the Plan as project specific buildings, landscaping, signage, etc. is designed and constructed.

### **Link the architecture & influences of Main Street, Government Center, Community Center, Library, Lions Pavilion, residential projects, & mining operations**

Starting with the existing buildings that make-up the existing public realm and nearby influences, there are several variations in approach to design. The Plan is an opportunity to tie these pieces together and allow them to maintain individual differences and distinctiveness. This provides for a diversity of experiences from pieces that are all part of a larger whole.

### **Consider the historical significance of the site as a former gravel mine**

Building on the history of the development of Maple Grove leads to the development of place. By looking at Maple Grove to find what is unique and true to Maple Grove, the result does not become too contrived.

### **Allow people to get near the water**

The three Arbor Lakes are a valuable natural amenity. It is desirable to show these in a positive light and allow people to interact with them rather than keeping them away.

### **Tie all lakes together**

While it is foreseen that each lake will be used for somewhat different uses, cumulatively the lakes are a very significant portion of the framework plan.

### **Ease of movement**

Create safe, identifiable natural pedestrian crossings. Main Street & Arbor Lakes Parkway significantly impair the movement of pedestrians between the all three lakes. Focused improvement needs to be made in circulation so that pedestrians can move freely and safely along accessible routes.

### **Development of the Public Realm**

The framework should promote attractive and successful outdoor areas. In Minneapolis it is the Grand Rounds and Chain of Lakes that create strong images of the Minneapolis park system within visitors' minds. Furthermore, it should be easy to distinguish between public and private spaces. Street frontages, landscaping, buildings, and natural landforms can be used to create edges which help define spaces and create unique public gathering spaces.

### **Adaptability and potential new future uses**

New technologies, social and economic conditions can create new circumstances and situations, the framework plan should be flexible enough to accommodate these occasions.

## P a l e t t e :

The following pages represent a range of qualities or 'palette' that all development within the Arbor Lakes district will in some form or another reflect. The development of this 'pattern language' is critical to the harmonious association of things both physical and narrative in the creation of this unique place.

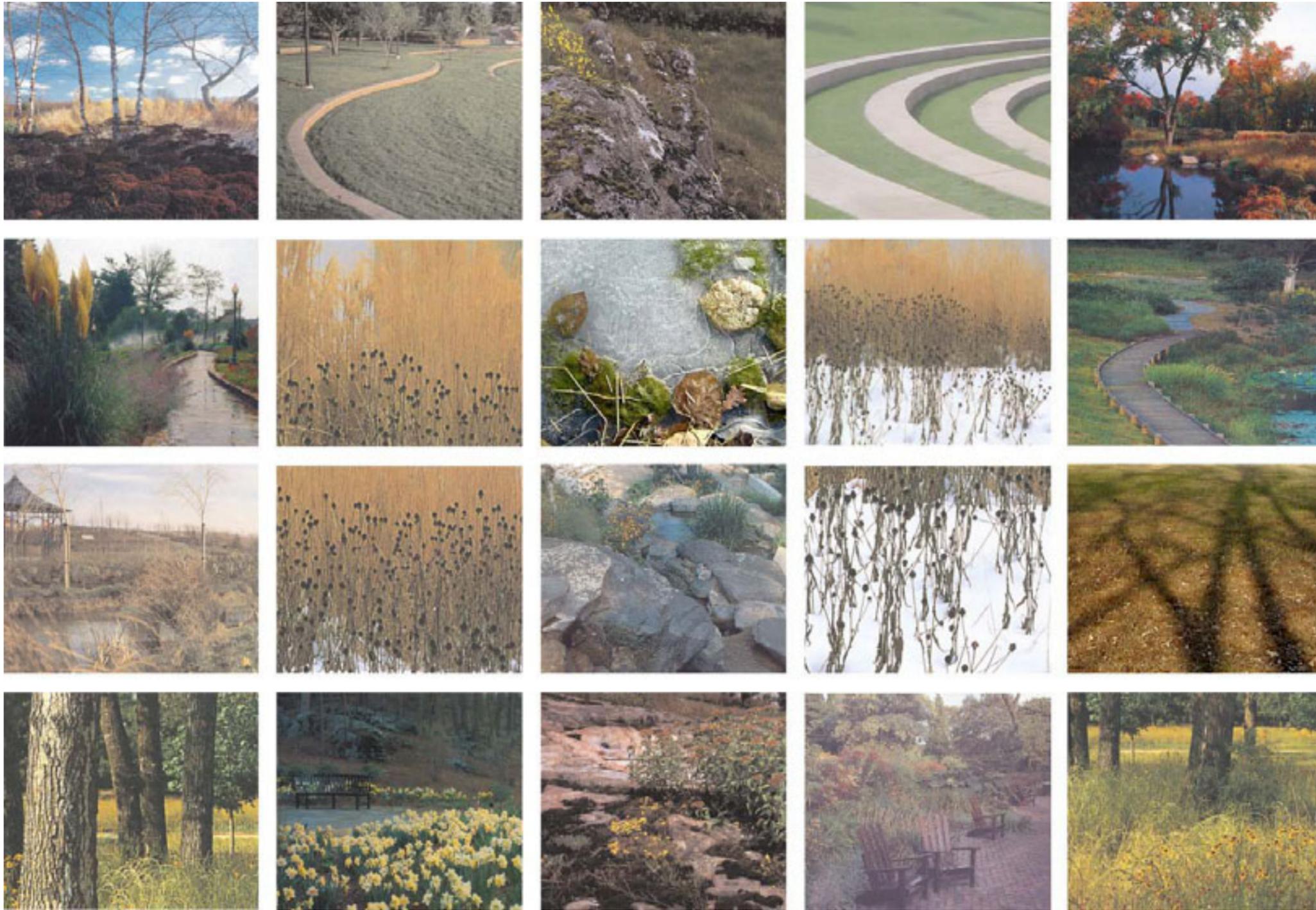
The images form a pattern which is both a summary of the language of the place and an index. If one looks through the images and finds a theme that conjoins one group of patterns to one another one will get an overview of the whole language. Once one gets this overview, you will be able to find the patterns which are relevant to each project and subsequent projects thereafter. The images form a 'base map' from which you can make a language for your own project by choosing the patterns which are most useful and relevant.

Since the language is in truth a network, there is no one sequence which perfectly captures it, it follows a line, dips down, dips up again, and follows an irregular course, a little like a needle following a tapestry.

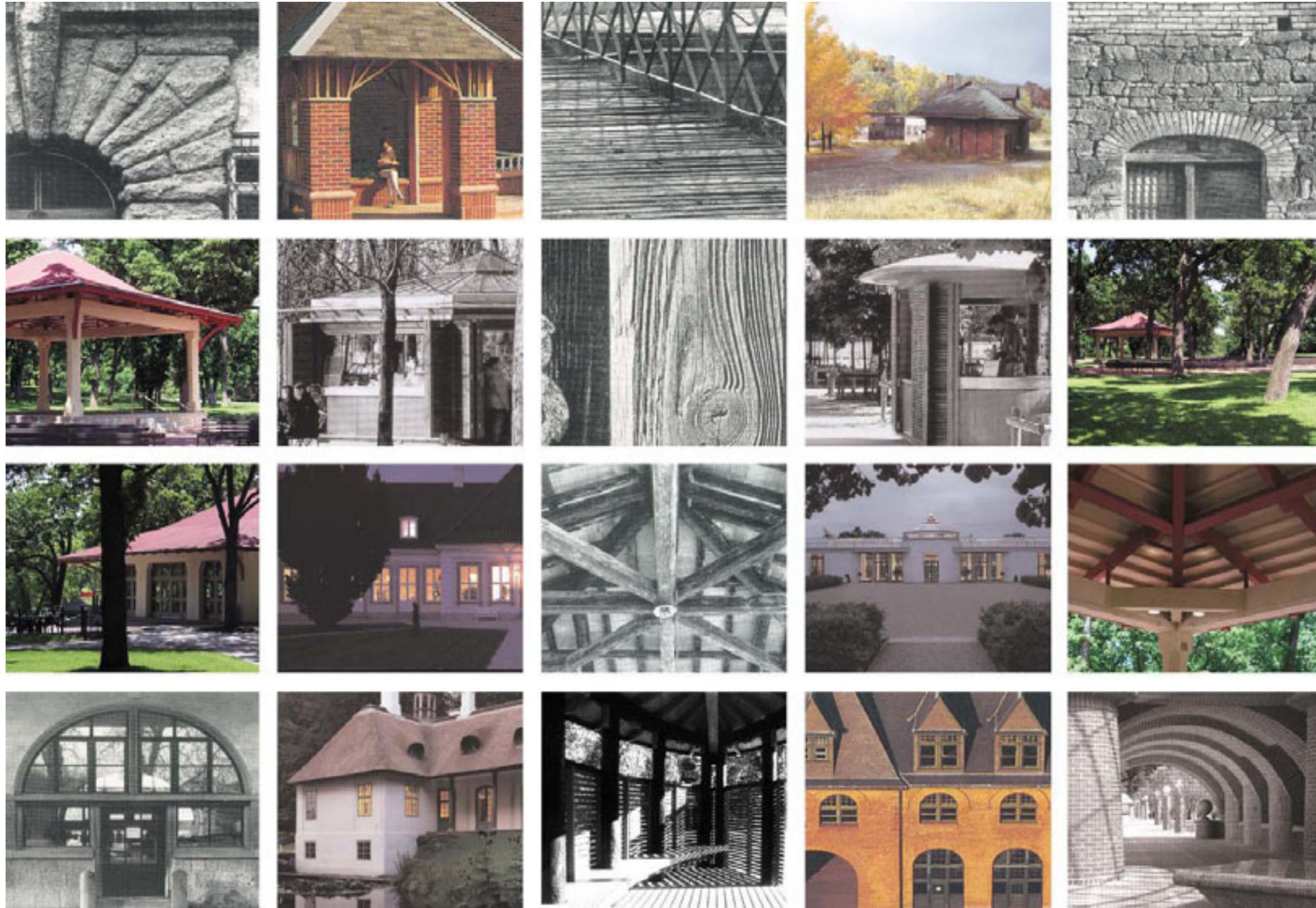
This language, like English, can be a medium for prose, or a medium for poetry. In an ordinary sentence, each word has one meaning, and the sentence too, has one simple meaning. In a poem, the meaning is far more dense. Each word carries several meanings, and the sentence as a whole carries an enormous density of interlocking meanings, which together illuminate the whole. The same is true for pattern languages. It is possible to make buildings and landscape by stringing together patterns, in a rather loose way. A place made by this, is an assembly of patterns. It is not dense. It is not profound.

But it is also possible to put patterns together in such a way that many patterns overlap in the same physical space, it has many meanings captured in a small space, and through its density, it becomes profound. This kind of density creates illumination, making identities between things whose identity we have not understood before.\*

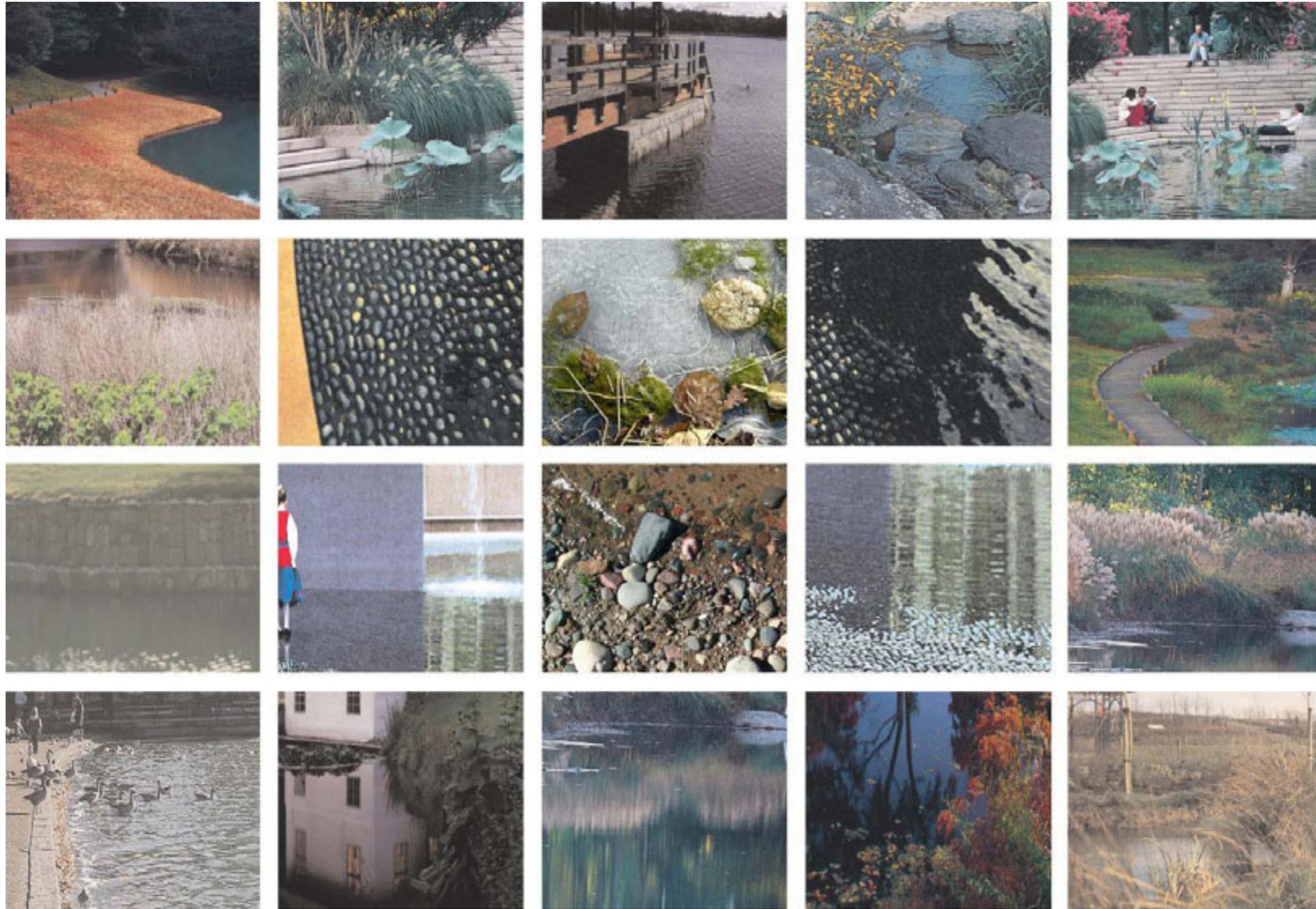
\*loosely paraphrased and modified from 'A Pattern Language' by Christopher Alexander



