

THERAPEUTIC DESIGN FOR HEALTHCARE ENVIRONMENTS: A PRACTICAL  
APPLICATION AT ST. JOSEPH MERCY OAKLAND HOSPITAL, PONTIAC,  
MICHIGAN

By Katharine Shiffler

Integrative Research Seminar  
in partial fulfillment of the requirements  
for the degree of  
Master of Landscape Architecture  
(School for Environment and Sustainability)  
In the University of Michigan  
May 2021

Faculty Advisor: Dr. Raymond De Young  
Professor of Environmental Psychology and Planning

## Acknowledgements

I'd like to thank the The Farm at St. Joe's Director of Farming and Healthy Lifestyles, Amanda Sweetman, for her ongoing collaboration.

## A New Movement: Hospital-Based Farms

“We pay the doctor to make us better, when we should really be paying the farmer to keep us healthy.” – Robyn O’Brien

Within the greenhouses and farm fields at St. Joseph Mercy Ann Arbor, a quiet effort is underway to pioneer a new approach to health care. A Catholic non-profit teaching hospital located on 340 acres, St. Joe’s is home to The Farm, where the therapeutic modality of “green care” approaches wellness through the act of growing food. Patients receive prescriptions for vegetables accompanied by nutrition education and emergency room staff garden together to relieve job-related stress. Inside the country’s first accessible greenhouse, traumatic brain injury patients garden to re-learn motor skills—and take home the fruits and vegetables of their labor.

### The Farm at St. Joe’s

As an intern with The Farm this summer, I worked with the Amanda Sweetman, Regional Director for Farming and Healthy Lifestyles to design a 1.3 acre site adjacent to St. Joseph Mercy Oakland Hospital (SJMO) in the post-industrial city of Pontiac, Michigan. SJMO serves 19,000 inpatients and 210,000 outpatients annually. The original objective was to provide a robust design plan for the physical transformation of the empty site, defining the layout of pathways, farm fields, community gardens, sensory gardens, and outdoor gathering spaces.

As a graduate student in landscape architecture with an emphasis on therapeutic environments and healthcare settings, I am seeking support from the Public Scholarship Grant to facilitate a deep engagement with leaders of the hospital to look at making explicit connections between farming, nutrition, healing arts and spirituality—through participatory landscape design. Specifically, my project idea is to work with The Farm at

St. Joe's to create a strategic plan for Michigan's premier "green care" environment, weaving together healing spaces and a working farm.

This would be an opportunity for me to work to produce a tangible design and define action steps with a client who needs my specific skill set as a design professional and workshop facilitator. Consulting with healthcare environments is exactly what I want to do in my professional career. This project is distinct from my master's project—which I won't begin working on until my third year in the MLA program.

Last year, The Farm coordinated a Community Supported Agriculture (CSA) program for 377 members, in which patients and health care professionals were provided with a box of local, fresh fruits and vegetables on a weekly basis. Their collaborative farm share and subsidized programs connected 18 small, local, sustainable farm partners with 38 food insecure families. The farm share program increases community members' access to fresh fruit and vegetables and reduces social isolation.

In addition, the Farm's Produce-to-Patients Program provided over 3,500 patients with produce through the hospital's dining services, as well as hundreds of hours of therapies to brain injury patients via the Growing Compassion Garden, The Farm's accessible greenhouse.

This public scholarship project proposes to expand the impact of these programs through strategic growth aligned with the farm's mission to provide therapy, nutrition and social cohesion through the programs and physical environment at The Farm.

However, as COVID-19 dramatically changed the financial situation of the hospital, we changed course to focus on three tangible items:

1. We planted 2,000 sunflower seedlings with volunteers as a thank you for healthcare workers.
2. I provided created a design and coordinated the construction of a 300-foot long border planting—to be installed September 2020.
3. We laid out tarps designating future farm fields, making a plan to plant garlic and bulbs this Fall for Spring harvest.
4. I wrote three blog posts for The Farm about the Oakland expansion, evidence-based design, and the history of hospital gardens

To accomplish the design tasks, I used Computer Aided Drafting (CAD) software and Adobe Illustrator, resulting in a set of illustrative planning documents that will guide farm staff and outside construction contractors tasked with the physical creation and installation of site features and plantings. I interacted with local nurseries and the hospital's landscaping company, consulted plant resources and developed a plan for aesthetic appeal as well as ecological function—emphasizing edibles and natives for the institutional border planting.

The design overall plan was changed many times accordant to hospital feedback prior to COVID. But post-virus, the clear priority from The Farm's directorship and hospital administration was to replicate the success of Ypsilanti's campus, growing fresh food as soon as possible for community members in need. With uncertain funding, we decided to start with garlic and bulbs as a placeholder while The Farm expands to this site without a dedicated staff member/farmer as originally planned. The design of more intricate therapeutic gardens for healthcare workers is on hold while we figure out funding and potentially new spatial etiquette.

Interning with St. Joseph Mercy Hospital was a transformative experience for me because of the opportunity to work with a real-world design client and create a positive impact on the hospital environment and on users' lives through improved access to fresh, local food.

I gained a lot of experience working with institutional clients, nurseries and landscaping contractors as well.

## Theoretical framework and review of literature

### The Benefits of Nature

There is growing evidence for the importance of nature access for the general population. Researchers and policy-makers have highlighted the need to design citizen-friendly urban spaces that promote well-being, health and quality of life in cities (Collado et al., 2017)). Health is shaped by many processes, and a general one that works on an individual level is *restoration*. Restorative environments have—or are designed to have—features that enable a faster, more complete renewal of depleted resources (Hartig et al., 2014) Two prominent psychoevolutionary theories approach the study of restorative environments: Stress Reduction Theory (SRT), developed by Roger Ulrich (R. S. Ulrich, 1984) and Attention Restoration Theory (ART) developed by Steven and Rachel Kaplan (Kaplan & Kaplan, 1989)

According to Ulrich, certain natural environments help individuals restore more quickly and completely from acute stress because they possess characteristics that, perceived in an automatic, almost unconscious way, rapidly provoke positive emotions, capture non-vigilant attention, block negative thoughts and allow physiological activation to sink to more moderate levels. Spending time in a natural environment or just viewing a natural scene—as in Ulrich’s famous hospital viewshed study—can help people reduce stress more adequately than spending time in an urban setting. Ulrich found that the absence of threat, the presence of survival-relevant contents, such as water and particular configurations of vegetation; the presence of a focal point, a moderate degree of depth in the scene and a moderate level of visual richness, led to more positive emotions and a decline in physiological parameters such as blood pressure (Roger S. Ulrich, 1999)

Environmental psychologists at University of Michigan, Rachel and Stephen Kaplan first presented Attention Restoration Theory with their book, *The experience of nature: a psychological perspective* (Kaplan & Kaplan, 1989) ART asserts that people can concentrate better after spending time in nature—and even just looking at scenes of nature. They speak of “soft fascinations” present in natural environments: such as clouds moving across the sky, tall grasses rustling in a breeze, or water flowing over rocks in a stream.

The Kaplans define characteristics that an environment must have to make it restorative. Best explained in their book, *With People in Mind*, these include: Fascination, the ability of an environment to generate awe; Being away, a feeling that allows a person to let go of everyday life and worries; Extension, the connection between each element found in an environment; and Compatibility, where these elements create an overall character that meets the preferences and goals of a person. In this book, the Kaplans define 45 “patterns” that achieve these characteristics and serve as guiding principles for restorative design (Kaplan et al., 1998).

### Health Care Environments

Moving from the benefits of nature to the general population to focus on the healthcare community, Since the 1990s, there has been an increasing emphasis on patient-centered approach in healthcare and a growing understanding of evidence-based design for healthcare environments (Cama, 2009). In a review of evidence-based healthcare design, Ulrich et. al. reported relationships between design strategies or environmental outcomes and healthcare outcomes. In two categories—reduced pain and reduced patient stress—“especially strong evidence” indicated a link between access to nature and health outcomes. Research also indicated a link between access to nature and reduced

depression, reduced length of hospital stay, increased patient satisfaction, decreased staff stress, and increased satisfaction (Roger S Ulrich et al., 2008).

Workplace burnout was on the rise, even before the COVID-19 pandemic. In 2019, the World Health Organization included burnout for the first time in the 11<sup>th</sup> Revision of the International Classification of Diseases as “an occupational phenomenon” rather than a medical condition, saying burnout “is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed” (*ICD-11 - Mortality and Morbidity Statistics*, 2019). Characterized by symptoms of emotional exhaustion, depersonalization, and loss of personal efficacy, burnout has far-reaching negative consequences for individual wellbeing, quality of patient care and costs to the healthcare system (Adriaenssens et al., 2015). A position paper by the National Taskforce for Humanity in Healthcare estimated that nurse burnout adds up to \$14 billion annually (2018).

Cordoza et. al. looked at the effect of hospital gardens on nurse burnout. They compared indoor and outdoor break environments by randomly assigning nurses to six weeks of a daily work break in the garden and 6 weeks of indoor-only breaks. Researchers had the nurse-participants complete the Maslach Burnout Inventory-Human Services Survey (MBI), a tool used to measure burnout in healthcare workers, at the start and end of each 6-week period. The nurses also recorded the immediate psychological impact of a break in both environments using another tool that asked them to rate feelings of anxiety, sadness, anger, worry, fatigue and pain on a defined scale. They found that for the nurses who took their 20-minute break outside, the garden provided greater reduction in burnout and concluded that taking daily work breaks outside in a garden may be beneficial in mitigating burnout among nurses working in high-stress hospital environments (Cordoza et al., 2018).



## Methodology for Landscape Architecture

### Seek Input

Roger Ulrich, who spearheaded the movement to incorporate nature into healthcare settings said, “Designers who succeed in creating healing gardens will usually be those who seek input from patients and staff, and assiduously utilize the available research to inform their creativity and design approach” (1999).

### Get to Know the Place

Exploring a site’s “Spirit of place” or “genius loci” is often the starting point for landscape architects (Naderi & Shin, 2008)). This intangible dimension enables the designer to create a design that is coherent with existing identity or sense of spirit. A sense of place, associated with physical systems and spatial experiences emerges from a dialogue that the design establishes by facilitating contact with nature (Kellert & Wilson, 1993).

### Recruit Stewards

The interdisciplinary design team (IDT) is defined as all of the stakeholders involved in the programming, design, construction, and ongoing management of a facility. The IDT is essential in healthcare garden design to ensure that the most knowledgeable people about the facility and system are present to inform specific uses and overall design characteristics. In addition, feelings of involvement and empowerment lead to a sense of stewardship that will benefit the project’s sustainability in the long term (Marcus & Sachs, 2014).

My Very Practical Outcomes:

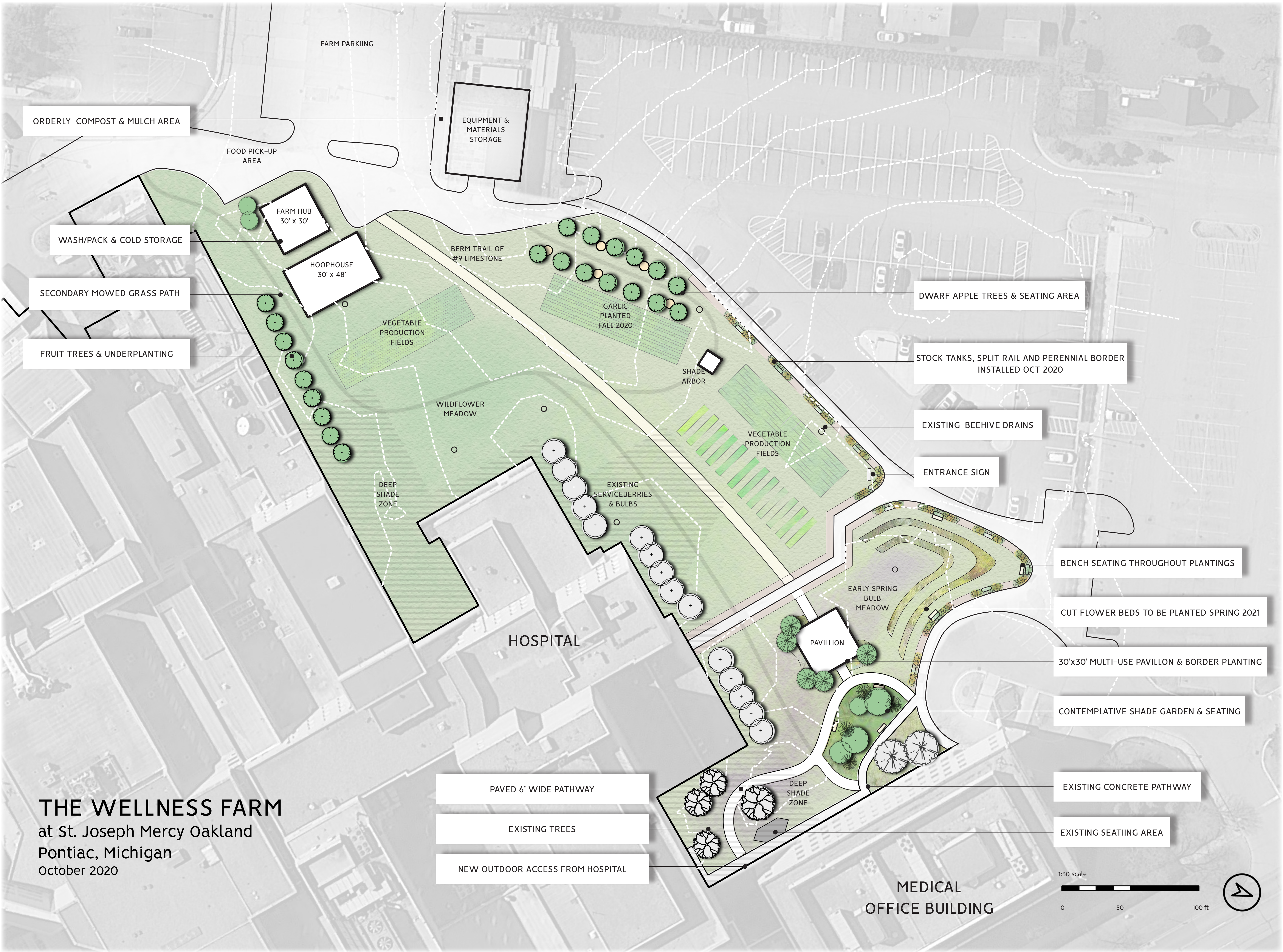
Please see video recording of my Capstone Presentation here:

[https://www.youtube.com/watch?v=BFgRyT07XAM&ab\\_channel=KatShiffler](https://www.youtube.com/watch?v=BFgRyT07XAM&ab_channel=KatShiffler)

Slides and Practium documents are included at the end of this paper.

