

UNC ARBORETUM & GARDENS MASTER PLAN

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bha design

MASTER PLAN BOOKLET:

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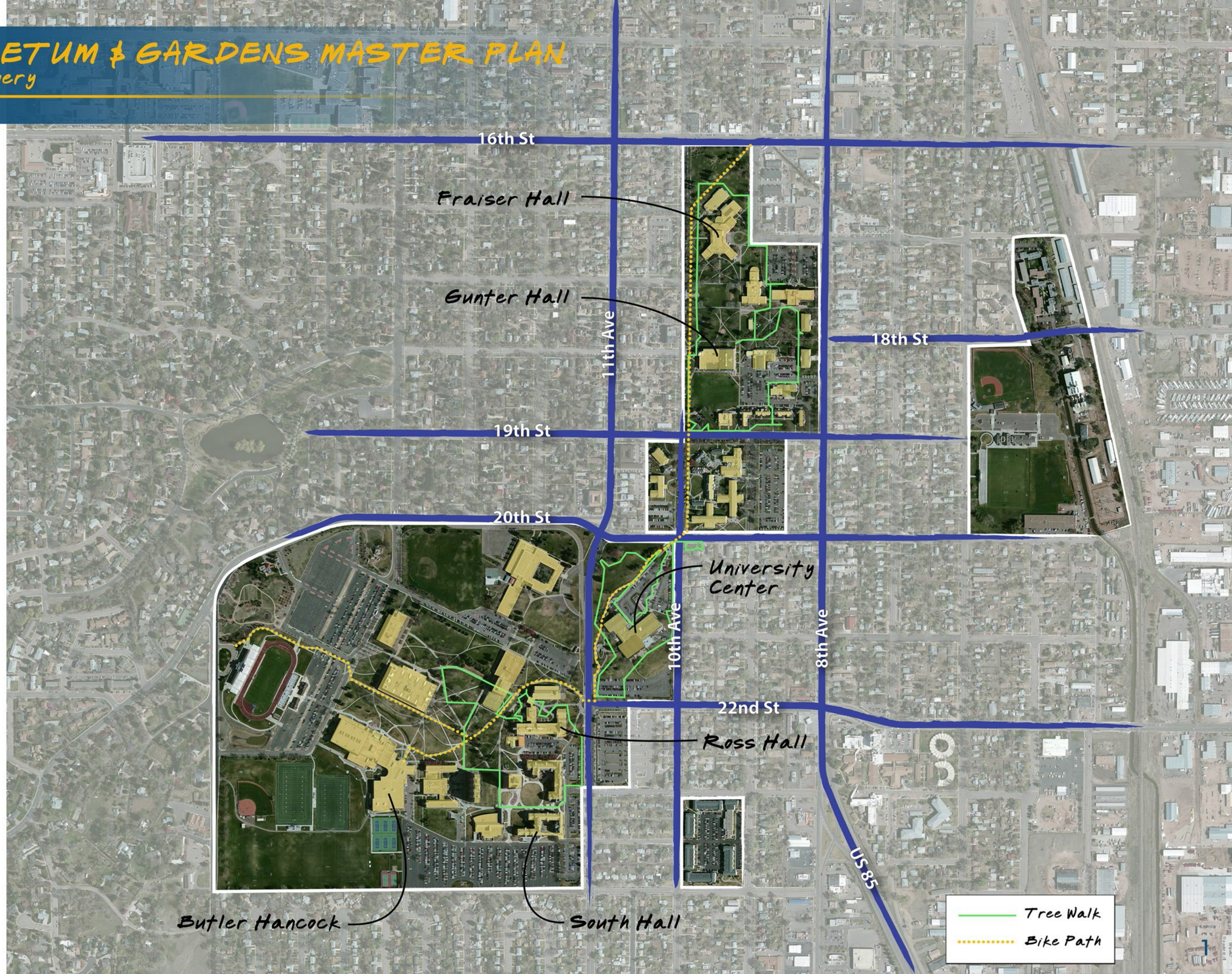
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UNC ARBORETUM & GARDENS MASTER PLAN

campus aerial imagery

bha design - 11.07.13



16th St

Fraiser Hall

Gunter Hall

11th Ave

18th St

19th St

20th St

University Center

10th Ave

8th Ave

22nd St

Ross Hall

US 85

Butler Hancock

South Hall

— Tree Walk
..... Bike Path

UNC ARBORETUM & GARDENS MASTER PLAN

inventory of existing outdoor spaces

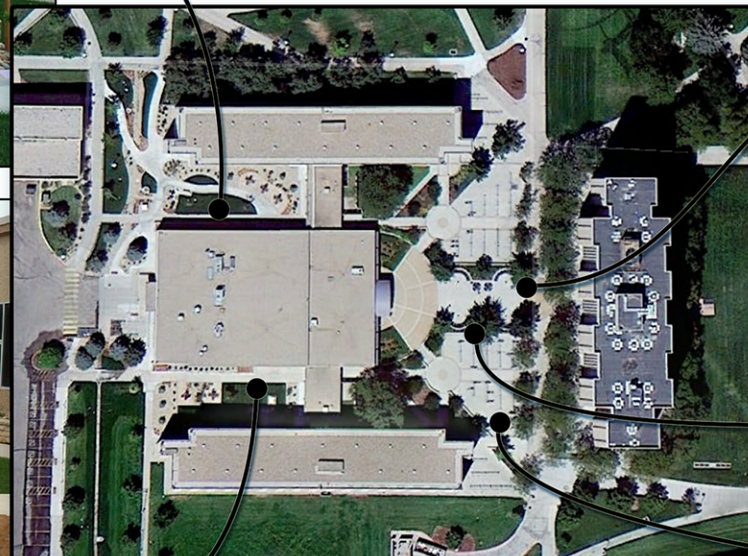
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Ross Hall



Butler Hancock



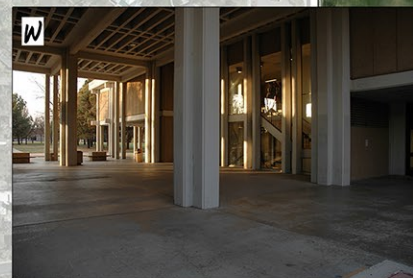
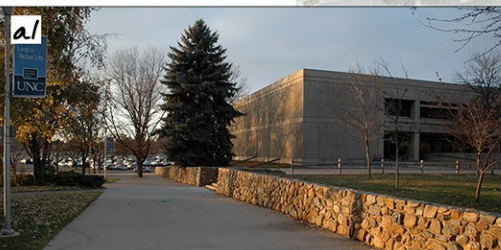
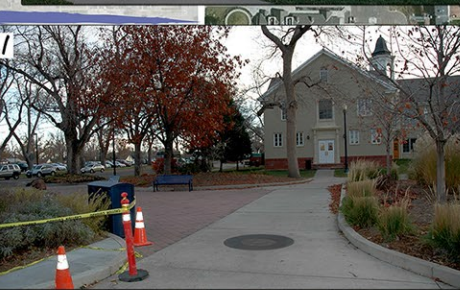
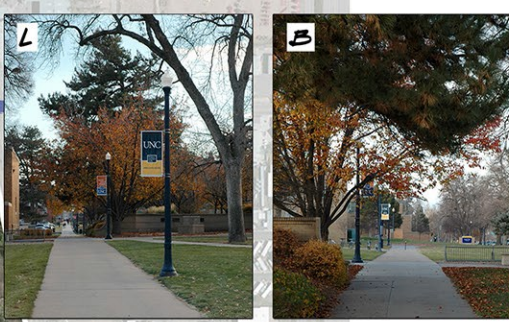
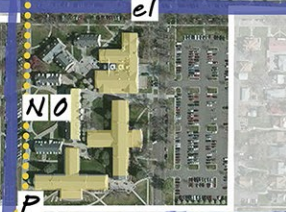
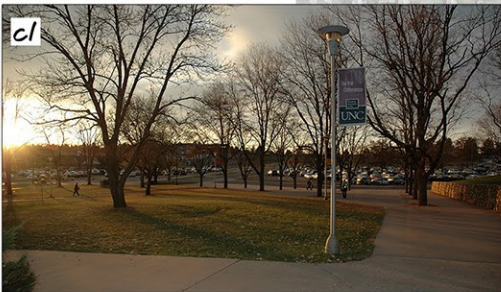
Harrison Hall