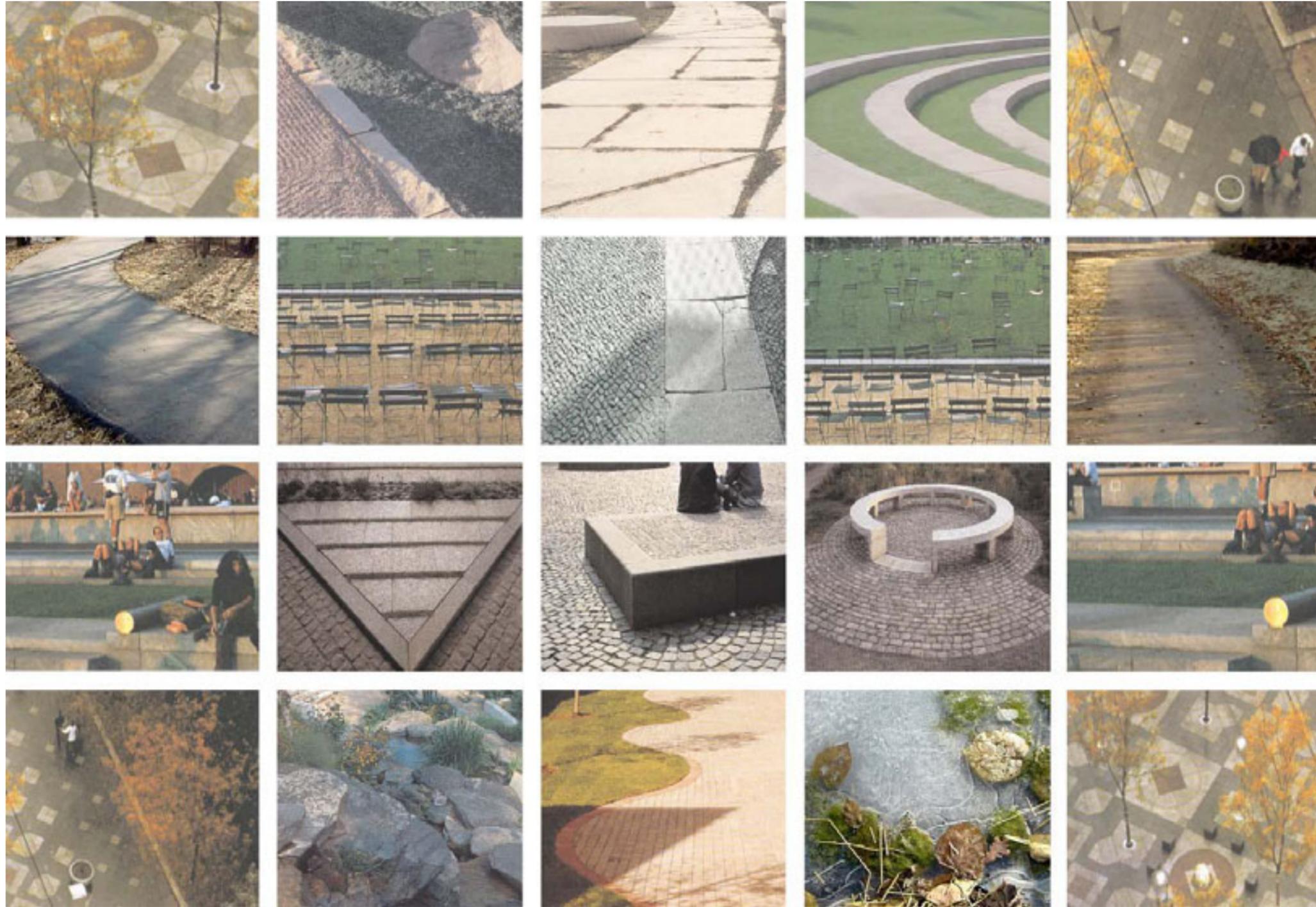
l a n d s c a p e



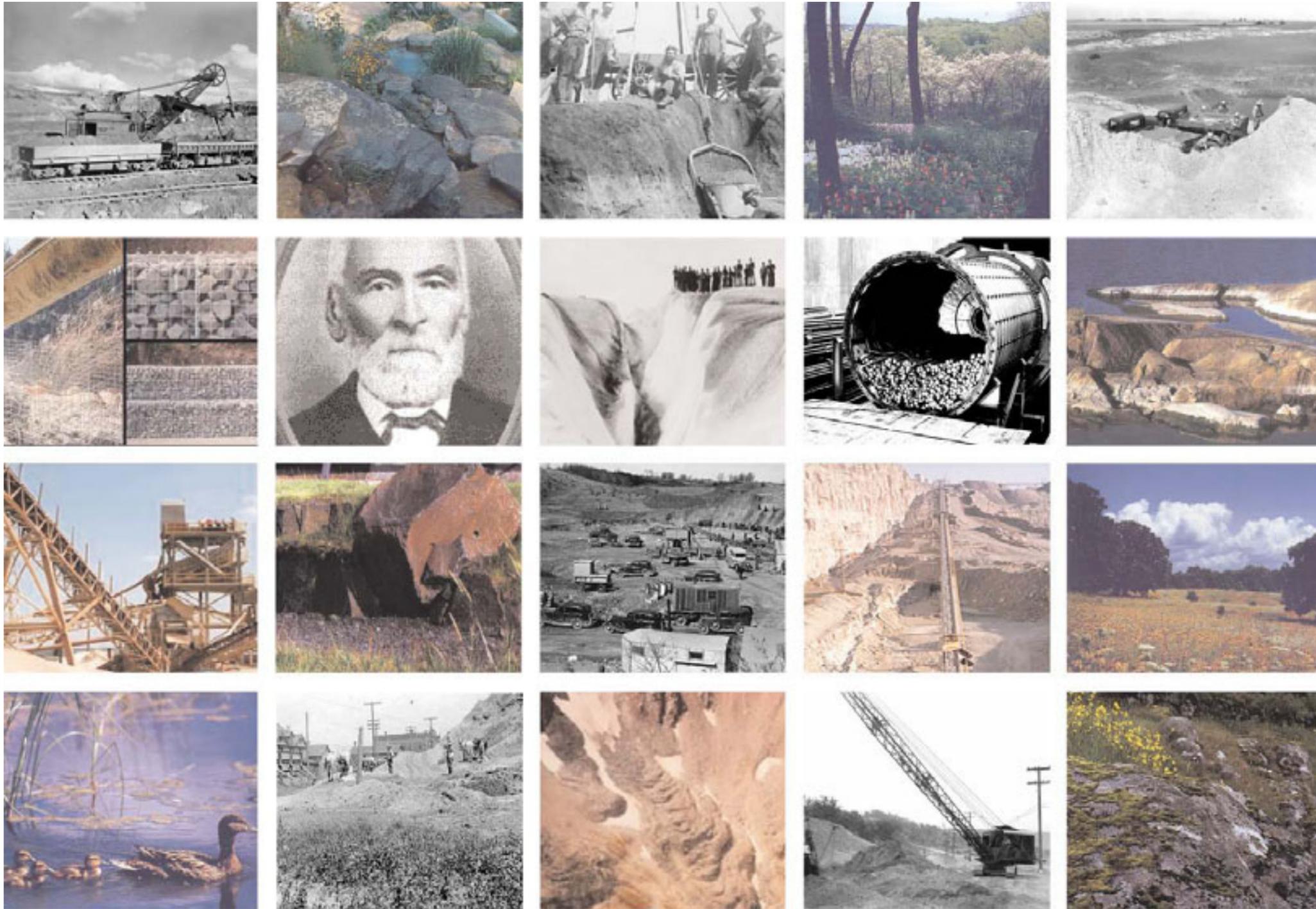
s t r u c t u r e



w a t e r



s u r f a c e



h i s t o r y

## V i s i o n P l a n C o m p o n e n t s :

### West Arbor Lake

Being central to community and civic functions, West Arbor Lake has the most development anticipated in the plan. Beginning from the backyard of the library, one can walk past the band shell, or choose to walk down to the water and out along the pier. Here they can enjoy a new perspective of the lakes and the surrounding development as they begin to move out into the lake. As an alternative to walking down to the pier, visitors can continue along the higher path around the lake and enjoy the diverse landscape that protects the water quality and provides a pleasant walking experience. The perennial garden is one landscape project already in place. Coming around the south side of the lake, one will find a promenade that allows another chance to get right up to the water. Continuing around the northwest corner of the lake, rock outcroppings appear changing the landscape and recalling the gravel mining history. Near the center of the outcroppings, an alternate path provides a bridge over a ravine. At the transition of the rock outcroppings is the Lions Pavilion and just beyond, the path leads back to the Library and the Town Green.

### Town Green

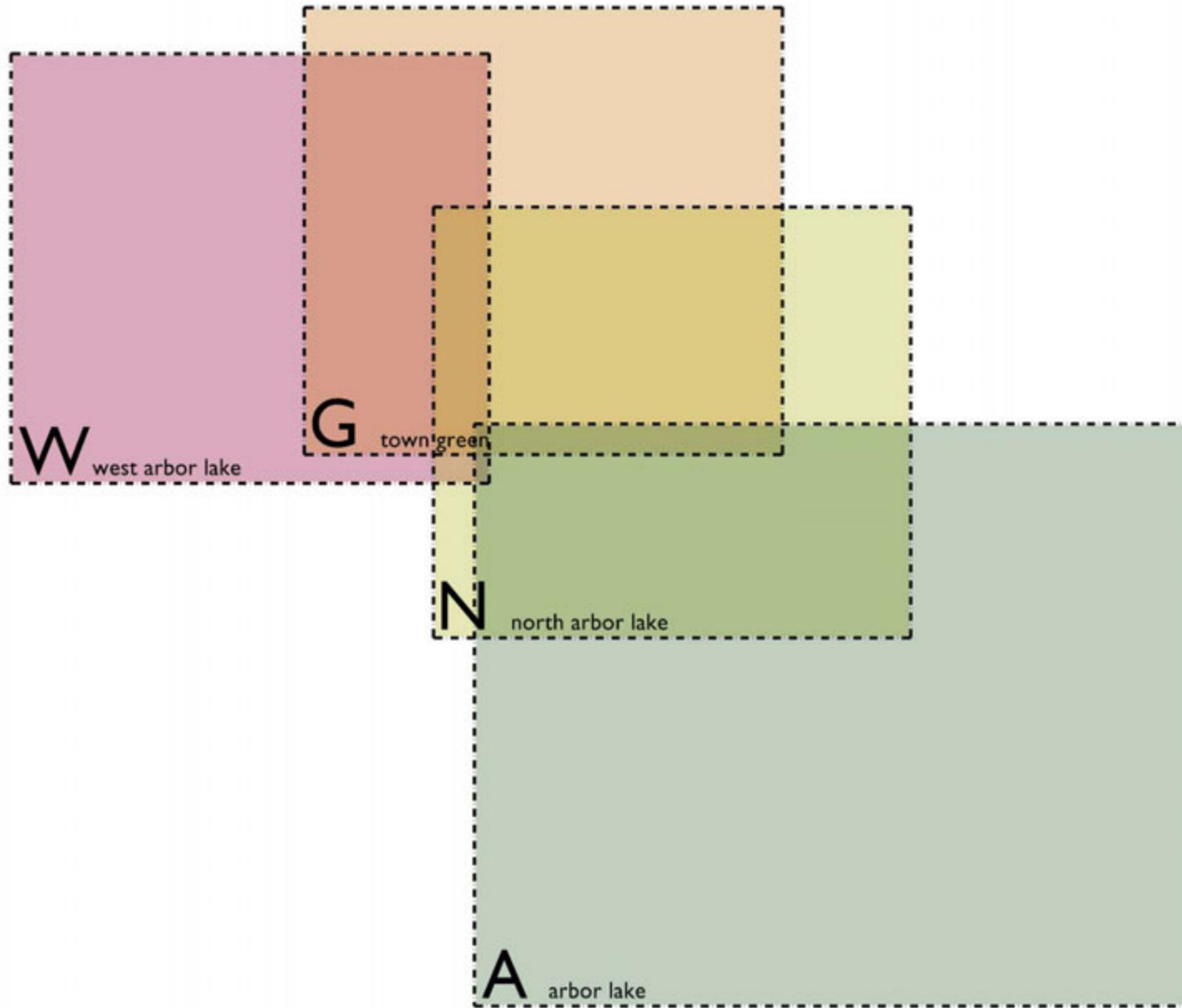
In contrast to much of the rest of the plan that is more organically landscaped, the Town Green is a large green with walks that organize and give the Green texture and organization. A Trellis runs the length of the green and draws people from downtown to the Green and beyond to the Library and Community Center. A stroll through the Green leads to a 'staple' that bridges across main street as an at grade crossing, but becomes an overlook as a constant elevation is held and the grade slopes down to North Arbor Lake.