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ORDERLY COMPOST & MULCH AREA

FOOD PICK-UP AREA

FARM PARKING

EQUIPMENT & MATERIALS STORAGE

FARM HUB  
30' x 30'

HOOPHOUSE  
30' x 48'

BERM TRAIL OF #9 LIMESTONE

GARLIC PLANTED FALL 2020

WASH/PACK & COLD STORAGE

SECONDARY MOWED GRASS PATH

FRUIT TREES & UNDERPLANTING

VEGETABLE PRODUCTION FIELDS

WILDFLOWER MEADOW

SHADE ARBOR

DWARF APPLE TREES & SEATING AREA

STOCK TANKS, SPLIT RAIL AND PERENNIAL BORDER INSTALLED OCT 2020

EXISTING BEEHIVE DRAINS

ENTRANCE SIGN

DEEP SHADE ZONE

EXISTING SERVICEBERRIES & BULBS

VEGETABLE PRODUCTION FIELDS

BENCH SEATING THROUGHOUT PLANTINGS

CUT FLOWER BEDS TO BE PLANTED SPRING 2021

30'x30' MULTI-USE PAVILLON & BORDER PLANTING

CONTEMPLATIVE SHADE GARDEN & SEATING

HOSPITAL

PAVILLION

EARLY SPRING BULB MEADOW

PAVED 6' WIDE PATHWAY

EXISTING TREES

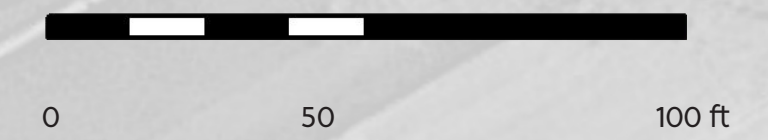
NEW OUTDOOR ACCESS FROM HOSPITAL

EXISTING CONCRETE PATHWAY

EXISTING SEATING AREA

MEDICAL OFFICE BUILDING

1:30 scale

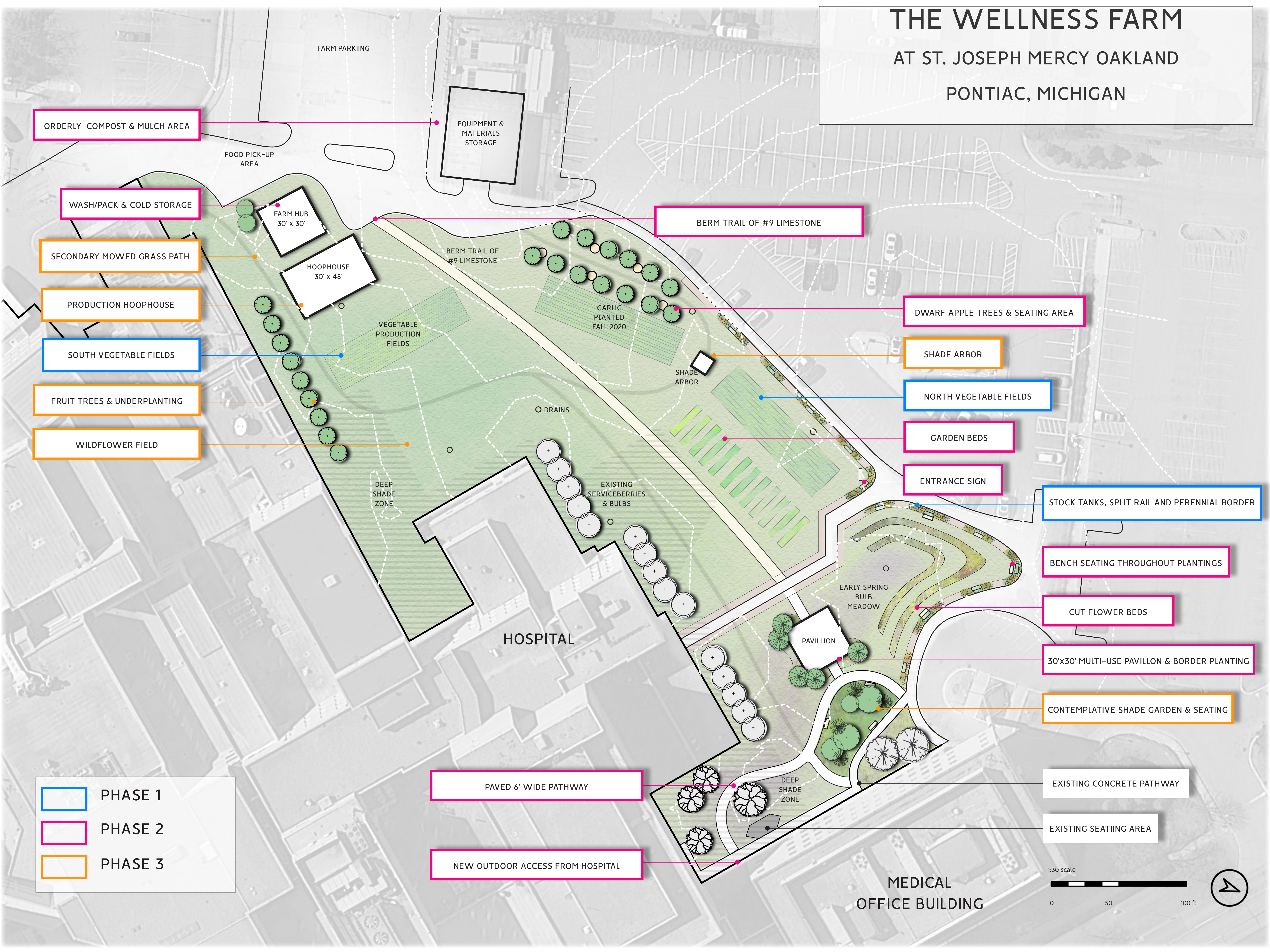


**THE WELLNESS FARM**  
at St. Joseph Mercy Oakland  
Pontiac, Michigan  
October 2020

# THE WELLNESS FARM

## AT ST. JOSEPH MERCY OAKLAND

### PONTIAC, MICHIGAN



ORDERLY COMPOST & MULCH AREA

FOOD PICK-UP AREA

EQUIPMENT & MATERIALS STORAGE

WASH/PACK & COLD STORAGE

FARM HUB  
30' x 30'

BERM TRAIL OF #9 LIMESTONE

SECONDARY MOWED GRASS PATH

HOOPHOUSE  
30' x 48'

BERM TRAIL OF #9 LIMESTONE

PRODUCTION HOOPHOUSE

GARLIC PLANTED FALL 2020

DWARF APPLE TREES & SEATING AREA

SOUTH VEGETABLE FIELDS

VEGETABLE PRODUCTION FIELDS

SHADE ARBOR

FRUIT TREES & UNDERPLANTING

NORTH VEGETABLE FIELDS

WILDFLOWER FIELD

GARDEN BEDS

DRAINS

EXISTING SERVICEBERRIES & BULBS

ENTRANCE SIGN

STOCK TANKS, SPLIT RAIL AND PERENNIAL BORDER

HOSPITAL

EARLY SPRING BULB MEADOW

BENCH SEATING THROUGHOUT PLANTINGS

CUT FLOWER BEDS

30'x30' MULTI-USE PAVILLON & BORDER PLANTING

PAVILLION

CONTEMPLATIVE SHADE GARDEN & SEATING

PAVED 6' WIDE PATHWAY

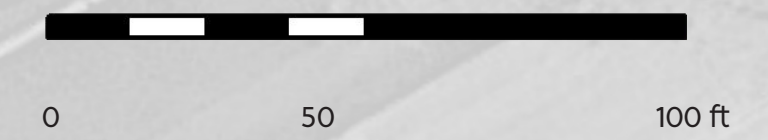
EXISTING CONCRETE PATHWAY

NEW OUTDOOR ACCESS FROM HOSPITAL

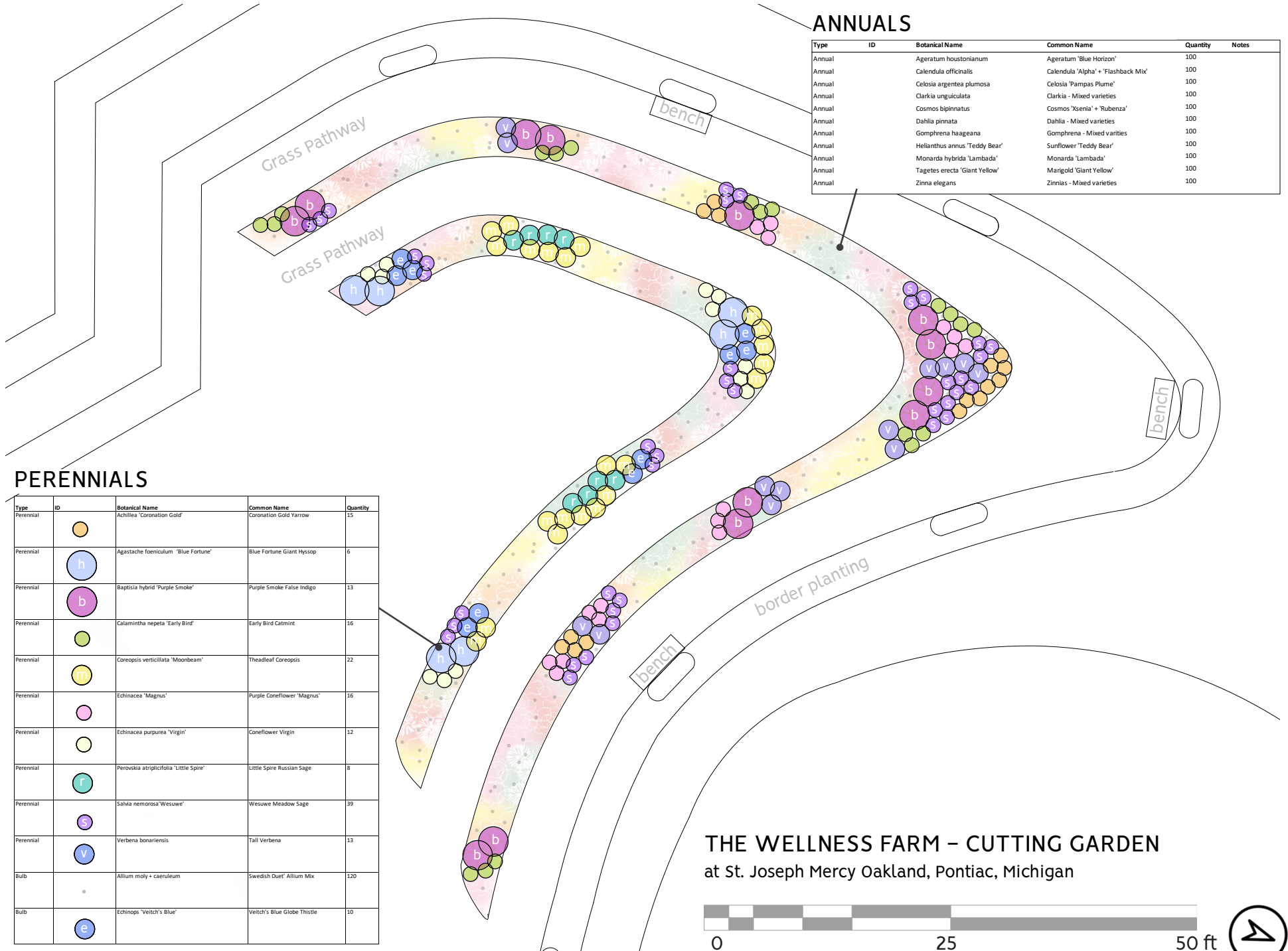
EXISTING SEATING AREA

MEDICAL OFFICE BUILDING

1:30 scale



PHASE 1  
 PHASE 2  
 PHASE 3



## ANNUALS

Type	ID	Botanical Name	Common Name	Quantity	Notes
Annual		<i>Ageratum houstonianum</i>	Ageratum 'Blue Horizon'	100	
Annual		<i>Calendula officinalis</i>	Calendula 'Alpha' + 'Flashback Mix'	100	
Annual		<i>Celosia argentea plumosa</i>	Celosia 'Pampas Plume'	100	
Annual		<i>Clarkia unguiculata</i>	Clarkia - Mixed varieties	100	
Annual		<i>Cosmos bipinnatus</i>	Cosmos 'Xenia' + 'Rubenza'	100	
Annual		<i>Dahlia pinnata</i>	Dahlia - Mixed varieties	100	
Annual		<i>Gomphrena haageana</i>	Gomphrena - Mixed varieties	100	
Annual		<i>Helianthus annuus 'Teddy Bear'</i>	Sunflower 'Teddy Bear'	100	
Annual		<i>Monarda hybrida 'Lambada'</i>	Monarda 'Lambada'	100	
Annual		<i>Tagetes erecta 'Giant Yellow'</i>	Marigold 'Giant Yellow'	100	
Annual		<i>Zinnia elegans</i>	Zinnia - Mixed varieties	100	

## PERENNIALS

Type	ID	Botanical Name	Common Name	Quantity
Perennial		<i>Achillea 'Coronation Gold'</i>	Coronation Gold Yarrow	15
Perennial		<i>Agastache foeniculum 'Blue Fortune'</i>	Blue Fortune Giant Hyssop	6
Perennial		<i>Baptisia hybrid 'Purple Smoke'</i>	Purple Smoke False Indigo	13
Perennial		<i>Calamintha nepeta 'Early Bird'</i>	Early Bird Catmint	16
Perennial		<i>Coreopsis verticillata 'Moonbeam'</i>	Theadleaf Coreopsis	22
Perennial		<i>Echinacea 'Magnus'</i>	Purple Coneflower 'Magnus'	16
Perennial		<i>Echinacea purpurea 'Virgin'</i>	Coneflower Virgin	12
Perennial		<i>Perovskia atriplicifolia 'Little Spire'</i>	Little Spire Russian Sage	8
Perennial		<i>Salvia nemorosa 'Wesuwe'</i>	Wesuwe Meadow Sage	39
Perennial		<i>Verbena bonariensis</i>	Tall Verbena	13
Bulb		<i>Allium moly + caeruleum</i>	Swedish Duet' Allium Mix	120
Bulb		<i>Echinops 'Veitch's Blue'</i>	Veitch's Blue Globe Thistle	10

## THE WELLNESS FARM – CUTTING GARDEN at St. Joseph Mercy Oakland, Pontiac, Michigan



Type	ID	Botanical Name	Common Name	Quantity	Notes
Perennial		Achillea 'Coronation	Coronation Gold Yarrow	15	
Perennial		Agastache foeniculum 'Blue Fortune'	Blue Fortune Giant Hyssop	6	
Perennial		Baptisia hybrid 'Purple Smoke'	Purple Smoke False Indigo	13	
Perennial		Calamintha nepeta 'Early Bird'	Early Bird Catmint	16	
Perennial		Coreopsis verticillata 'Moonbeam'	Theadleaf Coreopsis	22	
Perennial		Echinacea 'Magnus'	Purple Coneflower 'Magnus'	16	
Perennial		Echinacea purpurea 'Rubinglow'	Virgin Coneflower	12	
Perennial		Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	8	
Perennial		Salvia nemorosa	Wesuwe Meadow Sage	39	
Perennial		Verbena bonariensis	Tall Verbena	13	
Bulb		Allium caeruleum	Blue Allium	120	Planted 10/20
Bulb		Allium moly	Yellow Allium	120	Planted 10/20
Bulb		Echinops 'Veitch's Blue'	Veitch's Blue Globe Thistle	10	
Annual		Ageratum houstonianum	Ageratum 'Blue Horizon'	100	
Annual		Calendula officinalis	Calendula 'Alpha' + 'Flashback Mix'	100	
Annual		Celosia argentea plumosa	Celosia 'Pampas Plume'	100	
Annual		Clarkia unguiculata	Clarkia - Mixed varieties	100	
Annual		Cosmos bipinnatus	Cosmos 'Xsenia' + 'Rubenza'	100	
Annual		Dahlia pinnata	Dahlia - Mixed varieties	100	
Annual		Gomphrena haageana	Gomphrena - Mixed varieties	100	
Annual		Helianthus annus 'Teddy Bear'	Sunflower 'Teddy Bear'	100	
Annual		Monarda hybrida 'Lambada'	Monarda 'Lambada'	100	
Annual		Tagetes erecta 'Giant Yellow'	Marigold 'Giant Yellow'	100	
Annual		Zinna elegans	Zinnias - Mixed varieties	100	

# MIX OF PERENNIALS & ANNUALS



Dahlias



'Virgin' Coneflower



Branching Sunflowers



Gomphrena



'Early Bird' Catmint



'Giant Yellow' Marigold



'Blue Fortune' Giant Hyssop



'Vetch's Blue' Globe Thistle



'Blue Horizon' Ageratum



'Purple Smoke' False Indigo



'Wesuwe' Meadow Sage



Zinnias



'Teddy Bear' Sunflower



'Moonbeam' Threadleaf Coreopsis



'Little Spire' Russian Sage



Calendula 'Alpha'



'Coronation Gold' Yarrow



'Magnus' Coneflower



Tall Verbena



Monarda 'Lambada'



Calendula 'Flashback Mix'



