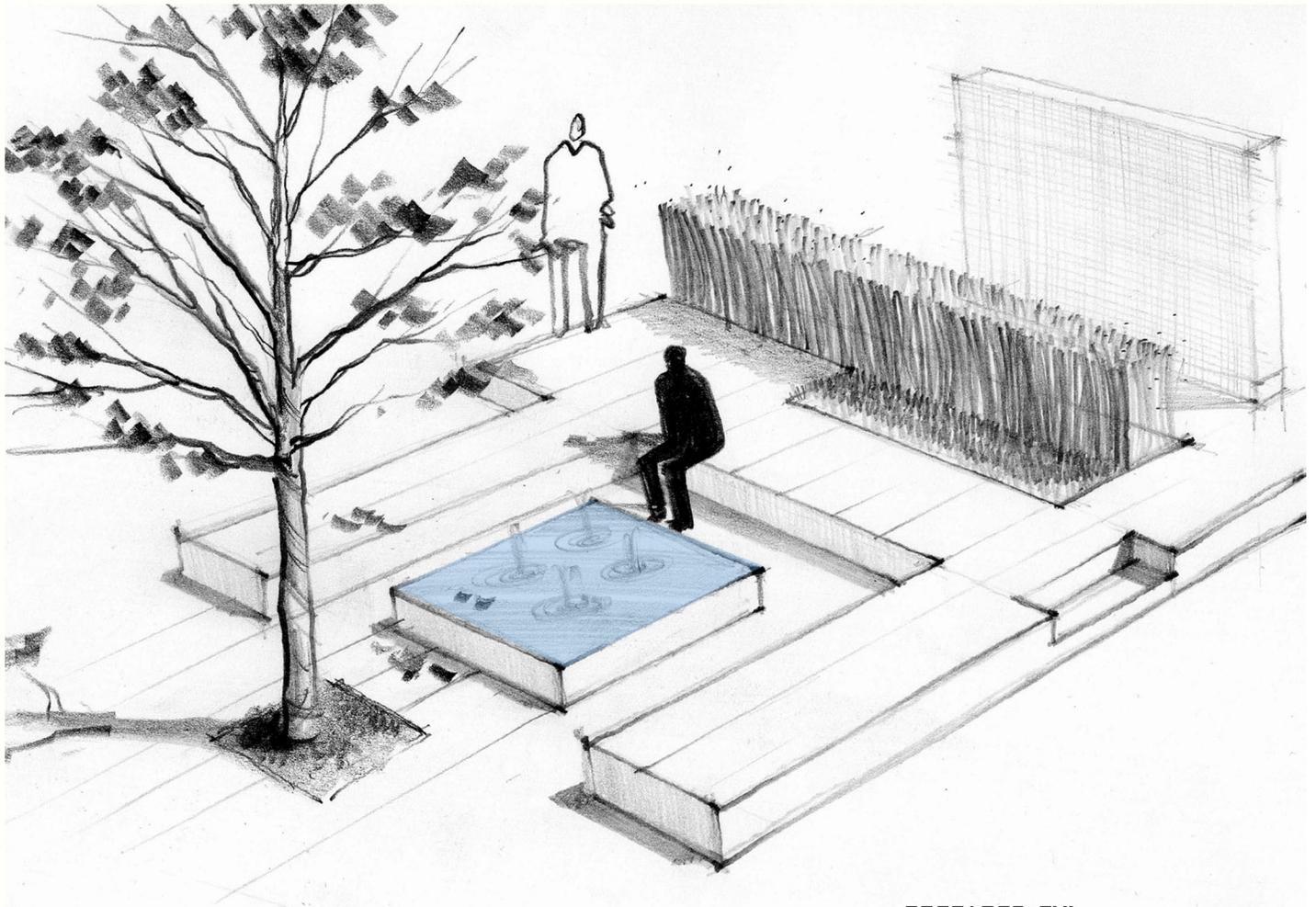


# NORTH MAIN COMMUNITY PLAZA CONCEPTUAL MASTER PLAN

DANVILLE, VIRGINIA



PREPARED BY:

APRIL 2006

PROJECT FUNDED BY THE FUTURE OF THE  
PIEDMONT FOUNDATION

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**ac** assistance center

College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

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|                 |   |
|-----------------|---|
| Jerry Fischer   | Director, Community Development, City of Danville   |
| Anne Moore      | Community Development Coordinator, City of Danville |
| Lyle Lacy       | Deputy City Manager, City of Danville               |
| Chief Broadfoot | Police Department, City of Danville                 |
| Linwood Duncan  | Area Resident; Press Secretary for Virgil Goode     |
| Roy Gignac      | North Main Theater                                  |
| Gary Grant      | Local Historian, City of Danville                   |
| Renee Blair     | Associate Planner, City of Danville                 |
| Inez Pollok     | GIS Coordinator, City of Danville                   |
| Patrick Miller  | Landscape Architecture Professor, Virginia Tech     |

CDAC PROJECT TEAM

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## PROJECT DESCRIPTION

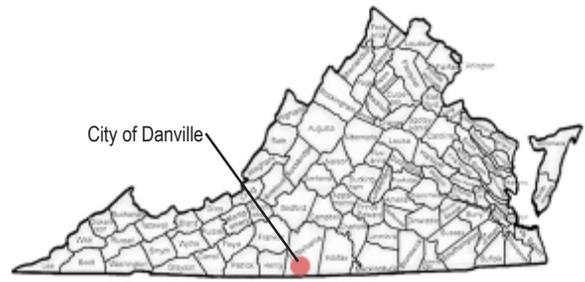
The North Main neighborhood is one of the oldest in the City of Danville. The neighborhood is largely residential, with several pockets of small scale retail and service activities located primarily along the Main Street corridor. Most streets are lined with closely spaced houses of modest size, although more substantial dwellings occupy many of the lots on Main Street. Narrow rights-of-way, mature trees, shallow front setbacks, and porches contribute to a pleasant, traditional neighborhood character.

In past years, the North Main neighborhood flourished; however, in recent decades it has suffered from the out-migration of homeowners and deterioration of housing stock. Despite these conditions, the neighborhood possesses a number of attributes that have led to interest in its revitalization. A magnet school devoted to the arts brings students from across the region to the neighborhood on a daily basis, while the restoration and reopening of the historic North Main Theater, holds the promise of creating a locus for community arts and cultural events.

Of related importance is the proximity of the North Main neighborhood to the Dan River and Danville's downtown commercial district. With further development of its arts and cultural resources, the reopening of the Theater, and renovation of existing housing stock, the neighborhood could become a lively district offering cultural activities, entertainment, services, as well as housing, just a stone's throw from downtown Danville.

The Community Design Assistance Center (CDAC) was charged with the task of preparing a conceptual master plan for the triangular plaza adjacent to the North Main Theater and a conceptual design for the vacant lot near Meades Alley, both of which are in the Uptown Arts District. This area is generally defined by Main Street, Church Street, and the Theater.<sup>1</sup>

With the recent renovation and reopening of the North Main Theater, the triangular plaza has the potential of serving as both a gateway and gathering space for the Arts District. The design for the space should be such that it serves the area well both on normal business days as well as during special events.



State context map : Commonwealth of Virginia - Pittsylvania County - City of Danville



Study area context map



Looking at the site from the intersection of North Main and Keen Streets

<sup>1</sup> Taken from the project proposal

## DESIGN PROCESS

The project began with an initial site visit at the end of April (04/28/05) to photograph and study the site and its surrounding context. The CDAC design team returned in May to verify noted site elements and conditions and to observe how the site was used on a daily basis. The design team spoke with pedestrians passing by as well as those using the plaza regarding their preferences for how the site could be designed and used.

Upon returning to Blacksburg, the CDAC team explored the site and its design possibilities through analysis drawings and multiple sketches. From these ideas, a series of conceptual master plans were prepared. These plans were presented on June 30th to City staff, the police chief, advocates for the arts and downtown districts, and an area resident. The CDAC team used the comments received at this meeting to guide them as they refined the design concepts into a single proposed concept.

A final conceptual design was presented in early November 2005. Again, the CDAC team responded to the project feedback, revising portions of the final master plan. This short, supporting report was also prepared to document the design process and products.



The CDAC project team meets to discuss conceptual alternatives for the site.



Members of the CDAC project team and the client group meet on site to discuss design possibilities.



CDAC team member Hooman Koliji presents conceptual design alternatives to the client group.

## SITE ANALYSIS

The CDAC team began the analysis process by visiting the site to document and verify existing conditions, to see how the site is currently used during the day, and to examine its surrounding context. The CDAC team utilized the historical information, cultural resource documentation, and contextual analysis found in the *North Main Neighborhood Study*<sup>1</sup> to assist them in this process. They also spent many hours on site, photographing the streetscape, talking to passersby about the space, and trying to understand what would make this a great space.

Currently there are two existing historical markers on the site. One speaks of Frederick Delius, an internationally acclaimed composer who, on his way to greatness, resided in Danville for a few years, just one block from the plaza site. The second marker is a plaque offered in dedication to Julian L. Phipps for his service to the North Main Community. These plaques speak to the different levels of service this plaza can offer - day in and day out to the individual community and on specific occasion to the broader, general public during a special event. The design team felt it was important to document this information to see that it was translated, in some form, into the redesign of the plaza.

The CDAC design team prepared a spatial analysis, urban contextual analysis, and an examination of the mutual relationship between “whole and part”. These three analyses and their accompanying graphics can be found on pages 4 and 5.



Dedication marker on the site.



VT Landscape Architecture professor Patrick Miller assesses the condition of a tree on the site.

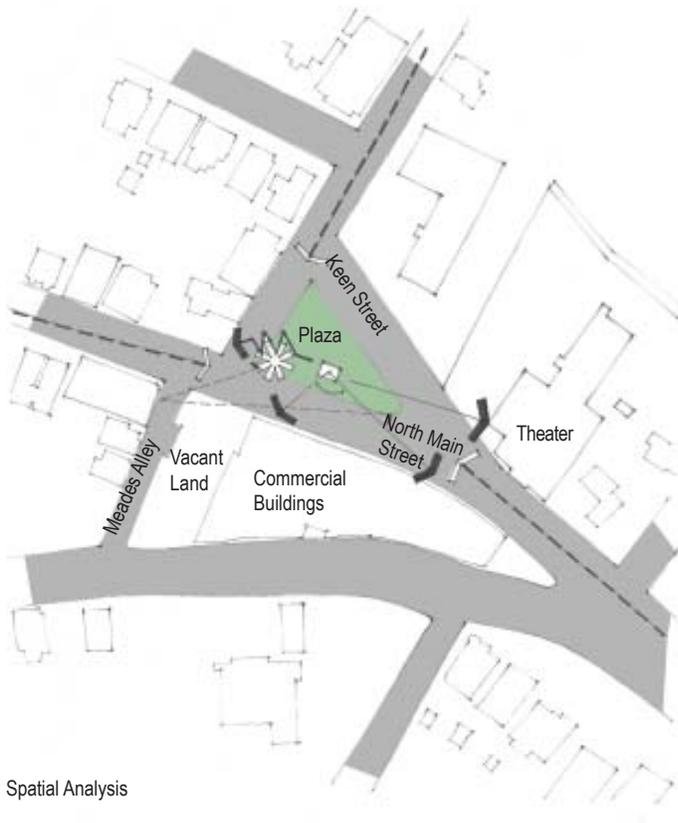


CDAC team members photograph the site and surrounding areas.



Historical marker within the site.

