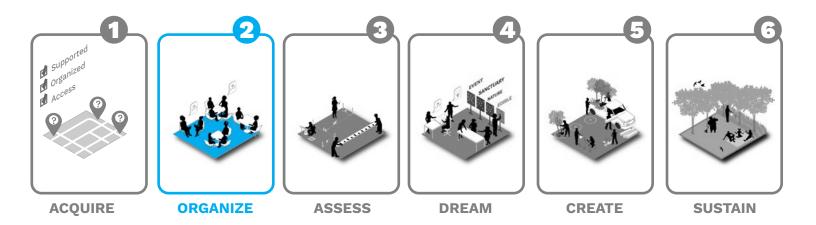
# **PARK in a TRUCK**

# CREATE WORKBOOK



# A do-it-yourself toolkit for neighborhood parks

The Landscape Architecture Program + The Lab for Social and Urban Innovation Thomas Jefferson University Philadelphia, PA















Kimberlee.Douglas@jefferson.edu

ParkinaTruck@jefferson.edu

This toolkit is a working toolkit, a formalized process of how a few communities have bettered themselves through designing, building and maintaining their own park. As a working toolkit, it is a work in progress. It is not perfect, but it is a great start towards a complex issue distilled into a few chapters. This is the first of several versions that will be published. Behind the scenes many parks are being build, communities bettering themselves, and people reviewing this process. Each park built, each community meeting, and every trip to home depot - something is learned. All this knowledge gained contributes to this book continuously as a feedback loop. Also crucial to the next version is getting feedback from professionals, organizations, and most importantly, community members like you! Please share your thoughts, questions, or ideas with us!

Welcome to the Create Workbook! This book assumes you have reviewed the Park in a Truck Toolkit, and have completed workhooks 1-4



#### **CREATE CONTENTS**

**OVERVIEW** STARTING OFF

PHASE BREAKDOWN

PHASE 1: PREPARING YOUR LOT

PHASE 2: LOCATE EDGES PHASE 3: INSTALL SUBBASE PHASE 4: INSTALL GRAVEL

PHASE 5: INSTALL PARK ELEMENTS

PHASE 6: PLACING TOPSOIL

PHASE 7: PLANTING

**SUMMARY** 

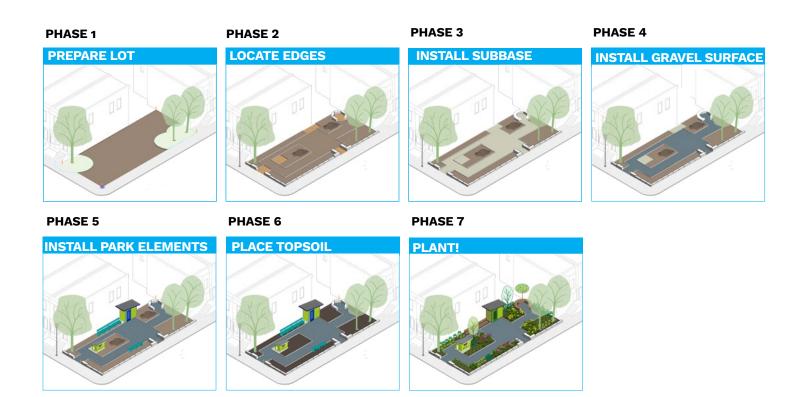
This workbook details how to plan, prepare and install the elements for your park through a phased approach. Although the phases are loosely based, this is a step by step guide to ensure successful planning and park installation. All your efforts to this point will pay off once you see your park, but there is still a lot of work to do. So get ready for the final push in getting your park CREATED!

# OVERVIEW

The Create chapter is all about building your park. We broke the process down into seven phases. Each phase can be completed in roughly a weekend. It may take longer than seven weekends depending on how long it takes to purchase and get items delivered, how many volunteers you have, as well as other unforeseen circumstances.