'Pampas Plume' Celosia



Clarkia



# Border Planting

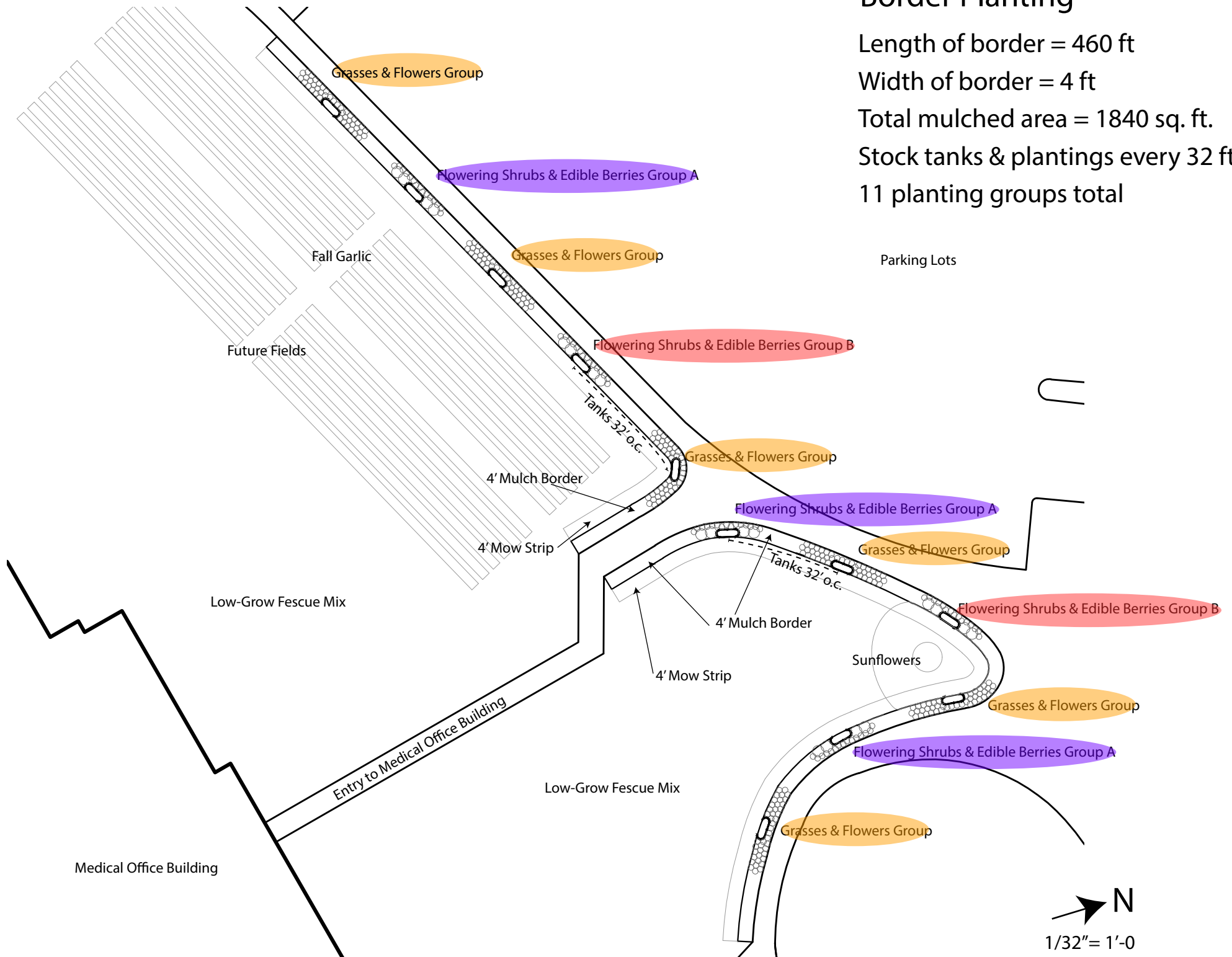
Length of border = 460 ft

Width of border = 4 ft

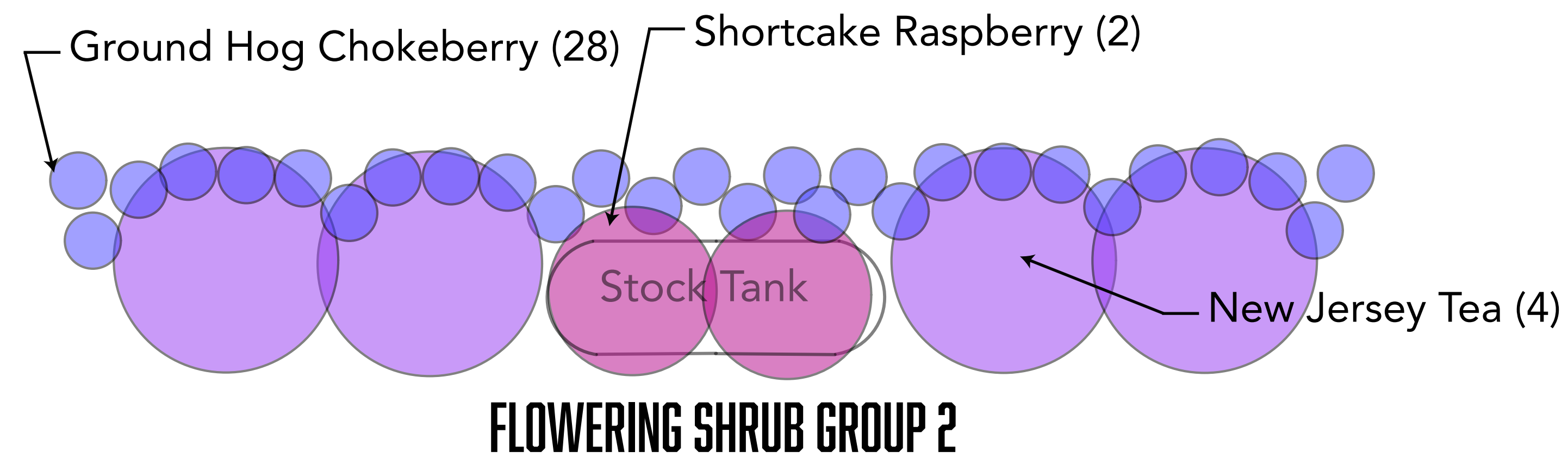
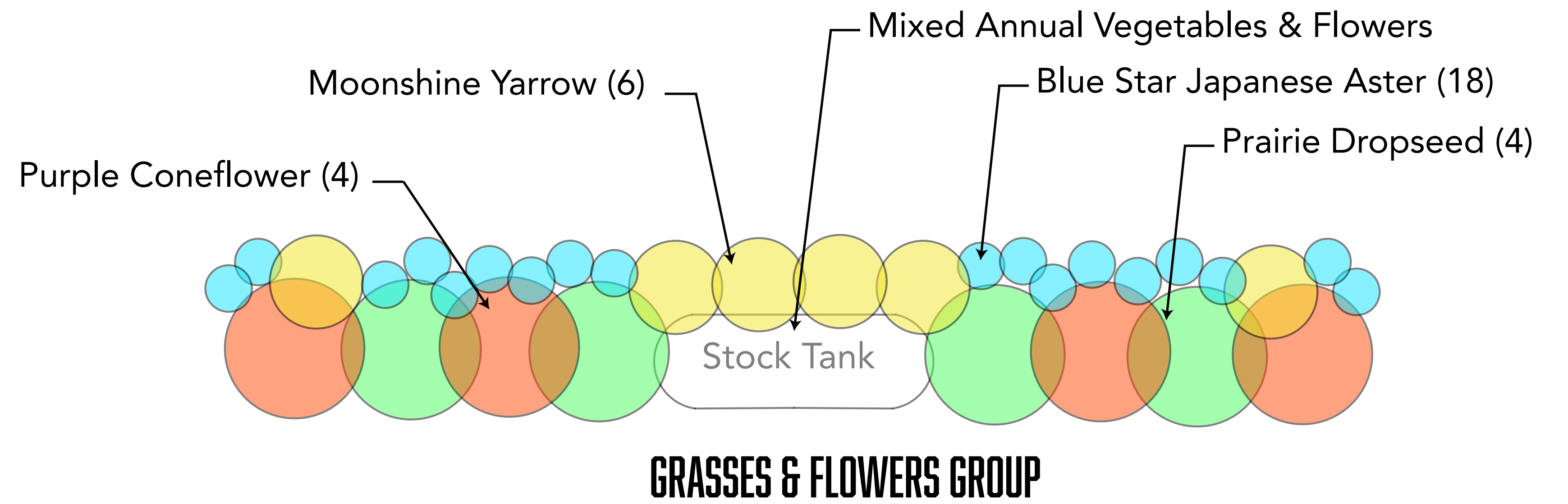
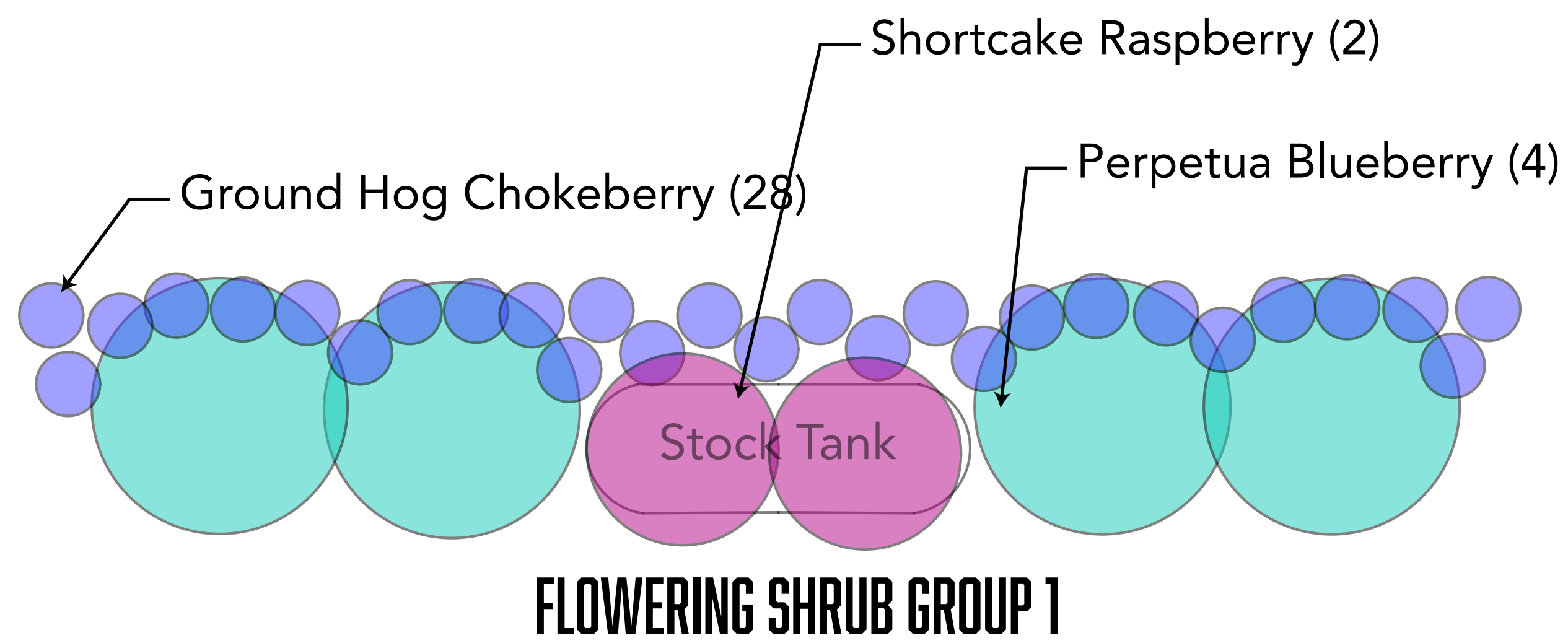
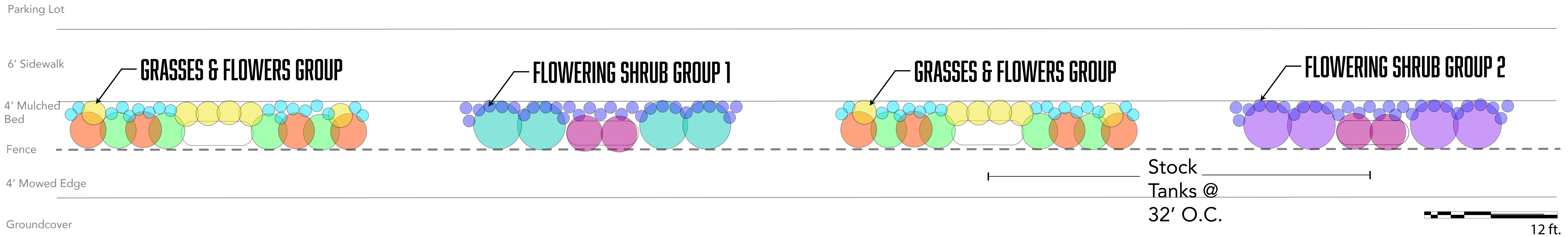
Total mulched area = 1840 sq. ft.

Stock tanks & plantings every 32 ft.