UNC ARBORETUM & GARDENS MASTER PLAN

Campus Inventory

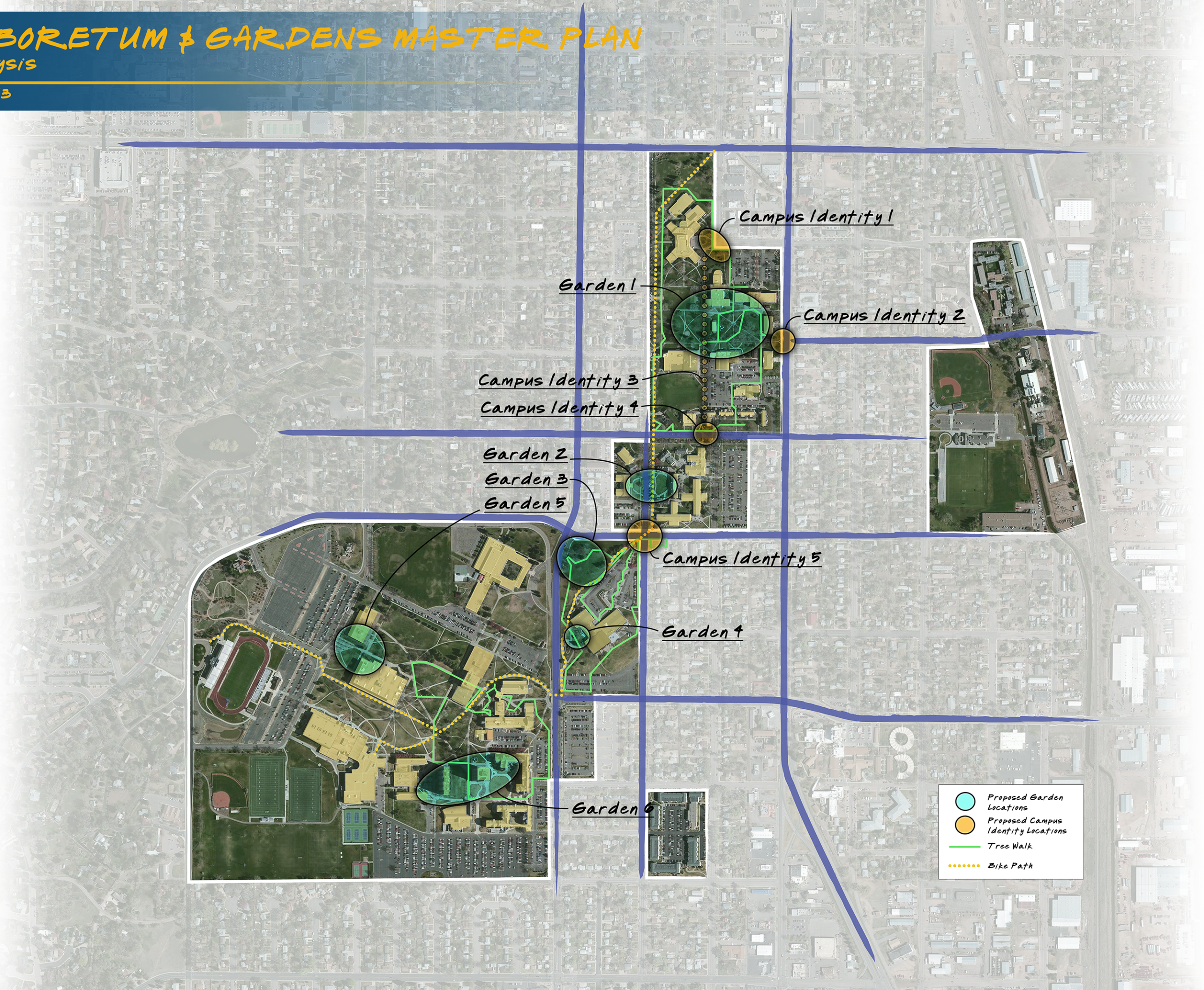
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UNC ARBORETUM & GARDENS MASTER PLAN

Campus Analysis

bha design - 11.18.13



Garden 1 – Garden Theater

Opportunities:

- proximity to academic buildings contributes to quantity of site users
- history of existing use, mature trees, historic campus quad feel
- opportunity for small ‘string of pearls’ garden plazas at each of the quad buildings (unifies quad)
- opportunity to add ornamental trees around perimeter of quad (unifies quad)
- opportunity to add foundation planting at each quad building (unifies quad)
- Garden Theater façade and plaza/stage could be improved – could function as an outdoor plaza with tables and chairs, and perhaps a wedding venue
- on the tree tour

Constraints:

- scale of a quad renovation would most likely necessitate phased design and construction
- presently a beautiful area of campus, and may not need renovation as greatly as other areas
- shade trees are great, but may need to be thinned to accomplish other goals
- not visible from adjacent streets

Garden 2 – Snyder Quad

Opportunities:

- along main circulation route, highly visible from adjacent streets
- history of lawn use
- proximity to residential housing contributes to quantity of site users
- opportunity to reclaim the campus feel of the space, which is divided by the street
- opportunity to strengthen connection between Snyder Hall and Hansen-Willis Hall
- opportunity to improve existing lawn function by adding complementary

- garden experience on the perimeter
 - opportunity to use topography (on Hansen-Willis Hall side)
 - opportunity to remedy existing Hansen-Willis Hall walk, which may not meet ADA standards (?)
 - along the bike path
- #### Constraints:
- not on the tree tour

Garden 3 – University Center Hill

Opportunities:

- located along major circulation route, mature trees
 - great opportunity to showcase UNC to University Center visitors
 - highly visible from adjacent streets
 - great topography
 - on the tree tour
 - along the bike path
- #### Constraints:
- cannot develop at this point because of ongoing Student Commons master

Garden 4 – University Center Overlook

Opportunities:

- along main circulation routes, highly visible from adjacent streets
 - history of ‘gathering space’ use adjacent to site (indoors)
 - prominent location which is highly visible from adjacent streets
 - great opportunity to showcase UNC to University Center visitors
 - unique indoor/outdoor relationship (those inside building could enjoy the gardens too)
 - great topography which overlooks West Campus, 11th Avenue, circulation routes
 - on the tree tour
 - along the bike path
- #### Constraints:

- would require future renovation of dated tunnel, as the tunnel would be highly visible from the overlook plaza
- existing trees would most likely need to be removed to accomplish other goals

Garden 5 – Michener Library & Candelaria Hall

Opportunities:

- opportunity to remedy the Candelaria plaza, which is cold in appearance/experience
 - opportunity to remedy the out of scale Michener Library entrance with garden experience (it does not feel human scale)
 - great topography/overlook potential if the garden is located in the SW corner of the quad
 - mature trees
 - along the bike path
- #### Constraints:
- not on the tree tour
 - concern that the view from this plaza would be of parking lots to the west
 - improvement potential at main entrance to Michener Library is limited due to air intakes
 - concern that this area is off the beaten path (similar to existing Butler Hancock plaza/garden)

Garden 6 – West Campus Housing

Opportunities:

- opportunity to create an additional outdoor living space for students (volleyball, fire pit, barbecue, etc.)
 - opportunity to help bring the Turner Hall and Lawrenson Hall scales back to a more pedestrian scaled experience
 - along main circulation routes
 - on the tree tour
- #### Constraints:
- not along the bike path

Campus Identity 1 – Frasier Hall, 9th Avenue, 17th Street

Opportunities:

- serves as a visual terminus of north-south pedestrian circulation spine
 - serves as terminus of 9th Avenue and 17th Street
 - opportunity to improve the ‘service area’ nature of the space
 - highly visible from adjacent streets
 - on tree tour
- #### Constraints:
- not along the bike path
 - unlikely that this area would become a pedestrian gathering space due to proximity to streets, service areas, and ‘off the beaten path’ nature