Review the details for each of the seven phases and make adjustments to the schedule as necessary for your particular park requirements. However, most park projects should follow each of the phases in order.

This book assumes you have done the cost estimate tool and know the quantities and materials you will need to order for each step. If you haven't, please go back to the dream workbook to use the cost estimator.



Make sure you have volunteer release forms available at the site when you're working on the park. The purpose of this form is to release you from liability for any injuries to your volunteers. It is your responsibility to consult with your organization's legal advisors and insurance carrier before starting the park building process. They may want you to take additional steps to protect the organization from liability. Finally, be sure to give your volunteers clear instructions about expectations and tasks for the work day. They are more likely to return in future weeks when they feel their time is put to good use. Volunteer release form can be found here:

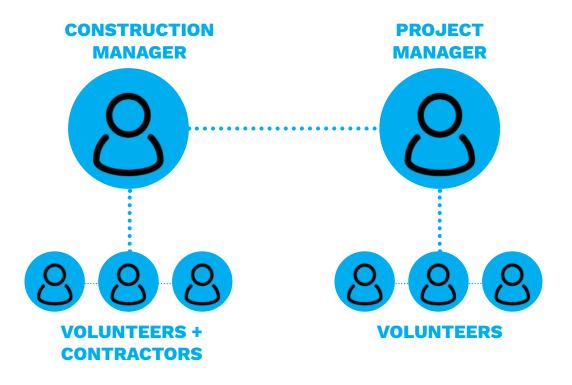




# **STARTING OFF:**

The first and most important step to the CREATE process is to identify project leaders and managers. The numbers of people assigned to these roles will depend on the complexity and size of your project. Below is a chart of the two key roles to ensuring your park gets built. The construction manager orders materials, is there for the delivery, gives instructions to volunteers on build days, and coordinates with the project manager on schedule. The Project Manager is in charge of getting volunteers, social media, ordering food, handing out waivers, coordinates finances and is in control of the schedule.

# **SAMPLE ORGANIZATIONAL CHART**



Note: For reference only

A great second step is to create a plan. Utilizing a project calendar is an excellent way to keep track of schedules, important dates, when people and volunteers will be working, as well as lead times for materials. Below is a sample project calendar, but you will need to customize this to your individual park project. Planning is as important as the building process itself. So start off on the right foot and make sure you are planning for the upcoming events. Click on the calendar below to get a link to a sample calendar.

# SAMPLE PROJECT CALENDAR

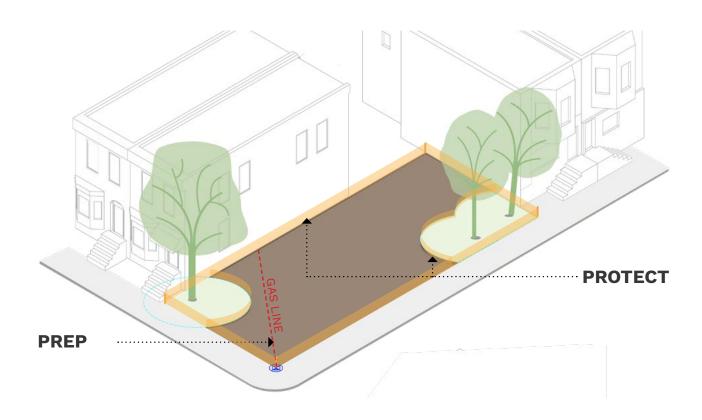


Note: For reference only. Click on the calendar or link below to get a PiaT Calendar Template





# **PHASE 1: PREPARE LOT**



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# EQUIPMENT + TOOLS:

- □ Shovels
- Wheelbarrows
- ☐ Pick axe
- □ Landscape rakes
- ☐ Sledgehammer
- ☐ Hand pruners + Loppers