11 planting groups total



# EDGE PLANTING - PONTIAC WELLNESS FARM

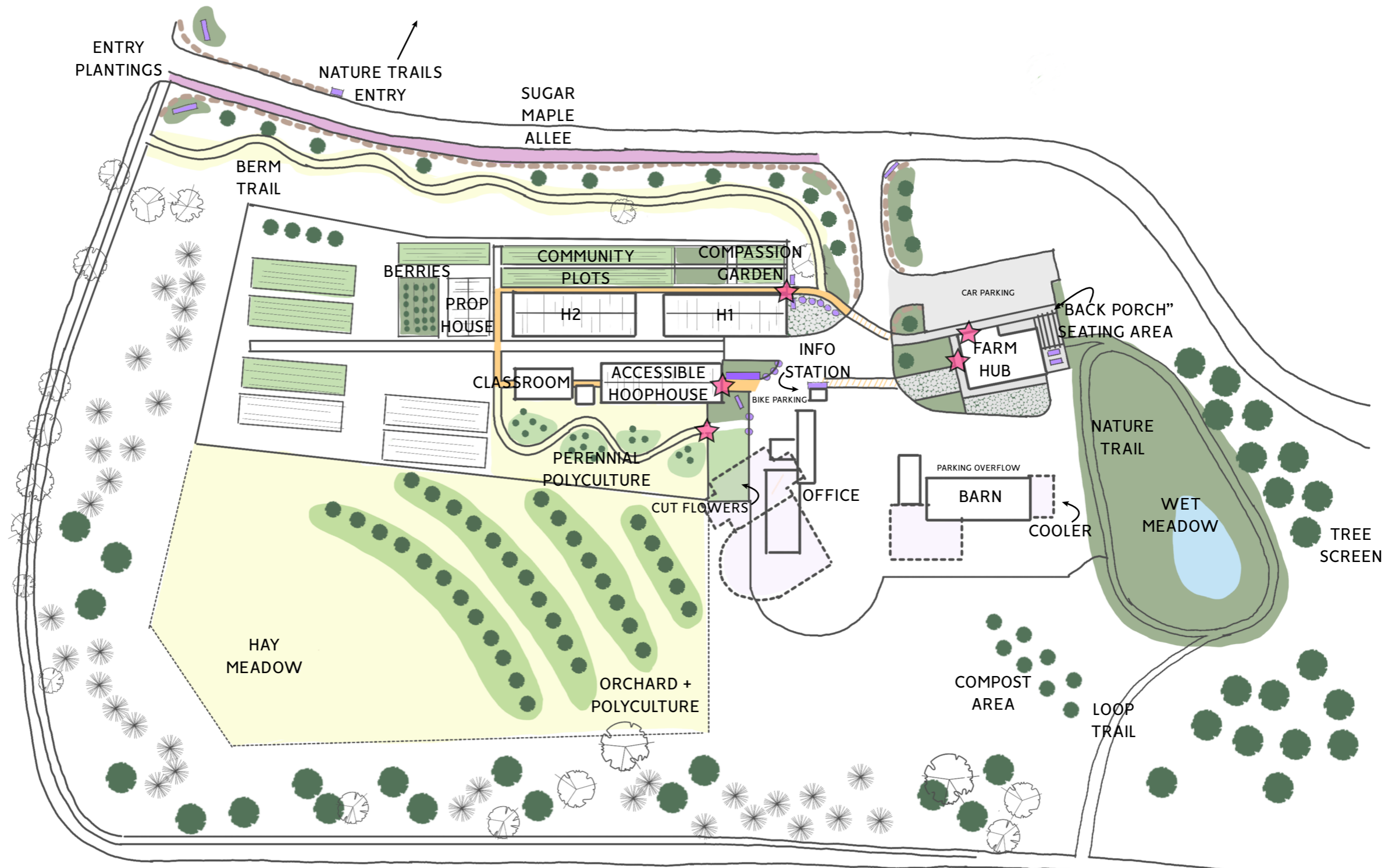




# BLOOMTIME CALENDAR

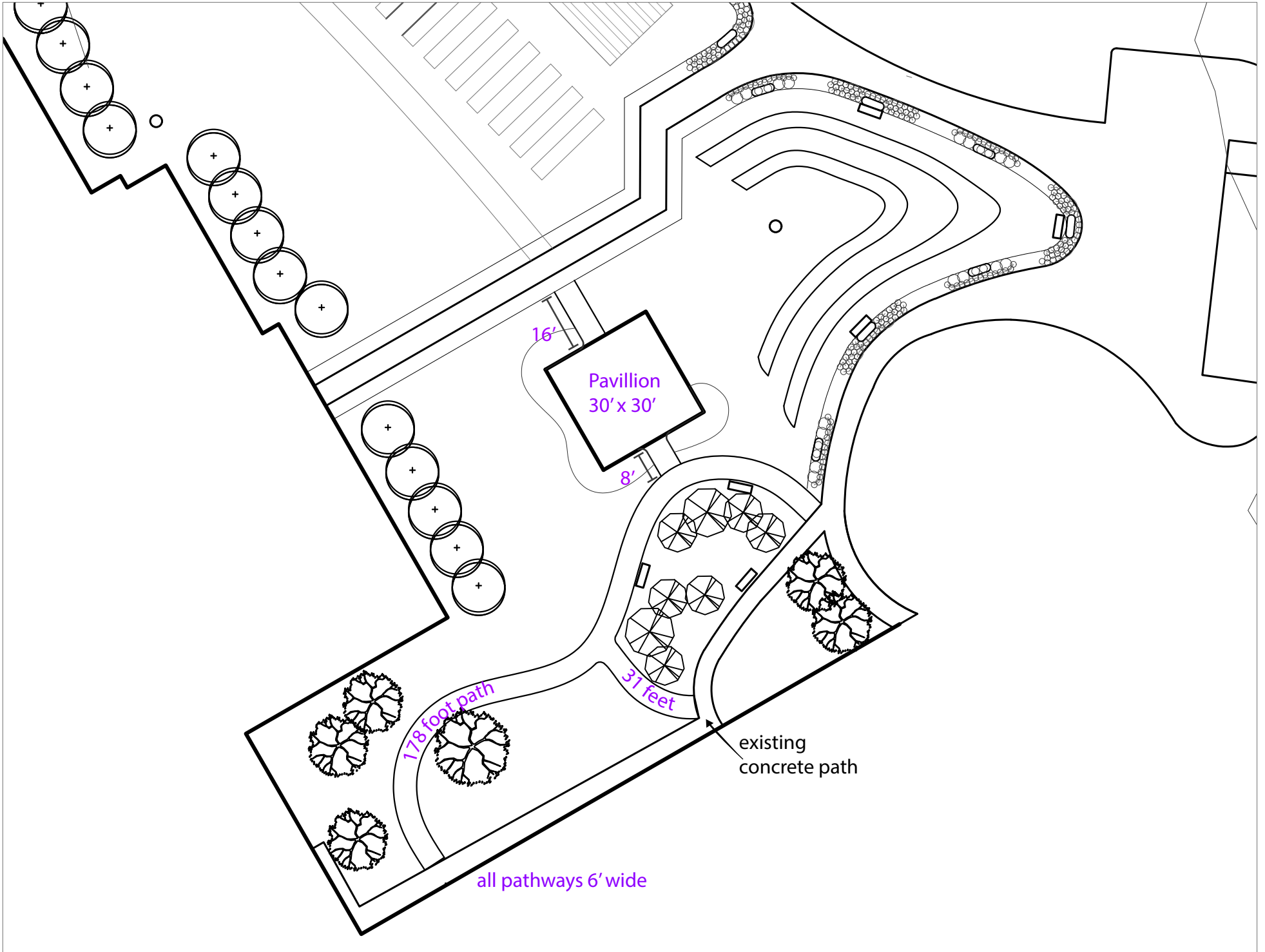
Type	Botanical Name	Common Name	Typical height ft	Typical width ft	April	May	June	July	August	Sept	Oct
Perennial	Achillea 'Coronation Gold'	Coronation Gold Yarrow	2.5-3' h	1.5-2' w			Yellow				
Perennial	Agastache foeniculum 'Blue Fortune'	Blue Fortune Giant Hyssop	3.5-3' h	1-2' w				Purple			
Perennial	Baptisia hybrid 'Purple Smoke'	Purple Smoke False Indigo	3-4' h	3-4' w	Purple						
Perennial	Calamintha nepeta 'Early Bird'	Early Bird Catmint	1-1.5' h	1-1.5' w	Green						
Perennial	Coreopsis verticillata 'Moonbeam'	Theadleaf Coreopsis	1.5-2' h	1.5-2' w			Yellow				
Perennial	Echinacea 'Magnus'	Purple Coneflower 'Magnus'	2.5-3' h	1-1.5 w				Pink			
Perennial	Echinacea purpurea 'Virgin'	Virgin Coneflower	3' h	3' w				Yellow			
Perennial	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	1.5-2.0' h	1.5-2.0' w			Purple				
Perennial	Salvia nemorosa 'Wesuwe'	Wesuwe Meadow Sage	1-1.5' h	1-1.5' w			Purple				
Perennial	Verbena bonariensis	Tall Verbena	3' h	2' w			Purple				
Bulb	Allium moly + caeruleum	Swedish Duet' Allium Mix	1-1.5' h	1-1.5' w		Yellow					
Bulb	Echinops 'Veitch's Blue'	Veitch's Blue Globe Thistle	3-5' h	1.5-2' w				Dark Blue			
Annual	Ageratum houstonianum	Ageratum 'Blue Horizon'	1-3' h						Blue		
Annual	Calendula officinalis	Calendula 'Alpha' + 'Flashback Mix'	2' h				Orange				
Annual	Celosia argentea plumosa	Celosia 'Pampas Plume'	2-3.5' h				Orange				
Annual	Clarkia unguiculata	Clarkia - Mixed varieties	1-3' h					Pink			
Annual	Cosmos bipinnatus	Cosmos 'Xsenia' + 'Rubenza'	2' h				Pink				
Annual	Dahlia pinnata	Dahlia - Mixed varieties	2-3' h					Yellow			
Annual	Gomphrena haageana	Gomphrena - Mixed varieties	2' h				Magenta				
Annual	Helianthus annuus 'Teddy Bear'	Sunflower 'Teddy Bear'	1.5-2' h				Yellow				
Annual	Monarda hybrida 'Lambada'	Monarda 'Lambada'	2-3' h				Purple				
Annual	Tagetes erecta 'Giant Yellow'	Marigold 'Giant Yellow'	1.5' h				Yellow				
Annual	Zinna elegans	Zinnias - Mixed varieties	1-3' h				Magenta				





- |                         |  |                       |
|-------------------------|--|-----------------------|
| MEADOW + MOWED PATH     | NEW PAVED AREA                               | SPLIT-RAIL FENCE      |
| NEW OR REHABED PLANTING | GRASS/PAVEMENT AREA                          | NEW TREE OR SHRUB     |
| NEW PERENNIAL PLANTING  | FURNISHINGS - PLANTERS, SIGNS, TABLES, BENCH | PUBLIC ENTRY          |
| ACCESSIBLE TRAIL        | PAINTED CROSSWALK                            | FUTURE FENCE BOUNDARY |
| SEPARATED BIKE LANE     | FUTURE BUILDINGS + PARKING                   |                       |

THE FARM AT ST. JOE'S  
 DRAFT MASTER PLAN FOR REVIEW  
 MARCH 2021



16'

Pavillion  
30' x 30'

8'

31 feet

178 foot path

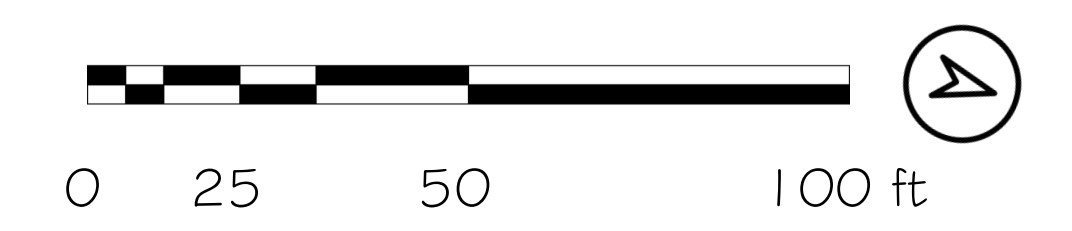
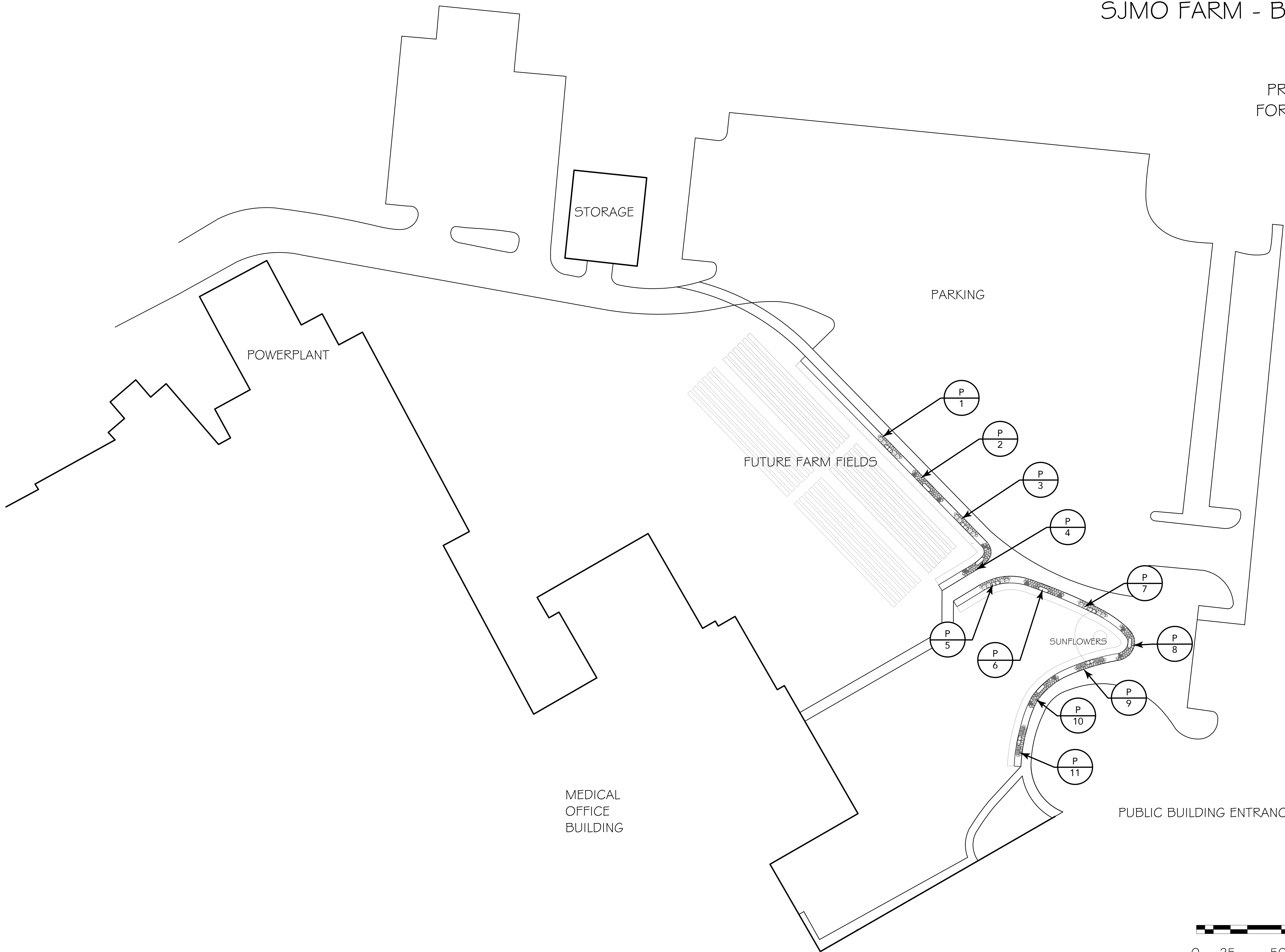
existing  
concrete path

all pathways 6' wide

# SJMO FARM - BORDER PLANTING

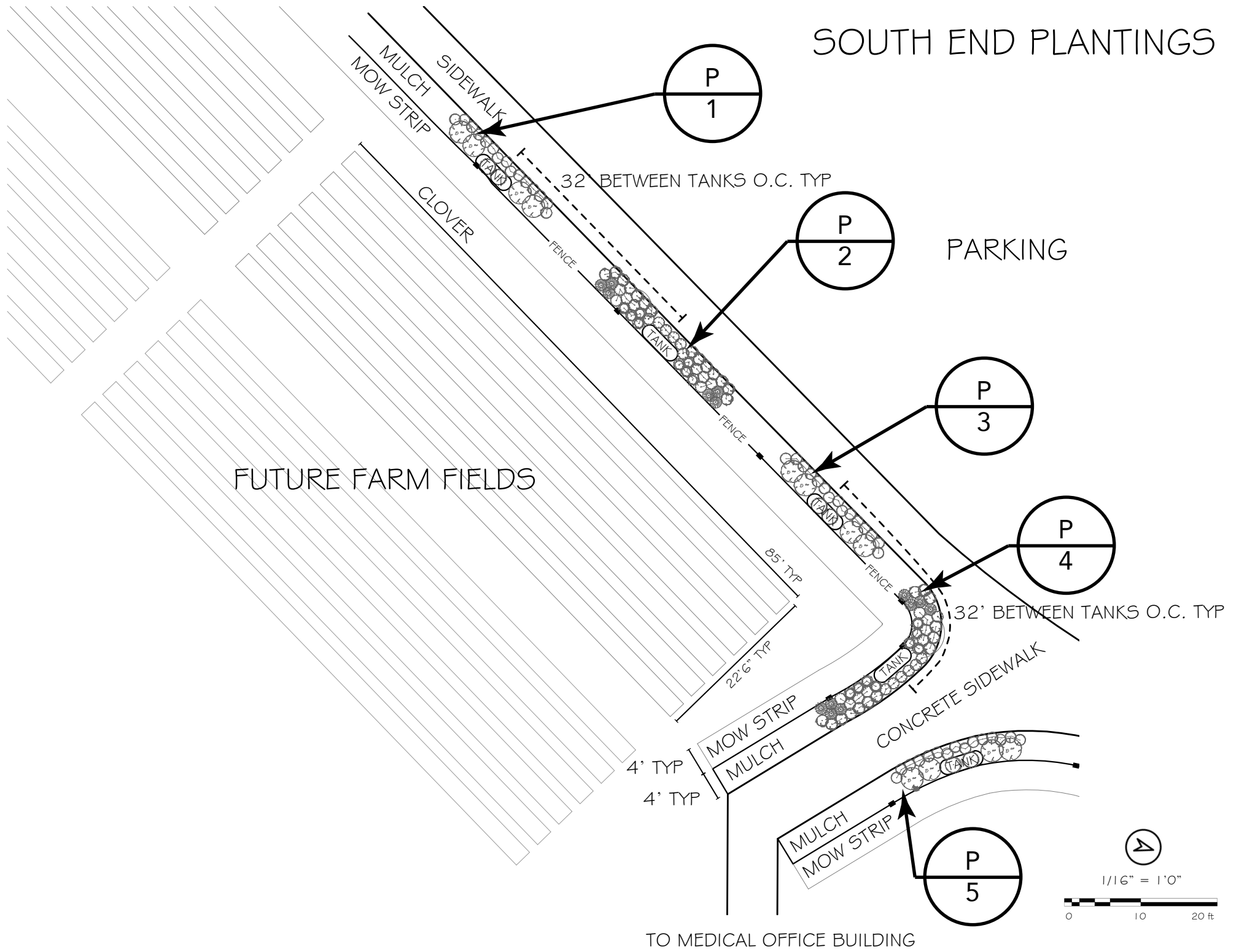
AUGUST 2020

PREPARED BY KAT SHIFFLER  
FOR LIVINGSTON LANDSCAPE





# SOUTH END PLANTINGS



P  
1

P  
2

PARKING

P  
3

P  
4

32' BETWEEN TANKS O.C. TYP

P  
5

FUTURE FARM FIELDS

MULCH  
MOW STRIP

SIDEWALK

CLOVER

32' BETWEEN TANKS O.C. TYP

FENCE

FENCE

FENCE

CONCRETE SIDEWALK

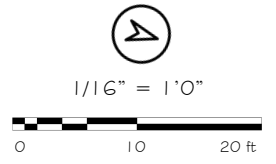
MOW STRIP  
MULCH

MULCH  
MOW STRIP

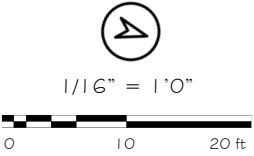
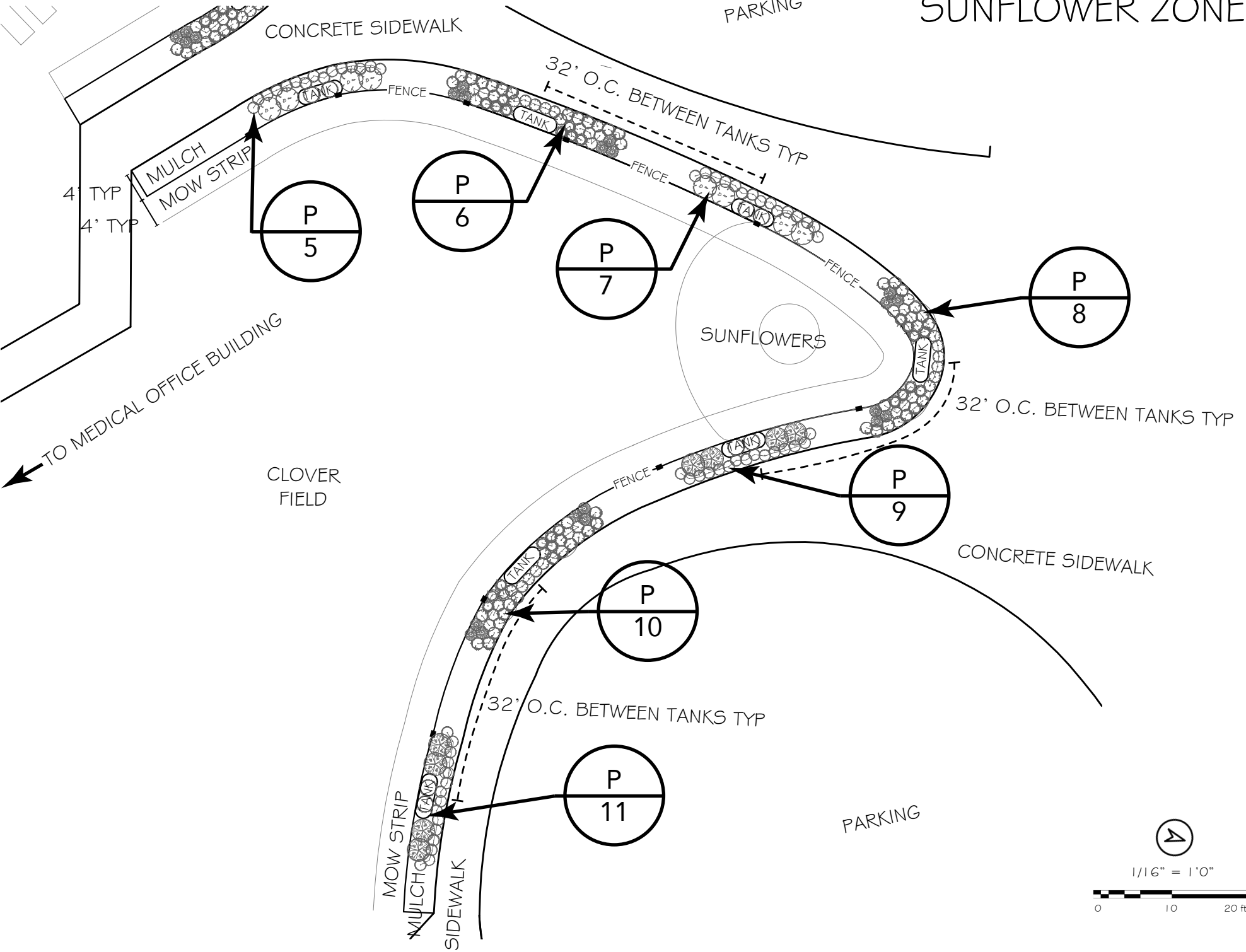
4' TYP  
4' TYP