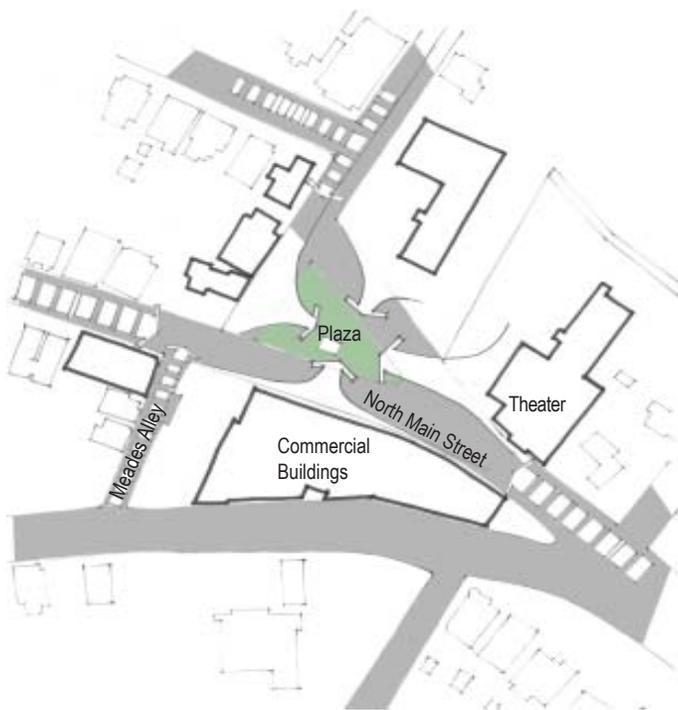
<sup>1</sup>prepared by the spring 2003 Advanced Planning and Design Landscape Architecture studio at Virginia Tech



Spatial Analysis

### MASS/SPATIAL ANALYSIS

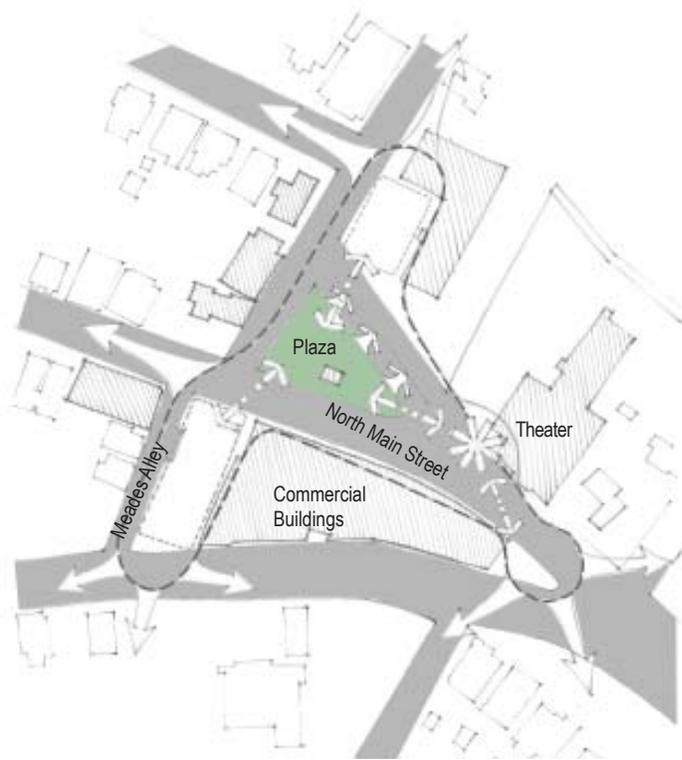
This analysis focuses on the existing focal points on site (tree and pump station) and their visual and spatial effects on the rest of the site. It examines both views into the site and well as views outward from the site into the surrounding area (represented by the arrows). The pump station and the existing tree are the focal points for all off-site views onto the site. The tree functions as a positive and pleasing component of the space; meanwhile the station, because of the small significance of its architecture, serves to detract from and divide the space and thus requires some design consideration. Also, any design recommendations for the site need to incorporate the vacant land adjacent to Meades Alley. In doing this, the study area is enlarged and begins to act as a gateway into the district.



Urban Contextual Analysis

### URBAN CONTEXTUAL ANALYSIS

The graphic representation of the urban contextual analysis denotes the effect of the surrounding buildings on the site. In light of the site's context, the analysis looks at the space enclosed by the surrounding buildings in terms of function, circulation, and spatial perception of the site. Currently, the plaza little relationship with the surrounding buildings. The only element that creates a link between the plaza and the surrounding buildings is asphalt. The Urban Contextual Analysis informs the conceptual design process by introducing the need to create a design that responds to the needs of the plaza as well as the surrounding areas. One primary way this can be achieved is by enhancing connections between the spaces. When the plaza begins to approach the surrounding buildings, it should start to become a landscape for those buildings as well, integrating the spaces and creating a design that is highly context sensitive.



Mutual Relationship between "Whole" and "Part"

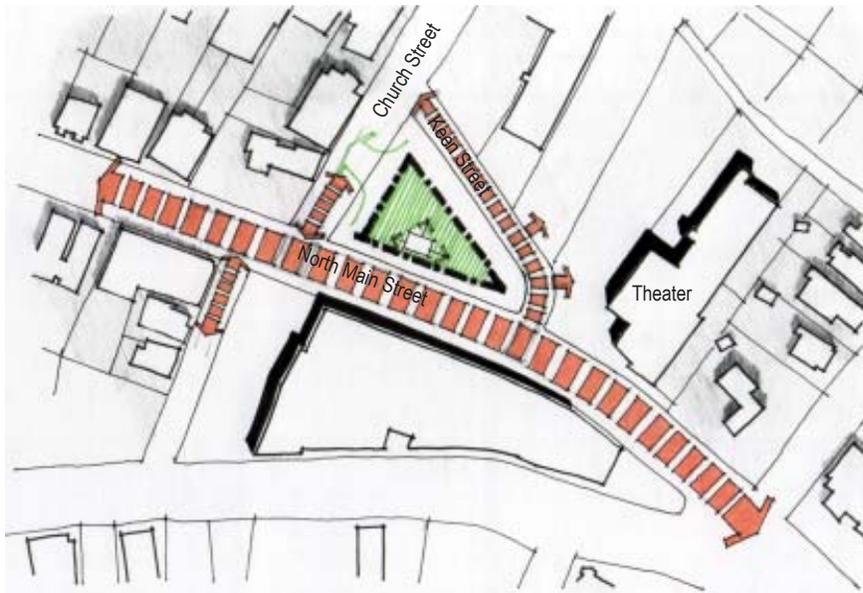
## MUTUAL RELATIONSHIP BETWEEN "WHOLE" AND "PART"

This final analysis focuses on the design objective of seeing the plaza and area around it as a district or gateway into a district rather than just an isolated space to be designed. It examines the individual parts and then seeks to see the integrity of all the parts combined. While the site is a unified and coherent space overall, there also exists internal interactions between individual parts or site elements. The mutual relationship between whole and part are experienced and perceived as a concrete phenomenon.

Currently, the plaza seems like a leftover space between the streets. There is no larger relationship to the surrounding site. It seems as if this small piece of land has been surrounded by asphalt, as an army would surround its enemy. There are scattered "part" relationships within the plaza (existing trees, pump station, seating), but no "whole" relationship with the surrounding area. In seeking to continue the strategy of incorporating, as much as possible, neighbor properties into the design of the plaza, conceptual design solutions for the plaza should respond to the surrounding properties, and extend the plaza's design influence even beyond the adjacent buildings and begin to address the idea of an arts district.

## PRELIMINARY CONCEPTUAL DESIGNS

The CDAC design team used the information gleaned from the site analysis to guide their design decisions in the development of several preliminary conceptual designs for the plaza. The CDAC design team identified two major design concepts that they wanted to explore in the preliminary conceptual designs. We referred to these two major concepts as the fragmental and integrated approaches. The diagrams on this and the following pages illustrate the major design concerns explored within the two alternative concepts as well as the major design strategies employed.



1. Fragmental Approach - small amount of land for useful design purposes

### COMPARING THE CONCEPTS

1. In the first major concept - the Fragmental Approach - Keen Street is retained in its current state; there is very little space available that can be used and changed for design purposes because of borders, such as streets, and retaining the pump house that need to be observed. As the site is much like an island surrounded by streets and vehicular traffic, the site will remain fragmented from its surrounding context.



2. Integrated Approach - larger amount of land for multi-purpose use

2. In the second major concept - the Integrated Approach - Keen Street is closed and that space is included as part of the design area. The amount of usable space thus dramatically increases. Closing Keen Street helps to make stronger connections between the lower plaza area (adjacent to North Main Street) and the upper area. The increased area for the plaza gives the plaza more weight (importance) in the district and fosters a more fluid interaction of the different spaces in and around the plaza; it explores the idea of how design can penetrate into the urban fabric of a district.



1. Fragmental Approach - low connection between social focal points



2. Integrated Approach - higher interaction with the surrounding environment

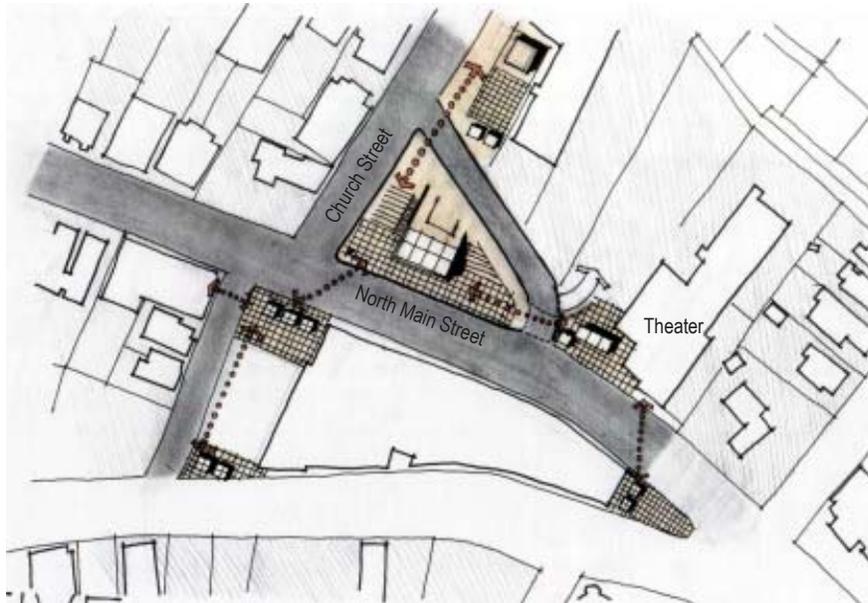
## COMPARING THE CONCEPTS

1. This Fragmental Approach diagram identifies key places - or nodes - that serve as anchors for the immediate area and need to have specific functional definition with visual representation. These are places that should invite people to gather for certain and specific purposes. The key node in this diagram is the outdoor space adjacent to the theater. This is a complimentary space for the theater and could even be considered as an outdoor lobby for interaction before and after theater events. The arrows in the diagram serve to illustrate the observed need for connections between the site and the key nodes. In the Fragmental Approach, these connections are not as strong as in the Integrated Approach.

2. This Integrated Approach diagram illustrates the importance of interactive design in marginal areas. For example: how the plaza edge touches and interacts with the surrounding spaces. The diagram examines the edge condition of the site and speaks to the need to create and design a landscape in the margins that is beneficial and functional for the plaza, the surrounding uses/spaces, and uses of the site.

## COMPARING THE CONCEPTS

1. This diagram illustrates how the Fragmental Approach has very defined edges and a separation of spaces. The corners of the triangular site all require creating pedestrian connections with the surrounding context. Yet, because of the current road widths, this connection is difficult to make effectively and with pedestrian safety in mind. Several separate spatial territories are evident in the diagram. In particular, the corner space at Keen and Church Streets (across from the triangular site) and the corner space at Keen and North Main Street (adjacent to the theater) stand out as distinct areas rather than as extensions of the plaza.



1. Fragmental Approach - separate spatial territories

2. The two major elements in this Integrated Approach diagram are the removal Keen Street in order to make the plaza area suitable for pedestrians and pedestrian related activities, and the provision for unity of connections by virtue of the geometry of design. By removing Keen Street, the design is able to improve the human-scale connection between the majority of identified nodes.



2. Integrated Approach - continuous pedestrian connections

Both Approaches seek to recreate a sense of continuity along North Main Street, create a space for community use, and to recognize the importance of the corner of Meades Alley and North Main Street, not just as a connection to the plaza alone but also as a gateway into the “arts” district as a whole.

The CDAC design team developed one preliminary conceptual design option for the fragmental approach, while three preliminary conceptual design variations were prepared for the integrated approach. Of those three variations, one was designed in detailed, with supporting perspective sketches. These designs and accompanying explanations can be found on pages 11 - 16.

The CDAC team presented these preliminary concepts to Linwood Duncan (area resident), Liz Slater (Director of Downtown Danville Association), Jerry Fischer (Director, Community Development), Chief Broadfoot (City Police), and Lyle Lacey (Assistant City Planner) for comments and suggestions.



CDAC team member Hooman Koliji (l) and Danville Community Development Director Jerry Fischer (r) discuss a conceptual alternative with the group.



Project interest group discusses the model of the proposed concepts.



## PRELIMINARY CONCEPTUAL DESIGN A

### DESIGN DESCRIPTION

This design refines the existing conditions and connection between plaza and theater, narrowing the street width of Keen at the intersection of North Main Street, creating a safe connection for pedestrians, and improving the visual continuity of the block. Major design elements for Preliminary Conceptual Design A include the proposed addition of 18" steps that also serve as seating and the idea of placing a pergola over the pump house and continuing that on toward the theater to create a visual connection along North main Street.

This concept creates a semi-open space around the pump area, and proposes that this area would act as an informational kiosk notifying residents and visitors alike of programs and events of the City, the neighborhood, and the theater. The existing large tree at the corner of North Main and Church Streets is preserved.

This design addresses the corner of Meades Alley and North Main Street, proposing a coffee shop or some compatible, small-scale food enterprize, creating activity across from the plaza.

Some disadvantages seen in Preliminary Conceptual Design A are that usable site area is small the existing green space had to be eliminated because of topographic constraints of the site. Thus, there is no significant green area in this design approach. A second disadvantage is that the play area for children is separated from the plaza by Keen Street.

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MULTIFUNCTIONAL DISTRICT PLAZA



PRELIMINARY CONCEPTUAL DESIGN B

DESIGN DESCRIPTION

The design for Preliminary Conceptual Design B seeks to create a beautiful urban plaza that will serve the area and the City residents well. By removing Keen Street, a significant amount of contiguous land is added to the plaza area, allowing pedestrian connections to be both safer and more fluid. The half circle created by the architecture masking the pump house gives plaza users a platform from which to view the surrounding area. This space could also serve as a stage for events or public addresses. Two other large areas are defined within the plaza. These areas are flat and open and are conducive to host events such as festivals, performances, or markets throughout the year.