- □ Spray Paint
- □ Construction Fencing
- Wood Posts
- ☐ Broom
- ☐ Chainsaw

# STEPS:



#### STEP 1: PREP

- Contact Pennsylvania One-Call at 811 to mark utility locations
- If large amounts of clearing are required, contact a contractor to clear and level the site. Skip to step 3 if a contractor is not needed
- Bring small tools and equipment to site
- Remove small vegetation and debris to proper dumping location



#### STEP 2: PROTECT

- Set up protective construction fencing with wood posts at tree trunks, buildings, and other existing items that need protection
- Install silt/erosion control fencing around site and at all drain inlets



#### STEP 3: SITE LEVELING

- Begin grade raking and leveling the site
- Make sure any Pennsylvania One-Call markings are still intact and visible



#### STEP 4: REMOVAL

- Limb up existing trees to desired height and save waste
- Haul debris and vegetation off site to proper dumping location

## **REFERENCE PHOTOS:**







Utility marking



Material removal



Sediment mesh



Grade raking

## PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



#### **PURCHASES:**

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



#### SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

## **USEFUL LINKS:**

#### TOOL RENTAL:

There are many Rental Tool Franchises in Philadelphia including Lowe's, this list includes local only.

West Philadelphia Tool Library 1314 South 47th Street Philadelphia, PA 19143

westphillytools.org

Hand Tools Only. Philadelphia Orchard Project works with them and they also have classes in many skills

OK Rental

okrental1.com

640 Main Street, Darby, Pa 19023 Power tools....including chainsaws!

Diamond Tool\*

diamondtool.net/Rentals

2800 Grays Ferry Ave. Philadelphia, PA 19146 | 1-888-TRY-DIAMOND

\*May consider hiring a contractor to perform task requiring power tools for efficiency and safety

Custim Designs

custimdesign.com

Portable sawmill for projects with large trees to reuse

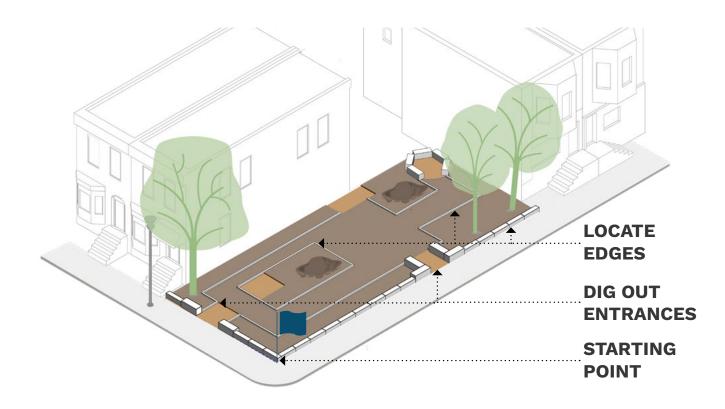
#### WASTE AND RECYCLING CENTERS:

Fairmount Park Organic Recycling Center 3850 W Ford Rd, Philadelphia, PA 19131 | 215-685-0108

phila.gov/services/trees-parks-the-environment



# **PHASE 2: LOCATE EDGES**





# **EQUIPMENT + TOOLS:**

- Measuring tape
- ☐ Shovels
- ☐ Wheelbarrows
- □ Pick axe
- Landscape rakes
- □ Sledgehammer
- □ Rubber Mallet
- □ Line Level
- □ Spray Paint
- **☐ Wood Posts**
- **□** Wood saw
- □ Broom



#### MATERIALS:

- □ Stakes
- □ Leveling stone
- ☐ Gabion baskets
- ☐ Gabion stone

# STEPS:



#### STEP 1: MEASURE

- Begin at your starting point you marked out in the Assess Workbook
- Refer to your plan for locations and lengths of edges of planting beds
- Spray paint or stake the edge lines and borders



#### STEP 2: MATERIALS

- Bring small tools and equipment to site
- Bring assorted edge materials (see materials list on previous page, **cost estimate + Assembly instructions)**