### North Arbor Lake

Primarily focused as a future amenity to the dense future residential development in the gravel mines, the plan provides a promenade and gathering space. The promenade connects to another 'staple', which leads to Arbor Lake and another promenade. The gathering space is orientated on the northern side close to future development as a convenience, but of course all 3 lakes are within a few minutes walk.

### Arbor Lake

Most closely situated near the business district of Main Street, this lake has great potential to be utilized by overflow shoppers and dinners. The promenade on the west side entices visitors to the water's edge. It provides a place to stroll, wait for dinner or simply relax. Arbor Lake has great potential to enhance the experience in downtown Maple Grove.



*K e y P l a n*



**Vision Plan Key**

**West Arbor Lake**

- 1. Performance Structure
- 2. Event Gazebo and Pier with access from Existing Trail
- 3. Government Center Promenade with Old Village Hall Building
- 4. Rock Outcroppings
- 5. Putting Course
- 6. Town Green
- 7. Perennial Garden
- 8. Native Landscaped Areas--All Lake Slopes

**North Arbor Lake**

- 9. Main Street Staple from West Arbor Lake to North Arbor Lake
- 10. Promenade off Future Development
- 11. Gazebo with Promenade
- 12. Native Landscaped Areas--All Lake Slopes

**Arbor Lake**

- 13. Promenade off Retail Area
- 14. Retail Main Entrance (south of trail)
- 15. Island Walkway with Gazebo (from existing trail to planned trail)
- 16. Staple from Arbor Lake to North Arbor Lake
- 17. Native Landscaped Areas--All Lake Slopes



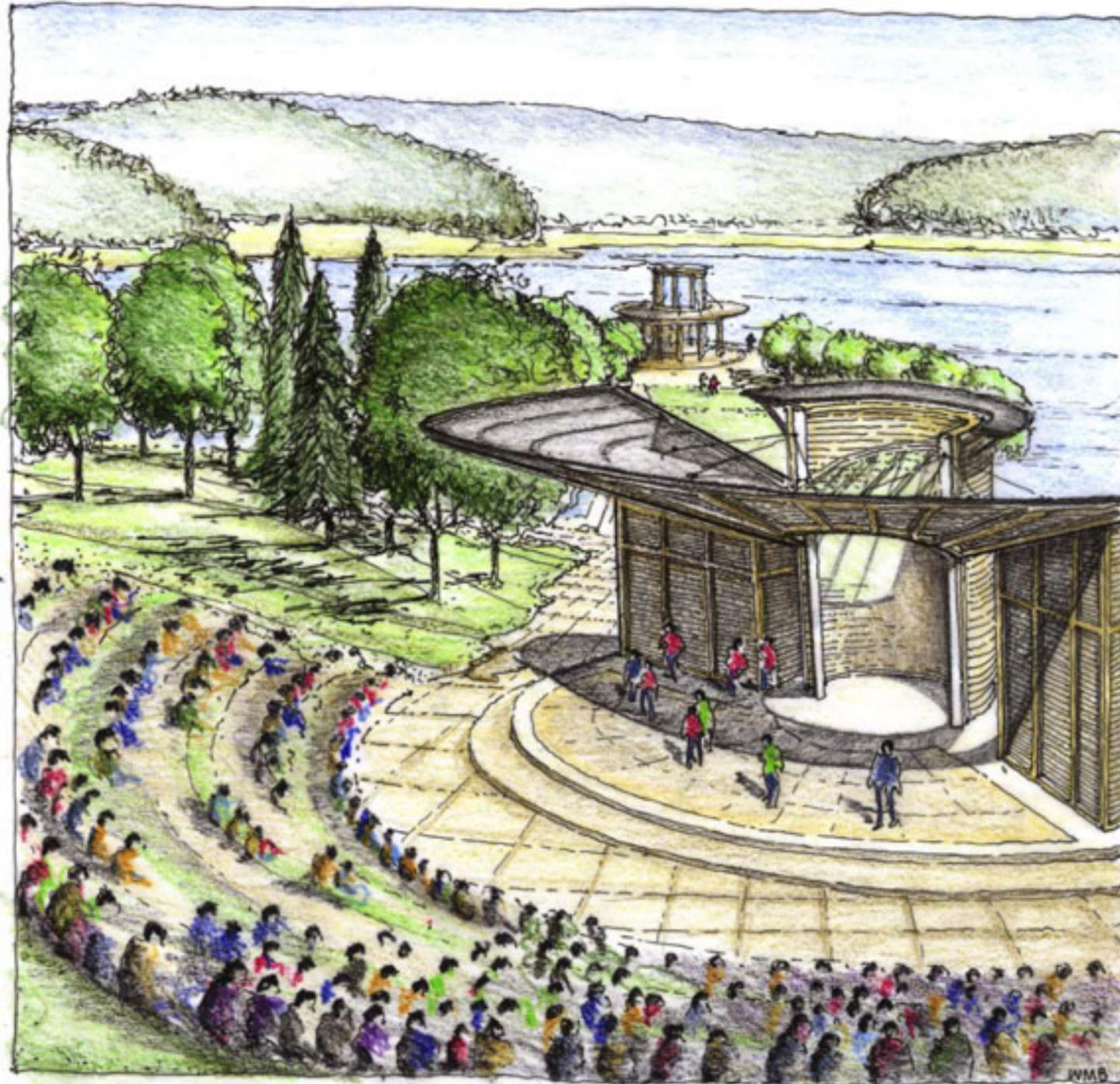
West Arbor Lake

Components

- Performance Structure
- Event Gazebo & Pier
- Government Center Promenade  
(w/ Old Village Hall Building)
- Rock Outcroppings
- Lion's Pavilion
- Native Landscaped Areas  
-see Appendix



BKV  
GROUP



**PERFORMANCE STRUCTURE**

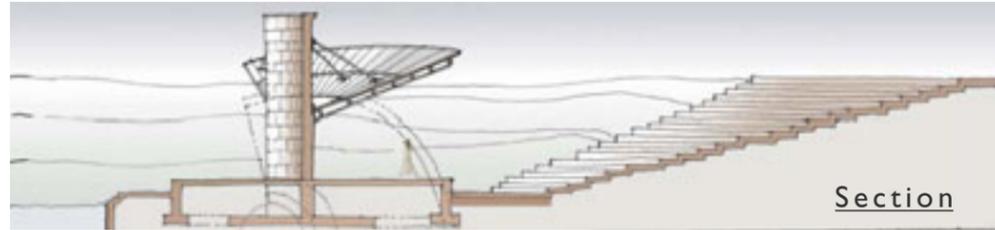
I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

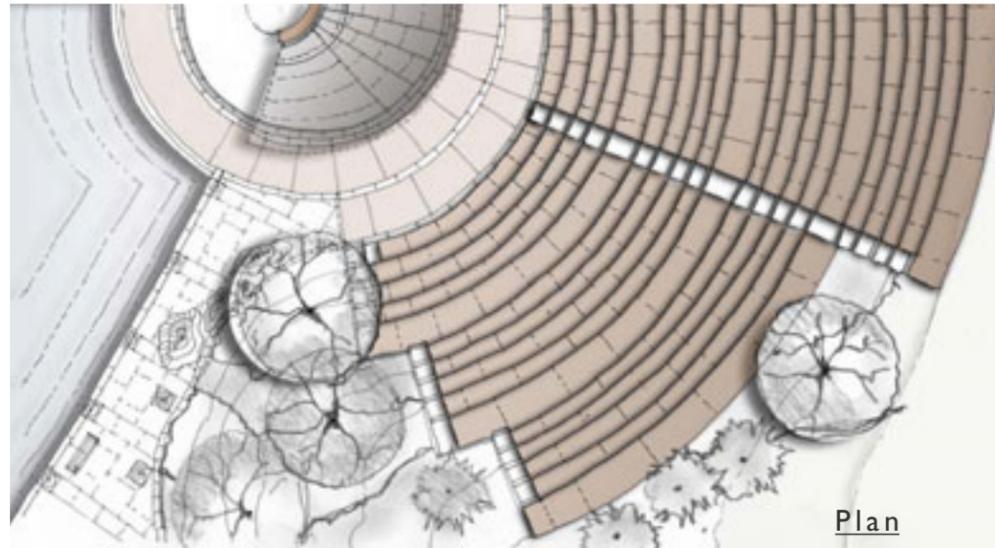
*Vignette of Performance Space*  
**W - West Arbor Lake**



**BKV**  
 GROUP



Section



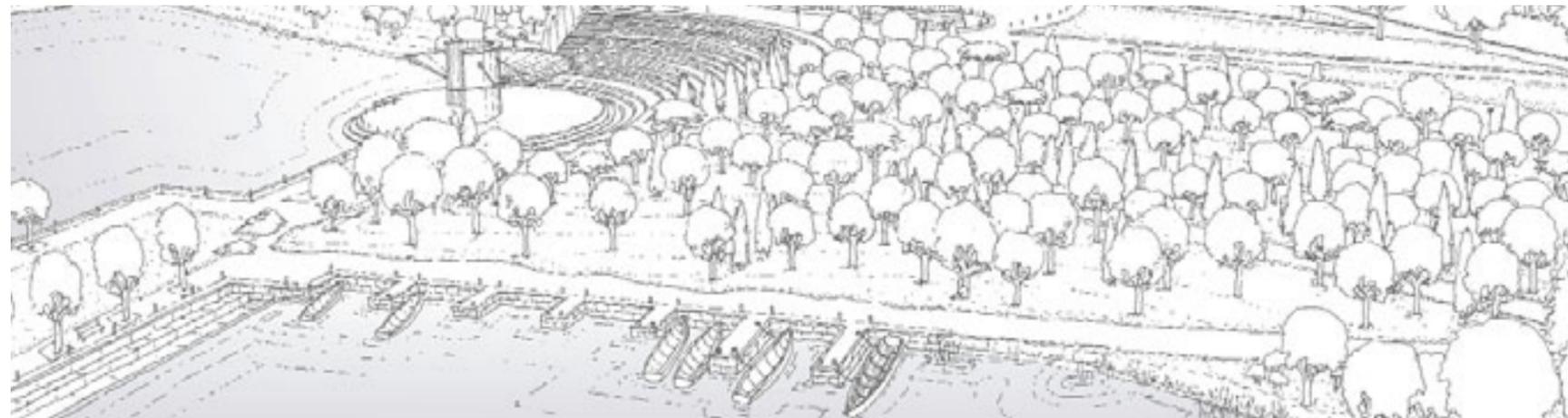
Plan



**PERFORMANCE STRUCTURE**

I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses



*Performance Structure Section & Plan*  
**W - West Arbor Lake**



**BKV**  
 GROUP



**EVENT GAZEBO & PIER**

I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Vignettes of Event Gazebo & Pier*  
**W - West Arbor Lake**





VILLAGE HALL  
PROMENADE

ISSUES:

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Vignette of Promenade  
with Old Village Hall*  
**W** - West Arbor Lake