Campus Identity 2 – 18th Street ‘T’ Intersection

Opportunities:

- opportunity to frame views into campus quad
 - highly visible from adjacent streets
 - some pedestrian access onto campus from this intersection
 - on tree tour
- #### Constraints:
- not along the bike path
 - unlikely that this area would become a pedestrian gathering space due to proximity to streets

Campus Identity 3 – North-South Pedestrian Circulation Spine

Opportunities:

- Central Campus is often experienced via this main circulation route
- opportunity to buffer parking
- opportunity to create linear tree walk (ornamental and/or shade trees)
- opportunity to create linear bulb garden experience
- opportunity to create linear garden experience

- on the tree tour

Constraints:

- not along the bike path
- not highly visible from adjacent streets
- unlikely that this area would become a pedestrian gathering space due to its circulation use

Campus Identity 4 – South Pedestrian Circulation Spine Terminus

Opportunities:

- serves as a visual terminus of north-south pedestrian circulation spine
 - highly visible from adjacent parking lots
 - along main circulation route
 - on the tree tour
- #### Constraints:
- not along the bike path
 - not highly visible from adjacent streets
 - unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is located in between two parking lots

Campus Identity 5 – Intersection of 10th Avenue & 20th Street

Opportunities:

- this intersection serves as the hinge between West Campus and Central Campus; the campus is often experienced via this intersection
 - highly visible from adjacent streets
 - along main circulation route
 - along the bike path
 - on the tree tour
- #### Constraints:
- unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is located at a major vehicular intersection

UNC ARBORETUM & GARDENS MASTER PLAN

Garden Themes and Precedent Imagery

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rose garden



shade garden



bulb garden

Vegetative Garden Themes:

- bulb garden
- shade garden
- fragrance garden
- white garden (or other color)
- rose garden
- butterfly, bird, (and bee) garden
- texture garden
- ornamental grass garden
- cut flower garden
- country, modern, formal, colonial, mediterranean styles
- oriental, architectural, cottage, naturalistic styles
- woodland, xeric, subalpine styles

Collegiate Garden Themes:

- Education and Behavioral Sciences
- Humanities and Social Sciences
- Monfort College of Business
- Natural and Health Sciences
- Performing and Visual Arts
- University College

Additional Garden Themes:

- Knowledge, Education, & Learning
(cogito ergo sum - 'I think, therefore I am'
Rene Descartes, etc.)
- Commemorate summa cum laude, others

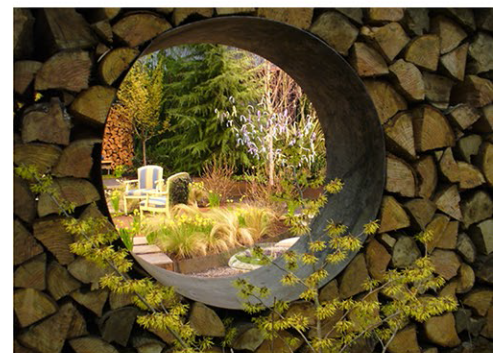
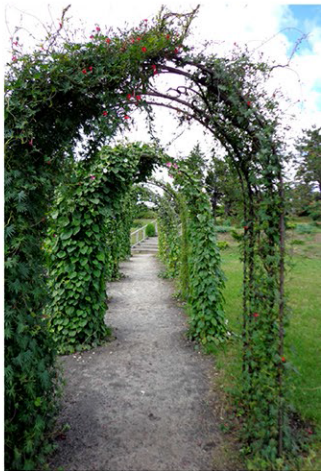
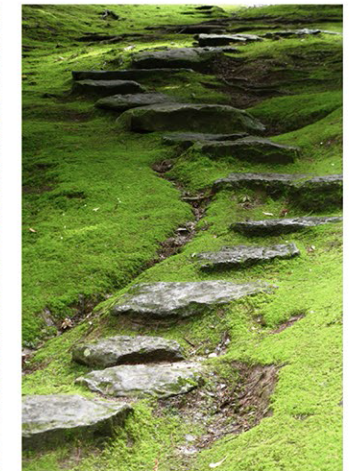
Garden Precedents:



ornamental grass garden

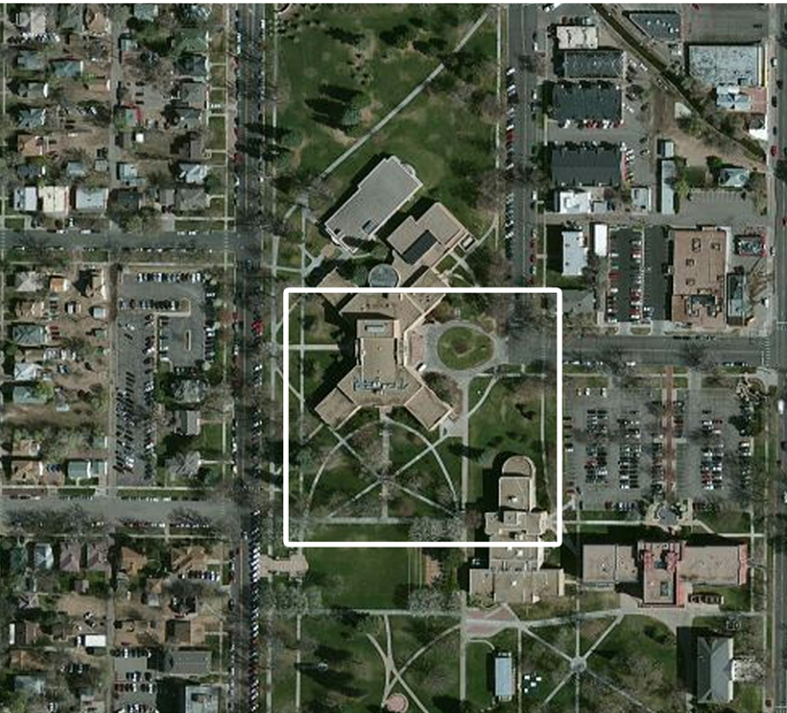


white garden



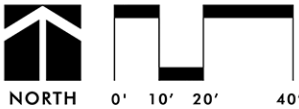
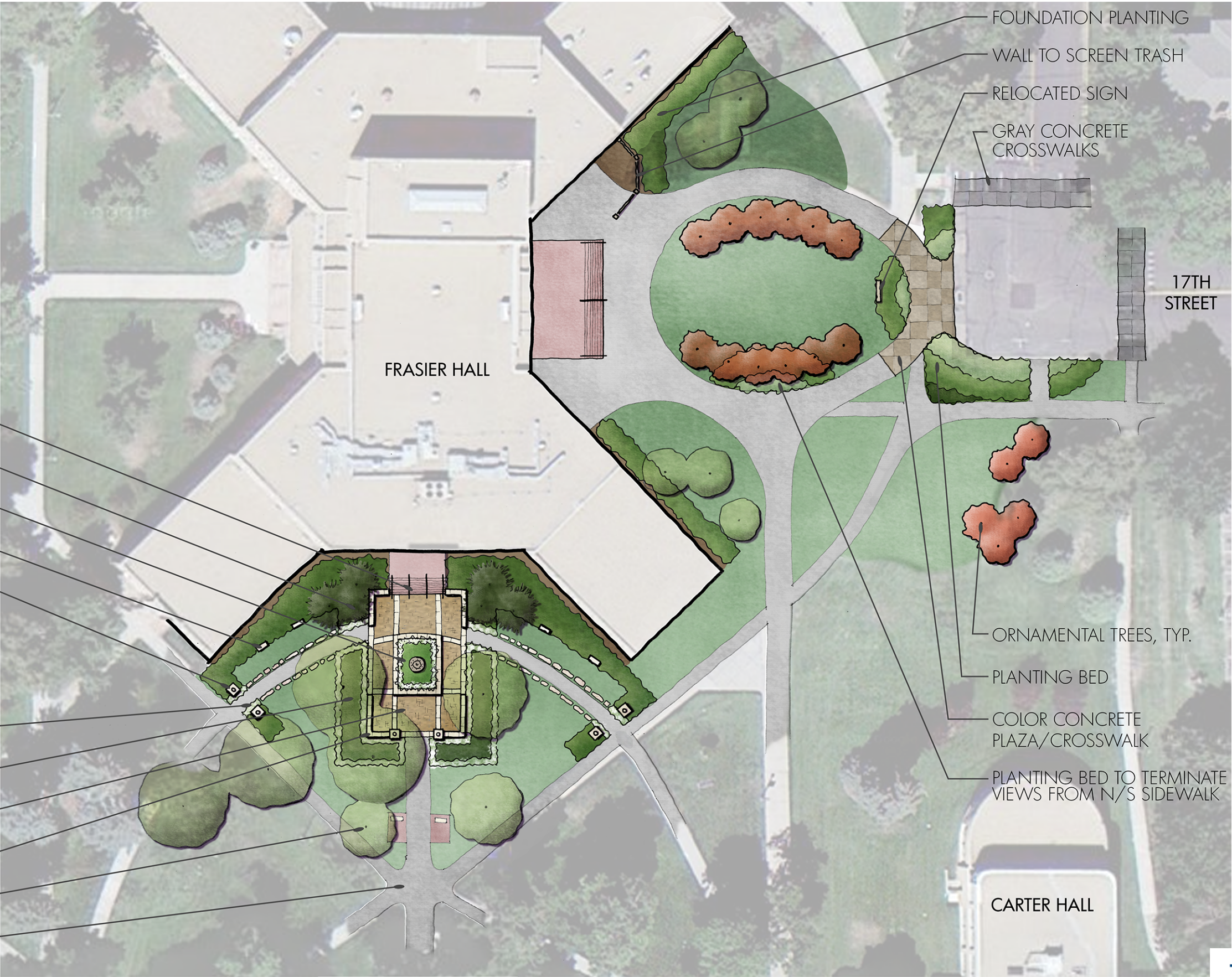
Garden Materials & Details:

FRASIER HALL
garden & campus identity concept
bha design - 12.27.13



KEY MAP

- NEW HANDRAILS
- EXISTING EVERGREEN TREES
- ELEVATED WHITE GARDEN
- BENCH, TYP.
- ENTRY COLUMNS
- GROUND COVER PLANTING WITH BULB GARDEN
- SHADE GARDEN
- PAVERS
- SEAT WALL WITH ENTRY COLUMNS, TYP.
- EXISTING SHADE TREE
- EXISTING SIDEWALK



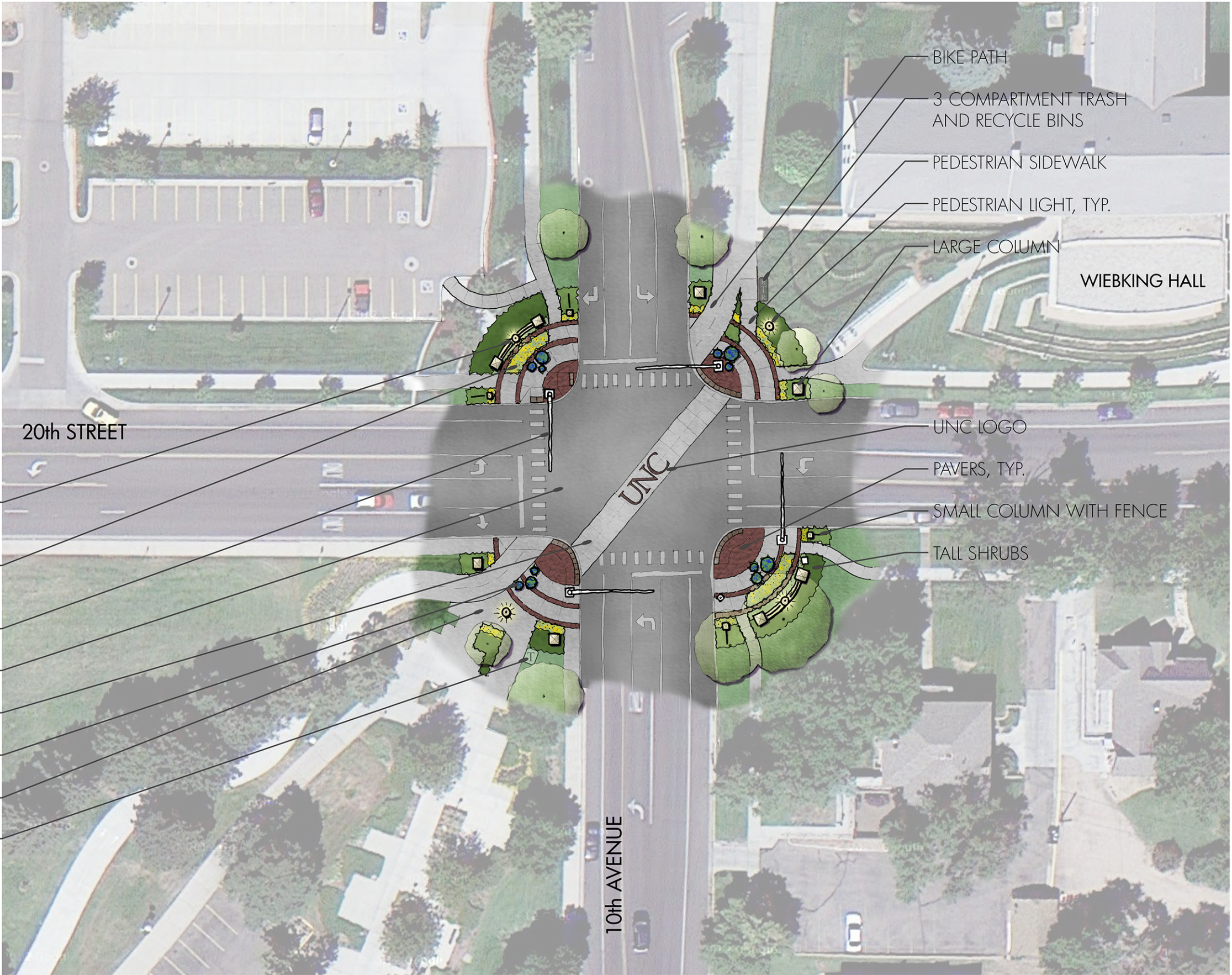
INTERSECTION OF 10TH AVENUE & 20TH STREET

campus identity concept

bha design - 12.27.13



KEY MAP



- FENCE, PEDESTRIAN LIGHT AND LARGE COLUMNS
- ANNUAL GARDEN OR BULB GARDEN WITH GROUNDCOVER PLANTINGS
- EXISTING SIGNAL POLE, TYP.
- EXISTING ASPHALT
- CONCRETE CROSSING
- PLANTER POTS, TYP.
- EXISTING SIDEWALK
- BIG BELLY SOLAR BIN TRASH COMPACTOR

- BIKE PATH
- 3 COMPARTMENT TRASH AND RECYCLE BINS
- PEDESTRIAN SIDEWALK
- PEDESTRIAN LIGHT, TYP.
- LARGE COLUMN
- WIEBKING HALL
- UNC LOGO
- PAVERS, TYP.
- SMALL COLUMN WITH FENCE
- TALL SHRUBS



UNIVERSITY CENTER OVERLOOK

garden concept

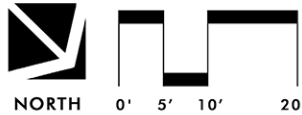
bha design - 12.27.13



KEY MAP

- ORNAMENTAL GRASSES
- TABLES WITH MOVEABLE CHAIRS
- PEDESTRIAN LIGHT
- COLOR CONCRETE PLAZA
- (2) EXISTING SHADE TREES
- BULB GARDEN WITH GROUND COVER PLANTINGS
- GARDEN PATH
- BENCH, TYP.

NOTES:
1. Future "University Center Overlook" project shall address entire southwest side of building.
2. Bike parking facilities will be relocated outside main pedestrian space.