#### STEP 3: ASSEMBLE

- Assemble gabion cages
- Set up string lines to make sure gabion cages are in a straight line along the edge of the park
- Add Edges where needed (See Wood Edging Assembly Instructions)
- (Refer to your Gabion Assembly instructions)



#### STEP 4: INSTALL

- Prepare ground surfaces for gabion walls per assembly instructions
- Install gabion walls
- Backfill the gabions and other project areas and rake to a level
- Dig out entrances to allow for change in level from new park to sidewalk

# **REFERENCE PHOTOS:**







Digging



Base prepping



Gabion wall install

# PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



#### **PURCHASES:**

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



#### SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

# **USEFUL LINKS + RESOURCES:**

HOW-TO

Layout planting beds lowes.com/n/how-to/create-an-english-style-garden

WATCH FROM 1:50-2:40

How to build a gabion wall youtube.com/watch?v=QFjEWnA3Mtc

# **ASSEMBLY INSTRUCTIONS**



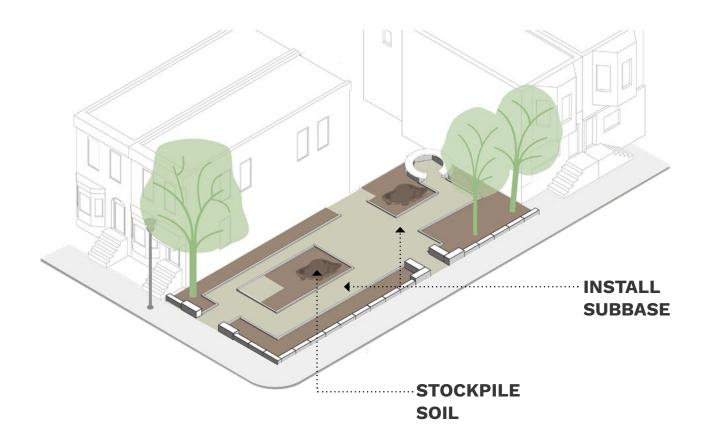
WOOD EDGE



**GABION WALL** 



# **PHASE 3: INSTALL SUBBASE**





# **EQUIPMENT + TOOLS:**

- ☐ Measuring tape
- ☐ Shovels
- Wheelbarrows
- ☐ Skid steer loader (optional)
- □ Landscape rakes
- ☐ Gravel leveler
- ☐ Line Level
- ☐ Wood Posts
- □ Hand tamper
- ☐ Vibratory plate compactor

#### MATERIALS:

- ☐ Geotextile fabric
- ☐ Landscape Fabric Staples
- □ Recycled concrete aggregate

# STEPS:



#### STEP 1: MATERIALS

- Prepare for deliveries of materials
- Locate stockpile area for gravel



#### STEP 2: STOCKPILE

- Stockpile the soil approximately in the beds where they will be used
- Cover the stockpiled soil with a tarp if possible



#### STEP 3: INSTALLATION 1

- Install geotextile fabric everywhere that isn't a planting bed
- Ensure a minimum 12" of overlap between strips of geotextile
- Wrap geotextile up min 3.5" at vertical surfaces at edges.
- Staple in place



#### STEP 4: INSTALLATION 2

- On top of geotextiles, Install gravel at a minimum of 2 inches in depth.
- Use a vibratory plate to compact the aggregate
- Inspect the gravel for any settlement and add more gravel as needed. **Evenly distribute any extra gravel**



#### STEP 5: ENTRANCES + CLEANUP

- Fill in entrances with gravel or pavers to ensure flush entryway from park to sidewalk
- Clean up areas with overspill of gravel
- Clean up public areas

# **REFERENCE PHOTOS:**







Geotextile Fabric



Wheelbarrow gravel



Spreading gravel

# PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



#### **PURCHASES:**

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



#### SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

## **USEFUL LINKS + RESOURCES:**

#### **MATERIALS**

Castor Materials castormaterials.com Crushed stone supplier who also has topsoil for available for delivery 3301 S. 61st Street, Philadelphia, PA 19153