BKV  
GROUP



**ROCK OUTCROPPINGS**

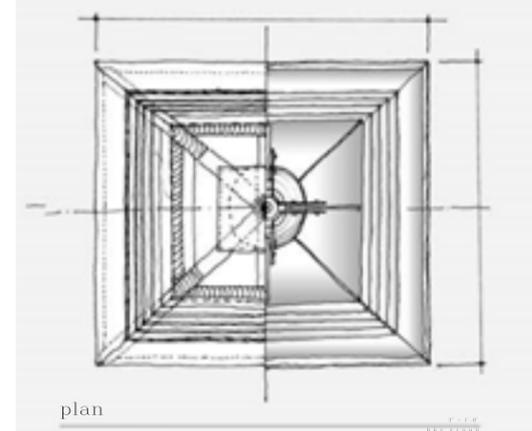
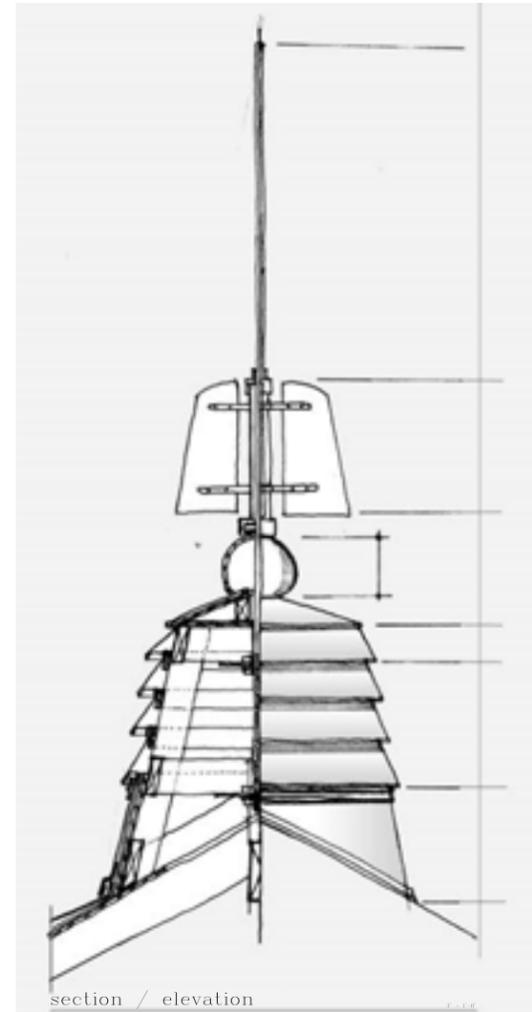
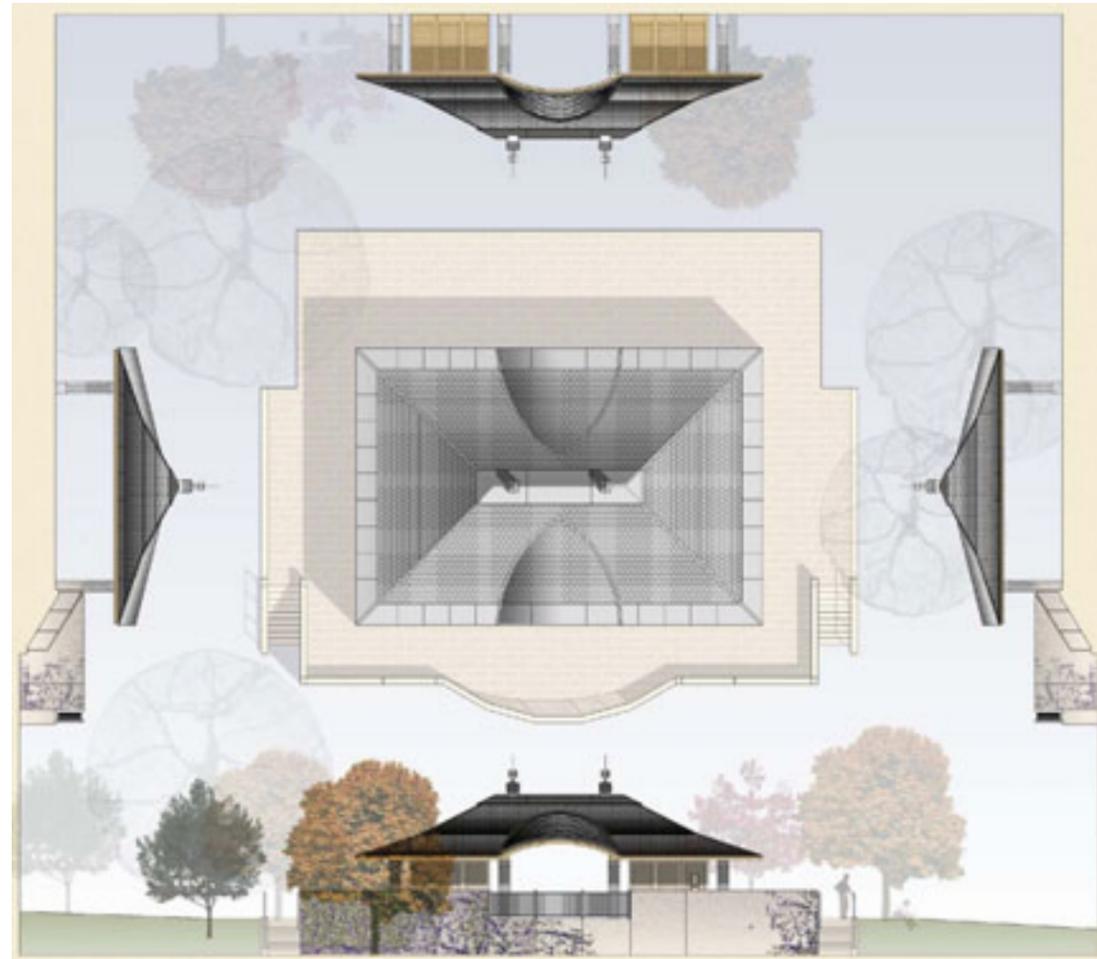
I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Vignette of Rock Outcroppings*  
**W - West Arbor Lake**



**BKV**  
 GROUP



LION'S PAVILION

Design Components:

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses



*Lion's Pavilion Details*  
**W - West Arbor Lake**



BKV  
GROUP



# G

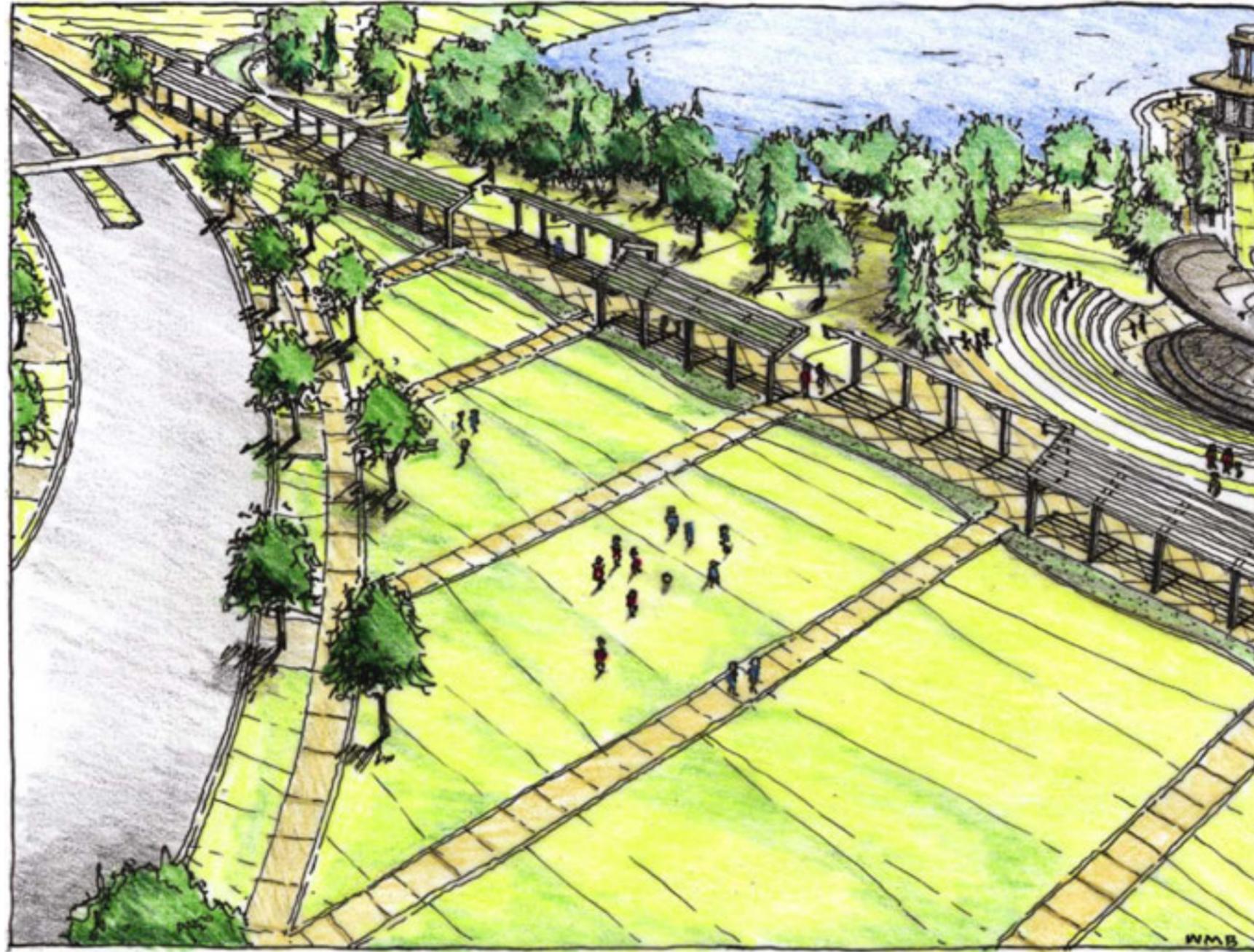
T o w n G r e e n

Components:

- The Lawn
- Perennial Garden
- Library Site
- Trellis



BKV  
GROUP



T H E L A W N

I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Vignette of The Lawn*  
**G - T o w n G r e e n**