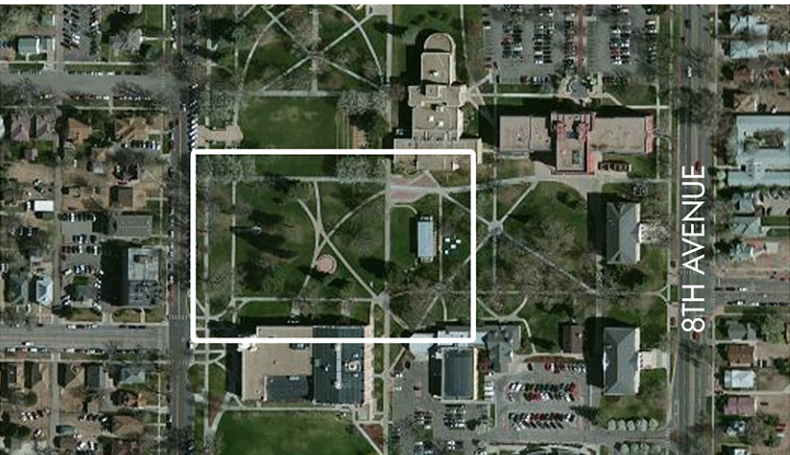
- ROSE GARDEN
- GAS FIRE PIT (TIMER)
- PAVERS
- (4) NEW SHADE TREES
- SCULPTURE OPPORTUNITY
- PLAZA STEPS
- GARDEN WALK WITH SEATING
- SEASONAL INTEREST GARDENS
- SEAT WALL, TYP.
- SANDBLAST/STAINED TEXT
- PRECAST CONCRETE SEATWALL

UNIVERSITY CENTER

GARDEN THEATRE & GREAT LAWN AMPHITHEATER

garden concept

bha design - 12.27.13



KEY MAP

- EXISTING SIDEWALK
- NEW SIDEWALK
- STONE PAVERS IN TURF
- GARDEN WALK EXPERIENCE
- EXISTING EVERGREEN TREE
- SEAT WALL, TYP.
- EXISTING SHADE TREE
- EXISTING ART INSTALLATION
- ORNAMENTAL TREE FOREST
- COLUMNAR OAK ENTRY EXPERIENCE

- NOTES:
1. The color concrete sidewalk to the east of the Garden Theater is anticipated to be a linear garden experience with bulb gardens, shade gardens, ornamental grass gardens, fragrance gardens, and texture gardens.
 2. Benches, and one sidewalk have been removed from the great lawn, to be relocated elsewhere on campus.
 3. Hedge to screen electrical switch has been removed for line of sight/safety considerations



UNC ARBORETUM & GARDENS MASTER PLAN

opinion of probable costs

bha design - 12.27.13

UNC Gardens & Arboretum Garden Theater - Opinion of Probable Cost

	Description	Unit	Estimated Quantity	Unit Cost	Item Cost
Landscape					
1	Demolition, Clearing, and Grubbing	LS	1	\$ 3,000.00	\$3,000
2	Earthwork and Grading	LS	1	\$ 2,000.00	\$2,000
3	Sod and Soil Prep	SF	1,000	\$ 0.75	\$750
4	Sod Irrigation	SF	1,000	\$ 1.00	\$1,000
5	Planting (shrubs, ornamental grasses, groundcovers, perennials)	SF	4,575	\$ 7.00	\$32,025
6	Soil Amendment @ 3 CY/ 1,000 SF)	CY	14	\$ 47.50	\$665
7	Weed Barrier Fabric and Mulch	SF	4,575	\$ 2.00	\$9,150
8	Drip Irrigation for Planting Areas	SF	4,575	\$ 0.90	\$4,118
9	Irrigation Controller Modifications	LS	1	\$ 750.00	\$750
10	Steel Edger	LF	325	\$ 2.50	\$813
11	Stepping Stones	EA	72	\$ 65.00	\$4,680
12	Gravel Path over weed barrier fabric	SF	225	\$ 2.00	\$450
13	Strip stone border for gravel path	LF	126	\$ 9.00	\$1,134
Subtotal:					\$60,534

Site					
14	Pavers over concrete	SF	1,725	\$ 18.00	\$31,050
15	Standard Gray Concrete	SF	258	\$ 4.75	\$1,226
16	Benches	EA	3	\$ 1,750.00	\$5,250
17	Tables with (4) chairs	EA	5	\$ 2,000.00	\$10,000
Subtotal:					\$47,526

Landscape + Site Subtotal: \$108,060

Mobilization, contractor overhead,etc. (assumes 10% of subtotal) \$10,805.95

15% Contingency: \$17,829.82

Total: \$136,695

Design Fees: Assume +/- 13% of Construction Total: \$17,770.38

Project Total: \$154,465.65

Relocating Electrical Switch Cabinets Not Included
Lighting Not Included

VE Option is to use some larger plants in the planting areas: saves appx. \$4,600

VE Option is to shorten the run of stepping stones: saves appx. \$2,500

VE Option is to use colored concrete in lieu of pavers over concrete: saves appx. \$19,000

VE Option is to add tables/chairs in over time (or use simple plastic adirondack chairs): saves appx. \$10,000

VE Subtotal: \$72,000

\$ 7,200.00

\$ 11,880.00

\$ 91,080.00

\$ 11,840.40

\$ 102,920.40 (saves appx. \$51,000)

Opinion of costs (above left)
corresponds with area
highlighted at right:



UNC ARBORETUM & GARDENS MASTER PLAN

Campus Analysis

bha design - 11.18.13

Garden 1 - Garden Theater

- proximity to academic buildings contributes to quantity of site users
- history of existing use, mature trees, historic campus quad feel
- opportunity for small 'string of pearls' garden plazas at each of the quad buildings (unifies quad)
- opportunity to add ornamental trees around perimeter of quad (unifies quad)
- opportunity to add foundation planting at each quad building (unifies quad)
- Garden Theater facade and plaza/stage could be improved - could function as an outdoor plaza with tables and chairs, and perhaps a wedding venue
- on the tree tour
- scale of a quad renovation would most likely necessitate phased design/construction
- presently a beautiful area of campus, and may not need renovation as greatly as other areas
- shade trees are great, but may need to be thinned to accomplish other goals
- not visible from adjacent streets

Garden 4 - Food Court Plaza Overlook

- along main circulation routes, highly visible from adjacent streets
- history of 'gathering space' use adjacent to site (indoors)
- prominent location which is highly visible from adjacent streets
- great opportunity to showcase UNC to University Center visitors
- unique indoor/outdoor relationship (those inside building could enjoy the gardens too)
- great topography which overlooks West Campus, 11th Avenue, circulation routes
- on the tree tour
- along the bike path
- would require future renovation of dated tunnel, as the tunnel would be highly visible from the overlook plaza
- existing trees would most likely need to be removed to accomplish other goals

Garden 5 - McKee Hall

- opportunity to remedy the McKee plaza, which is outdated in appearance
- opportunity to remedy the out of scale McKee building with trees and foundation planting (it does not feel human scale)
- along main circulation routes
- on the tree tour
- along the bike path
- improvement potential may be limited, as it may not be advisable to tamper with waterproofing of existing plaza located under McKee breezeway (at a minimum we could still provide gardens on the east/west sides of the breezeway)

Garden 6 - Michener Library & Candelaria Hall

- opportunity to remedy the Candelaria plaza, which is cold in appearance/experience
- opportunity to remedy the out of scale Michener Library entrance with garden experience (it does not feel human scale)
- great topography/overlook potential if the garden is located in the SW corner of the quad
- mature trees
- along the bike path
- not on the tree tour
- concern that the view from this plaza would be of parking lots to the west
- improvement potential at main entrance to Michener Library is limited due to air intakes
- concern that this area is off the beaten path (similar to existing Butler Hancock plaza/garden)