D&S Supply ds-supply.com/landscape-supply Crushed stone, mulch and landscape tools 4260 Macalester St., Philadelphia, PA 19124 | (215) 457-1177

Richard S. Burns & Co. burnscompany.net/recycled-products Dump who have recycled material products for sale 4300 Rising Sun Avenue Philadelphia, PA 19140 | 215.324.6377

Galantino Supply Company galantino.com
Great customer service with vast stock and delivery of Rental equipment and bulk materials 725 Old Marple Rd Springfield, PA 19064 | (610) 544-2586 | vincegalantino@gmail.com

#### HOW-TO

Install gravel subbase youtube.com/watch?v=tfDEOIAIUwQ

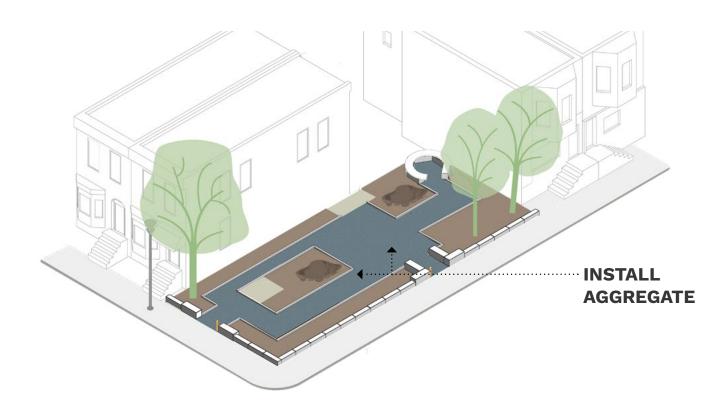
How to put down geotextile youtube.com/watch?v=NKbErzeeKaw

# **ASSEMBLY INSTRUCTIONS**





# **PHASE 4: INSTALL AGGREGATE**





**EQUIPMENT + TOOLS:** 



MATERIALS:

- ☐ Measuring tape
- ☐ Shovels
- Wheelbarrows
- ☐ Skid steer loader (optional)
- □ Landscape rakes
- □ Hand tamper
- □ Vibratory plate
- ☐ Line Level
- ☐ Wood Posts

☐ Top coat aggregate

# STEPS:



#### STEP 1: MATERIALS

- Prepare for deliveries of materials
- Locate stockpile area for gravel



#### STEP 2: INSTALLATION

- Install gravel surface using a wheel barrow and a landscape rake
- Install gravel approximately 2 inches in depth, , spread any excess gravel evenly
- Tamp down the aggregate material to reduce settling using a vibratory plate
- Move through all the areas to make sure the areas are level and even

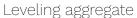


#### STEP 3: CLEAN UP

- Clean up areas with overspill of gravel
- Clean up public areas

# **REFERENCE PHOTOS:**







Hand tamper



Vibratory plate



Spray site

# PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



#### **PURCHASES:**

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



#### SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

# **USEFUL LINKS + RESOURCES:**

#### **MATERIALS**

Castor Materials castormaterials.com

Crushed stone supplier who also has topsoil for available for delivery 3301 S. 61st Street, Philadelphia, PA 19153

D&S Supply ds-supply.com/landscape-supply

Crushed stone, mulch and landscape tools 4260 Macalester St., Philadelphia, PA 19124 | (215) 457-1177

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Dump who have recycled material products for sale 4300 Rising Sun Avenue Philadelphia, PA 19140 | 215.324.6377