**BKV**  
 GROUP



PERENNIAL GARDEN

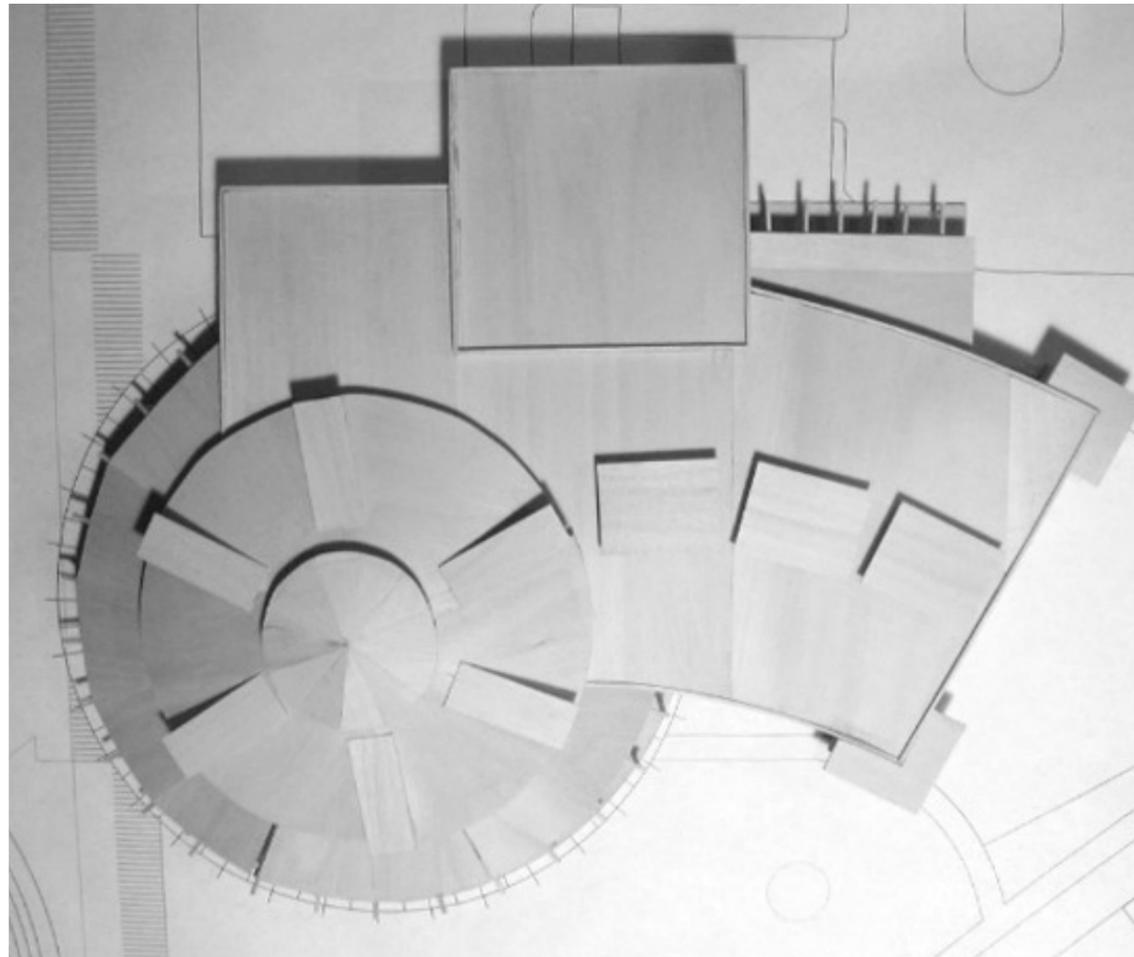
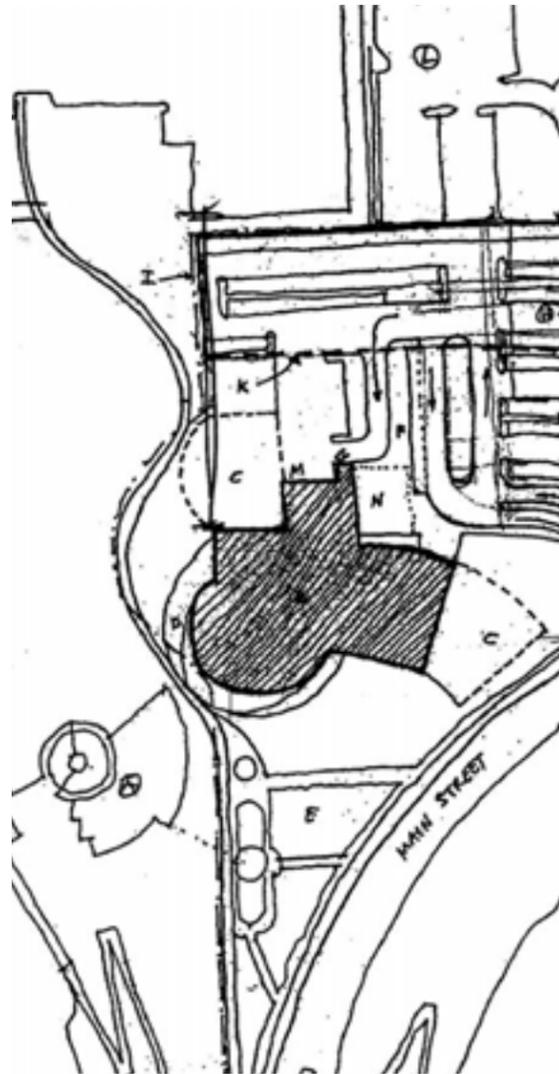
Design Components:

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm**
- adaptability & future uses



*Perennial Garden Details*  
**G - T o w n G r e e n**





L I B R A R Y

Design Components:

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Library design by Meyer, Scherer, & Rockcastle, Ltd. – shown here for reference only*

L i b r a r y I m a g e s  
G - T o w n G r e e n



BKV  
GROUP



T R E L L I S

I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

T o w n   G r e e n   T r e l l i s  
**G** - T o w n   G r e e n



BKV  
 GROUP



North Arbor Lake



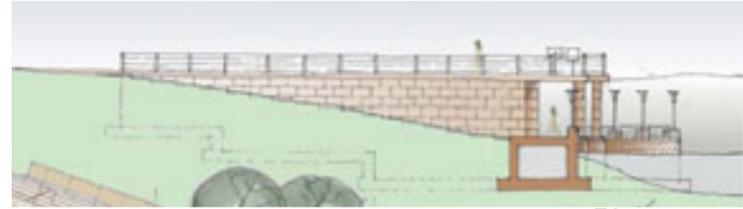
*N o r t h   A r b o r   L a k e*

Components:

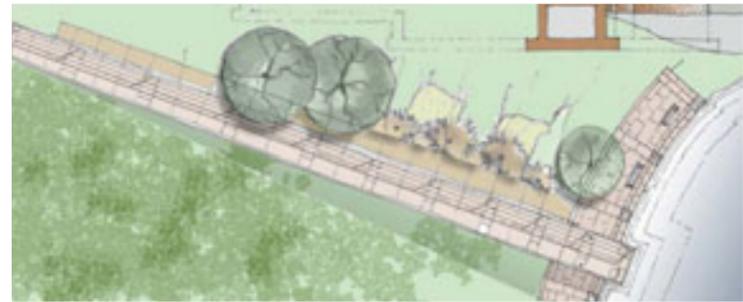
- Crosswalk & Staple (2)
- Island Gazebo
- Native Landscaped Areas  
-see Appendix

Acreage: 15.5 acres  
Shoreline: 3170 feet





Elevation



Plan



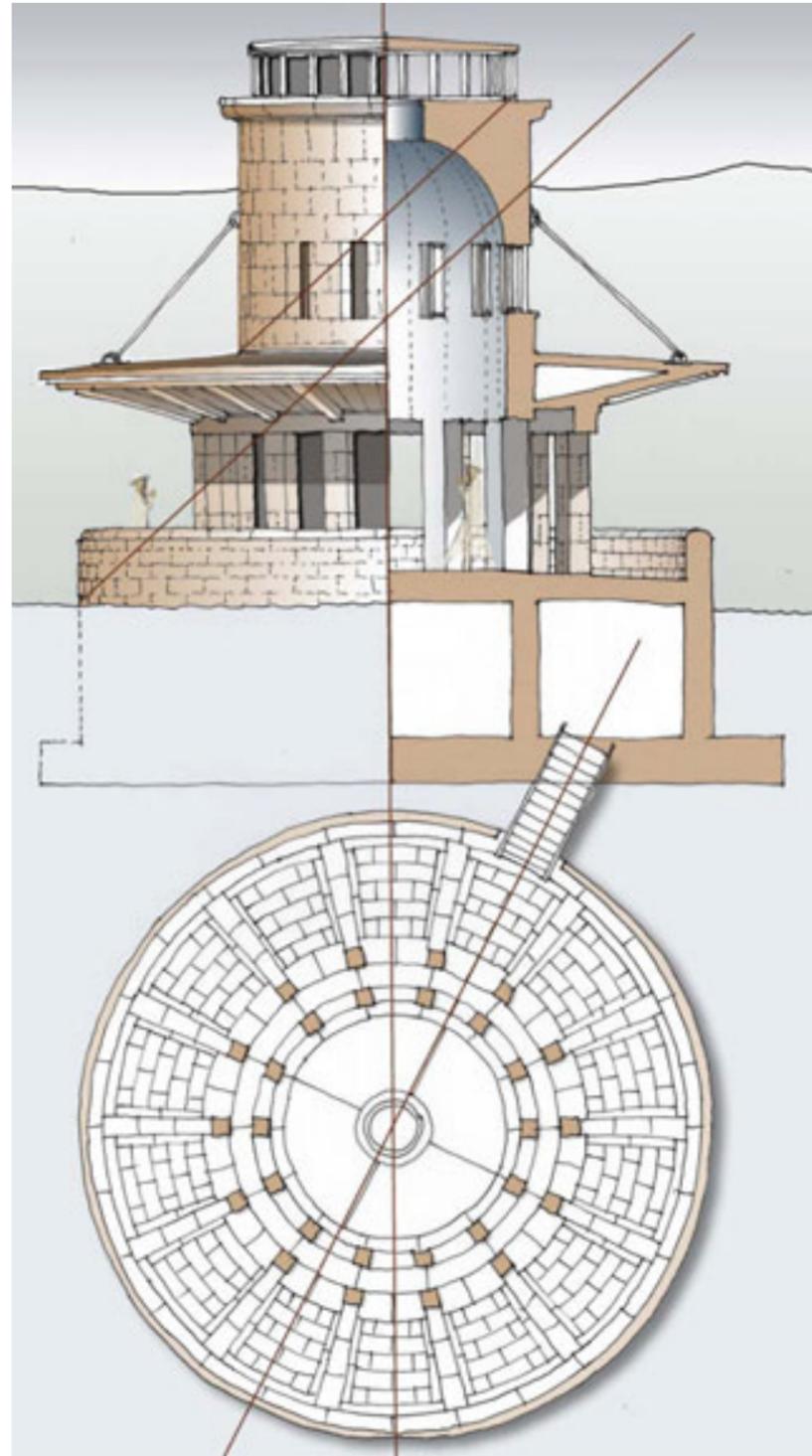
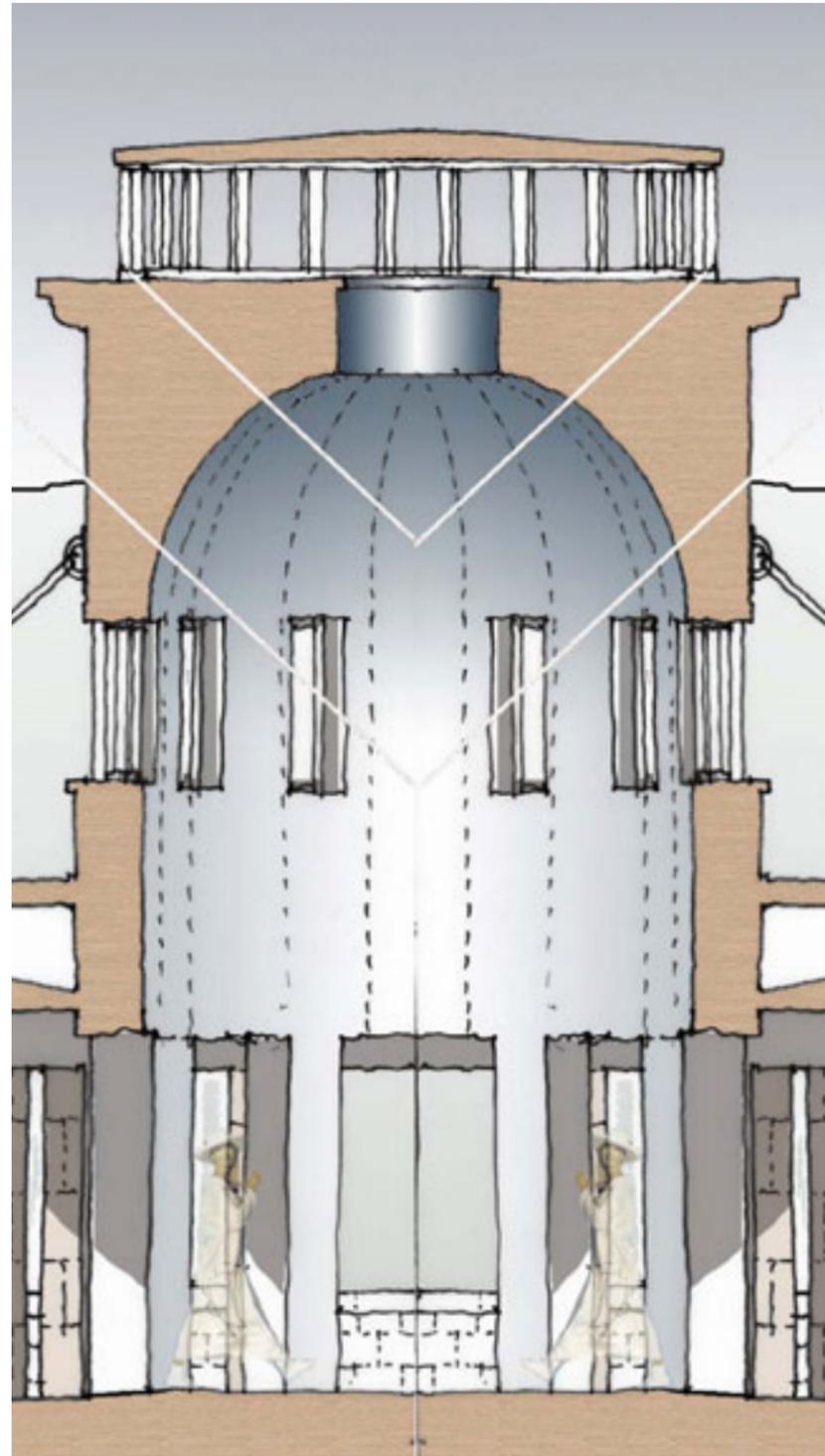
CROSSWALK / STAPLE

ISSUES :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Crosswalk & Staple Details*  
**N** - North Arbor Lake





## RESIDENTIAL ISLAND

see also W. Arbor Lake promenade for details

### I S S U E S :

create an identity  
 incorporate Arbor Lakes development  
 link the varied existing architecture  
 historical significance of former mine  
 allow people near water  
 tie all lakes together  
 ease of movement  
 the public realm  
 adaptability & future uses