Other major elements seen in this design include a proposed colonnade along Church Street as a linear “semi” open space; steps that are designed to serve as sitting areas (18” tall), positioned in respect to the existing topography; a shared vehicular entry to theater and business parking lot; curvilinear geometry for the site; the idea of coffee shop at the corner of North Main Street and Meades Alley to serve as an anchor for the corner and to offer a complimentary use to the plaza; and a water feature on top of the pump house, symbolic of the pump house below.



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PRELIMINARY CONCEPTUAL DESIGN B - BIRD'S EYE PERSPECTIVE

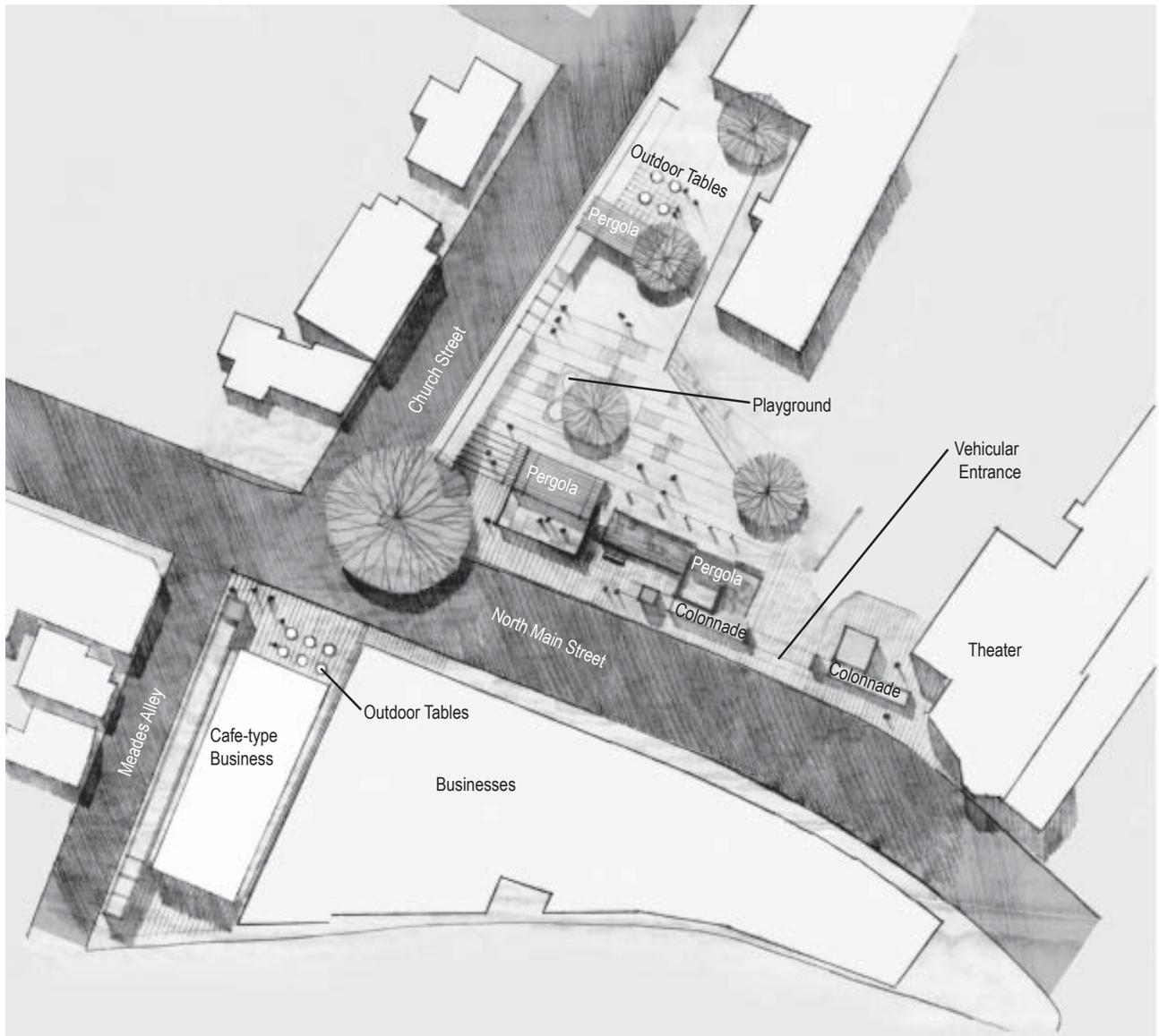


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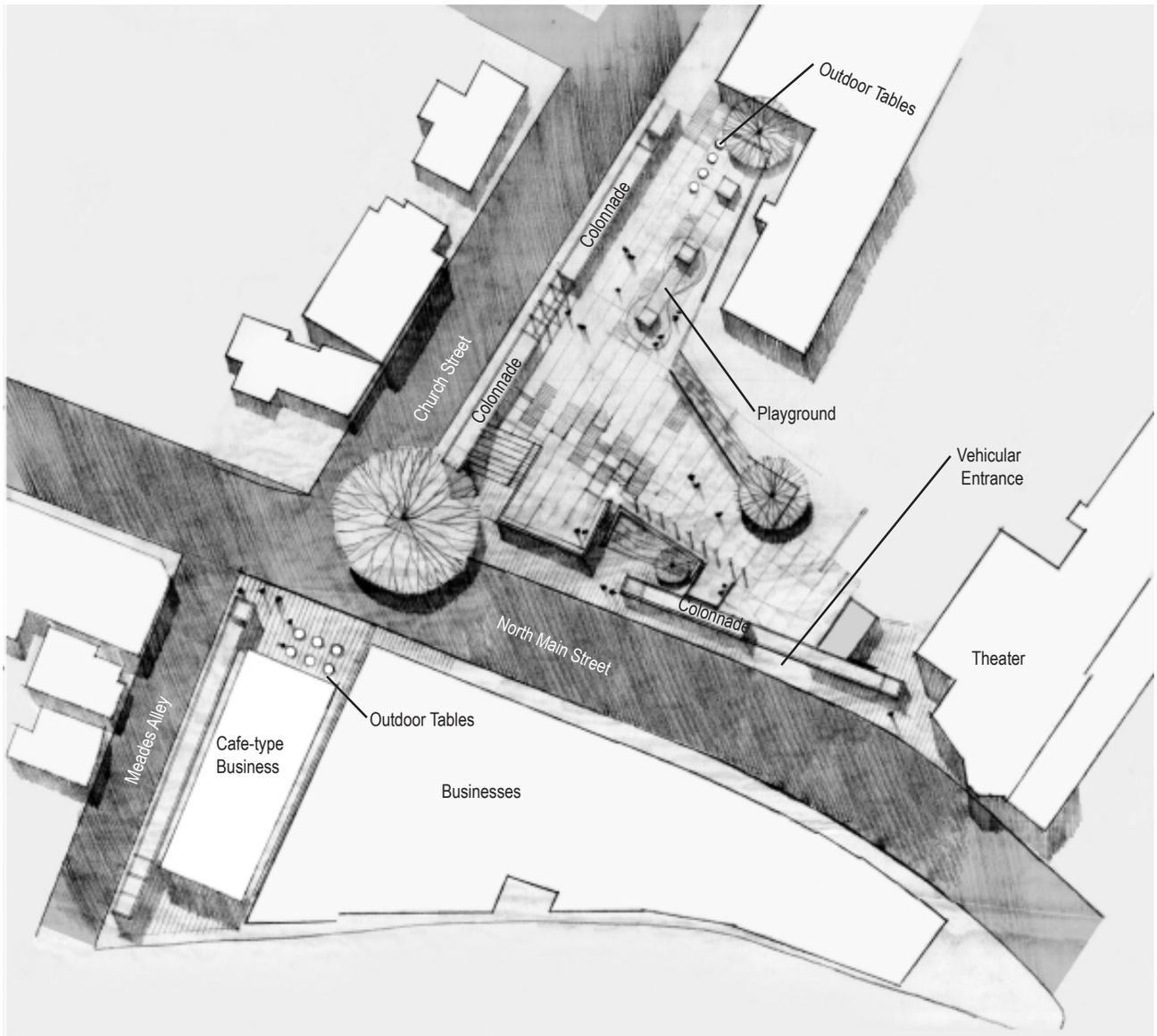
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PRELIMINARY CONCEPTUAL DESIGN B



Preliminary Conceptual Design C

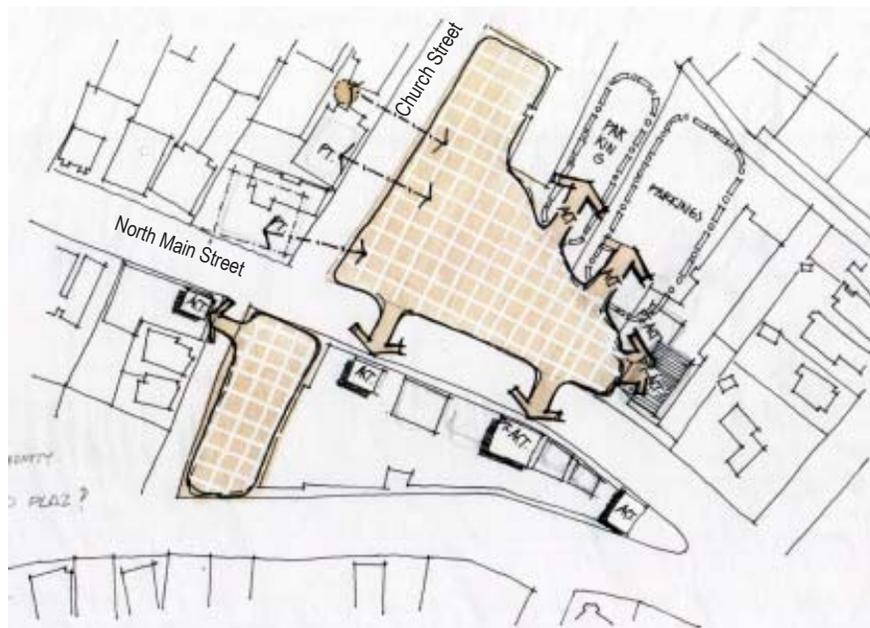
A primary difference between Preliminary Conceptual Design B and C is the application of a rectilinear geometry to the site in Concept C, imposing more rigid lines to the plaza design. Other minor changes from B to C include the addition of a partial colonnade along North Main Street and the creation of pergolas over major gathering points.



Preliminary Conceptual Design D

Preliminary Conceptual Design D applies a non-rectilinear geometry to the site. This geometry is guided by the existing site lines. Like Preliminary Conceptual Design C, this design also proposes an extended colonnade along North Main Street. No pergolas are proposed.

Some major items discussed by the group at the presentation included: an aversion to the circular geometry with large walls of Preliminary Conceptual Design B because of an immediate association with the existing courthouse and the current negative perception of that structure. For safety and ease of visual surveillance of the site, it was recommended that the area adjacent to North Main Street be designed to be flush with the current ground level and gradually increase with the topography. Having a high platform that overlooks the street creates a visual barrier that may inhibit visual surveillance by police as well as passersby into the site itself. City staff was not certain whether the idea of a water feature would be accepted by other City departments. Other expressed concerns related to the design of the playground area; the client group was unclear of CDAC's design intentions based on what was depicted graphically. The CDAC team clarified, stating something simple - like a sandbox or bermed grass area for free play - was envisioned as opposed to a playground structure.



Comprehensive Approach

## THE COMPREHENSIVE APPROACH

In examining the two design approaches, the CDAC team recommends that a more comprehensive approach be applied to the design than previously described in the fragmented approach. The design team felt that the site design should address three levels of goals: social, cultural, and economic. Aspects to be addressed within each goal include:

### SOCIAL GOALS

- basic social needs
- communication needs
- sense of social identity
- a local gathering area

### CULTURAL GOALS

- spreading the function of the theater to the surrounding areas
- opportunities for outdoor theater activities (planned and spontaneous)
- venue for cultural activities

### ECONOMIC GOALS

- reinforce local businesses
- reinvigorate local businesses

## DESIGN SUGGESTIONS FOR TRAFFIC CALMING

After presenting the preliminary design concepts, the CDAC team was asked to develop some design suggestions for calming traffic along North Main Street. There is an entire design focus called Context Sensitive Design (or Context Sensitive Solutions) that seeks to better integrate the design of roads with pedestrian spaces. This design approach states that when a road is passing through a community, the road should be sensitive to all the existing forces (cultural, social, functional, and visual). In this sense, a road is not just two parallel lines that illustrate passage but rather should be something that is designed (or changed) to respond to its context. Roads can be made narrower in some places, paving material can be changes in others (example: from asphalt to pavers) to respond to pedestrian use.

The CDAC team suggested three design alternatives that could be applied to the street and streetscape of North Main Street to improve the pedestrian experience and calm traffic without creating bottlenecks. These design alternatives are based on the Context Sensitive Design approach and can be found on pages 18-21. These designs also take this opportunity to incorporate trees and vegetation into the entire study area, not just on the site itself. This is done by retaining existing trees and proposing new vegetation.