Galantino Supply Company galantino.com

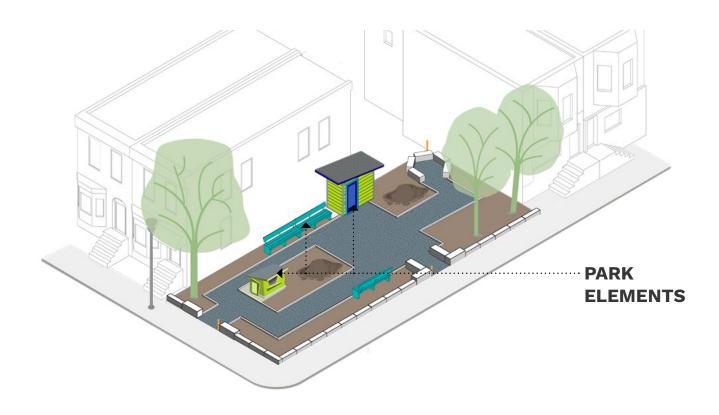
Great customer service with vast stock and delivery of Rental equipment and bulk materials 725 Old Marple Rd Springfield, PA 19064 | (610) 544-2586 | vincegalantino@gmail.com

HOW-TO

How to install gravel youtube.com/watch?v=t0LWQ\_U2z\_g



# **PHASE 5: INSTALL PARK ELEMENTS**





FOR TOOLS AND MATERIALS, SEE ASSEMBLY INSTRUCTIONS ON THE NEXT FEW PAGES



#### STEP 1: MEASURE

• Review your assemblies manual items and measure and mark out where your park elements need to be located



#### STEP 2: MATERIALS

• Make sure you have all the materials outlined in your assemblies manuals



#### STEP 3: ASSEMBLE

Assemble your park elements according to the assemblies manuals



#### STEP 4: INSTALL

- Make sure you have proper room within your park design to install the park elements. Locate these elements in their final locations
- NOTE: You may be able to/choose to assemble your park elements ahead of time or off site

# **ASSEMBLY INSTRUCTIONS**



**GABION WALL** 



RAISED BEDS



BENCH



COMPOST BINS



NATURE PLAY



WORKBENCH/ STANDING TABLE



WOOD TOPPED GABION



STAGE



**COLD FRAMES** 



SHADE CANOPY

# **PREPARATION FOR NEXT STEPS:**



LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



**PURCHASES:** 

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

## **USEFUL LINKS + RESOURCES:**

HOW-TO BUILD A...

NOTE: Use the assemblies provided and use videos as backup

Communal table: youtube.com/watch?v=Px2JZs4Q2v4

Cold frame youtube.com/watch?v=b75RoDmE9qY

Raised garden beds: youtube.com/watch?v=MBIYebUgVVI

Compost bins: youtube.com/watch?v=gA6QNLaBEyc

Potting bench: youtube.com/watch?v=E7HumfxE2f4

Outdoor garden shed: youtube.com/watch?v=DuQ0N8z6OkI

Gabion wall: youtube.com/watch?v=QFjEWnA3Mtc

#### LUMBER/ BUILDING MATERIALS

Woodland Building Supply woodlandbu 4701 Woodland Ave Philadelphia, PA 19143 T: 215.727.5333 woodlandbuildingsupply.com

C & R Building Supply ca 1601 South 49th Street, Philadelphia, Pa 19143 candrbuildingsupply.com

A&A Lumber (Cypress supply) aalumber.com 109 Old Limestone Rd, Avondalé, PA 19311

Philly Reclaim philadelphiacommunitycorps.org

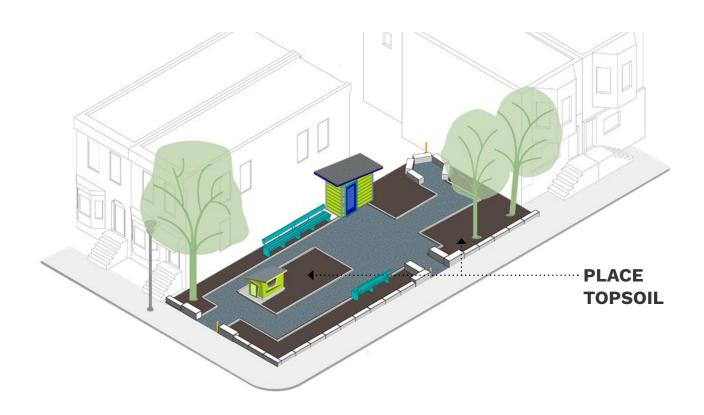
150 W. Butler Street, Philadelphia, PA 19140

Great reclaim supply warehouse with cheap prices. They also have a job training program, Philadelphia Community Corps., who work in deconstruction to supply the warehouse.