85' TYP  
22'6" TYP

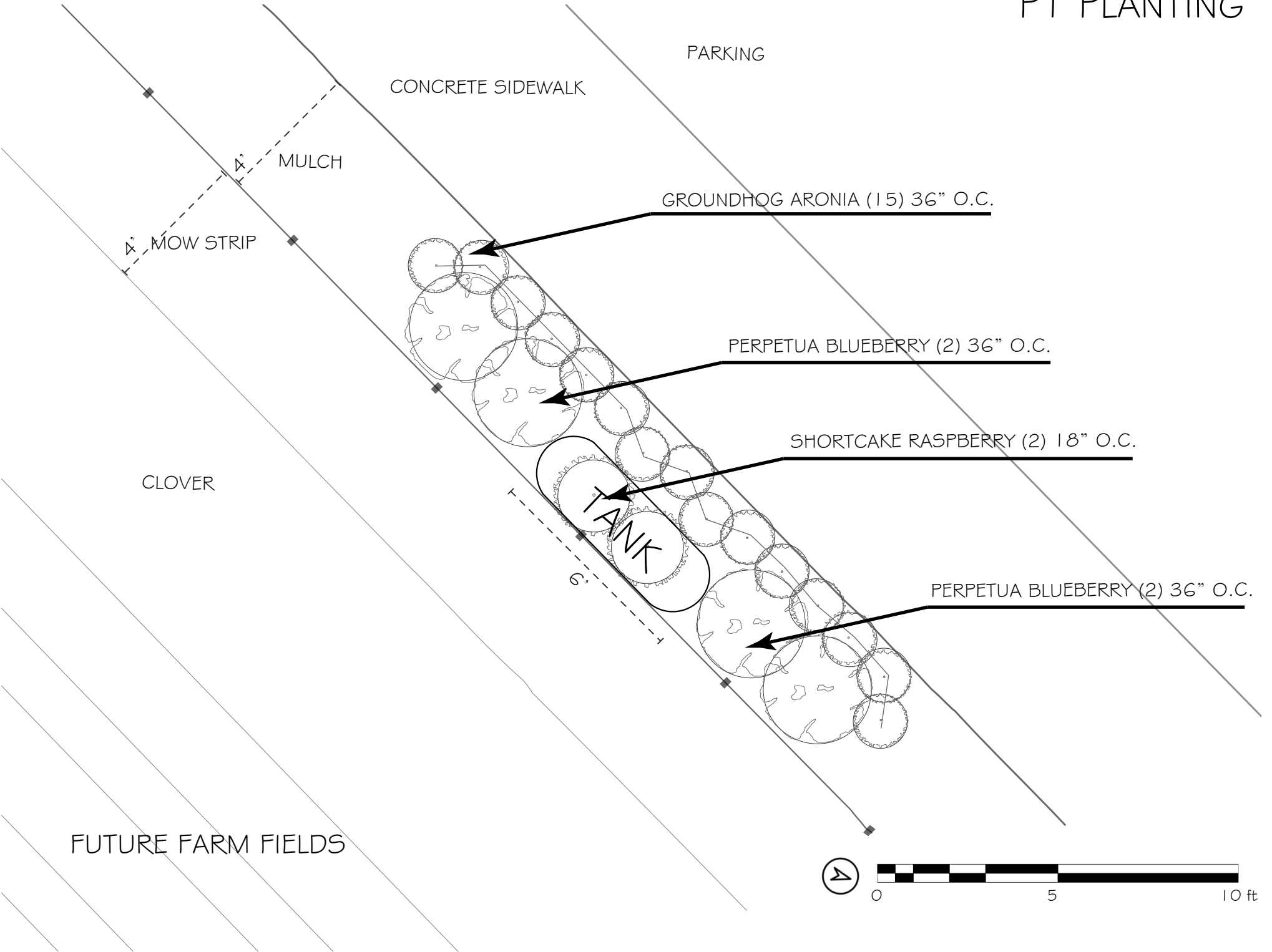
TO MEDICAL OFFICE BUILDING



# SUNFLOWER ZONE



# PI PLANTING



PARKING

CONCRETE SIDEWALK

MULCH

MOW STRIP

GROUNDHOG ARONIA (15) 36" O.C.

PERPETUA BLUEBERRY (2) 36" O.C.

SHORTCAKE RASPBERRY (2) 18" O.C.

CLOVER

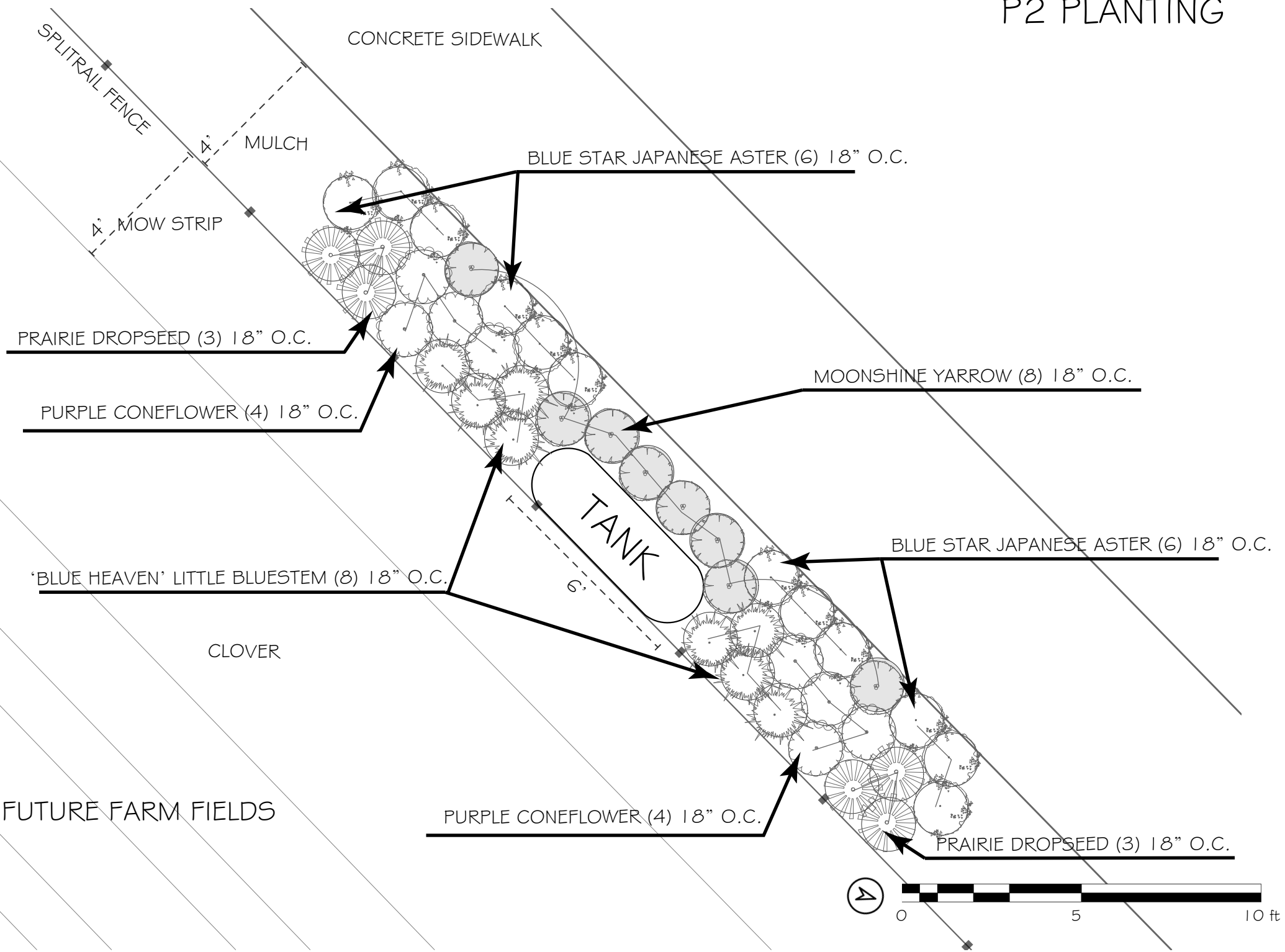
S.

PERPETUA BLUEBERRY (2) 36" O.C.

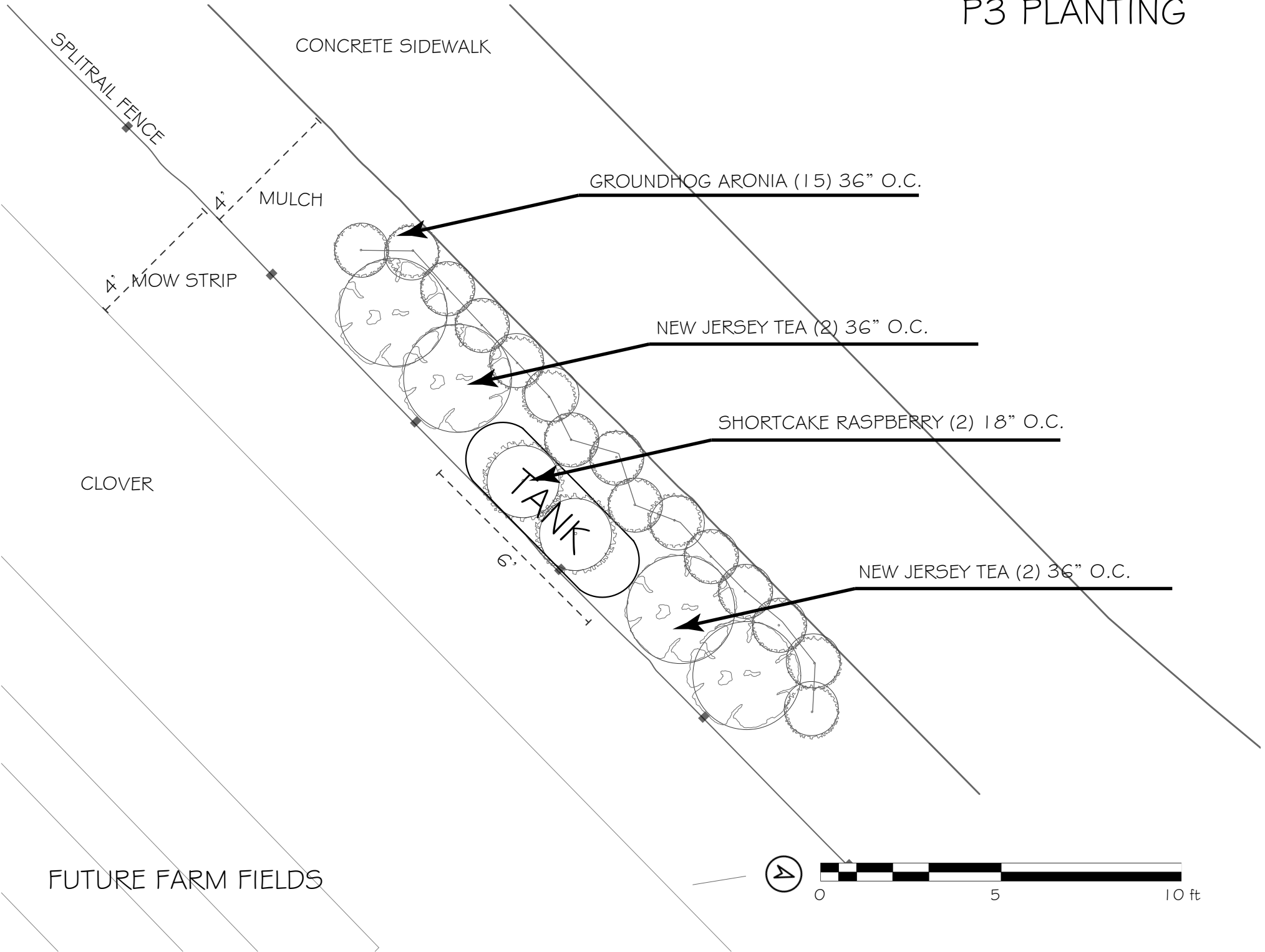
FUTURE FARM FIELDS



# P2 PLANTING



# P3 PLANTING



SPLIT RAIL FENCE

CONCRETE SIDEWALK

MULCH

MOW STRIP

GROUNDHOG ARONIA (15) 36" O.C.

NEW JERSEY TEA (2) 36" O.C.

SHORTCAKE RASPBERRY (2) 18" O.C.

NEW JERSEY TEA (2) 36" O.C.

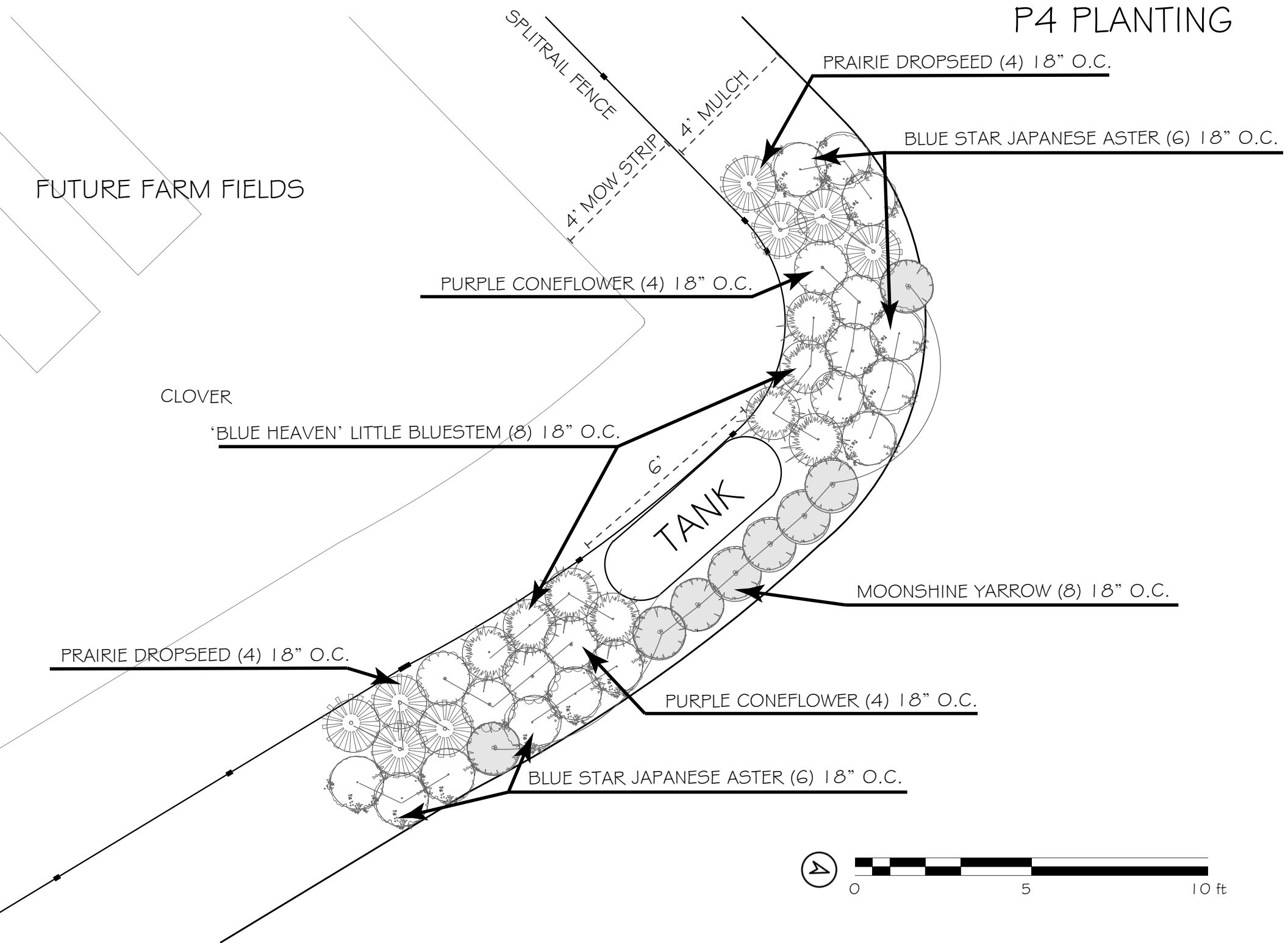
TANK

CLOVER

FUTURE FARM FIELDS



# P4 PLANTING



FUTURE FARM FIELDS

SPLIT RAIL FENCE

PRAIRIE DROPSEED (4) 18" O.C.

BLUE STAR JAPANESE ASTER (6) 18" O.C.