Angled on-street parking and tree bumpouts reduce the thru-traffic street width, creating a street that responds to pedestrians as well as cars.



Changes in paving material define traffic lanes and pedestrian spaces. A tree bumpout in a parallel parking lane helps to visually reduce the perceived street width.

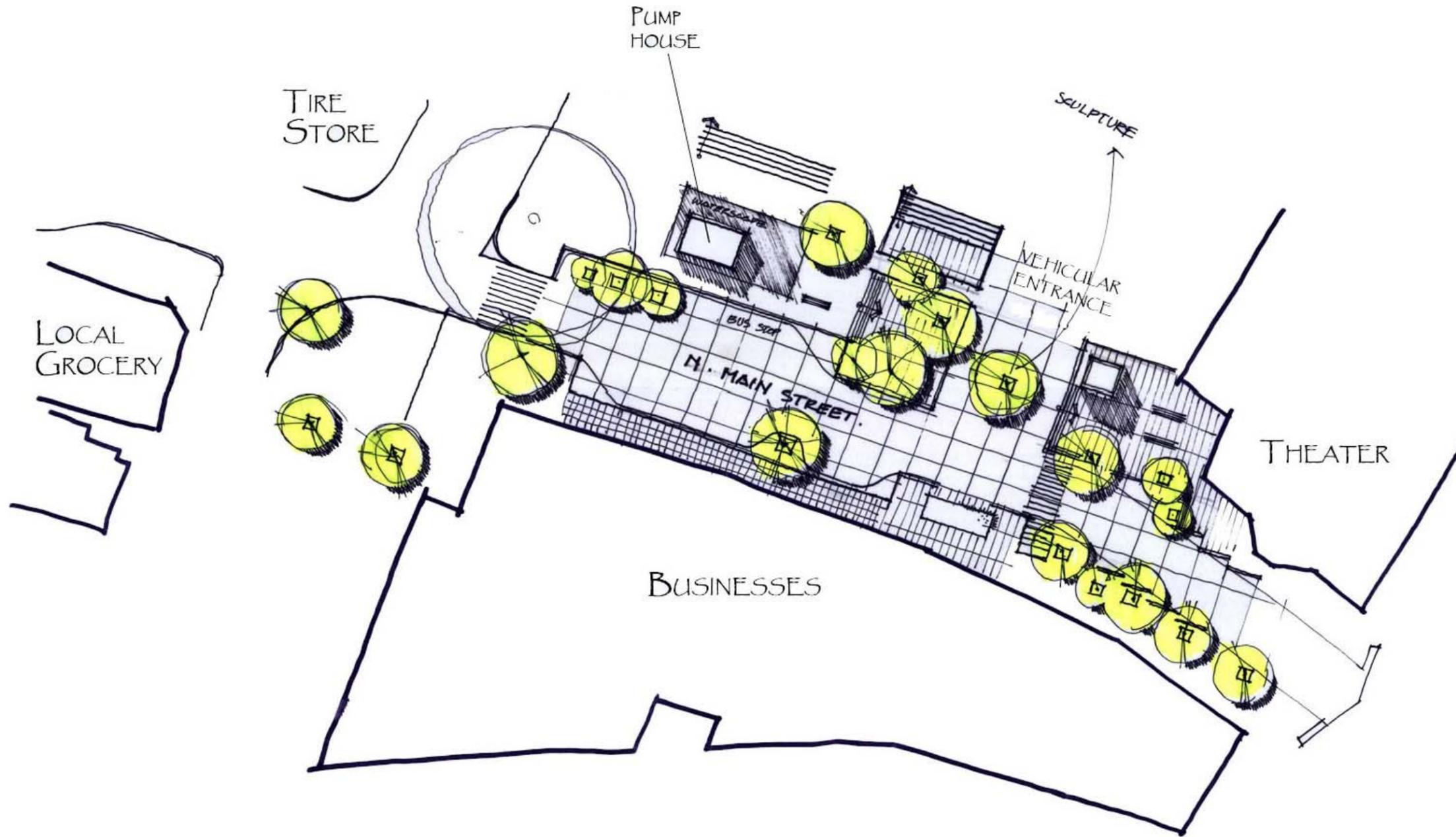


Tree bumpouts and colored crosswalks help make this intersection safer and more appealing for pedestrians.

**TRAFFIC CALMING  
ALTERNATIVE 1**

**DESIGN DESCRIPTION**

Alternative 1 proposes changes in the street width as well as the paving material on North Main Street, to slow the speed of cars passing through this City block. Two tree bumpouts are proposed in front of the plaza site - one adjacent to it and one across from it. Pavement changes are proposed where the existing parallel parking is in front of the businesses along North Main Street. Trees are added to the north end of the block, again reducing the perceived road width and calming traffic speeds in areas of higher pedestrian activity.



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NOT TO SCALE



**TRAFFIC CALMING  
ALTERNATIVE 2**

**DESIGN DESCRIPTION**

Like Alternative 1, Alternative 2 proposes changes in the street width on North Main Street. Alternative 2 also proposes some changes to the street's geometry - from linear to curvilinear. No changes are made in regards to paving patterns. An additional bumpout is added directly across from the proposed shared vehicular entry to the theater and adjacent business. A center tree island in North Main Street, across from the bus stop, is also added. These proposed street changes would help slow vehicular traffic in this City block and increase motorists' awareness of pedestrians.



NOT TO SCALE



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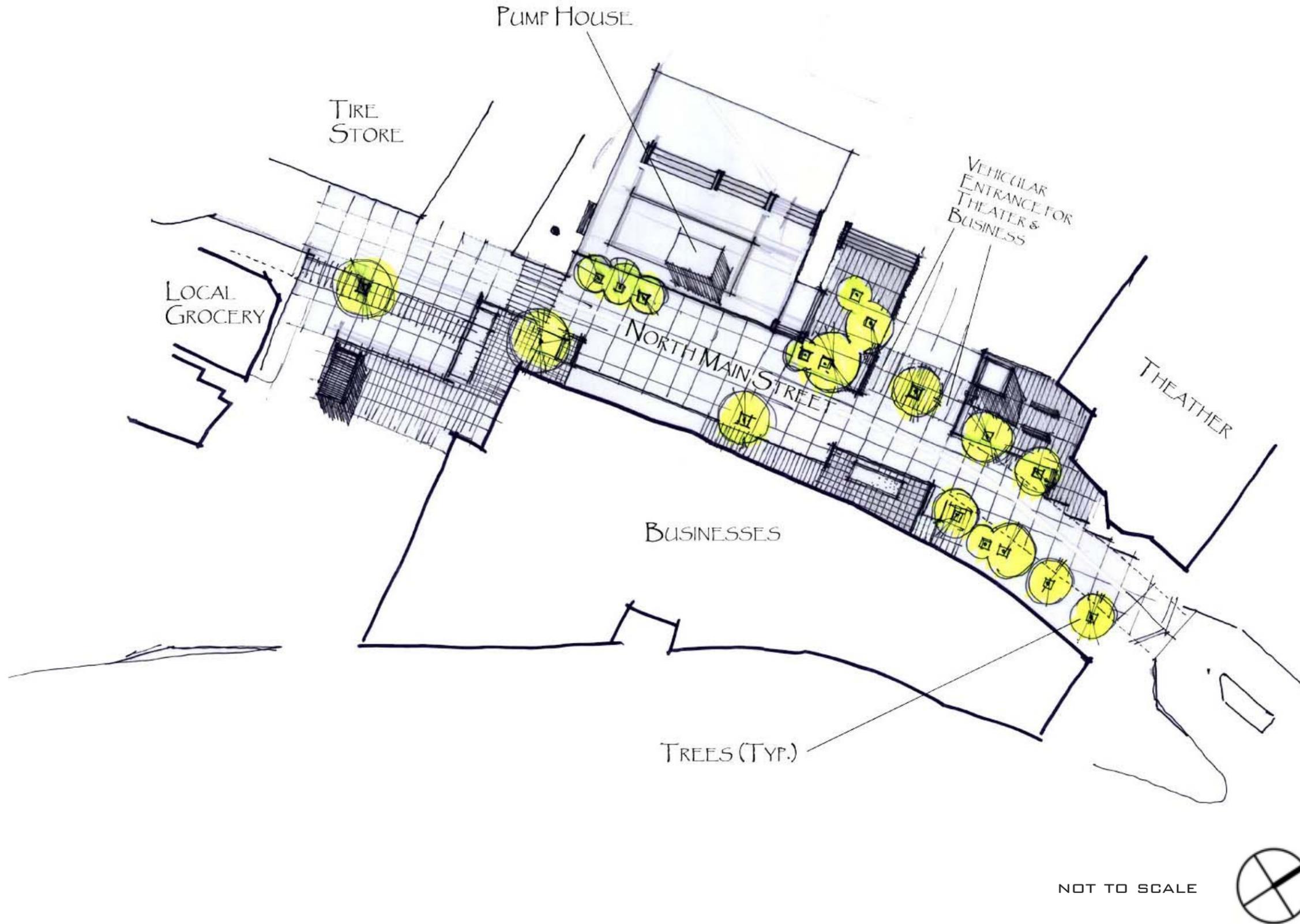
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**TRAFFIC CALMING  
ALTERNATIVE 3**

**DESIGN DESCRIPTION**

Alternative 3 is very similar to Alternative 1, with a slight variation in geometry. Unlike Alternative 1, this alternative has a strict rectilinear geometry imposed on it. No changes are proposed in street paving material. Alternative 3 adds a number of bumpouts; this recommendation changes the street width in several areas along North Main Street and serves to cause motorists to take notice and slow down.



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## FINAL CONCEPTUAL DESIGN

The CDAC design team took the feedback received at the preliminary conceptual presentations, as well as input from City staff that was sent to the CDAC team after the initial presentation, to shape the final conceptual design. This final conceptual design was presented to a large group of City staff, theater representatives, and an area resident. The presentation took place on November 5th, 2005, in the North Main Theater Art Gallery.

The final conceptual master plan for the plaza seeks to create a space that will allude to the notion that one is entering an arts district. The plaza itself responds to the presence of the North Main Theater and hopes to provide a casual outdoor “theater” area related to North Main Theater programs with an area that can serve as a stage for the theater of life. The plan also recommends improvements to the sidewalk area on the opposite side of Church Street to provide a more cohesive environment.

Two predominant design themes used to shape the space are the application of “step seats” and flexibility in geometry. “Step seats” can be described as 18” steps that are employed in response to site elevation changes. The steps are designed with dimensions that allow them to serve as seating for plaza users. The step seats are applied to the site as a whole to create an encompassing sense of the plaza being a type of outdoor theater space. While the geometry of the site details follows a rectilinear order, in general, it seeks to be fluid as a whole so that the site flows visually to those passing by or using the space.

A key element that was applied to the entire site and greatly influenced the design concept was lighting. The CDAC team wanted to grant a night identity to the plaza that was in harmony with the daytime identity, creating a night character that was as meaningful as the daytime character. Respecting the rectilinear geometry of the details of the plaza design, the proposed lighting standards are rectilinear and have been applied to the entire site as well as immediate around its perimeter.

The idea of light is not just for illuminating an area but also to create different perceptions of the site from different directions. Accordingly, each lighting standard has 4 internal faces with different colors. When they are lit, they reflect their col-



CDAC team member Hooman Koliji presents final design concepts to City staff and theater representatives.



City staff and theater representatives examine final design concepts.



CDAC Director Elizabeth Gilbo explains design concepts to City staff.

ors in different directions, creating different orientations to the space. For example, someone coming from the west would experience something completely different from those approaching from the east. As people pass through the site, colors are being replaced by other colors. This is the unique experience of the site at night. Unique designs are also proposed for lights at the two major entrances. These lights serve a physical element denoting that this is a gateway into the arts district.

The CDAC design team took the comments they received from this final presentation and made a few additional changes to the conceptual master plan. These comments are reflected in the final conceptual master plan on the following page:

1- Removing the platform (on top of the pump house), so that there is no visual barrier prohibiting the view of the site from North Main Street.

2- Creating water features around the pump house and in front of the theater and integrating the design of these water features with other site elements (e.g. light furniture, step-seats, etc.).

3- Removing proposed trees on the east side of the North Main Street.

4- Enlarging the curve at the intersection of Church Street and North Main Street, making a right hand turn onto Church Street easier to make.

5- Narrowing North Main Street, from the North Main Theater to Church Street.

5- Adding a ramp connection for ADA access for the whole site.

6- Expanding the green space on northwest part of the site adjacent to the playground area.

7- Maximizing the number of parking spaces by removing the proposed coffee shop from the corner of Meads Alley and North Main Street.

8- Including bike racks in two key areas along North Main Street.