Garden 7 - West Campus Housing

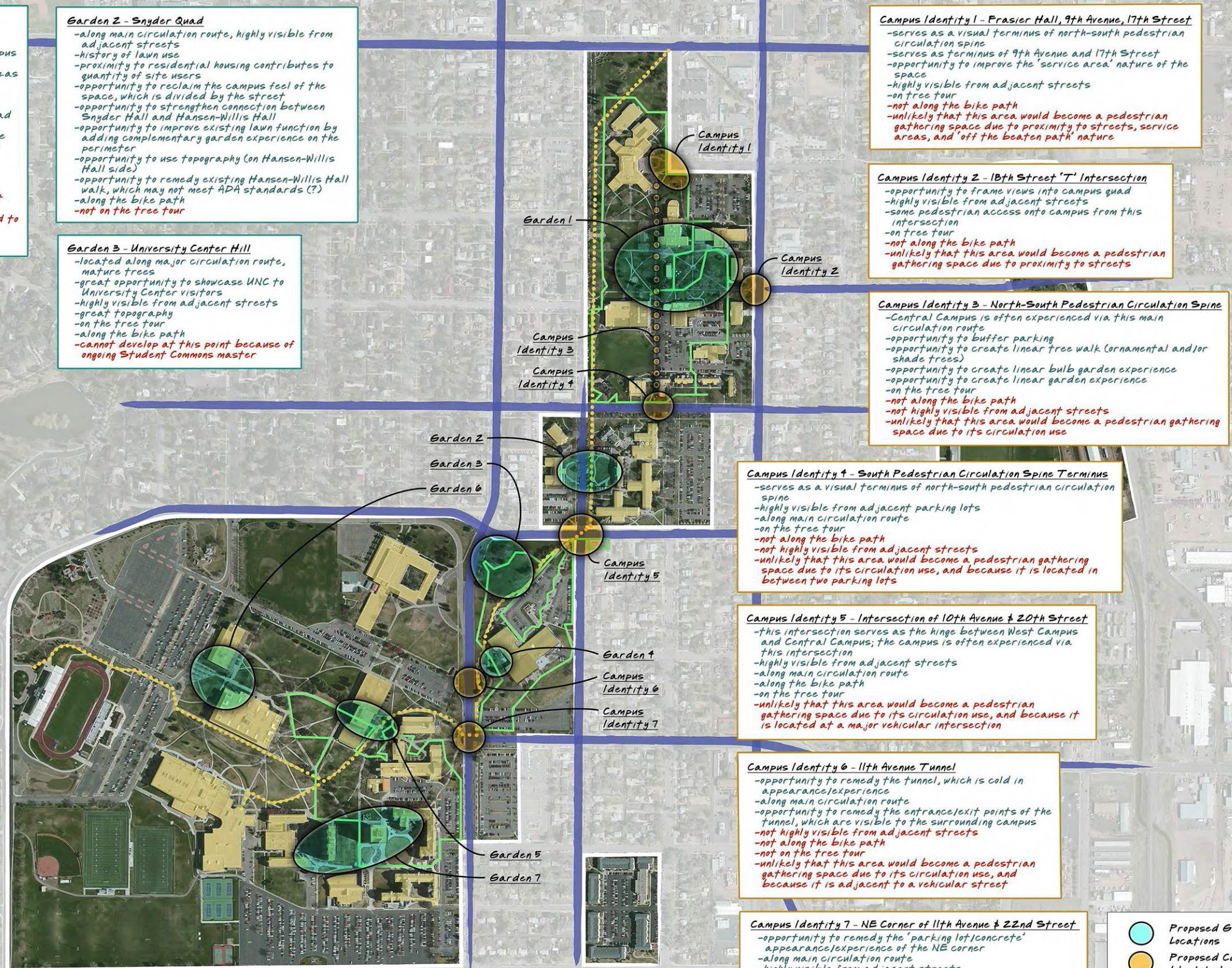
- opportunity to create an additional outdoor living space for students (volleyball, fire pit, barbecue, etc.)
- opportunity to help bring the Turner Hall and Lawrenson Hall scales back to a more pedestrian scaled experience
- along main circulation routes
- on the tree tour
- not along the bike path

Garden 2 - Snyder Quad

- along main circulation route, highly visible from adjacent streets
- history of lawn use
- proximity to residential housing contributes to quantity of site users
- opportunity to reclaim the campus feel of the space, which is divided by the street
- opportunity to strengthen connection between Snyder Hall and Hansen-Willis Hall
- opportunity to improve existing lawn function by adding complementary garden experience on the perimeter
- opportunity to use topography (on Hansen-Willis Hall side)
- opportunity to remedy existing Hansen-Willis Hall walk, which may not meet ADA standards (?)
- along the bike path
- not on the tree tour

Garden 3 - University Center Hill

- located along major circulation route, mature trees
- great opportunity to showcase UNC to University Center visitors
- highly visible from adjacent streets
- great topography
- on the tree tour
- along the bike path
- cannot develop at this point because of ongoing Student Commons master



Campus Identity 1 - Frasier Hall, 9th Avenue, 17th Street

- serves as a visual terminus of north-south pedestrian circulation spine
- serves as terminus of 9th Avenue and 17th Street
- opportunity to improve the 'service area' nature of the space
- highly visible from adjacent streets
- on tree tour
- not along the bike path
- unlikely that this area would become a pedestrian gathering space due to proximity to streets, service areas, and 'off the beaten path' nature

Campus Identity 2 - 18th Street 'T' Intersection

- opportunity to frame views into campus quad
- highly visible from adjacent streets
- some pedestrian access onto campus from this intersection
- on tree tour
- not along the bike path
- unlikely that this area would become a pedestrian gathering space due to proximity to streets

Campus Identity 3 - North-South Pedestrian Circulation Spine

- Central Campus is often experienced via this main circulation route
- opportunity to buffer parking
- opportunity to create linear tree walk (ornamental and/or shade trees)
- opportunity to create linear bulb garden experience
- opportunity to create linear garden experience
- on the tree tour
- not along the bike path
- not highly visible from adjacent streets
- unlikely that this area would become a pedestrian gathering space due to its circulation use

Campus Identity 4 - South Pedestrian Circulation Spine Terminus

- serves as a visual terminus of north-south pedestrian circulation spine
- highly visible from adjacent parking lots
- along main circulation route
- on the tree tour
- not along the bike path
- not highly visible from adjacent streets
- unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is located in between two parking lots

Campus Identity 5 - Intersection of 10th Avenue & 20th Street

- this intersection serves as the hinge between West Campus and Central Campus; the campus is often experienced via this intersection
- highly visible from adjacent streets
- along main circulation route
- along the bike path
- on the tree tour
- unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is located at a major vehicular intersection

Campus Identity 6 - 11th Avenue Tunnel

- opportunity to remedy the tunnel, which is cold in appearance/experience
- along main circulation route
- opportunity to remedy the entrance/exit points of the tunnel, which are visible to the surrounding campus
- not highly visible from adjacent streets
- not along the bike path
- not on the tree tour
- unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is adjacent to a vehicular street

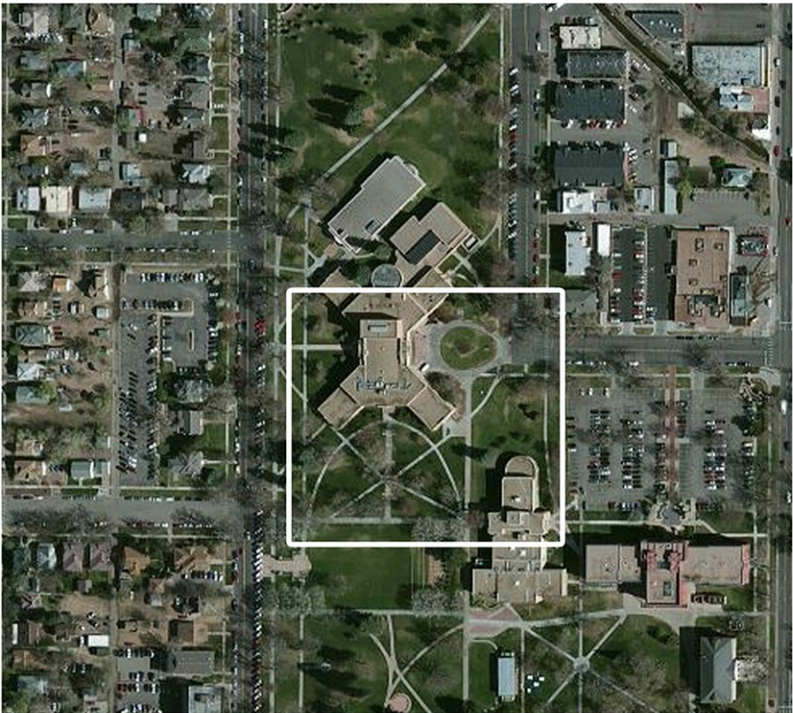
Campus Identity 7 - NE Corner of 11th Avenue & 22nd Street