CLOVER

PURPLE CONEFLOWER (4) 18" O.C.

'BLUE HEAVEN' LITTLE BLUESTEM (8) 18" O.C.

TANK

MOONSHINE YARROW (8) 18" O.C.

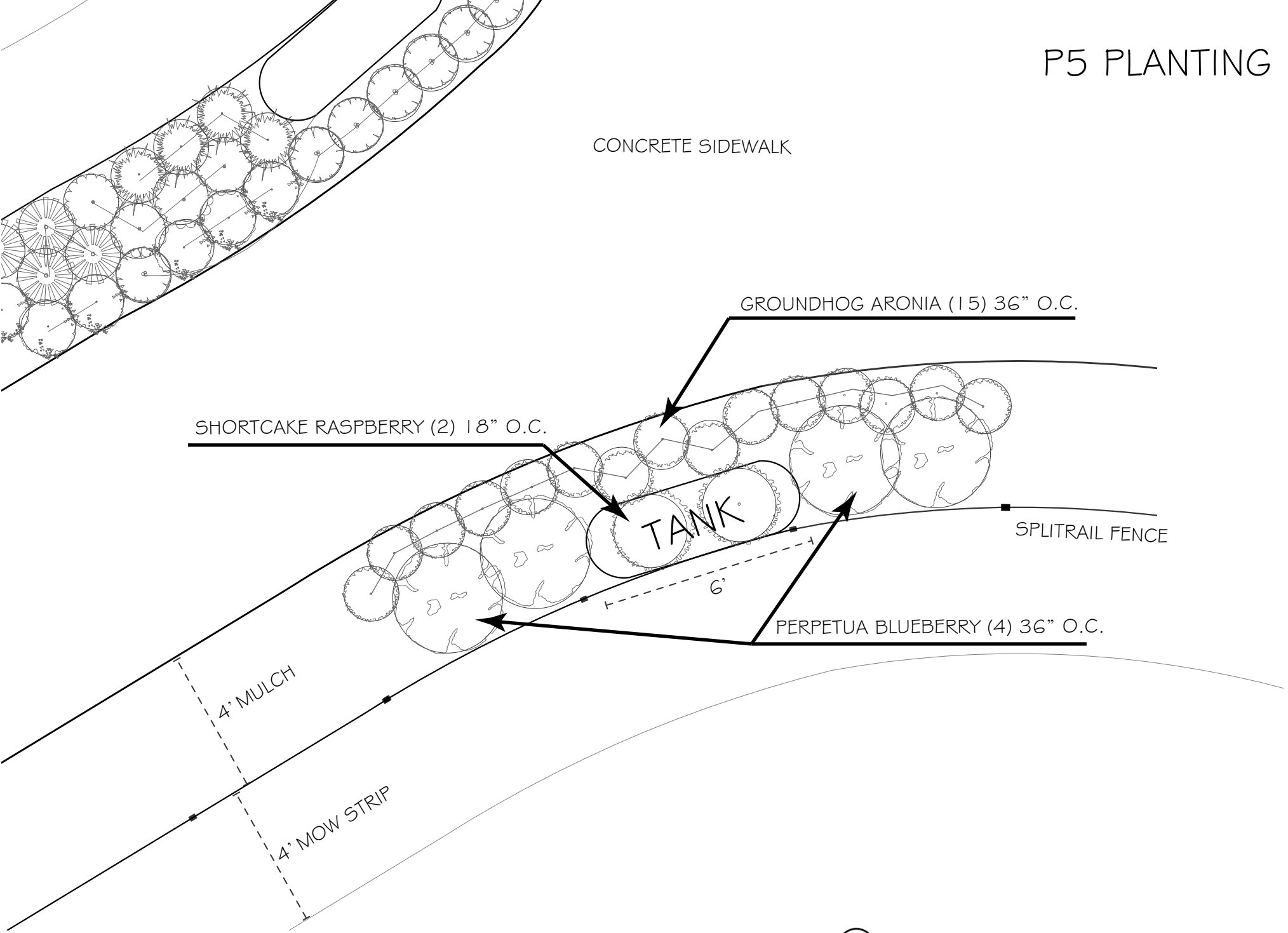
PRAIRIE DROPSEED (4) 18" O.C.

PURPLE CONEFLOWER (4) 18" O.C.

BLUE STAR JAPANESE ASTER (6) 18" O.C.



# P5 PLANTING



CONCRETE SIDEWALK

GROUNDHOG ARONIA (15) 36" O.C.

SHORTCAKE RASPBERRY (2) 18" O.C.

TANK

SPLITRAIL FENCE

PERPETUA BLUEBERRY (4) 36" O.C.

4' MULCH

4' MOW STRIP

6'



# P6 PLANTING

SIDEWALK

PRAIRIE DROPSEED (3) 18" O.C.

BLUE STAR JAPANESE ASTER (6) 18" O.C.

MOONSHINE YARROW (8) 18" O.C.

BLUE STAR JAPANESE ASTER (6) 18" O.C.

PURPLE CONEFLOWER (4) 18" O.C.

PRAIRIE DROPSEED (3) 18" O.C.

'BLUE HEAVEN' LITTLE BLUESTEM (8) 18" O.C.

PURPLE CONEFLOWER (4) 18" O.C.

CLOVER

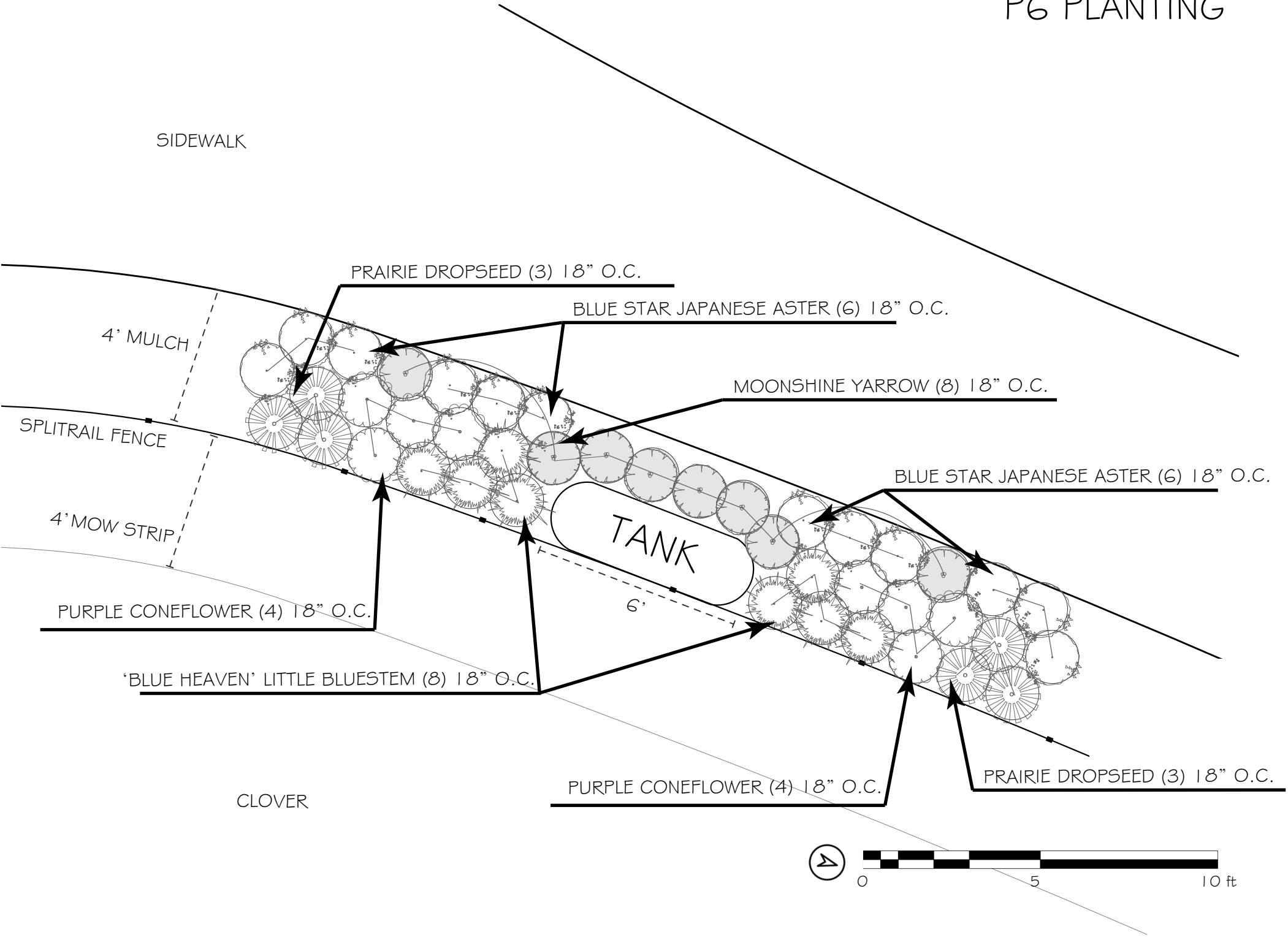
4' MULCH

SPLITRAIL FENCE

4' MOW STRIP

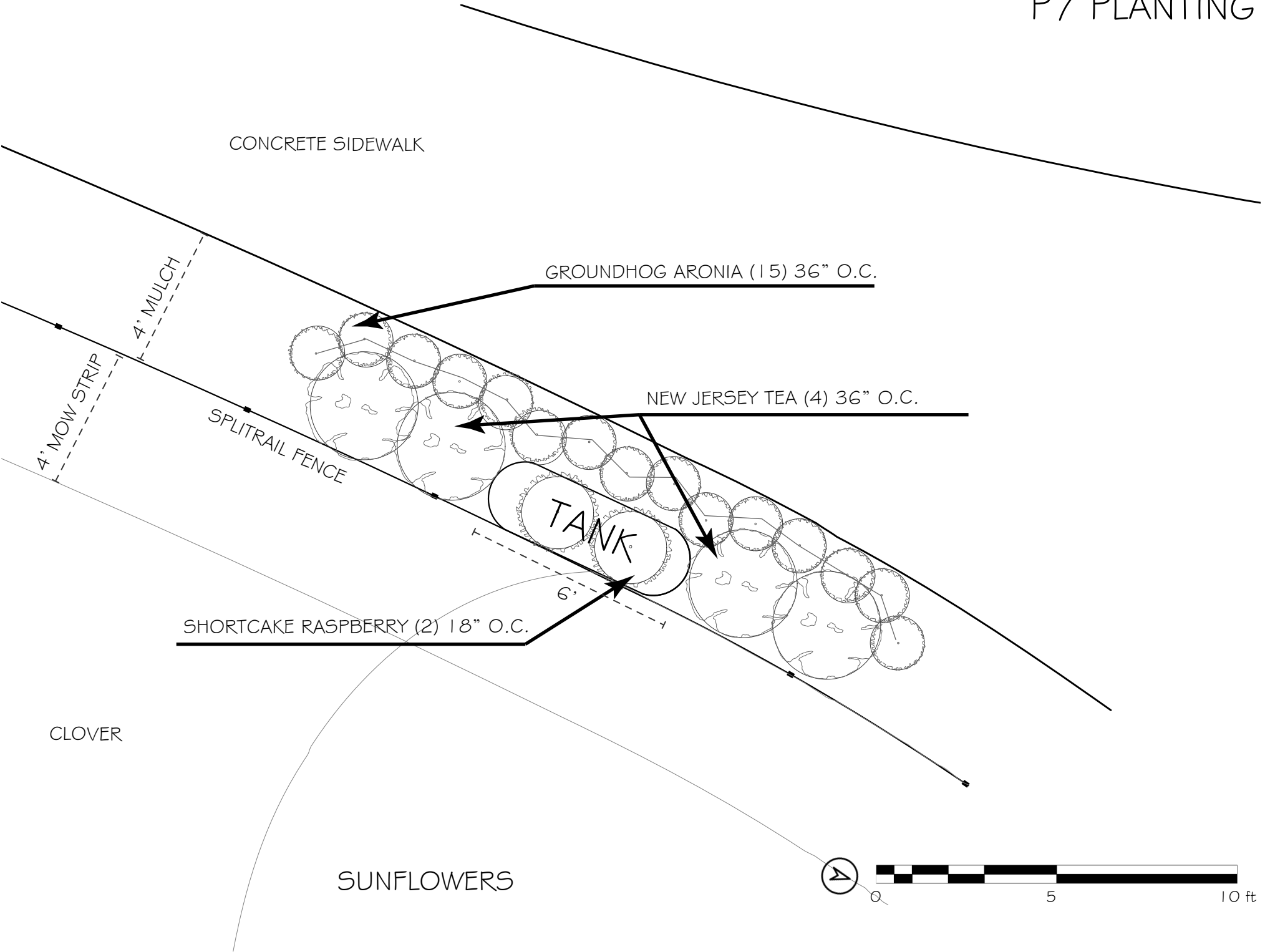
TANK

6'