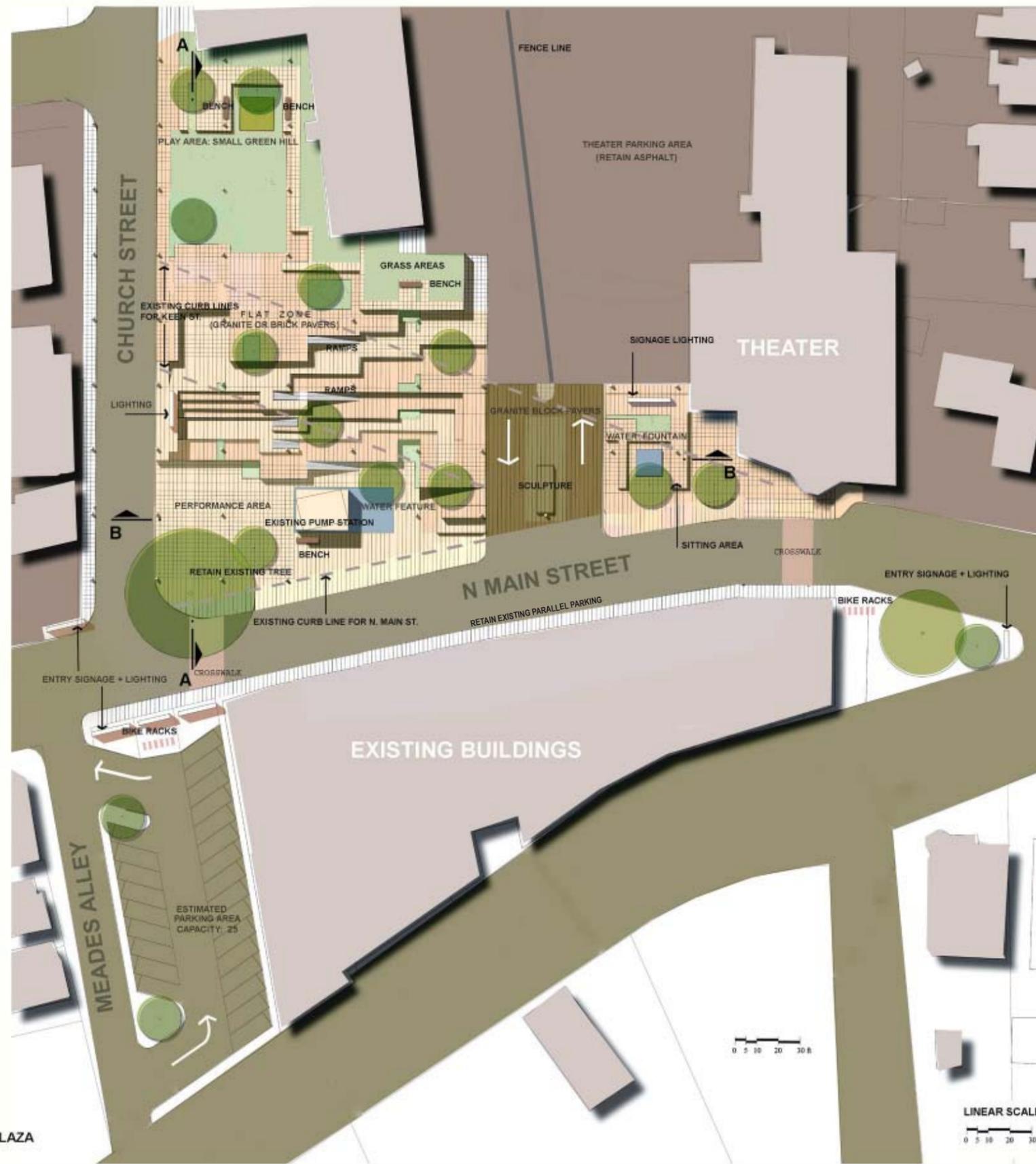
9 - Adding statues near the pump house to recall the history of the site (i.e. its former use as a fire station).

10. Using a lighting standard that is more reflective of an historical character than the proposed modern design.

11. Materials other than granite could be used for the hardscape (i.e. brick).

11x17 pullout drawings showing the final design concept and supporting drawings can be found on pages 25-28.

# FINAL CONCEPTUAL MASTER PLAN



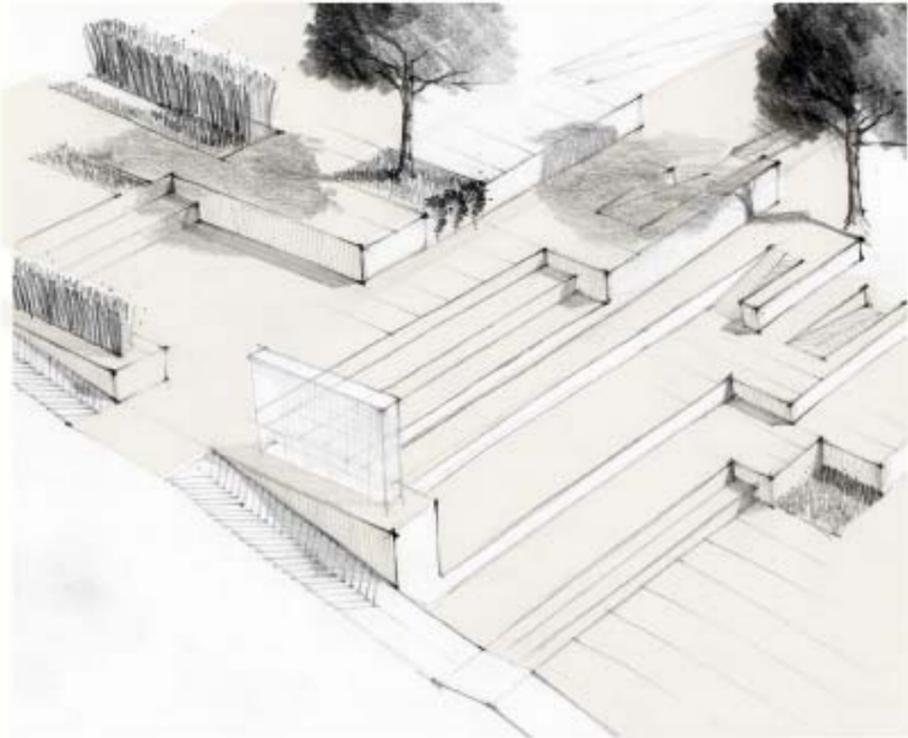
**KEYPLAN**  
LEVELS OF THE PLAZA

**cd** community design  
**ac** assistance center

College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

This drawing is conceptual and was prepared to show approximate location and arrangement of site features as well as approximate building measurements. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

PERSPECTIVES AND SECTIONS - FINAL CONCEPTUAL MASTER PLAN



PERSPECTIVE OF LANDSCAPE LEVELS FOLLOWING TOPOGRAPHY



PERSPECTIVE OF FOUNTAIN AREA CLOSE TO THE THEATER ENTRANCE



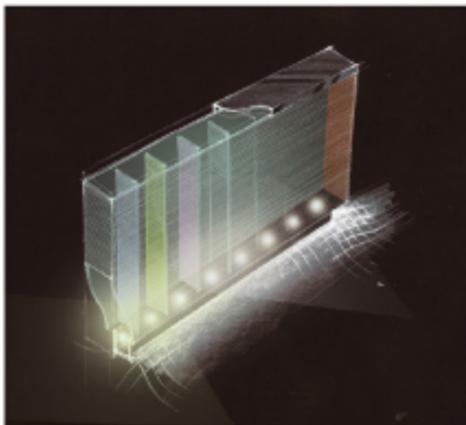
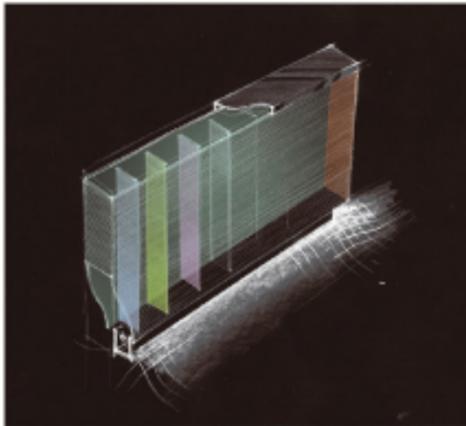
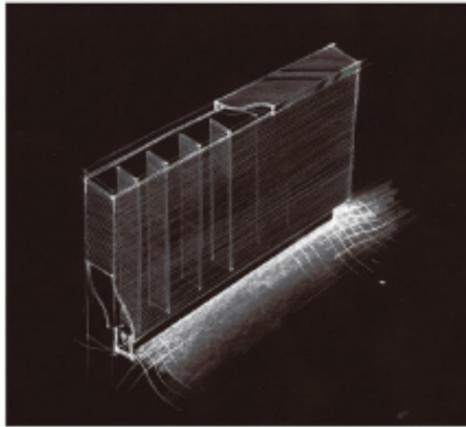
**SECTION A-A** (NOTE: VERTICAL DIMENSIONS HAVE BEEN EXAGGERATED SO THAT THE SECTION WILL CONVEY A SENSE OF PLACE - NOT APPROPRIATE FOR CONSTRUCTION PURPOSES)

**cd** community design  
**dc** assistance center

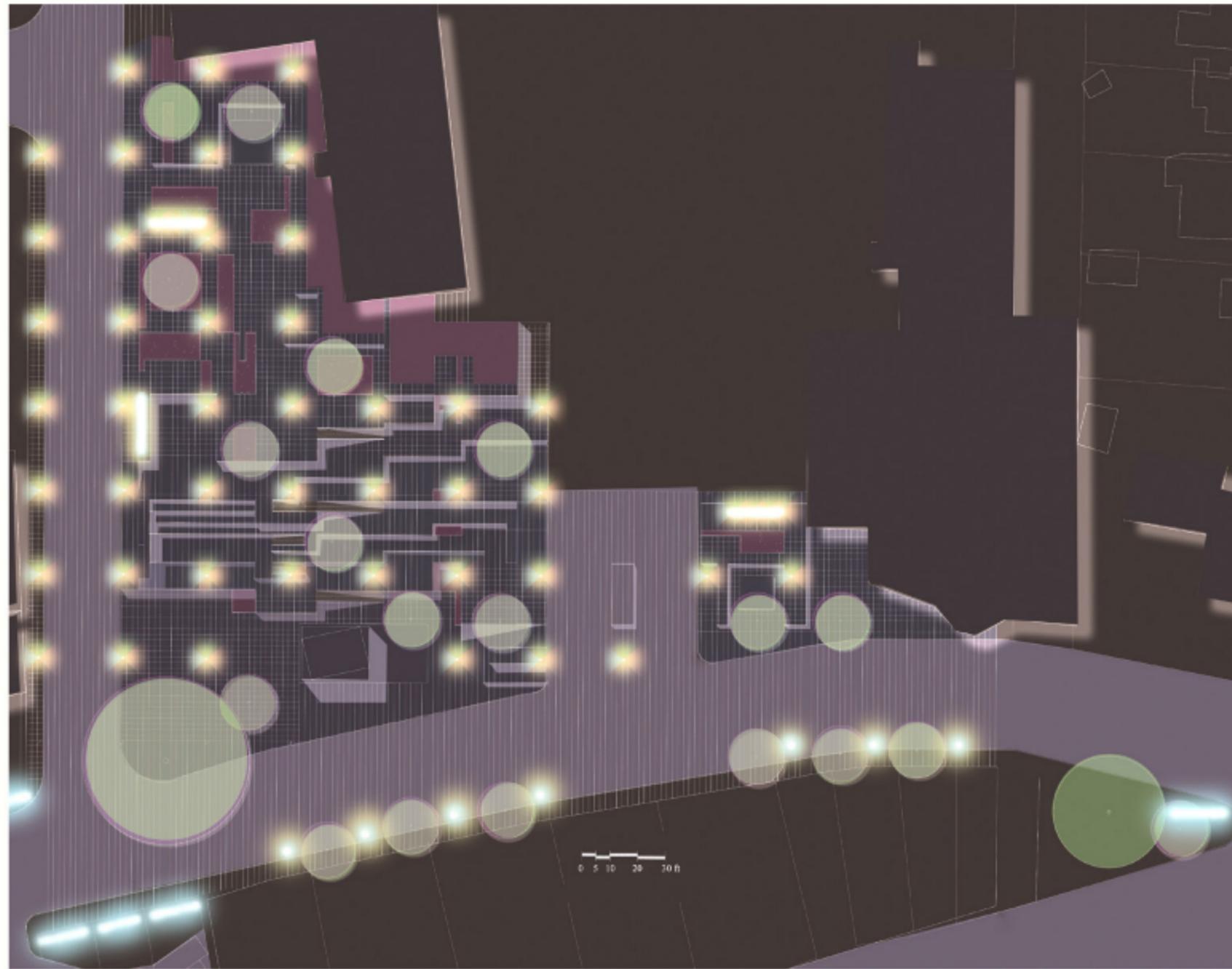
College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

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NOT TO SCALE

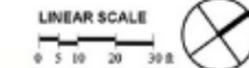


**SECTION-PERSPECTIVES**  
OF THE LIGHT BOXES



**S I T E P L A N**

NIGHT APPEARANCE OF THE SITE, EXPLORING THE LANDSCAPE IN THE DARK TO GRANT IDENTITY TO THE ZONE



**LIGHTING PLAN -**  
FINAL CONCEPTUAL MASTER  
PLAN

**cd** community design  
**dc** assistance center

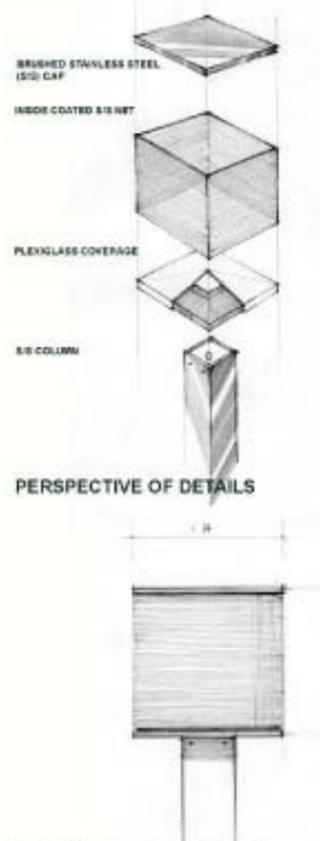
College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

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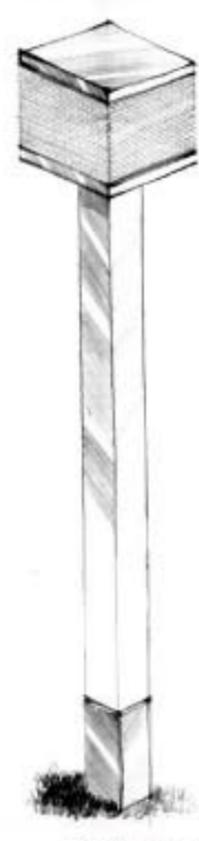
**NIGHT SECTIONS -  
FINAL CONCEPTUAL MASTER  
PLAN**

These sections illustrate how the different levels in the site would be experienced at night. A special light feature is proposed at the pump house. Using the design idea for the site light fixtures, lighting is wrapped around the pump house, illuminating the entire building at night.