*Island gazebo elevation, section & plan*

**N** - North Arbor Lake



**BKV**  
GROUP



# A

A r b o r L a k e

Design Components:

- Island & Bridge
- Promenade Seating
- Native Landscaped Areas  
-see Appendix

Acreage: 19.6 acres  
Shoreline: 5190 feet



BKV  
GROUP



**ISLAND & BRIDGE**  
see N. Arbor Lake for typical details

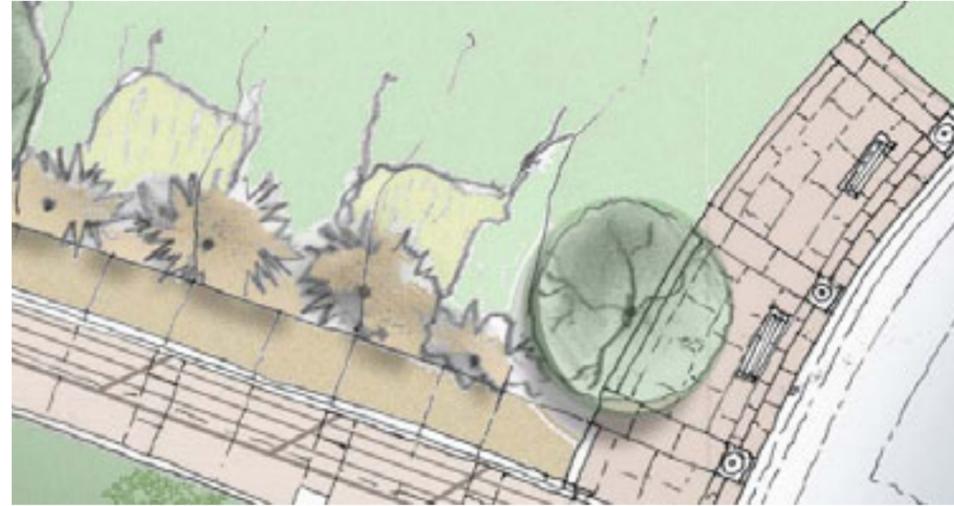
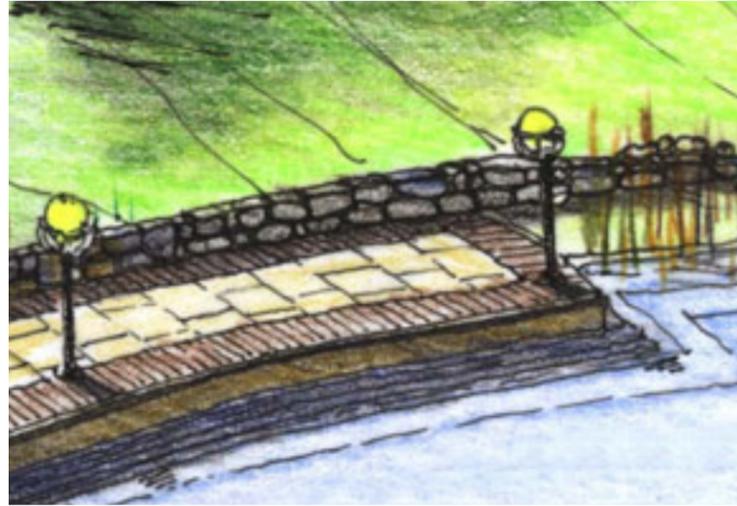
ISSUES :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses

*Vignette of Island/Bridge*  
*Vignette of Promenade/Pavilion*  
**A - A r b o r L a k e**



**BKV**  
GROUP



P R O M E N A D E

I S S U E S :

- create an identity
- incorporate Arbor Lakes development
- link the varied existing architecture
- historical significance of former mine
- allow people near water
- tie all lakes together
- ease of movement
- the public realm
- adaptability & future uses



*Vignette of Terraces*  
A - A r b o r L a k e



BKV  
GROUP

## Civic Campus and Arbor Lakes Management Plan

City of Maple Grove  
April 2002

"Balance the planned and anticipated recreational uses of the Civic Campus and Arbor Lakes with the natural resources of the groundwater lakes."



## Work Group

Patty Anderson, Administrative Management Aide, Parks and Recreation  
Deb Coss, Special Events Coordinator, Parks and Recreation  
Dick Edwards, City Planner, Community Development  
Frank Kempel, Administrative Engineering Technician, Engineering  
Rod Keller, Streets Supervisor, Public Works  
Rick Lestina, Water Resources Engineer, Engineering  
Vern Moening, Park Superintendent, Parks and Recreation  
Chuck Stifter, Park Planner, Parks and Recreation

## Civic Campus and Arbor Lakes Management Plan

### Introduction

The following Management Plan was developed to provide guidelines for the planning, development and management of the three groundwater lakes, Arbor Lake, West Arbor Lake, and North Arbor Lake and the public space that surrounds them. The public space that encompasses these lakes is being planned as a "central park" for downtown Maple Grove. The plan concept includes extensive park-like improvements with the intent of creating a public realm that attracts numerous residents and visitors. The challenge is to implement a "central park" concept without having a negative impact on the water quality. The Management Plan will provide design and maintenance guidelines to ensure the continued quality of the groundwater lakes.

### Background

In 1985, Bonestroo and Associates completed the Gravel Mining Area Plan for the land that has been and continues to be mined including the area now known as Arbor Lakes and the Civic Campus. The Civic Campus area is defined by the Government Center, Community Center and the land and lake between them. The plan studied the engineering, hydrogeology, limnology and planning of the area. It defined the best practices for reclaiming the site for future land use. Extensive study went into the plan, which recommended development and management practices for the groundwater lakes as a natural resource and public amenity.

The Gravel Mining Area contains large amounts of gravel above and within the groundwater table. This large body of granular rock has saturated permeable material called an aquifer that yields significant quantities of groundwater to wells. This aquifer serves as the source of water supply for the City. The mining operators have been and will continue to mine the gravel exposing the groundwater to the surface. Because of this exposure, the groundwater is more vulnerable to external influences and therefore the protection of the groundwater lakes becomes very important in preserving the long-term quality of the City's drinking water. The City and landowners have implemented the following recommendations from the GMA Plan when developing the groundwater lakes and surrounding area to protect the groundwater supply.

- Direct surface stormwater run-off away from the groundwater lakes through proper site grading.
- Direct the stormwater discharge away from the groundwater lakes.
- Construct and maintain lake slopes to minimize the entry of stormwater.
- Control erosion on lake slopes with the establishment of a dense vegetative cover.
- Plant deciduous vegetation away from the shoreline to avoid any leaf litter falling in the water.

The Work Group convened in the winter of 2002 to review and discuss the Gravel Mining Area Plan to determine which of the previous recommendations were still recognized as critical to the water quality. As part of the review by the Work Group, Barr Engineering was commissioned, in January of 2002, to present an overview of water quality preservation techniques for an urban environment. Barr addressed questions about the Gravel Mining Area Plan and its application to the anticipated Civic Campus development, as well. The Barr Engineering group delivered a well thought out presentation, which stimulated a lengthy discussion regarding the development for the Arbor Lakes and Civic Campus and its potential impacts on water quality. The following recommendations from their presentation are the basis for the Management Plan.

#### Management Practices or Guidelines

- Limit activities that erode the shoreline.
- Minimize the stormwater run-off that enters the lakes.
- Limit the use of fertilizers in the area, particularly those with phosphorous.
- Diversify the plant materials along the slope to include sustainable native grasses, shrubs and trees.
- Develop a vegetative buffer strip along the shoreline to filter stormwater run-off.
- Control the goose population.
- Manage the fish population.

#### Planned Development

In 1999 a concept plan was developed envisioning the development of West Arbor Lake and the Civic Campus as a "central park". The concepts were well received by City staff, policy-makers and other civic groups. The plan defined a number of public amenities including a large public recreational gathering space, a large pavilion, an amphitheater, gardens, a loop trail system, other small pavilions, play structures, a putting course, access to the water for paddle boating and other designated spaces for similar park-like activities.

In the fall of 2001, the City hired the BKV Group to further develop the concept plan to include the other two lakes creating a design framework that would give the "central park" a regional identity. The consultant has suggested a grand plan with much of the same public amenities as the concept plan focusing on creating an overall enhanced identity for Maple Grove. The master plan will integrate the public space with the adjacent residential and commercial spaces providing for an ease of pedestrian flow. Development around the lakes will allow users near the water to appreciate the natural and historic influences of the area. The Civic Campus and Arbor Lakes Master Plan and Design Framework will follow the guidelines established in the Management Plan to enhance the landscape and preserve the water quality.

## THE PLAN - "Create and Maintain a Balance"

### Site Planning and Development:

- Plan most facilities and activities away from the lake slopes to minimize plant disturbance and reduce erosion.
- Utilize earth-retaining systems to reduce erosion and provide more manageable slopes.
- Utilize the Adopt-A-Park program for each of the three lakes to assist staff in litter clean up and park monitoring.
- Limit the use of turf grasses especially near the shoreline.
- Restrict at-grade access to the shoreline. Provide built accesses along the shoreline to allow users to get to the water without jeopardizing the shoreline's integrity.
- Allow select non-motorized personal watercraft on West Arbor Lake as part of the attraction. The watercraft would be provided and managed by the City or City contractor.

### Landscape Planning:

- Establish a diverse landscape buffer along the lake slopes that includes native grasses, shrubs and trees that adapt better to the site's conditions.
- Maintain a landscape buffer, a minimum of 15 feet wide, along the lakeshore. The natural vegetation serves as a filter strip that helps absorb and prevent nutrients like phosphorous and nitrogen that are found in fertilizers and animal waste, from entering the water.
- Design sustainable landscapes that utilize native plant materials throughout the site. Ornamental or exotic plants should be used minimally, in special areas only.
- Test the soil to determine the best plant materials for the site as well as any needed soil amendments.

### Gardens:

- Allow more intensely planted gardens and landscaping in special areas.
- The use of ornamental and exotic plant materials is acceptable in special areas.
- Chemical use (fertilizers, herbicides, pesticides) for the specialized areas should be used only under specific conditions after proper analysis and needs determination.
- Establish a volunteer group to assist in the planting and maintenance of the specialized gardens.

### Control Erosion:

- To help reduce the erosion on the steep lake slopes create small run-off collection basins that when integrated into the side slopes of the lake would temporarily hold stormwater and reduce the rate of stormwater flow into the lake.

- Utilize native plants.

Native plants have deeper root systems that hold soil in place reducing the impact of the eroding forces of water on the steep slopes.

- Utilize the best available erosion control practices during the implementation of built improvements around the lake.
- Inspect steep banks for erosion following significant rain events. Perform periodic inspections of steep slopes for erosion. Repair areas that show signs of degradation due to erosion.

### Control the Goose Population:

- Minimize the use of turf grasses, a major food source for geese. Limit turf grasses to public gathering spaces away from the shoreline.
- Plant the landscape to deter geese from entering and loitering at the site. Include shrub and tree massings that limit landing and take-off space.
- Create a landscaped buffer along the shore at least 30 inches tall to discourage geese from walking in and out of the lake.
- Utilize other means supported by the Department of Natural Resources to reduce the goose population.

### Fishery Management:

- Restrict fishing from all lakes.

If fishing were allowed without significant funding, professional consultation and increased staffing for managing and policing, the fishery would likely degrade and be destroyed.

- Post "No Fishing" regulations on park signs and in City publications.
- Periodically evaluate the existing fishery's health.

Maintaining a healthy fishery is important to the lake health and water quality.

### Trail and Hard Surface Maintenance and Operation:

- Trail lights will be active during park operation hours.
- Clear snow during events of 1" or more.
- Provide signage to warn users of potential icy conditions.
- Deicing salts and sand can be utilized to control the troublesome icy conditions. Use should be limited to spot treatment.

- Where possible, hard surface areas should drain away from the lake into a stormwater piping system, collection basin or vegetated buffer strip to filter out any contaminants.
- Maintenance staff will monitor the conditions of the trail and hard surface areas. Periodic removal of goose droppings, sand and undesirable debris will be part of routine maintenance.

#### Turf Grass Maintenance:

- Fertilizer use should be limited, once per year, after Labor Day. Fertilizers that contain phosphorous should be used only under specific conditions after proper soil analysis and needs determination.
- Mowing of turf grass is necessary for proper maintenance. Grass clipping should not be deposited in any fashion into the lake or near the water's edge. Use a mulching blade to speed up decomposition of clippings.
- Reduce watering to promote deep root growth. Water less often, but for a longer period of time.
- Annually aerate turf with a long tined plug style aerator to promote deep root growth and reduce compaction.
- Use a grass seed that is appropriate for the site and the areas planned use.