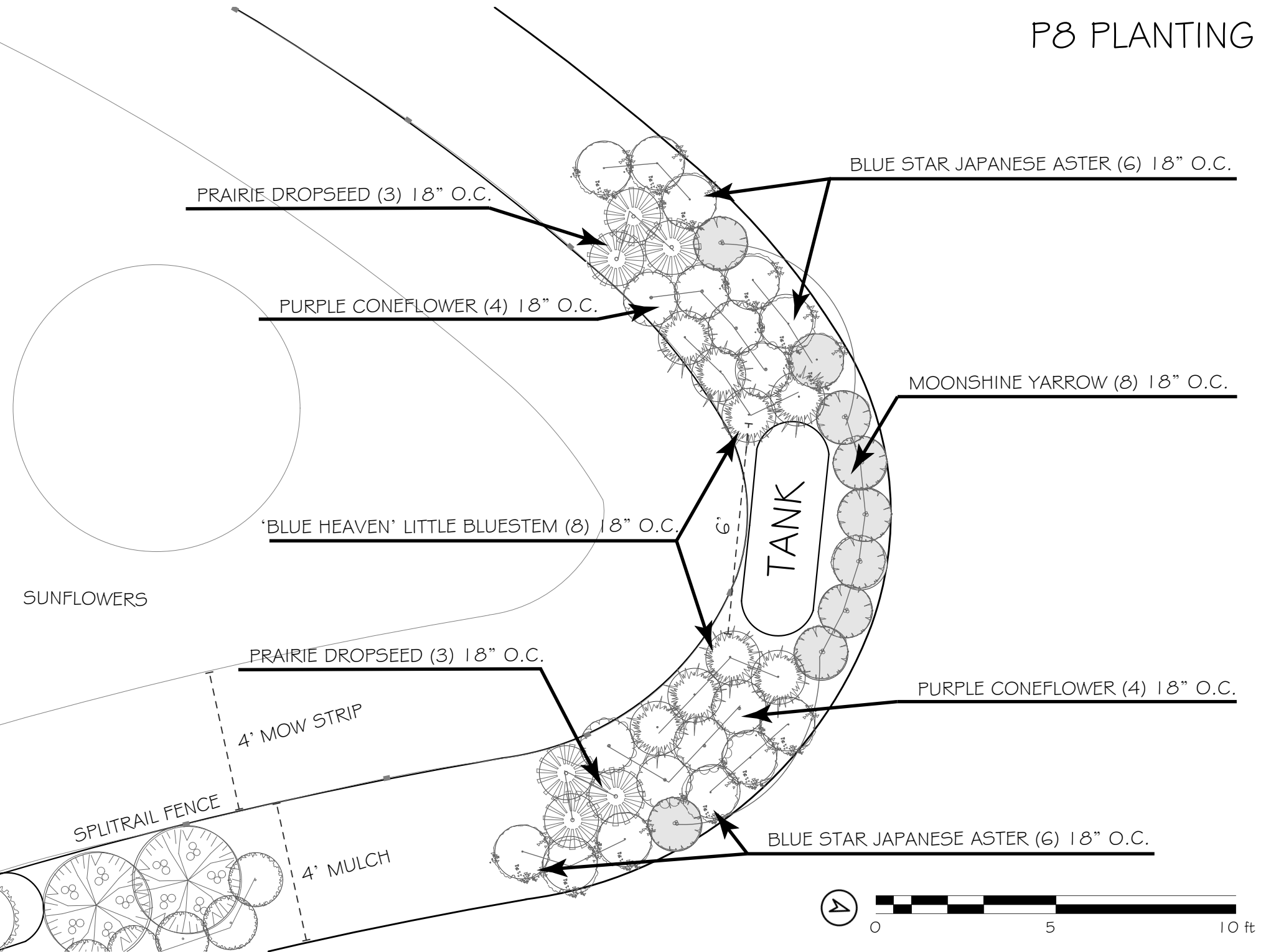




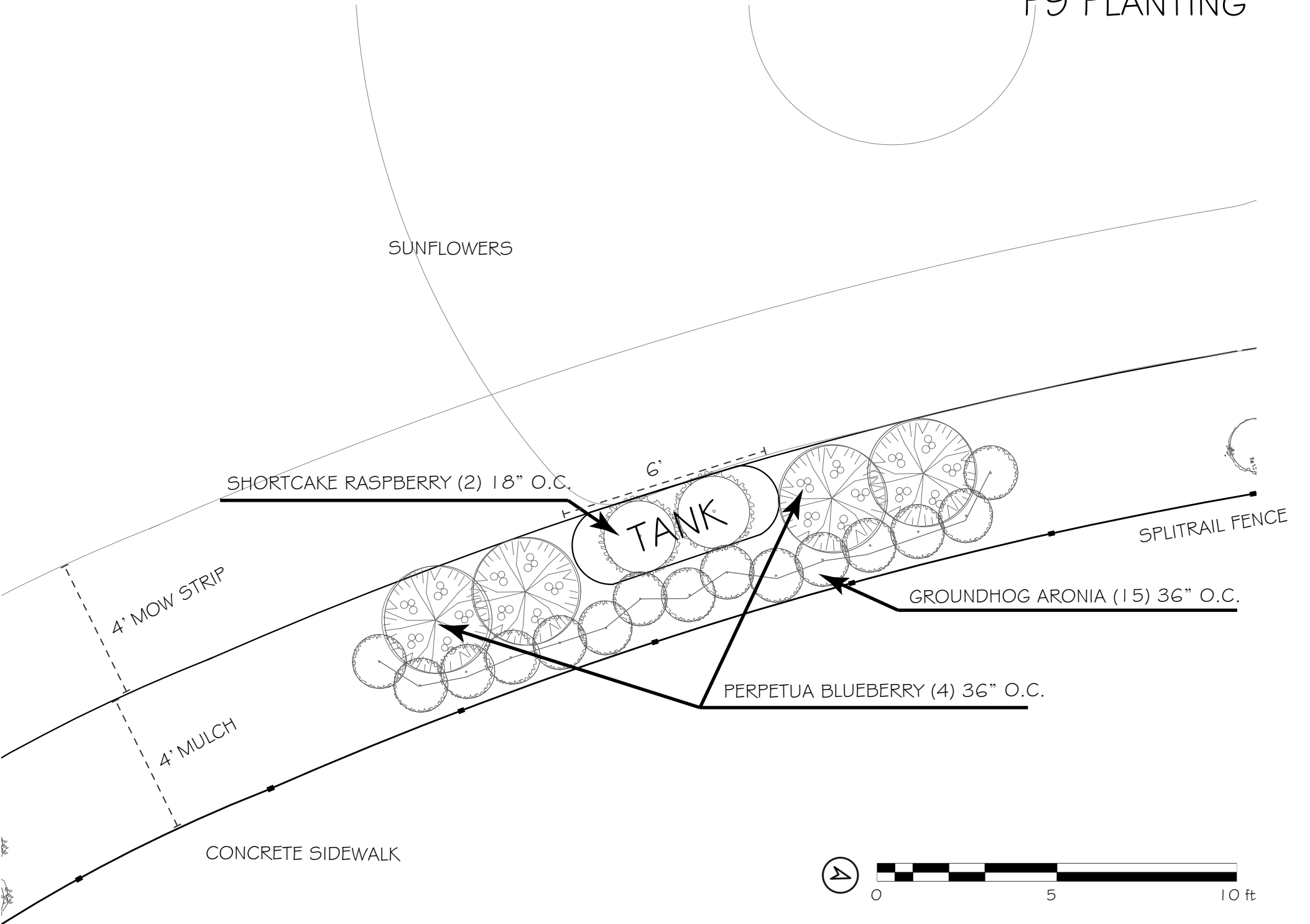
# P7 PLANTING



# P8 PLANTING



# P9 PLANTING



SUNFLOWERS

SHORTCAKE RASPBERRY (2) 18" O.C.

TANK

GROUNDHOG ARONIA (15) 36" O.C.

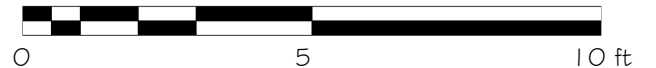
PERPETUA BLUEBERRY (4) 36" O.C.

SPLITRAIL FENCE

4' MOW STRIP

4' MULCH

CONCRETE SIDEWALK



P I O PLANTING

PRAIRIE DROPSEED (3) 18" O.C.

PURPLE CONEFLOWER (4) 18" O.C.

'BLUE HEAVEN' LITTLE BLUESTEM (8) 18" O.C.

BLUE STAR JAPANESE ASTER (6) 18" O.C.

TANK

MOONSHINE YARROW (8) 18" O.C.

CLOVER

PARKING

PURPLE CONEFLOWER (4) 18" O.C.

4' MOW STRIP

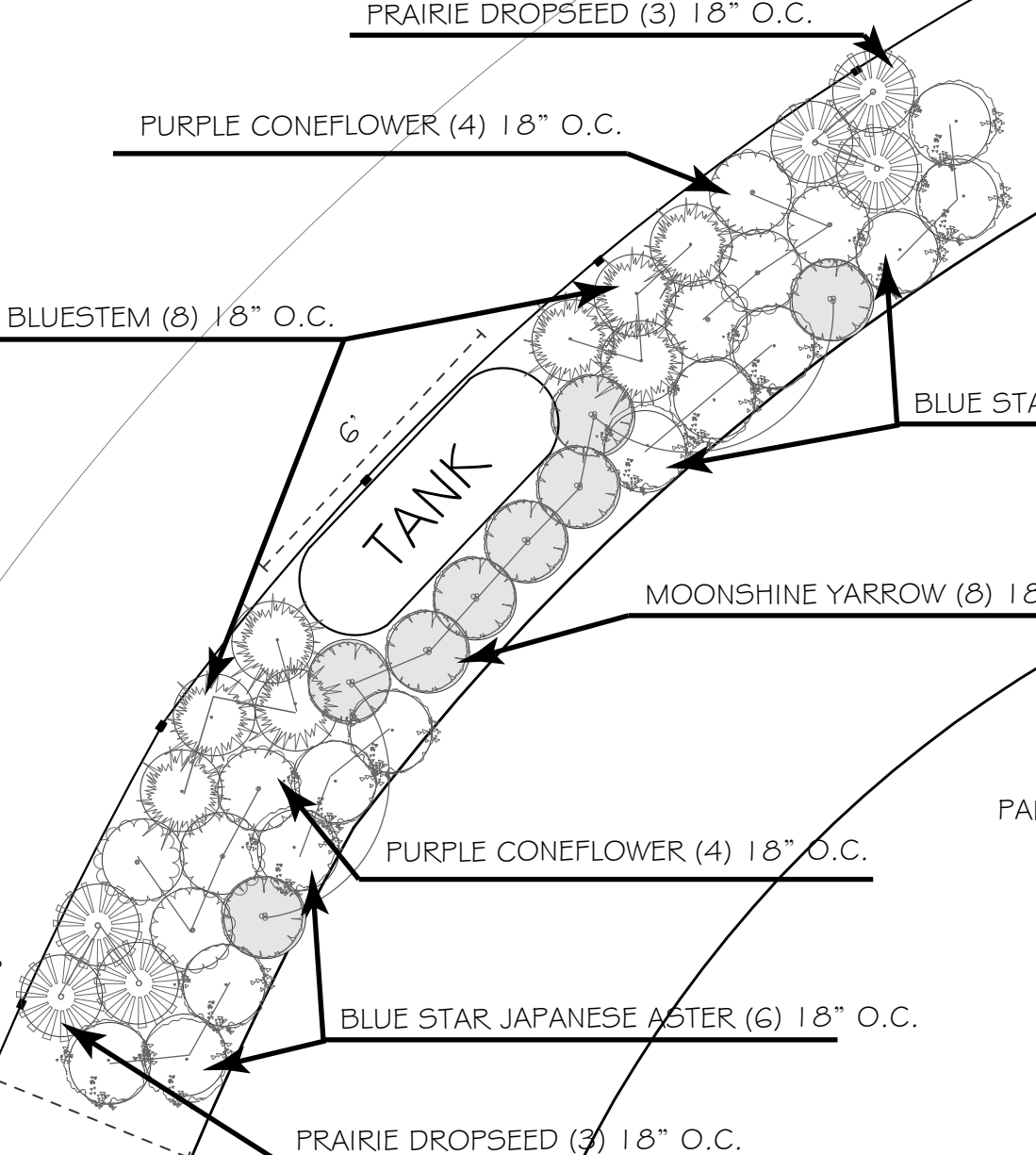
BLUE STAR JAPANESE ASTER (6) 18" O.C.

4' MULCH

PRAIRIE DROPSEED (3) 18" O.C.

SPLITRAIL FENCE

SIDEWALK



# PII PLANTING

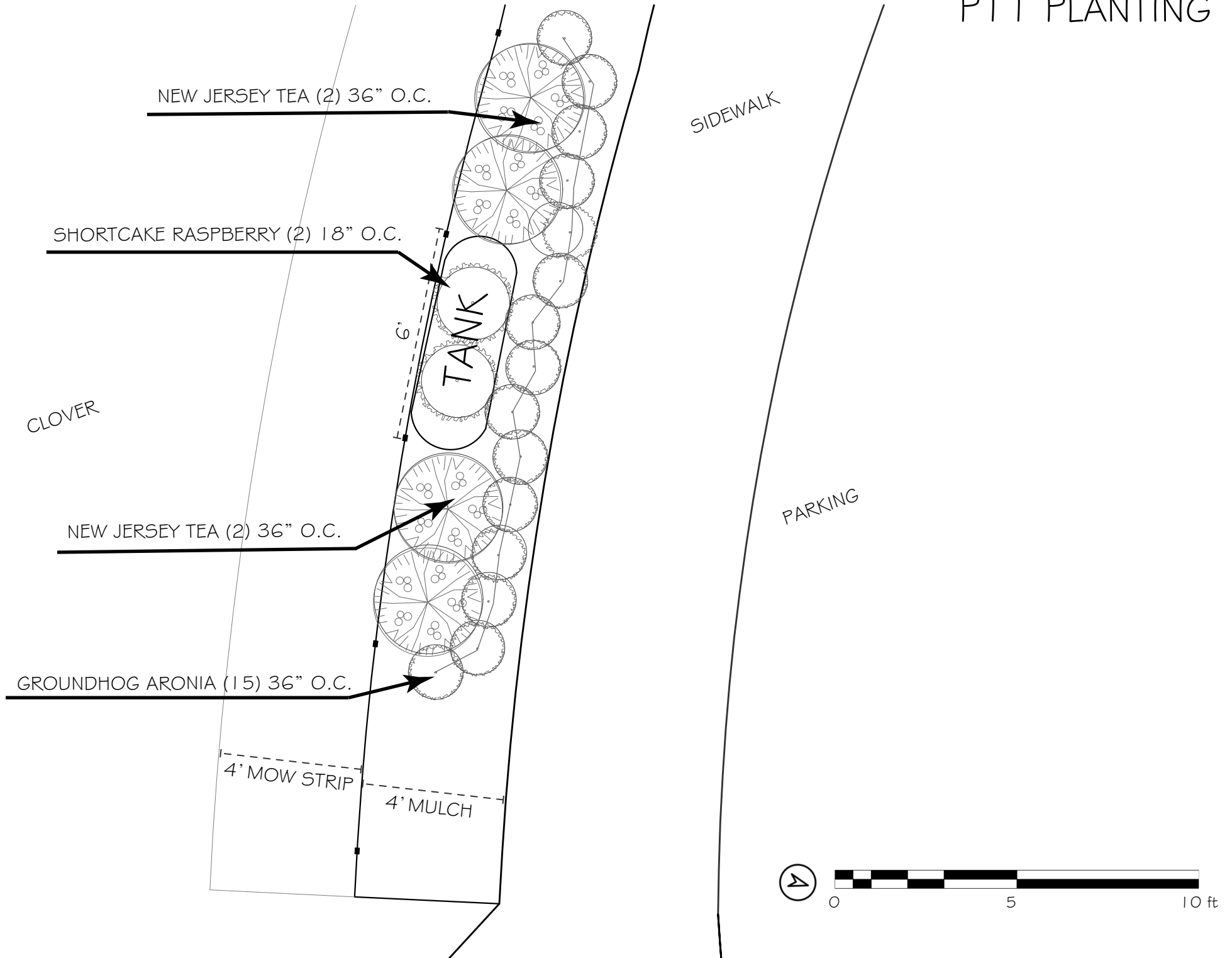











Photo	Type	Botanical Name	Common Name	Quantity	Size & Condition	Remarks	Size (w x h)	Nursery Source
	Flowering Shrub	<i>Aronia melanocarpa</i> 'Ground Hog'	Ground Hog Chokeberry	90	#2	18" o.c.	8-12" x 24-36"	Midwest Groundcovers, Christensen's (alternate)
	Flowering Shrub	<i>Vaccinium</i> 'ORUS-61-1'	Bushel and Berry Perpetua Blueberry	12	#1	36" o.c.	3-4' x 3-4'	blue heavenblue
	Flowering Shrub	<i>Ceanothus americanus</i>	New Jersey Tea	12	#5	36" o.c.	3-4' x 3-4'	Midwest Groundcovers
	Ornamental Grass	<i>Sporobolus heterolepis</i>	Prairie Dropseed	32	flat of #1 pots (8 / flat)	18" o.c.	2-3' x 2-3'	Hortech, Christensen's
	Ornamental Grass	<i>Schizachyrium scoparium</i> 'Blue Heaven'	Blue Heaven' Little Bluestem	40	flat of #1 pots (8 / flat)	18" o.c.	3' x 3'	Midwest Groundcovers
	Low Maintenance Perennial	<i>Kalimeris incisa</i> 'Blue Star'	Blue Star Japanese Aster	60	flat of #1 pots (8 / flat)	18" o.c.	12-18" x 12-18"	Hortech
	Low Maintenance Perennial	<i>Echinacea purpurea</i> 'Magnus'	Purple Coneflower	40	flat of #1 pots (8 / flat)	18" o.c. (12-16" recommended by Hortech)	2.5-3' x 1-1.5'	Hortech, Christensen's
	Low Maintenance Perennial	<i>Achillea millefolium</i> 'Moonshine'	Moonshine Yarrow	40	#1	18" o.c.	18-24" x 12-18"	Midwest Groundcovers, Hortech, Christensen's
	Container Planting	<i>Rubus idaeus</i>	Bushel and Berry Raspberry Shortcake Raspberry	12	#1	18" o.c.	2-3' x 2-3'	Midwest Groundcovers

# The Farm

Saint Joseph Mercy Health System

□ MENU



## A BRIEF HISTORY OF HOSPITAL GARDENS

July 9, 2020

*Hey, it's Kat again. In today's guest post, I'll be talking about the history of hospital gardens as we know them today.*

Tracing the history of hospital gardens shows us that there is a common thread of belief in the importance of fresh air, sunshine, access to nature and working the land as positive contributions to the healing process.

Healing gardens have long since served as places for recovery; for the restoration of the mind, soul and body. Monastery settings in the Middle Ages were the first instances where a garden was specifically incorporated as a part of the healing environment.

These spaces served as places for contemplation as well as vegetables, fruits and herbs.

 English

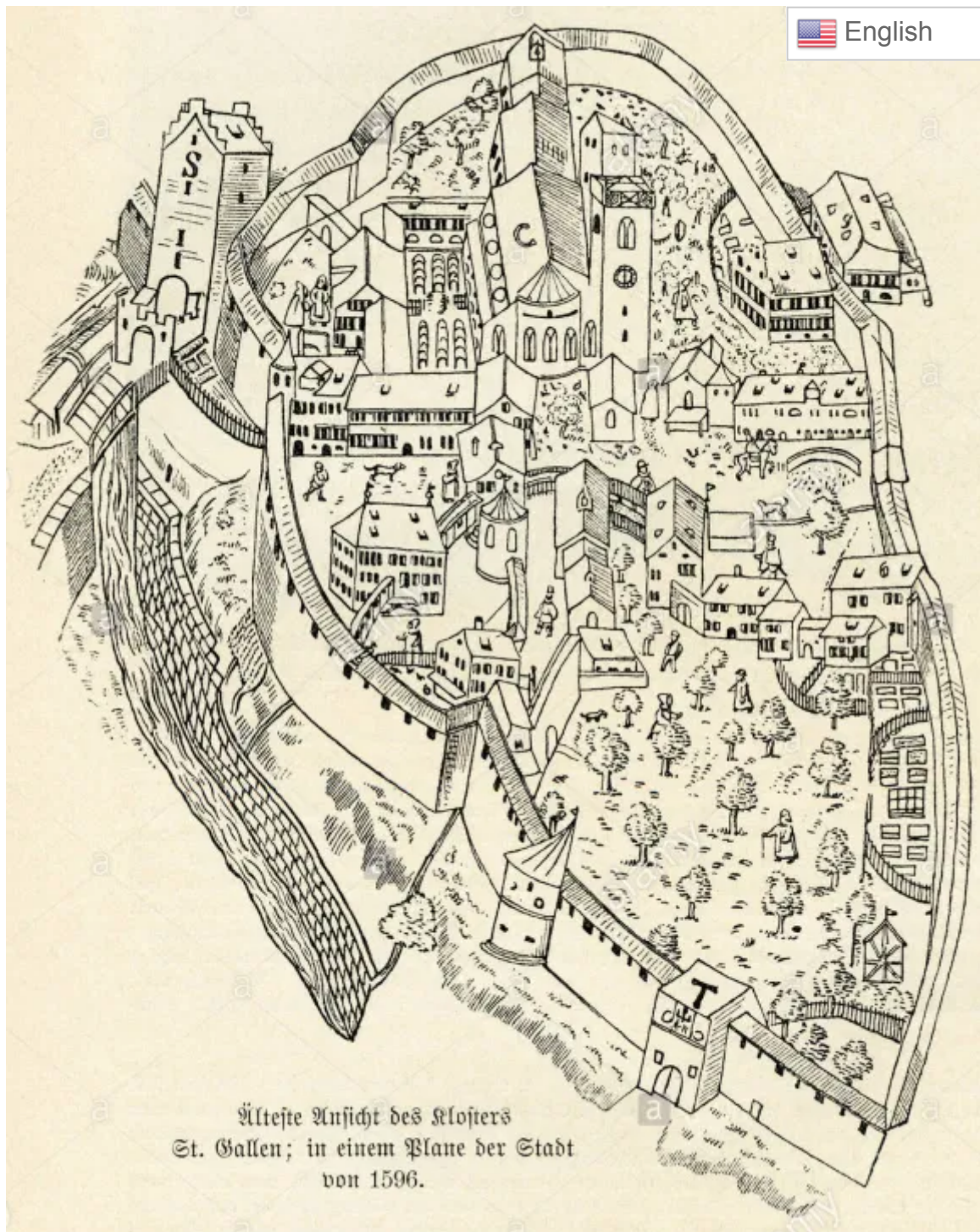


The Cloisters in New York City showcase a traditional monastic courtyard garden.  
Image: Kat Shiffler

A document believed to have been written by a monk in the early part of the ninth century describes a plan of an ideal garden for the Benedictine Monastery of Saint Gall in Switzerland, laying out many of the same formal features that show up in healing gardens today: intersecting paths for contemplative walking, a well or fountain, an herb garden, a green “court” or lawn.