- opportunity to remedy the 'parking lot/concrete' appearance/experience of the NE corner
- along main circulation route
- highly visible from adjacent streets
- along the bike path
- on the tree tour
- unlikely that this area would become a pedestrian gathering space due to its circulation use, and because it is adjacent to vehicular streets

- Proposed Garden Locations
- Proposed Campus Identity Locations
- Tree Walk
- Bike Path

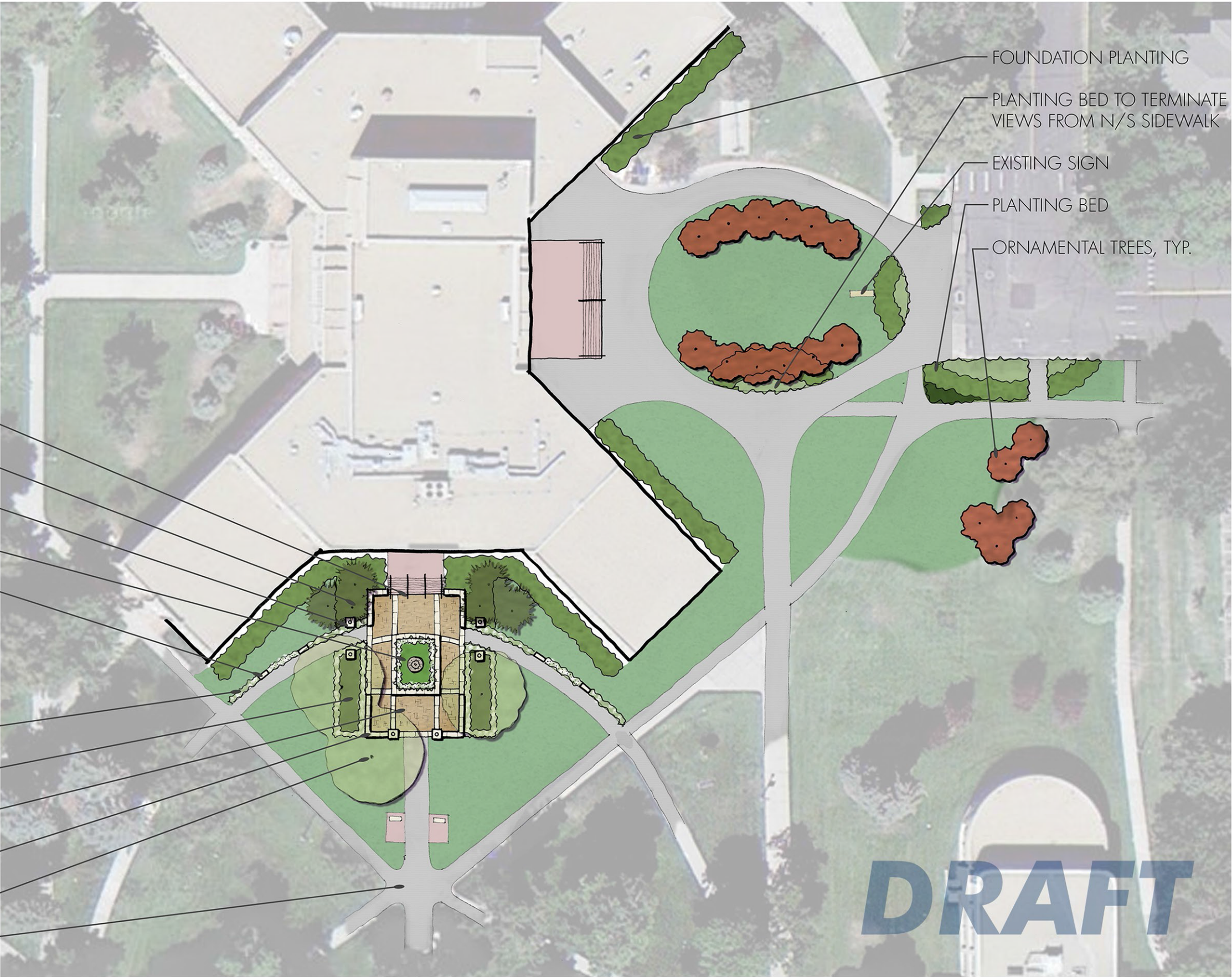
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FRASIER HALL
garden & campus identity concept
bha design - 12.10.13

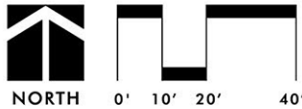


KEY MAP

- NEW HANDRAILS
- EXISTING EVERGREEN TREES
- ENTRY COLUMNS
- ELEVATED WHITE GARDEN
- BENCH, TYP.
- GROUND COVER PLANTING WITH BULB GARDEN
- SHADE GARDEN
- PAVERS
- SEAT WALL WITH ENTRY COLUMNS, TYP.
- EXISTING SHADE TREE
- EXISTING SIDEWALK



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INTERSECTION OF 10TH AVENUE & 20TH STREET

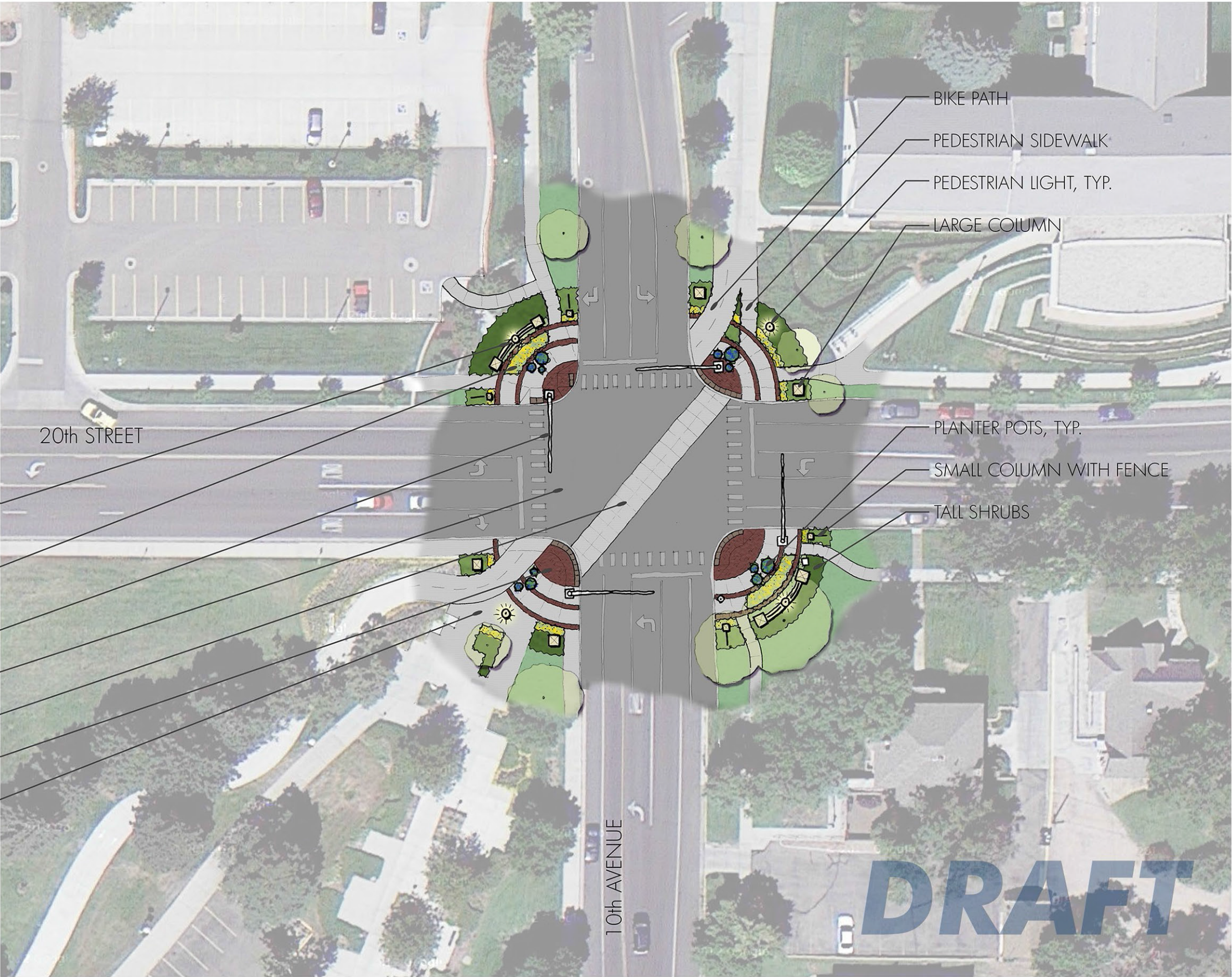
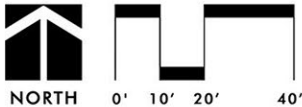
campus identity concept