See Appendix D for examples of factory designed lighting standards that would reflect the historic character of the area.



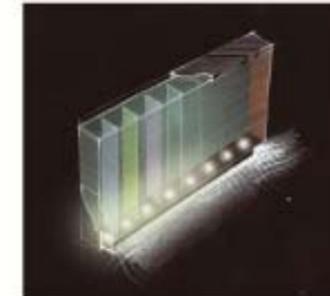
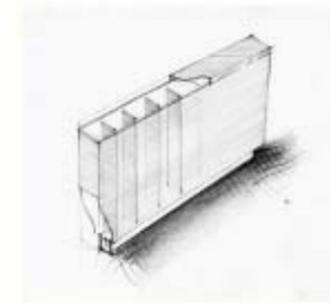
**ELEVATION OF PARK LIGHTS**



**CONCEPTUAL LIGHTING ELEMENT**



**NIGHT PERSPECTIVE OF PERFORMANCE AREA**



**PERSPECTIVES OF LIGHT BOX**



**SECTION OF PARK LIGHTS**



**SECTION B-B** (NOTE: VERTICAL DIMENSIONS HAVE BEEN EXAGGERATED SO THAT THE SECTION WILL CONVEY A SENSE OF PLACE - NOT APPROPRIATE FOR CONSTRUCTION PURPOSES)

NOT TO SCALE



College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

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# CONCLUSION

The triangular plaza space has great potential to become a tremendous asset to the North Main community, the adjacent businesses, and the City as a whole. As with the revitalization of the North Main Theater, redeveloping this space would be a significant step in transforming this section of Danville into a thriving arts district. Improvements made to the plaza would be an excellent public response to the private investments that have already been made in the North Main Theater. The CDAC team envisions the plaza serving as both a gateway and gathering space for the Arts District; as a place for spontaneous performances and planned events; as a location for celebrated annual occurrences and casual daily enjoyments.

## APPENDICES

APPENDIX A: PLANTING GUIDELINES & SUGGESTIONS

APPENDIX B: STATUE EXAMPLES

APPENDIX C: WATER FEATURE AND PAVING EXAMPLES

APPENDIX D: LIGHT STANDARD ALTERNATIVE EXAMPLES

APPENDIX E: UN-REVISED FINAL CONCEPTUAL MASTER PLAN (11/2005)

## APPENDIX A: PLANTING GUIDELINES & SUGGESTIONS

### PLANTING GUIDELINES

“Tree species vary considerably in their minimum requirements for rooting volume, soil pH, drainage, etc. A site evaluation will allow you to choose the very best trees for a given location. Without a site evaluation, communities often choose a tree species that will handle the worst possible site conditions as a safeguard against tree failure. The result of this practice is the overuse of a few highly tolerant “bread and butter” species, such as Bradford pears. These few species are not only monotonous, but can create catastrophic problems when a new pest arrives, or when problems, such as poor branching structure, are identified. It is good practice to always seek to diversify the tree species composition of a community. A good site evaluation is an essential tool in species diversification” (<http://www.cnr.vt.edu/dendro/treeselector/evaluate.shtml>).

A thorough site evaluation should tell you how well a proposed planting site will be able to support street trees and what specific site limitations are. A site evaluation should be conducted prior to tree species selection. The specific site for each tree should be considered to make sure a plant selection is made that will thrive in that spot (<http://www.cnr.vt.edu/dendro/treeselector/evaluate.shtml>).

Some site improvement can be made in many cases. You may need to modify your site with subsoiling, tilling, grading, drainage, soil amendments, soil replacement, or other site preparations. Plants should then be selected that can tolerate the current or improved site conditions. Adapting the planting design to counteract site problems and better accommodate trees can also relieve some site limitations. Careful coordination of site conditions, tree selection and design adaptation will improve success.” (<http://www.cnr.vt.edu/dendro/treeselector/evaluate.shtml>)

A sample site evaluation form can be found on pages 32 to 35 and information on how to modify your site can be found on pages 36 to 38 of Appendix A.

Site Evaluation Form  
For Street Tree Plantings

Date: \_\_\_\_\_

**Background and Legal Restrictions**

Description/location of site: \_\_\_\_\_

Locate rights-of-way and easements \_\_\_\_\_

Does the area have historic or landmark status that create legal restrictions or special aesthetic considerations?  yes  no

If yes, describe: \_\_\_\_\_

Are species choices restricted by landscape, zoning, or other ordinances?  yes  no

**Infrastructure/Utilities/Buildings**

Overhead wires present?  yes  no If yes, approximate height \_\_\_\_\_

Underground utilities present that affect actual or proposed rooting area?  yes  no

What is the distance to the nearest building or planned building? \_\_\_\_\_

What is the required building setback? \_\_\_\_\_

Are there any streetlights nearby?  yes  no If yes, how far away? \_\_\_\_\_

Note sidewalks, wires, lights, utilities, setbacks etc. on a sketch.

Call the utility clearinghouse for your region (1-800-MISS-UTILITY in Virginia) for location of underground utilities. In addition to allowing you to dig safely, these affect rooting space and may increase the likelihood of the root system being disrupted for infrastructure repairs.

**Design and Traffic Circulation**

Foot traffic will compact soil and affect the health of trees. Determine pedestrian and vehicular traffic patterns. Consider daily peaks as well as special events or seasonal activities that might bring heavier traffic (sporting events, festivals). Note bus stops, truck loading zones, dumpsters, etc. Are trees protected from parked cars? Describe any design features that affect pedestrian or vehicular circulation at the site:

\_\_\_\_\_

Describe any existing or proposed site uses, such as festivals or tailgating, that affect the site:

\_\_\_\_\_

**Climate and Microclimate**

Is the site in the  Mountains  Piedmont or  Coastal Plain?

USDA Hardiness Zone:  5b  6a  6b  7a  7b  8a  8b

Sun and shade patterns:  full sun (6 hrs. +/-day)  afternoon sun  morning sun  
 shady  deep shade

Other exposure considerations (remember to consider planned structures):  
 \_\_\_\_\_

Are there any features that create temperature microclimates?  yes  no If yes, describe ( Note surfaces that reflect or reradiate heat, such as buildings, pavement, cars, etc. These can greatly increase air temperatures at certain times. Identify wind patterns and areas protected or exposed to drying winter or summer winds. Note low areas where cold air might pool, creating frost pockets.) \_\_\_\_\_  
 \_\_\_\_\_

**Soil Conditions**

See Testing Soil Conditions at the end of this document if you are not familiar with how to conduct these soil tests.

**Soil Composition and Chemistry**

| Soil Test Conducted (e.g. "pH" or "texture-by-feel") | Location | Test Results |
|--|----------|--------------|
|  |          |              |
|  |          |              |
|  |          |              |
|  |          |              |
|  |          |              |

**Soil Moisture**

Drainage:  standing water (0 in./hr.)  
 poorly drained (<1/2 in./hr.)  
 moderate drainage (1/2 to 2 in/hr)  
 well drained (2 to 6 in/hr)  
 rapid drainage (6 in./hr.)

Is there supplemental irrigation?  yes  no If yes, describe or specify rate: \_\_\_\_\_

SITE EVALUATION FORM

Is runoff a concern?  yes  no If yes, describe \_\_\_\_\_

Sites may collect water from other areas, or may have steep slopes and compacted soils that prevent water infiltration. Note other moisture considerations.: \_\_\_\_\_

**Soil Volume and Structure**

Describe planting site dimensions (include on sketch):

Is site a tree pit, parking lot island, or similar?  yes  no

If yes, give dimensions: \_\_\_\_\_X\_\_\_\_\_

Is site a tree lawn or continuous planting strip?  yes  no

If yes, give width \_\_\_\_\_

Is the site an open lawn or soil area?  yes  no

Describe any sidewalks, street crossings, light poles, etc. that might limit the rooting area. Include the distance to these features. \_\_\_\_\_

Describe any special design features such as structural/skeletal soils, vaulted sidewalks etc. that might enhance the rooting area: \_\_\_\_\_

Describe soil cover around tree sites such as mulch, gravel, grass, or annuals. :

Are there limiting soil layers (hardpans, asphalt, gravel)?  yes  no If yes, how deep? \_\_\_\_

- Compaction:  excellent tilth  
 uncompacted  
 moderately compacted  
 highly compacted  
 severely compacted

**Soil Disturbance and Contaminants**

Is the soil eroded?  yes  no

Is the site exposed to salt (either deicing or from the ocean)?  yes  no

If yes, describe \_\_\_\_\_

Describe soil contamination or disturbance if present:

### Testing Soil Conditions

1. **Soil Texture.** Use "[texture by feel](#) [leaving VT site]" or send to a lab to determine texture. Use soil survey maps only on relatively undisturbed sites (this disqualifies most urban and developed sites).
2. **Soil pH.** Test soil pH on-site. Note that soil pH can vary over short distances and tends to be influenced by paved areas and foundations (these raise pH). Two convenient field methods are a pH meter and a color kit. Mix a representative soil sample in a bucket by taking slivers of soil down to about 6" with a trowel in at least 5 places and mixing thoroughly. Draw your sample from this. Because pH is highly variable, it often makes sense to carry out numerous tests at each site. For example, you might test pH close the sidewalk and away from the sidewalk. Are there any existing tree exhibiting signs of micronutrient deficiency (interveinal chlorosis)? Pin oak and willow oak are sensitive indicators. This could indicate pH is high.
3. **Soil Drainage and drainage rate.** Is the soil soggy, moist or dry? If possible, identify wet spots and areas of standing water after a rain. Dig a hole at least one foot deep and remove clods of soil. Any gleying (a gray mottled appearance) or a foul odor indicate poor drainage. Use a percolation test to indicate drainage rate. Fill your hole with water and allow to drain, completely, if possible. Refill with water and insert a stick or ruler and note the water level and time. After 15 minutes, check water level again and calculate the rate of drainage in inches per hour. Rapidly draining soils are of concern only where water holding capacity is low.
4. **Compaction.** Has there been construction or other activity in the site's history that may have compacted the soil? Test soil strength using a penetrometer or other tool when soil is moderately moist or take a bulk density sample. Penetrometers are pointed rods that measure resistance as they are pushed into the soil. They allow you to quickly "poke around" a site and get an idea of compaction levels and hardpans. Keep in mind that very wet soils will have very little resistance, even if severely compacted. Conversely, very dry soils can appear harder than they are. Bulk density samples are more time consuming, but can be taken any time. Also consider if current or planned activities continue to compact the soil.
5. **Soil disturbance and contaminants.** Is there evidence that snow, deicing salt, litter or various chemicals are dumped here? For example, is plowed snow with deicing salt piled on the site? Are there indications that the soil layers have been disturbed in the past? Find out the history of the site. Was a building demolished on the site? Was the site used as a staging area during construction? Is there rubble or other debris mixed in the soil? Was the site a former parking lot?

## MODIFYING YOUR SITE

### *Making Site Improvements to Expand Species Choices*

“Soil conditions are often the most limiting factor for tree growth in downtown areas. In order to use the largest selection of species and provide the greatest potential canopy cover, the ability of the site to support tree growth must be maximized. Common site limitations and techniques for addressing these limitations need to be considered” (<http://www.cnr.vt.edu/dendro/treeselector/evaluate.shtml>).