In addition, outside the monastery’s walls there were also several acres of crops to supply necessary food for clergy, workers, visitors and the poor.






The Monastery of St. Gall was an early healing landscape. Image: Alamy.com

The Church itself was instrumental in the establishment of hospitals during the Middle Ages that have influenced the delivery of healthcare through the centuries.

Later, the religious connection between spiritual healing and the garden began to fade and give way to a much more human-centered built environment. As hospitals developed, the formal cloistered garden features were often replaced by an open area for patients to walk and take in the sunshine and fresh air.

Some progressive hospitals that primarily cared for people  English placed a greater emphasis on the active work of tending to gardens and fields. A prominent example is that of the Hospital at Zaragossa in fifteenth-century Spain. At this hospital, a routine of normal daily activities, including gardening, was encouraged for patients who were able—rather than confining them as was the custom at the time.

German horticultural theorist Christian Cay Lorenz wrote some of the first recommendations for hospital garden design at the end of the eighteenth century:

*“The garden should be directly connected to the hospital... A view from the window into blooming and happy scenes will invigorate the patient... [and] encourages patients to take a walk... The plantings should wind along dry paths, which offer benches... The spaces between could have beautiful lawns and colorful flower beds... Noisy brooks could run through flowery fields... A hospital garden should have everything to enjoy nature and to promote a healthy life.”*



Classic open-air hospital design at Hospital del Salvador in Santiago, Chile.  
Image: Wikipedia

Florence Nightingale, the founder of the modern nursing profession, emphasized the importance of fresh air and natural sunlight on the well-being and healing of patients in her landmark, *Notes on Nursing* published in 1859. She described the value of plants and outdoor spaces in the healing process,



English

*“People say the effect is only on the mind. It is no such thing. The effect is on the body too.”*

#### FLORENCE NIGHTINGALE, NOTES ON NURSING

Throughout Victorian and Edwardian periods, green spaces in hospitals were seen as places for healing. But in the decades that followed, priorities in hospital construction changed; the industrial revolution and two World Wars took place. Park areas were replaced by parking lots.

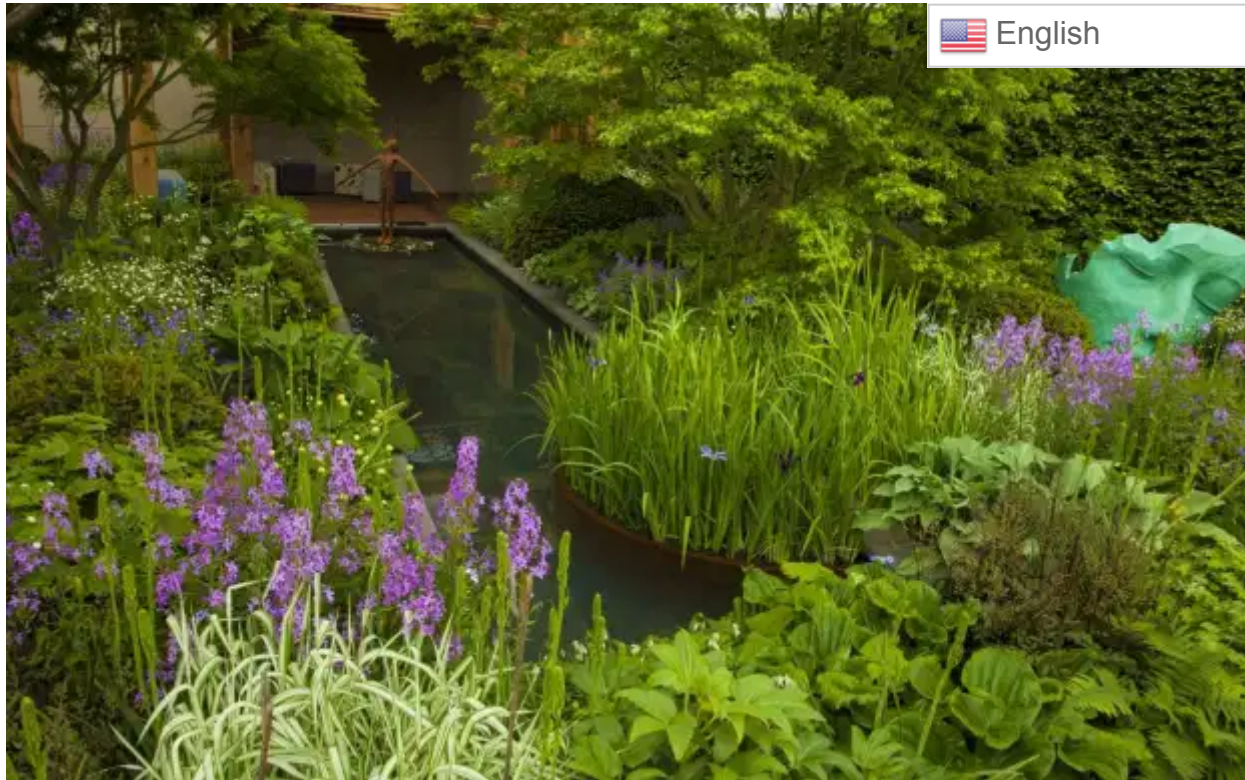
But in 1984 a study by American psychologist Roger Ulrich provoked a renaissance in the hospital garden movement. Ulrich showed that patients with views of the outdoors from their hospital bed recovered faster after surgery, and spent less time in the hospital than those who did not have an outdoor view. Ulrich has gone on to publish widely on the health benefits of nature:

*“Just looking at an image of nature could be healing”.*

#### ROGER ULRICH, ‘FOREST BATHING’: HOW MICRODOSING ON NATURE CAN HELP WITH STRESS

Today there are many beautiful contemporary examples of outdoor hospital environments that promote healing through a connection to plants. These spaces are once again being seen as critical for health and well-being. Working farms at hospitals, however, continue to be somewhat rare—a growing part of the overall movement to create spaces that heal.

 English



A contemporary courtyard garden at Great Ormond Street Hospital, London designed by Chris Beardshaw. Image: The Telegraph

Hospital gardens provide a natural and calming view, stimulate the senses of therapy patients, provide restoration and relaxation for visitors and staff—and have the potential to grow healthy food for surrounding communities.

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[← Gardens as Antidote to Nurse Burnout](#)

[Why eat seasonally? →](#)

# The Farm

Saint Joseph Mercy Health System

≡ MENU

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## GARDENS AS ANTIDOTE TO NURSE BURNOUT

May 28, 2020



Healthcare practitioners take a break outside. / Photo: Legacy Health

*Hey, it's Kat again. In today's guest post, I'll be talking about the timely topic of nurse burnout and research into hospital-based gardens.*

Burnout among nurses was on the rise even before COVID-19. **In a 2017 survey**, 63% of registered nurses employed in hospitals self-reported workplace burnout.

Characterized by symptoms of emotional exhaustion, depersonalization, and loss of personal efficacy, *burnout* has far-reaching negative consequences for individual wellbeing, quality of patient care and costs to the healthcare system. One study estimated that nurse burnout adds up to **\$14 billion annual**

In 2019, the World Health Organization included burnout in the 11th **Revision of the International Classification of Diseases** as “an occupational phenomenon” rather than a medical condition, saying burnout “is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed.”

*Research indicates that hospital gardens  
we can lessen the fatigue and stress that lead to  
burnout.*



For a study in 2018, a team of researchers that included legendary healthcare designer **Roger Ulrich**, looked at indoor and outdoor break environments and their effect on nurse burnout.



Time outdoors can help reduce symptoms of burnout. Photo: Legacy Health

Nurses at **Legacy Emanuel Medical Center** in Portland, Oregon were randomly assigned to 6 weeks of a daily work break in the garden and 6 weeks of indoor-only breaks. Researchers had the nurse-participants complete the Maslach Burnout Inventory-Human Services Survey (MBI), a tool used to measure burnout in healthcare workers, at the start and end of each 6-week period.

The nurses also recorded the immediate psychological impact of a break in both environments using another tool that asked them to rate feelings of anxiety,

sadness, anger, worry, fatigue and pain on a defined scale.  English

What they found was that for the nurses who took their 20-minute break outside, the garden provided greater reduction in burnout.

*They concluded that taking daily work breaks in a garden may be beneficial in mitigating burnout among nurses working in high-stress hospital environments.*

The research setting was featured the **Portland news** recently, highlighting the positive response to the garden in light of COVID-19. One nurse said of the Legacy Health garden,

*“It takes you to such a different place that it’s so refreshing to your spirit and your soul and your psyche.”*





## Gardens provide respite for practitioners, patients and the Legacy Health



Another nurse said of the garden,

“It is transformational for me. It really is. Just to even get five minutes in the garden, you shift your paradigm. You’re no longer thinking about the hospital. You’re looking at the plants, you’re smelling the herbs that are growing here, you’re seeing the sunshine.”

Providing spaces for respite is more important than ever—in hospital environments and public spaces alike. What’s good for the mental health and wellbeing of nurses is good for us all.

In the next blog post, I’ll be exploring best practices for designing restorative spaces, according to prominent thinkers in environmental psychology.

*Guest post by Kat Shiffler, collaborator with The Farm at St. Joe’s and graduate student in Landscape Architecture at the University of Michigan.*

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[← Update on Plans for a New Farm at St. Joseph Mercy](#)

[A Brief History of Hospital Gardens →](#)

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□ MENU

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## UPDATE ON PLANS FOR A NEW FARM AT ST. JOSEPH MERCY

*May 12, 2020*

*by Kat Shiffler, graduate student in landscape architecture at the University of Michigan.*

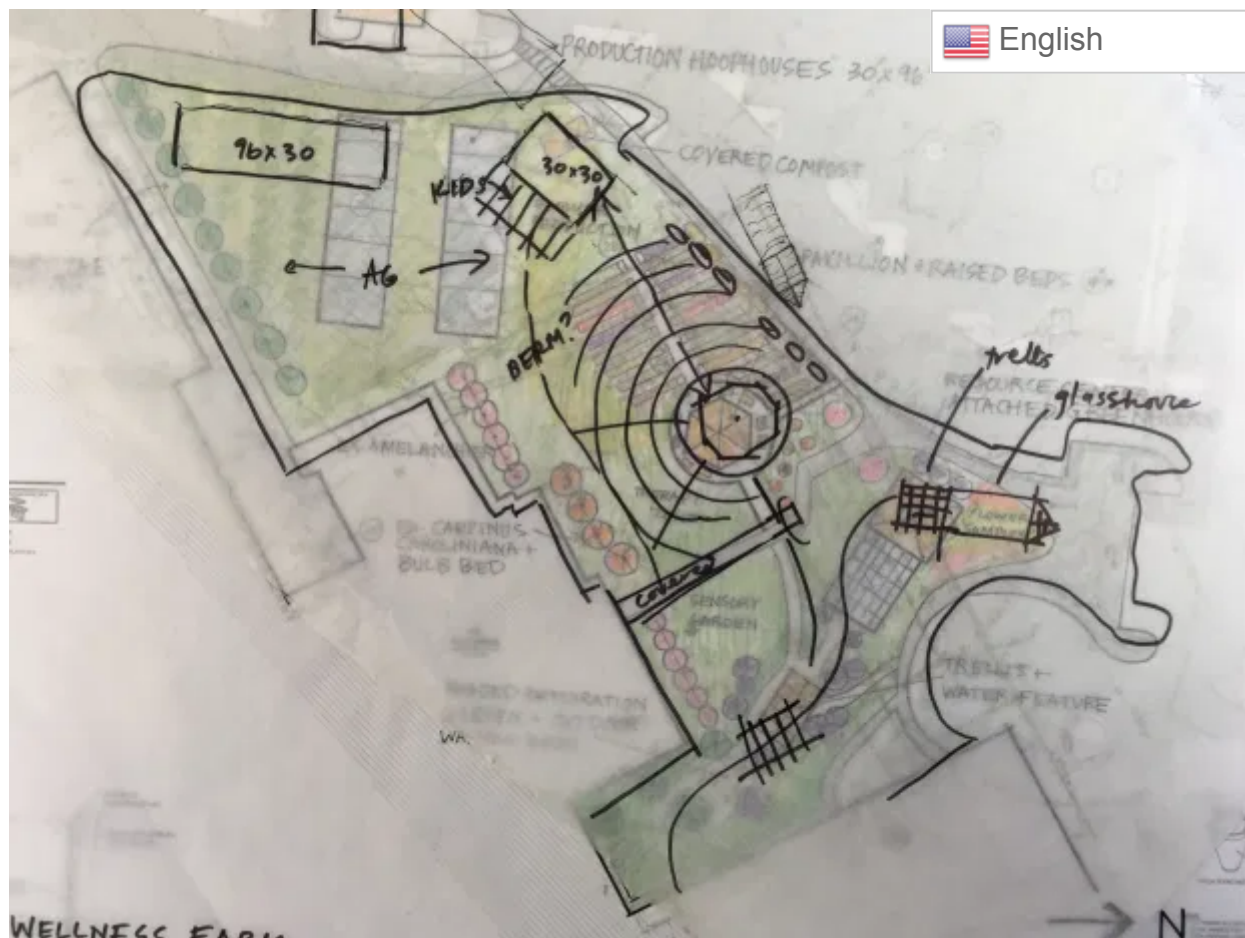
The word is out. The Farm at St. Joseph Mercy is a national model of the “green care” movement, pioneering a new approach to health care by connecting the hospital system with fresh, local food (read this great article about “[How the Farm at St Joe’s Transforms its Health System](#)”). But did you know that The Farm at St. Joe’s is working on replicating the model at the nearby St. Joseph Mercy Oakland in Pontiac?



Amanda looking over a proposed site plan at St. Joseph Mercy Oakland in Pontiac, MI

In January, I began working with The Farm's Amanda Sweetman to envision and design the 1.3 acre site at St. Joseph Mercy Oakland. When I jumped on board, she had completed soil tests, installed drainage, imported tons of topsoil and planted covercrops, bushes and flower bulbs.

To get into design mode, Amanda and I started with an analysis of the Pontiac location, looking into site conditions like sun and shade, topography, access and walking routes. We spoke with farm staff to compile the strengths and weaknesses of layout of the Ann Arbor site, compiling ideas for best practices for the new Pontiac farm design. And I looked into examples of outdoor healthcare environments and worked to summarize relevant research in environmental psychology and evidence-based design.



Process diagrams on top of early iteration of the Pontiac site plan

As a result, I created several proposals for the space that would combine a working farm, community gardens and specific areas for reflection and therapy. I did research on materials and starting getting into specifics regarding pathways, seating areas, accessible garden beds and gathering spaces. With an eye on ecological design, I began locating and defining appropriate varieties of trees, shrubs, herbaceous perennials and annuals.



Image: Medical University of South Carolina; an existing example of hospital farm/garden

As we began to set in motion the construction we'd hoped would happen this Spring, COVID-19 changed the world. And we are now beginning to reassess the original plan in light of overall changes to healthcare environments.

Access to plants and nature seem to be a universal pressure release valve—important for the mental wellbeing of healthcare workers as well as the general public. In this new context, we are also certain that the demand for fresh, local vegetables will persist and even expand. But what will community gardening look like months from now? Will hospital seating areas be necessarily different? How will the public interact with healthcare settings in the future?

As we investigate these questions, we want to share our thoughts and our process; the process of designing a farm serving a post-COVID healthcare community—and what exactly that means.

For the next couple weeks, I will be sharing some of that research right here on the blog.

I hope you enjoy! Be Well.