bha design - 12.10.13



KEY MAP

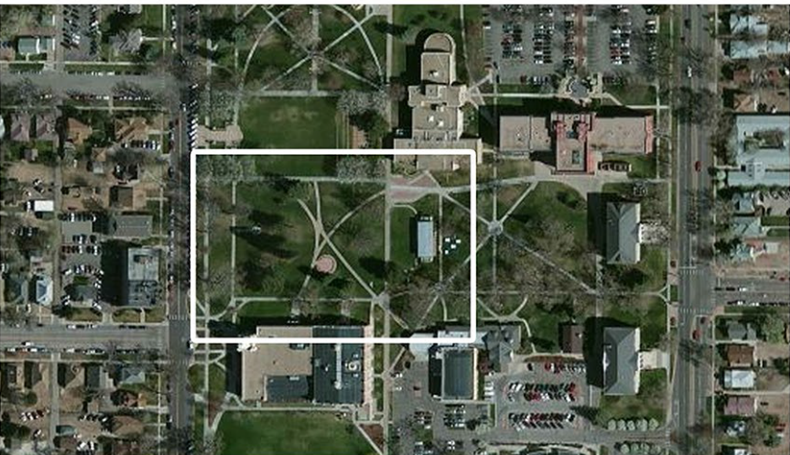
- FENCE, PEDESTRIAN LIGHT AND LARGE COLUMNS
- ANNUAL GARDEN OR BULB GARDEN WITH GROUND COVER PLANTINGS
- EXISTING SIGNAL POLE, TYP.
- EXISTING ASPHALT
- CONCRETE CROSSING
- PAVERS
- EXISTING SIDEWALK



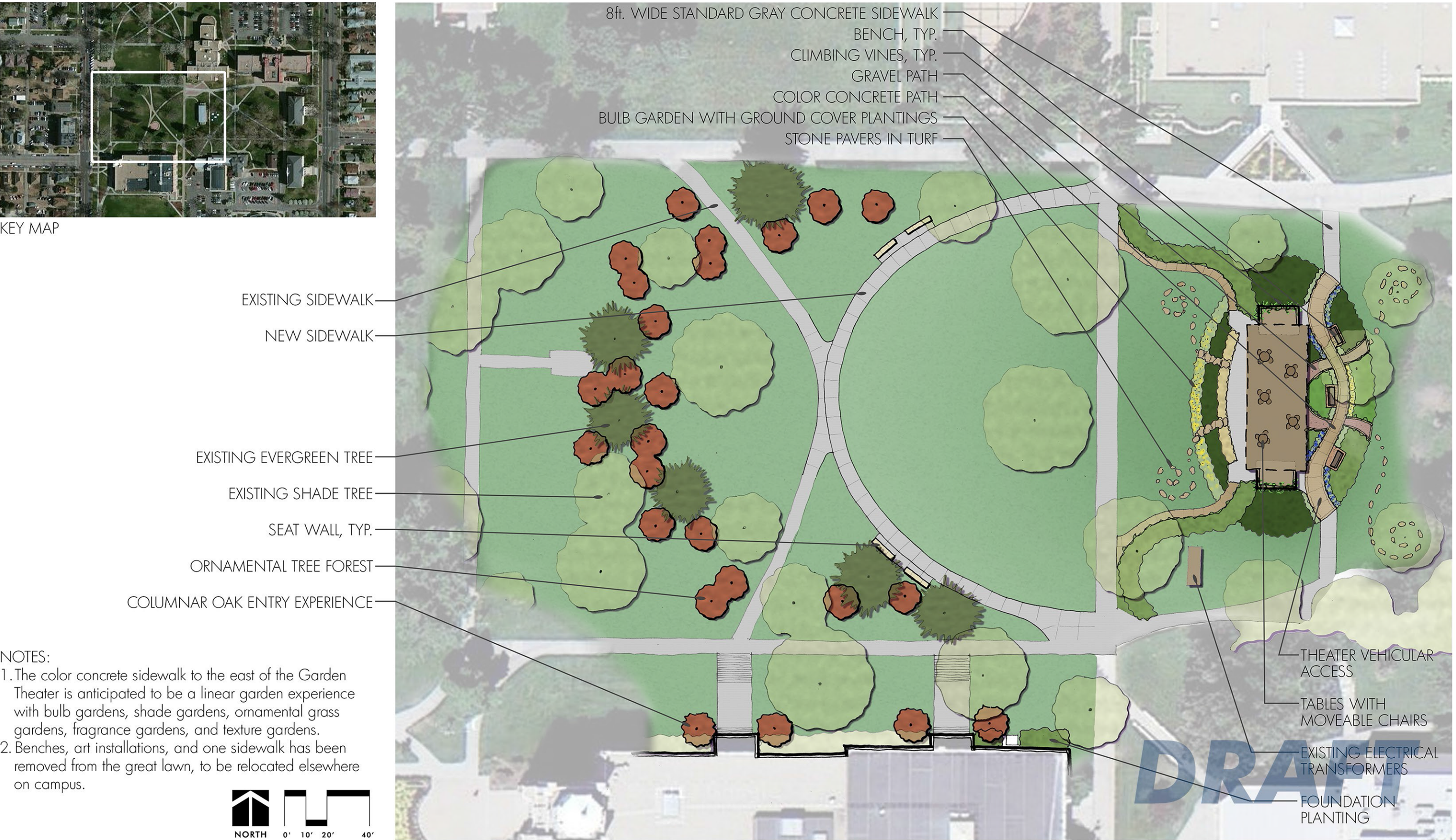
GARDEN THEATRE & GREAT LAWN AMPHITHEATER

garden concept

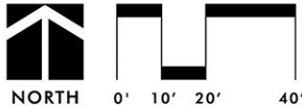
bha design - 12.10.13



KEY MAP



- NOTES:
1. The color concrete sidewalk to the east of the Garden Theatre is anticipated to be a linear garden experience with bulb gardens, shade gardens, ornamental grass gardens, fragrance gardens, and texture gardens.
 2. Benches, art installations, and one sidewalk has been removed from the great lawn, to be relocated elsewhere on campus.



UNIVERSITY CENTER OVERLOOK

garden concept

bha design - 12.10.13



KEY MAP

- ORNAMENTAL GRASSES
- TABLES WITH MOVEABLE CHAIRS
- PEDESTRIAN LIGHT
- COLOR CONCRETE PLAZA
- (2) EXISTING SHADE TREES
- BULB GARDEN WITH GROUND COVER PLANTINGS
- GARDEN PATH
- BENCH, TYP.



DRAFT