### *Soil Volume*

“In order to support an adequate root system that will see the tree through long hot summers and cold, especially dry winters, soil rooting volume must be maximized. If you have the opportunity to influence the design of tree spaces, much rooting space can be gained. Techniques for maximizing rooting volume include:

- Increase size of sidewalk cutouts or tree islands and the width of continuous tree lawns
- Include design elements such as benches or decorative walls that direct pedestrian and vehicular traffic away from tree root zones to prevent compaction of exposed soil.
- Include pavement-supporting, tree-friendly structural soils, such as CU Structural Soil®, Carolina Stalite, and other similar systems as root break-out zones under pavement.
- Provide strategically placed structural soils to allow trees to send roots under a paved area, such as a sidewalk or section of a parking lot, to adjacent open soil.

If you must work with the existing design, rooting space can still be maximized within the existing space by increasing the usable soil volume. Compacted soil reduces usable rooting volume by limiting root growth as the soil hardens when dry or becomes suffocating when excessively wet. Even trees in open lawns display the characteristics of the red maple in the photo to the right when soil is severely compacted. An uncompacted soil with good structure and organic matter content will allow more root exploration and have a more desirable mix of plant-available water and air—essentially providing more rooting resources in the same space! Pre-planting techniques include:

- Remove rubble or other debris that is occupying rooting space
- Use subsoil tillage to break up soil at lower depths
- In tree pits, dig out and loosen soil to a 2 ft depth
- Thoroughly incorporate compost or organic matter to build soil structure



This red maple has reached its maximum size for this planting site. Although the tree survives, it will never reach its genetic size potential. The tree has been growing on this site for 10 years. It is 6" in diameter and has yearly shoot growth increments of less than ½". These trees look reasonably healthy in early spring, as in this picture, but show premature fall color and dieback by the end of the summer.

- Rototill 2" of compost into a tree lawn, median strip, parking lot island, or other accessible site

Reducing soil compaction will have the added benefit of improving water infiltration into the soil profile—providing more water to your trees and less to the supply of urban runoff" (<http://www.cnr.vt.edu/dendro/treeselector/evaluate.shtml>).

#### *Example: Reducing Compaction*

*Problem:* A severely compacted median in a wide roadway is to be planted with large shade trees as part of the entrance into downtown. The median is 12 ft. wide. Its soil is primarily a clayey subsoil, heavily compacted by road machinery during construction. Even in this wide median, usable rooting volume for a tree is about 300 ft<sup>3</sup>.

*Solution:* Subsoil tillage loosens lower layers. Two inches of municipal leaf compost is spread over the surface and tilled in thoroughly with a rototiller to a depth of 6-8 inches. During tilling, debris is removed. Soil with excessive stones or gravel is screened. Soil is now relatively uncompacted, and usable tree rooting volume within the median has been increased to about 1200 ft<sup>3</sup>. This is a one-time activity that will pay dividends for many years.

#### *Soil Alkalinity and Acidity*

Most trees grow best in neutral to somewhat acid soils (pH 7 and below). Some, such as pin oak and willow oak (*Quercus palustris* and *Q. phellos*) will decline rapidly when soil pHs are above 7. In downtown settings, where concrete is abundant and limestone gravel may be mixed in the soil or used as a base layer for pavement, soil pH can be very high (alkaline). These high pHs limit nutrient availability to plants and often result in chlorotic (pale green or yellow) leaves. Fortunately, there are some species that will tolerate these higher pHs and these are often selected as street trees.

Consider adjusting the pH of the soil at your site in some situations. Typically the need is to lower pH as overly alkaline soil (high pH) is the most common problem with street trees. First, you must have determined the current site soil pH and develop a feel for the soil texture at your site and the sources of alkalinity. The more clay in a soil, and the more widespread the sources of alkalinity, the more difficult it is to lower pH. Even if pH is lowered, it is likely to return to its present level in the long term. For this reason pH lowering is most easily achieved when some or all of the source of alkalinity can be removed, the clay content is relatively low and the desired

change in pH level is not too great. In many cases, tree species that will tolerate a pH of 7.0 or higher, however, should still be selected, as the pH will likely rise over time.

Site improvement in urban areas can play an important role in increasing both the species diversity and the canopy cover of our urban forests.” (<http://www.cnr.vt.edu/dendro/treeselector/ModifyYourSite.htm>)

## PLANTING SUGGESTIONS

### *Specifications for Structural Soil Use in Danville*

In heavily built areas, space for tree roots is usually sacrificed in order to compact soil to provide a bearing surface for sidewalks. Trees suffer, because water and nutrients are not available to support a large, leafy crown. Structural soil is a new technology that increases the amount of available rooting volume, while allowing pavement to be installed over the rooting area. As of 2001, the average cost of structural soil sold by Cornell was between \$39 and \$43 per cubic yard. Some prominent manufacturers of structural soils include Cornell University and Carolina Stalite Co. Refer to *Reducing Infrastructure Damage By Tree Roots* (2003) by L.R. Costello and K.S. Jones for more information on how to obtain structural soil.

Although Cornell suggests that trees can be planted directly in structural soil, Danville's warmer climate may cause the tree difficulty in establishment, so Dr. Day suggests using a good, well-draining topsoil in the planting hole and reserving structural soil for under pavement. A 5' x 5' opening in the pavement is suggested to prevent compaction of the topsoil surrounding the rootball. Cornell suggests a depth of at least 24 inches, preferably 36 inches. Width varies according to the application, but Cornell suggests at least 36 inches. Despite increased water storage area allowed by structural soil, the tree still needs to be watered during the first year of establishment. A drainage pipe tied to a sewer system is suggested by Cornell to prevent water from puddling between the layer of structural soil and the prepared subgrade beneath the structural soil.

### *Reasons that Compaction Must Be Addressed*

Soil must be compacted to provide a surface that will uniformly bear the weight of heavy vehicle traffic. Compaction reduces the number of soil macropores and increases the number of micropores, making it difficult for roots to use the water held in the soil. Roots have difficulty pulling the water out of small soil pores, just as you have difficulty sucking coffee through a coffee stirrer instead of a straw.

The available soil volume is further reduced by compaction. Roots reach an impenetrable wall of compacted soil when they try to expand beyond the area of soil introduced during the planting, so the tree will never grow beyond the size allowed by this limited amount of soil.

Severely compacted soil, such as that found under the existing pavement of Keen Street, must be addressed if trees are to grow. One method is to remove the pavement and gravel layer and break up the compacted subsoil with a back-hoe. The broken subsoil allows water to drain through the soil profile, instead of being held above the compacted surface. This broken subsoil is not appropriate for tree growth, because it has no nutrient or water-holding capacity. A minimum of eight inches of topsoil should be spread over the broken subsoil.

## PLANT SPECIES RECOMMENDATIONS

### *Ginkgo biloba* Ginkgo

Size: medium to large at maturity; 50 to 80' in urban setting; the more available soil volume during growth, the larger the tree will become

Growth rate: slow to medium

Architectural characteristics: "Usually pyramidal in outline when young; in old age often becoming wide-spreading with large, massive, picturesque branches.... Young nursery trees are often gaunt and open without significant pruning in the production phase; Ginkgo gets better with age... be patient," (Dirr 1998). Texture is medium when in leaf and coarse in the winter. Leaf color is bright green in summer, changing to a very bright yellow in fall.

Recommended cultivars:

*Ginkgo biloba* 'Autumn Gold' – Dependable golden-yellow fall color

*Ginkgo biloba* 'Princeton Sentry' – Cultivated for use as a vertical accent; nearly columnar form, but wider at the base  
\*\*You must ensure that each individual tree is male to prevent stinky fruit produced by female ginkgos that are old enough to bear seed.

Minimum site requirements:

"Prefers sandy, deep, moderately moist soil but grows in almost any situation" (Dirr 1998)

Does not tolerate occasionally saturated or very wet soil, but will tolerate prolonged periods of very dry soil *after the tree becomes established*

Needs full sun

pH range: 5 to 8.2

Suggested volume of soil for a tree with a crown diameter at maturity of 35 feet: 1,924 cubic feet; example: 25'x25'x3'

Crown diameter of 18 feet: 509 cubic feet of soil; example: 13'x13'x3'



Virginia Tech campus, Blacksburg, VA

*Tilia cordata*  
Littleleaf Linden

Size: medium to large at maturity; 60 to 70' in urban setting; the more available soil volume during growth, the larger the tree will become

Growth rate: medium

Architectural characteristics: Pyramidal in youth; upright-oval to pyramidal-rounded and densely branched in old age; medium texture in all seasons; dark, shiny green, heart-shaped leaves in the summer; yellow-green to soft yellow fall color, but often not impressive

Recommended cultivars:

*Tilia cordata* 'Greenspire' – commonly used with an upright growth habit; tough

*Tilia cordata* 'Prestige' – fast growing, strong form

Minimum site requirements:

Prefers moist, well-drained, fertile soil, but successfully used in urban conditions

Will not tolerate very wet or occasionally saturated soil or prolonged periods of dry soil

Needs full sun

pH range: 5 to 8.2

Suggested volume of soil for a tree with a crown diameter at maturity of 38 feet: 2,267 cubic feet; example: 28'x28'x3'

Crown diameter of 19 feet: 567 cubic feet of soil; example: 14'x14'x3'

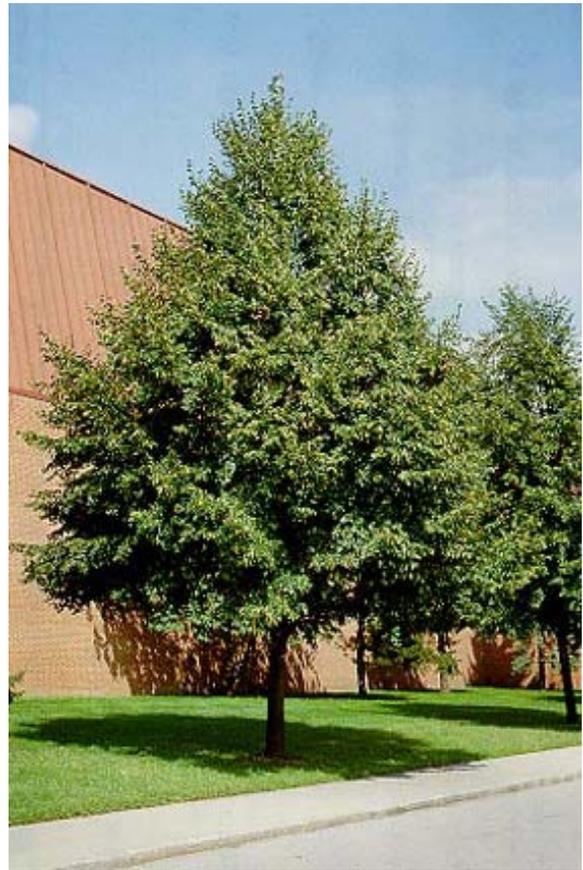


Image taken from <http://www.mnpower.com/treebook/fact112.html>

Acer campestre  
Hedge Maple

Size: medium at maturity; 25' to 35' in urban setting  
The tree is not genetically predisposed to grow very large

Growth rate: Slow

Architectural characteristics: Grown as a large, hedge shrub or a small landscape tree; usually rounded and dense, often branched to the ground making grass culture difficult, but can be easily limbed up; Some trees display a pyramidal-oval outline; medium texture in all seasons; uniformly dark-green leathery leaves changing to yellow-green or yellow late in the fall.