#### Native Grass Maintenance:

- Develop a detailed plan for the short and long-term management of the native grass areas.
- Native grass maintenance techniques will likely occur on a cyclical basis with some years planned for mowing others for controlled burning.
- Provide signage to control unwanted pedestrian traffic in naturalized areas and vulnerable slopes.
- Steep slopes may require a controlled burn because of limited access by mechanical equipment.

#### Controlled Burn

- Controlled burning of native prairie grasses can benefit the development and longevity of the plants by stimulating growth, killing unwanted exotics, deterring noxious weeds and providing nutrients.
- Controlled burns should be discussed with neighboring property owners prior to implementation.
- Controlled burns should be performed by an experienced contractor or well trained staff.
- Never burn the lakeshore or wetland vegetation. Burning can harm desirable lakeshore plants.

- The remnant ash from a controlled burn can create a nutrient load that may wash into the lake, although it is unlikely to negatively impact the overall water quality.

#### Mowing

- Mowing native grass areas should be done with a flail mower set at about 6 inches. Avoid mowing lower as the plant crowns may be damaged. Flail mowers reduce the plant to smaller more inconspicuous waste that will decompose quicker.

#### Weed Control:

- Control noxious species. Develop a plan to manage the unwanted species around the lakes. Noxious plants invade space that would otherwise be occupied by desirable natives causing an imbalance in the plant diversity.
- Educate maintenance staff on plant and weed identification.
- Use selective herbicides that focus on targeted perennial weeds.
- Use proper herbicides for lakeshore applications (i.e. Rodeo, Garlan).
- Utilize a wicking tool applicator where appropriate to eliminate overspray of chemicals and loss of desired plants.

#### Implementation

Much of the success in meeting the goals of the Management Plan are based on the development of a quality landscape that buffers the shoreline filtering contaminants, controlling erosion and deterring geese. With the landscape buffer in place the site will be able to handle the development with all of its public amenities and anticipated high volume of visitors.

Staff has been simultaneously working with The BKV Group to develop a master plan for the Arbor Lakes "central park" that will incorporate the guidelines in this document. Creating a phasing plan that considers both the Master Plan and the Management Plan and how they interrelate will be critical before anything further is implemented.

With continued conscientious planning, proper phasing and careful management the Arbor Lakes and Civic Campus will further its regional identity because of the "balance" created between the public amenities and natural resources.



*T o p o g r a p h y & S e c t i o n s*



*P r o p o s e d F u t u r e D e v e l o p m e n t s*

V i s i o n - P l a n - M a p l e G r o v e

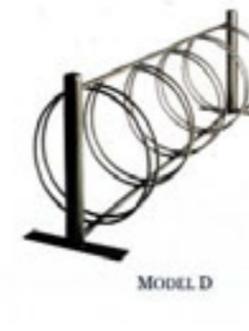
History



Bollards



Bicycle Racks



Trash Receptacles



Tree Grates



Benches





perennials



aster spp./aster



echinacea spp./purple coneflower



liatris spp./blazing star

bulbs



narcissus/daffodil

latin/common

latin/common

ferns

latin/common

latin/common

latin/common

grasses



andropogon/little bluestem

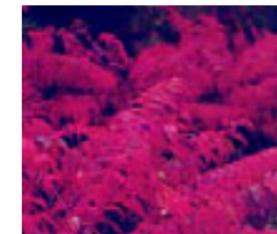


miscanthus/flame grass



panicum/switch grass

shrubs/trees



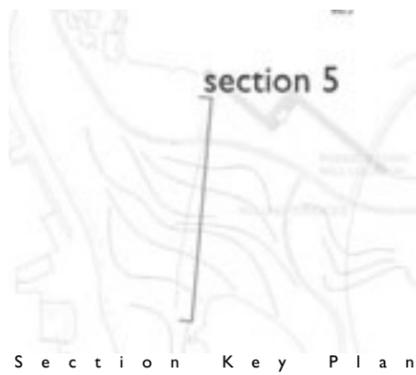
rhus spp./smooth sumac



betula/birch

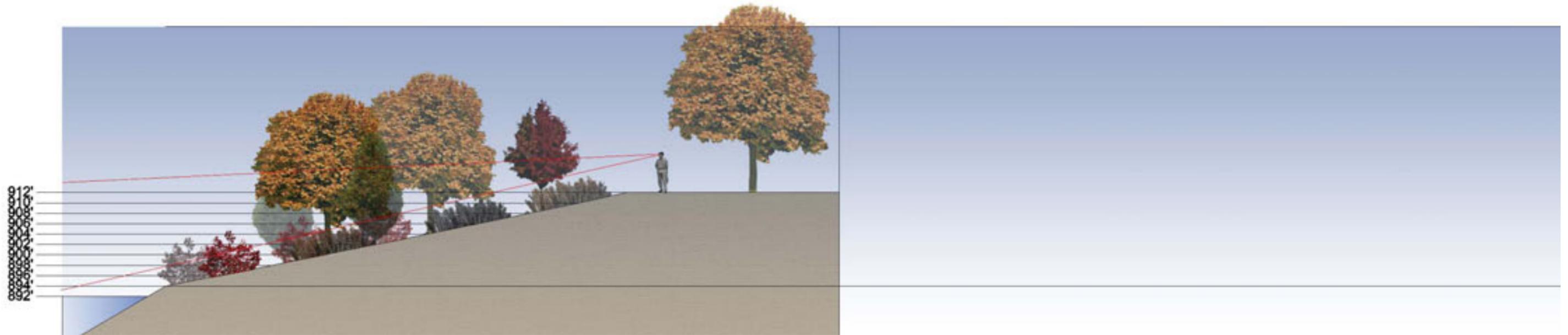


cornus racemosa/gray dogwood



Section Key Plan

W - Section five



Section Key Plan

perennials



aster spp./aster



solidago spp./goldenrod

latin/common

bulbs

latin/common

latin/common

latin/common

ferns



onoclea sensibilis/sensitive



athyrium/lady fern

latin/common

grasses

latin/common

latin/common

latin/common

shrubs/trees



aronia spp./chokeberry

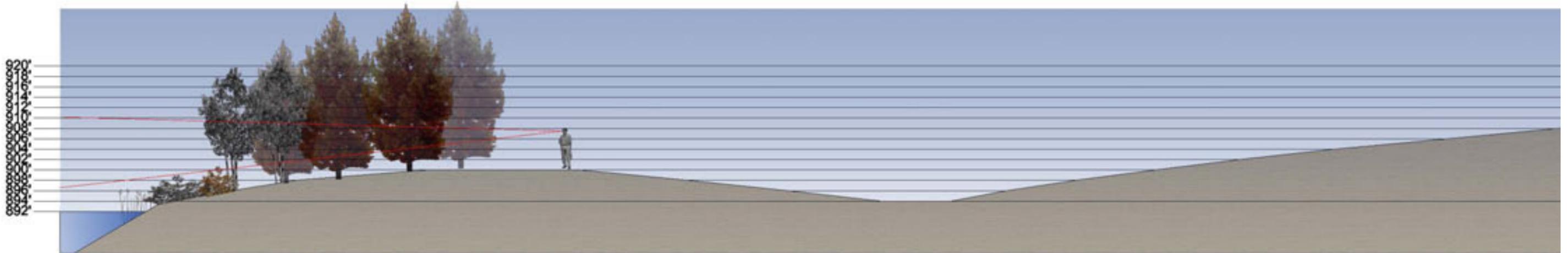


sambucus canadensis/elderberry



amelanchier canadensis/serviceberry

**N** - Section eight



perennials



asclepias spp./milkweed



iris sp./sweet flag



typha latifolia/broadleaf cattails

bulbs

latin/common

latin/common

latin/common

ferns



onoclea sensibilis/sensitive

latin/common

latin/common

grasses

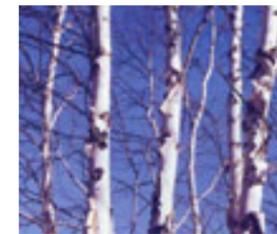


carvex spp./sedge

latin/common

latin/common

shrubs/trees



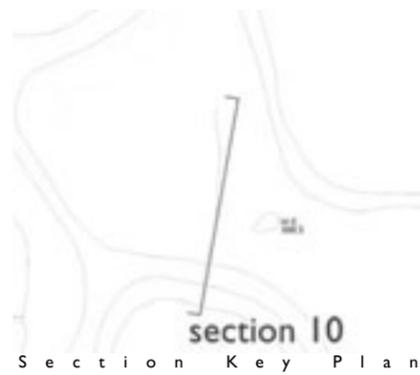
betula/birch



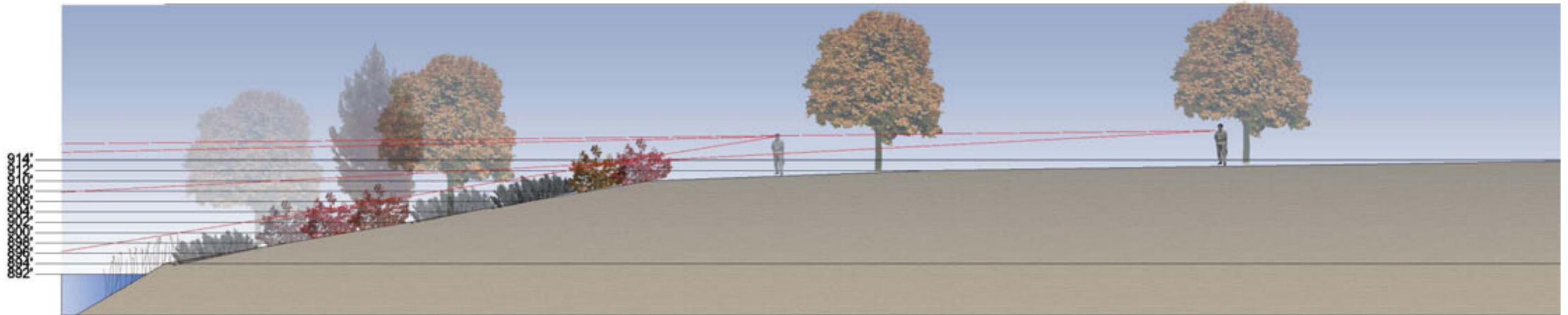
populus/aspen



larix/larch



A - Section ten



perennials



*eupatorium maculatum/joe-pye weed*



*asclepias spp./milkweed*



*iris sp./sweet flag*

bulbs



*narcissus/daffodil*

latin/common

latin/common

ferns



*ococlea/sensitive fern*

latin/common

latin/common

grasses



*spartina pectinata/cordgrass*

latin/common

latin/common

shrubs/trees



*syringa/lilac*



*rhus/sumac*



*sambucus canadensis/elderberry*



**A** - Section eleven

P E R E N N I A L G A R D E N - P L A N T L I S T

Perennials:

Achillea Coronation Gold	Yarrow
Allium 'Glaucum'	Allium
Amsonia tabernaemontana	Willow Blue Star
Anemone sylvestris	Anemone
Artemesia ludoviciana Valerie Finnis	Artemesia
Aster nova-angliae Purple Dome	Purple Dome Aster
Baptisia	False Indigo
Campanula carpatica Blue Clips	Blue Clips Bellflower
Coreopsis verticillata Moonbeam	Tickseed
Coreopsis 'Baby Sun'	Tickseed
Dianthus 'Tiny Rubies'	Carnation
Dianthus 'Firewitch'	Pinks
Echinacea Bravado	Purple Coneflower
Echinops ritro	Globe Thistle
Eupatorium maculatum Gateway	Joe Pye Weed
Gallardia	Blanket Flower
Geranium aplenglow or sanguineum	Cranesbill
Hemerocallis Hyperion	Daylily
Hemerocallis Pardon Me	Daylily
Heuchera Plum Pudding	Coral Bells
Liatris pycnostachya	Gayfeather
Monarda Raspberry Wine	Beebalm
Monarda 'Petite Wonder	Beebalm
Nepet faassenii Walkers Low	Catmint
Perovskia atriplicifolia	Russian Sage
Paeonia Myrtle Tischler'	Peony
Paeonia 'E.J. Friesen	Peony
Paeonia Elsa Sass	Peony
Phlox paniculata David	Garden Phlox
Phlox paniculata Frans Shubert	Garden Phlox
Phlox subulata Emerald Pink	Creeping Phlox
Pulsatilla patens	Pasque Flower
Rudabeckia fulgida	Blackeyed Susan
Rudabeckia nitida Herbstsonne	Autumn Sun Coneflower
Salvia Purple Rain	Sage
Salvia 'Marcus'	Sage
Sedum 'Autumn Joy'	Sedum
Sedum kamschatucum	Yellow Stonecrop
Sedum spurium Dragons Blood	Sedum
Sedum 'Coral Carpet'	Sedum
Sedum 'Bailys Gold'	Sedum
Sedum caucicola	Sedum
Sempervivum	Hen and Chicks
Solidago rugosa	Goldenrod
Stachys	Lambs Ears
Yucca glauca	Soapweed