Recommended cultivars:

*Acer campestre* 'Evelyn'/Queen Elizabeth – more upright; reliable dark green foliage; hardy

Minimum site requirements:

Extremely adaptable; prefers rich, well-drained soil but probably the best maple for dry, alkaline soils

Will not tolerate very wet or occasionally saturated soil but will tolerate prolonged periods of dry soil

Needs full sun or light shade

pH range: 5.5 to 8.2

Suggested volume of soil for a tree with a crown diameter at maturity of 30 feet: 1,413 cubic feet; example: 22'x22'x3'

Crown diameter of 15 feet: 353 cubic feet of soil; example: 11'x11'x3'



Image taken from [http://www.hrt.msu.edu/ash.alt/hedge\\_maple.htm](http://www.hrt.msu.edu/ash.alt/hedge_maple.htm)



Queen Elizabeth (TM) cultivar; Image taken from <http://www.waverlyfarm.com/catalog-plant.html?code=ACRCMQE>

*Crataegus viridis* 'Winter King'  
Winter King Hawthorn

Size: Small at maturity; 20 to 25 feet in an urban setting  
The tree is not genetically predisposed to grow very large; although, spread will probably be greater than height at maturity

Growth rate: Medium

Architectural characteristics: Upright vase-like growth habit in youth, becoming spreading vase-like to horizontal spreading at maturity; dull-shiny dark green to gray green foliage, appears artificial; doubly serrate leaf margins provide texture; small, white flowers for a short time in mid-May; Persistent bright red or orange-red berries provide a sharp contrast against gray branches in winter; bark exfoliates revealing a light orange inner bark with maturity; medium texture in all seasons; can be used as a specimen, focal point, foundation, entranceway, group planting, raised planter, or border tree

Recommended cultivars:

*Crataegus viridis* 'Winter King' – commercially available; nearly thornless; less susceptible to rust than others

Minimum site requirements:

Prefers moist, well-drained soils in full sun, but is tolerant of urban conditions and heat

Will tolerate very wet soil to a limited degree and periods of dry soil

Needs full to partial sun

pH range: 5.5 to 8.2

Suggested volume of soil for a tree with a crown diameter at maturity of 25 feet: 982 cubic feet; example: 18'x18'x3'

Best to avoid sites with lots of pedestrian traffic due to horizontal growth habit and low branches

Fruits attract squirrels and birds in late winter, might litter a nearby sidewalk



Image taken from <http://davesgarden.com/pf/showimage/57746/>



Summer flowers; Image taken from <http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=C410>

Sophora japonica  
Japanese Pagodatree

Size: Medium to large at maturity; 40 to 60 feet in an urban setting

Growth rate: Medium to fast

Architectural characteristics: Usually upright-spreading with a broadly rounded crown at maturity; medium-fine texture in leaf, medium texture in winter; bright green leaf color holds late into the season, leaves usually fall without much color change; Creamy-white, mildly fragrant flowers, hanging in 6" to 12" long clusters: very showy, borne in July through mid-August; 3 to 8" long pods borne in October, may remain all winter

Recommended cultivars:

*Sophora japonica* 'Princeton Upright' – Selected for upright growth habit and compact height (under 50'); flowers at a younger age than other cultivars (6 to 8 years); hardy in urban areas

*Sophora japonica* 'Pendula' – Weeping form; seldom flowers; often grafted on a standard, will grow 15' to 25' high; successfully used as an accent in raised planters

Minimum site requirements:

Prefers loamy, well-drained soil; somewhat tender to cold when young but once over 1.5" caliper seems to be fine; once established withstands heat and drought well

Susceptible to canker; Does not tolerate very wet or saturated soil, but will tolerate prolonged periods of dry soil

Needs full sun

pH range: 5.5 to 8.2

Suggested volume of soil for a tree with a crown diameter at maturity of 50 feet: 3,927 cubic feet; example: 36'x36'x3'  
Crown diameter at maturity of 25 feet: 982 cubic feet; example: 18'x18'x3' (may be exaggerated due to wide-spreading crown)

Casts a very light shade allowing grass to establish; Can be considered messy, because the tree sheds lots of material (petals, fruits, leaves, etc.; however, "flowers create a creamy carpet under the tree for a time in July-August" (Dirr 1998)

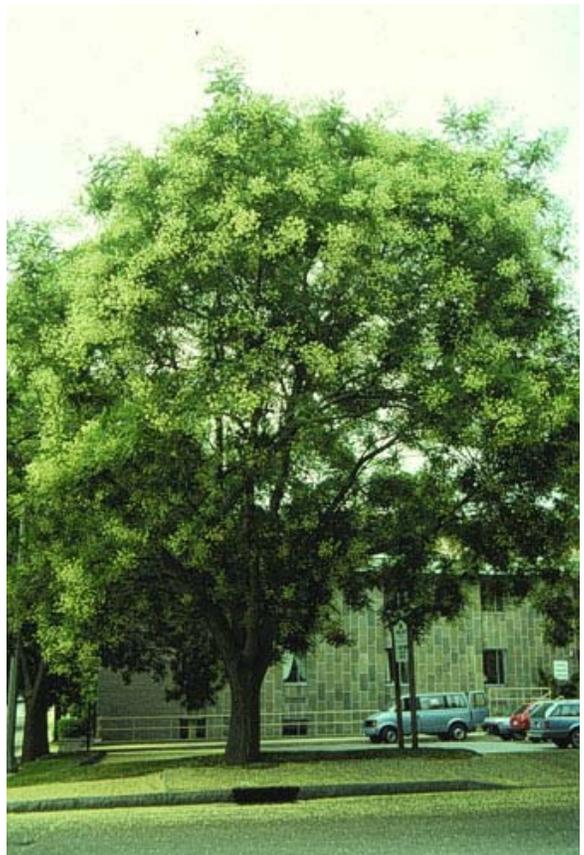


Image taken from <http://www.hort.uconn.edu/Plants/s/sopjap/sopjap1.html>



Image taken from <http://www.hort.uconn.edu/Plants/s/sopjap/sopjap1.html>

APPENDIX B: STATUE EXAMPLES



Smithfield, Virginia



Louisville, Kentucky



Smithfield, Virginia



Seattle, Washington



Covington, Kentucky



Virginia Tech Vet School, Blacksburg, Virginia



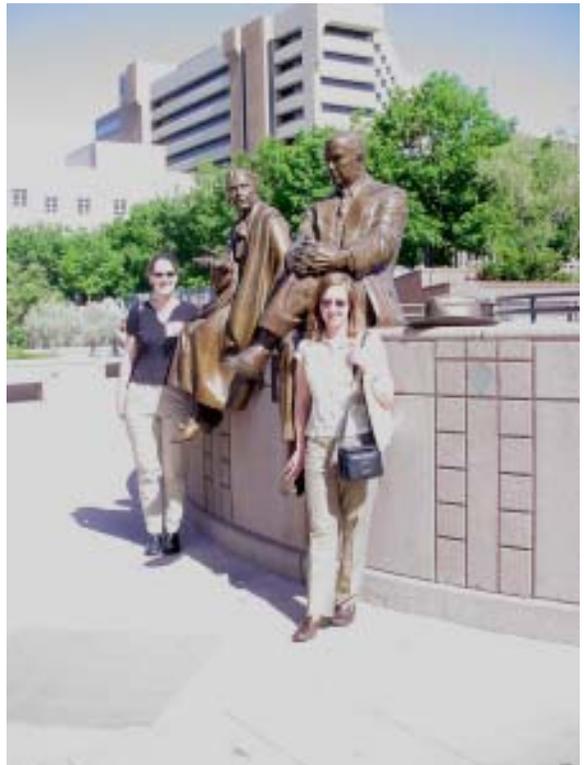
Albuquerque, New Mexico



Covington, Kentucky



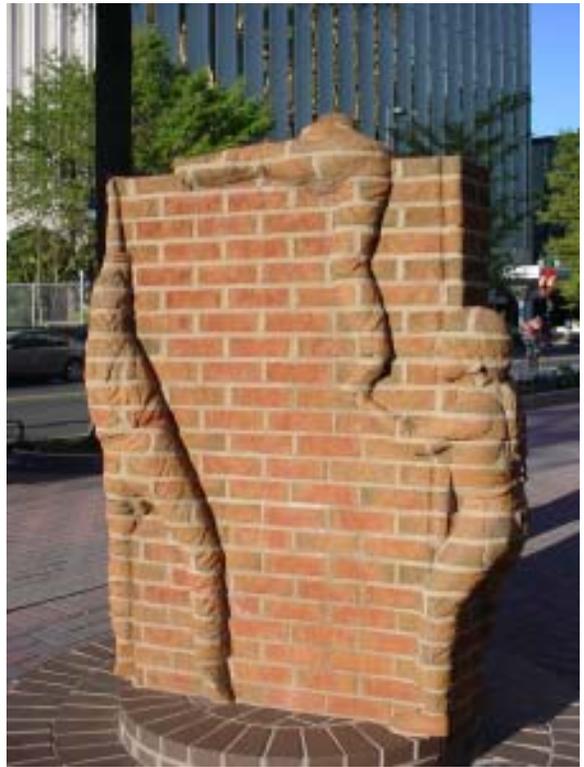
Charlotte, North Carolina



Albuquerque, New Mexico



Charlotte, North Carolina



Charlotte, North Carolina



Charlotte, North Carolina



Charlotte, North Carolina



Charlotte, North Carolina

APPENDIX G: WATER FEATURE AND PAVING EXAMPLES



Charlotte, North Carolina



Albuquerque, New Mexico



Charlotte, North Carolina



Charlotte, North Carolina



University of California, Irvine  
Image taken from [http://www.arts.uci.edu/article.php?a\\_id=1000](http://www.arts.uci.edu/article.php?a_id=1000)



University of California, Irvine  
Taken from [http://www.ocregister.com/ocregister/news/local/article\\_733101.php](http://www.ocregister.com/ocregister/news/local/article_733101.php)



University of California, Irvine  
Taken from [http://www.ocregister.com/ocregister/news/local/article\\_733101.php](http://www.ocregister.com/ocregister/news/local/article_733101.php)



Seattle, Washington



White Marsh, Maryland



Charlotte, North Carolina



Denver, Colorado



Charlotte, North Carolina



Charlotte, North Carolina

APPENDIX D: LIGHT STANDARD ALTERNATIVE EXAMPLES



Orange, Virginia



Franklin, Virginia



This light standard has a more tradition feel than the lighting proposed in the Final Conceptual Design. Of the 4 alternative light standard examples on this page, this example best captures the design vernacular of an "Arts District" that the Final Conceptual Design seeks to convey. Image taken from <http://www.holophane.com/>



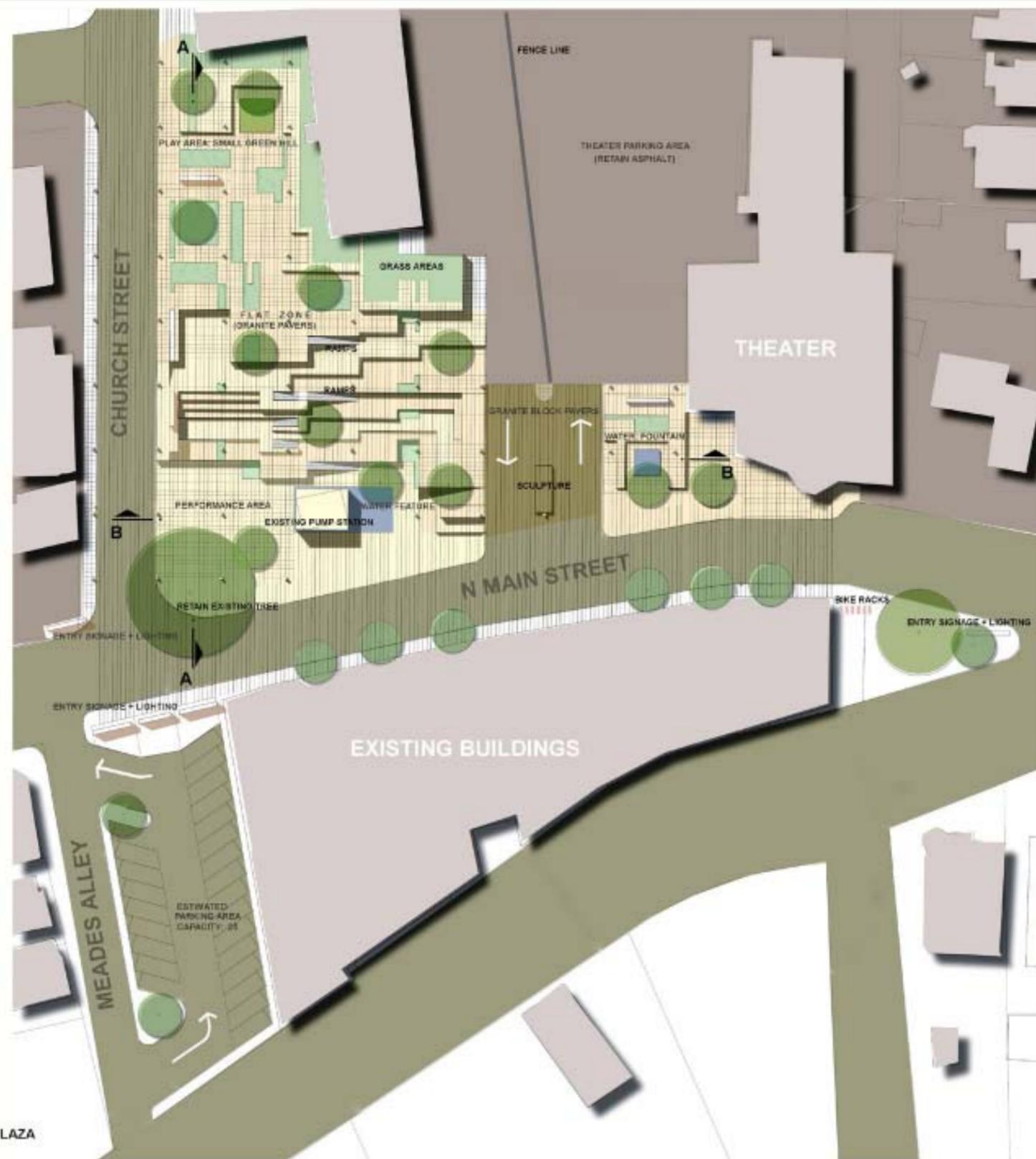
Smithfield, Virginia



UN-REVISED FINAL  
CONCEPTUAL  
MASTER PLAN  
(11/2005)



**KEYPLAN**  
LEVELS OF THE PLAZA



**cd** community design  
**dc** assistance center

College of Architecture and Urban Studies  
Virginia Polytechnic Institute and State University

This drawing is conceptual and was prepared to show approximate location and arrangement of site features as well as approximate building measurements. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.