Notes

butterfly, heat drought tolerant
silver foliage, pompom flowers
wildflower, fall color
repeat fall bloom
silver foliage
butterfly
lupine like cut flowers
hummingbird
butterfly
yellow flower
rock garden
rock garden, continuous bloom
butterfly
hummingbird
butterfly
golden yellow/maroon
fragrant
fragrant
hummingbird
humming bird/butterfly
butterfly
fragrant, wine red flowers
compact, pink, fragrant
compact lavender/blue, fragrant
fragrant
fragrant, double rose pink
fragrant, red double
fragrant, double white
fragrant, white bloom
fragrant, lilac bloom
rock garden
early bloom, red
butterfly
butterfly, bright yellow
foliage/flower
violet/blue
butterfly
rock garden
bronze foliage
coral red foliage/silver gray
yellow flowers
silver foliage, rose flowers
rock garden
wild flower/butterfly
silver foliage
prairie native

Grasses:

Calamagrostis acutiflora Karl Foerster	Feather Reed Grass	pink plumes
Dechampsia caespitosa	Tufted Hairgrass	billowy golden plumes
Miscanthus sinensis Siberfeder	Silver Feather Grass	large silvery plume
Miscanthus sinensis var. purpurescens	Flame Grass	fall color
Panicum vergatum Heavy Metal	Switch Grass	silver blue foliage
Schizachryium scoparium The Blues	Little Bluestem	blue foliage, fall color
Shrubs:		
Acer ginnala Bailey Compact	Compact Amur Maple	rounded, fall color
Aronia melanocarpa Autumn Magic	Black Chokeberry	white flowers, berries, fall color
Hydrangea arborescens Annabelle	Annabelle Hydrangea	large white flowers
Physocarpus opulifolius Darts Gold	Darts Gold Ninebark	gold foliage, red fruit
Spiraea Goldmound	Goldmound Spirea	yellow foliage, fall color
Syringa Bailbelle	Tinkerbelle Lilac	fragrant pink flowers
Evergreens:		
Juniperus scopulorum Welchi	Welch Juniper	blue
Picea pungens Glauca Globosa	Globe Blue Spruce	blue
Pinus mugho pumilio	Dwarf Mugo Pine	formal
Shrub Roses:		
Rosa David Thompson	Shrub Rose	fragrant, double fuchsia
Rosa Martin Frobisher	Shrub Rose	fragrant, double light pink
Rosa Jens Munk	Shrub Rose	spicy fragrance, fall color, hips
Rosa 'Royal Bonica'	Shrub Rose	double medium pink, orange hips
Vines:		
Lonicera 'John Clayton'	Honeysuckle Vine	yellow, red berries
Herbs:		
Anethum	Dill	yellow flower, fragrant
Thymus 'Red Creeping'	Thyme	frangrant, flowering

· COSTS SUMMARY:

o **West Arbor Lake**

- Project 1. Performance Structure
- Project 2. Gazebo and Pier
- Project 3. Government Center Promenade with old Village Hall Building
- Project 4. Rock Outcroppings
- Project 5. Putting Course (In Development)
- Project 6. Town Green
- Project 7. Perennial Garden (Completed)
- Project 8. Native Landscaped Areas - West Arbor Lake

o **North Arbor Lake**

- Project 9. Main Street Staple from West Arbor Lake to North Arbor Lake
- Project 10. Promenade from North Staple
- Project 11. Gazebo North
- Project 12. Native Landscaped Areas - North Arbor Lake

o **Arbor Lake**

- Project 13. Promenade Retail
- Project 13A. Arbor Promenade A
- Project 14. Retail Trail
- Project 15. Island Gazebo
- Project 15A. Arbor Promenade B
- Project 16. Staple Arbor Lake to North Arbor Lake
- Project 17. Native Landscaped Areas - Arbor Lake

COSTS - 2003 DOLLARS

	\$2,285,303
	\$2,787,290
	\$542,323
	\$819,791
	IN DEVELOPMENT
	\$1,210,769
	COMPLETED
	\$850,000
	\$630,609
	COST INCLUDED IN PROJECT 9
	\$681,057
	\$693,669
	\$1,135,095
	COST INCLUDED IN PROJECT 13
	\$200,000
	\$996,362
	COST INCLUDED IN PROJECT 15
	\$630,609
	\$693,669



V I S I O N P L A N

Arbor Lakes		Q:1128.08\BUS\COST-Proj1
PRELIMINARY PROJECT BUDGET - Project 1 Performance Structure		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Performance Structure		\$1,600,000
Access Road		\$80,000
Landscape on East Slope		\$130,000
<b>SUBTOTAL</b>		<b>\$1,810,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$181,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	\$2,500
<b>SUBTOTAL</b>		<b>\$183,500</b>
Subtotal Construction Costs		\$1,810,000
Overhead & Profit @ 4%		\$72,400
Bond @ 1%		\$18,824
General Liability Insurance @ 1/2%		\$9,506
<b>Subtotal</b>		<b>\$1,910,730</b>
Contingency @ 10%		\$191,073
<b>Preliminary Construction Cost</b>		<b>\$2,101,803</b>

**Probable Project Cost \$2,285,303**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 2 Gazebo/Pier		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Gazebo		\$600,000
Pier		\$1,000,000
Dock		\$300,000
Path		\$60,000
Landscape		\$80,000
Irrigation		\$20,000
Site Lighting		\$100,000
Mechanical - Water		\$50,000
<b>SUBTOTAL</b>		<b>\$2,210,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$221,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$221,000</b>
Subtotal Construction Costs		\$2,210,000
Overhead & Profit @ 4%		\$88,400
Bond @ 1%		\$22,984
General Liability Insurance @ 1/2%		\$11,607
<b>Subtotal</b>		<b>\$2,332,991</b>
Contingency @ 10%		\$233,299
<b>Preliminary Construction Cost</b>		<b>\$2,566,290</b>

**Probable Project Cost \$2,787,290**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 3Govpromenade		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Promenade		\$300,000
Move Existing Old City Hall		\$100,000
Path Connections		\$30,000
<b>SUBTOTAL</b>		<b>\$430,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$43,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$43,000</b>
Subtotal Construction Costs		\$430,000
Overhead & Profit @ 4%		\$17,200
Bond @ 1%		\$4,472
General Liability Insurance @ 1/2%		\$2,258
Subtotal		<b>\$453,930</b>
Contingency @ 10%		\$45,393
<b>Preliminary Construction Cost</b>		<b>\$499,323</b>

**Probable Project Cost \$542,323**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 4Rockoutcroppings		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Rocks		\$200,000
Plantings		\$250,000
Foot bridge		\$40,000
Water Feature and related Engineering		\$100,000
Irrigation		\$60,000
<b>SUBTOTAL</b>		<b>\$650,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$65,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$65,000</b>
Subtotal Construction Costs		\$650,000
Overhead & Profit @ 4%		\$26,000
Bond @ 1%		\$6,760
General Liability Insurance @ 1/2%		\$3,414
Subtotal		<b>\$686,174</b>
Contingency @ 10%		\$68,617
<b>Preliminary Construction Cost</b>		<b>\$754,791</b>

**Probable Project Cost \$819,791**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 6VillageGreen		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Green Proper		\$150,000
Pergola from staple to library		\$350,000
Paving		\$200,000
Plantings		\$200,000
Irrigation		\$60,000
<b>SUBTOTAL</b>		<b>\$960,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$96,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$96,000</b>
Subtotal Construction Costs		\$960,000
Overhead & Profit @ 4%		\$38,400
Bond @ 1%		\$9,984
General Liability Insurance @ 1/2%		\$5,042
Subtotal		<b>\$1,013,426</b>
Contingency @ 10%		\$101,343
<b>Preliminary Construction Cost</b>		<b>\$1,114,769</b>

**Probable Project Cost \$1,210,769**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 8NativeLandscapeWest		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Plantings around West Arbor Lake		\$400,000
Irrigation		\$273,952
<b>SUBTOTAL</b>		<b>\$673,952</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$67,395
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$67,395</b>
Subtotal Construction Costs		\$673,952
Overhead & Profit @ 4%		\$26,958
Bond @ 1%		\$7,009
General Liability Insurance @ 1/2%		\$3,540
Subtotal		<b>\$711,459</b>
Contingency @ 10%		\$71,146
<b>Preliminary Construction Cost</b>		<b>\$782,605</b>

**Probable Project Cost \$850,000**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 9StapleWesttoNorth		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Staple construction		\$200,000
Lighting		\$50,000
Paving		\$50,000
Promenade		\$150,000
Landscape		\$50,000
<b>SUBTOTAL</b>		<b>\$500,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance		
	Furniture	
	Signage	
	Audio Visual	\$0
	Telephones	\$0
	Equipment	\$0
Misc testing		
Professional Fees		\$50,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$50,000</b>
Subtotal Construction Costs		\$500,000
Overhead & Profit @ 4%		\$20,000
Bond @ 1%		\$5,200
General Liability Insurance @ 1/2%		\$2,626
<b>Subtotal</b>		<b>\$527,826</b>
Contingency @ 10%		\$52,783
<b>Preliminary Construction Cost</b>		<b>\$580,609</b>

**Probable Project Cost \$630,609**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 10PromenadefromNorthStaple		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Included in Project 9		
<b>SUBTOTAL</b>		<b>\$0</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance		
	Furniture	
	Signage	
	Audio Visual	\$0
	Telephones	\$0
	Equipment	\$0
Misc testing		
Professional Fees		\$0
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$0</b>
Subtotal Construction Costs		\$0
Overhead & Profit @ 4%		\$0
Bond @ 1%		\$0
General Liability Insurance @ 1/2%		\$0
<b>Subtotal</b>		<b>\$0</b>
Contingency @ 10%		\$0
<b>Preliminary Construction Cost</b>		<b>\$0</b>

**Probable Project Cost \$0**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 11GazeboNorth		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Gazebo Construction		\$500,000
Bridge		\$40,000
<b>SUBTOTAL</b>		<b>\$540,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$54,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$54,000</b>
Subtotal Construction Costs		\$540,000
Overhead & Profit @ 4%		\$21,600
Bond @ 1%		\$5,616
General Liability Insurance @ 1/2%		\$2,836
Subtotal		<b>\$570,052</b>
Contingency @ 10%		\$57,005
<b>Preliminary Construction Cost</b>		<b>\$627,057</b>

**Probable Project Cost \$681,057**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 12NativeLandNorth		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Plantings around North Arbor Lake		\$350,000
Irrigation		\$200,000
<b>SUBTOTAL</b>		<b>\$550,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$55,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$55,000</b>
Subtotal Construction Costs		\$550,000
Overhead & Profit @ 4%		\$22,000
Bond @ 1%		\$5,720
General Liability Insurance @ 1/2%		\$2,889
Subtotal		<b>\$580,609</b>
Contingency @ 10%		\$58,061
<b>Preliminary Construction Cost</b>		<b>\$638,669</b>

**Probable Project Cost \$693,669**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 13 Promenade Retail		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Promenade Construction		\$600,000
Small Amphitheater		\$120,000
Plantings		\$180,000
<b>SUBTOTAL</b>		<b>\$900,000</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$90,000
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$90,000</b>
Subtotal Construction Costs		\$900,000
Overhead & Profit @ 4%		\$36,000
Bond @ 1%		\$9,360
General Liability Insurance @ 1/2%		\$4,727
<b>Subtotal</b>		<b>\$950,087</b>
Contingency @ 10%		\$95,009
<b>Preliminary Construction Cost</b>		<b>\$1,045,095</b>

**Probable Project Cost \$1,135,095**

Arbor Lakes		Q:1128.08\BUS\COST-proj1perfstruc.XLS
PRELIMINARY PROJECT BUDGET - Project 13A Arbor Promenade A		June 23 ,2003
<b>COMPONENTS - Construction</b>		
Included in Project 13		
<b>SUBTOTAL</b>		<b>\$0</b>
<b>OTHER PROJECT EXPENSES</b>		
Furniture & Equipment Allowance	Furniture Signage Audio Visual Telephones Equipment	\$0 \$0 \$0
Misc testing		
Professional Fees		\$0
Permit		
SAC		
WAC		
City Sewer		
Reimbursables, printing, travel etc.	allowance	
<b>SUBTOTAL</b>		<b>\$0</b>
Subtotal Construction Costs		\$0
Overhead & Profit @ 4%		\$0
Bond @ 1%		\$0
General Liability Insurance @ 1/2%		\$0
<b>Subtotal</b>		<b>\$0</b>
Contingency @ 10%		\$0
<b>Preliminary Construction Cost</b>		<b>\$0</b>

**Probable Project Cost \$0**