PowerCorpsPHL.org



# **PHASE 6: PLACE TOPSOIL**





# EQUIPMENT + TOOLS:

- ☐ Measuring tape
- □ Shovels
- Wheelbarrows
- □ Landscape rakes
- ☐ Line Level
- ☐ Wood Posts



## MATERIALS:

☐ Top Soil

# STEPS:



#### STEP 1: MATERIALS

- Prepare for deliveries of materials
- Locate stockpile area for soil



#### STEP 2: INSTALLATION

- Prepare planting beds to receive topsoil
- Install soil approximately 18-36 inches in depth
- Make sure the topsoil is level and holes are dug where the large trees will be located.



## STEP 3: CLEAN UP

- Clean up areas with overspill of soil
- Clean up public areas

# **REFERENCE PHOTOS:**







Top soil stock pile



Move topsoil



Place topsoil

# PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you are on schedule. Revise schedule as needed.



#### **PURCHASES:**

Purchase and deliver any materials and equipment that may have lead times in preparation for next phases of construction.



#### SITE PREPARATION:

Make sure site is prepared for the next phase of construction.

# **USEFUL LINKS + RESOURCES:**

ORDERING: Topsoil/Mulch/Compost

Underdog Landscape Supply underdogsupply.com 701 Washington Street Conshohocken, PA 19428 | (610) 260-9747

Philadelphia Recycling Center 3850 W Ford Rd. Philadelphia, Pa

phila.gov/departments/philadelphia-parks-recreation

INFO:

Fertilizer extension.psu.edu/promote-plant-health

Mulch goodhousekeeping.com/home/gardening

HOW-TO

How to prep topsoil youtube.com/watch?v=GcOJ4fDJmpM

Healthy topsoil for healthy plants youtube.com/watch?v=7-Tyz7fGeZo



# **PHASE 7: PLANT**





# EQUIPMENT + TOOLS:

- ☐ Measuring tape
- □ Shovels
- Wheelbarrows
- ☐ Pick axe
- □ Landscape rakes
- ☐ Spray Paint



## MATERIALS:

☐ Plants

Be sure to reference your plant list!

# STEPS:



#### STEP 1: PLANTS

- Make sure plant deliveries are scheduled
- Locate plant delivery staging area
- Spray paint or flag plant locations for shrubs and small trees



#### STEP 2: INSTALLATION

- Install large trees first
- Install shrubs
- Install mulch
- Plant perennials
- Water all newly planted plants and trees



#### STEP 3: CLEAN UP

- Clean up areas with overspill of soil
- Clean up public areas

## PREPARATION FOR NEXT STEPS:



#### LOGISTICS:

Check project calendar to make sure you have a schedule for a park ambassador program, which will be explained in 06 SUSTAIN

#### **USEFUL LINKS + RESOURCES:**

#### **ORDERING**

PiaT Partner, and preferred nursery:

LandHealth Institute landhealthinstitute.org/nursery 4862 Parkside Ave, Philadelphia, PA, 19131 | (267) 571-5750

Other regional nurseries:

Good Host Plants goodhostplants.com

Local pollinator plant specialist

150 W. Butler Street, Philadelphia, PA 19140 (267) 270-5036

Pleasant Run Nursery pleasantrunnursery.com/

High quality ornamentals and native cultivars 93 Ellisdale Road, Allentown, NJ 08501 | (609)259-8585 Great customer service. Will Deliver with \$1,250 min. order

Pinelands Nursery pinelandsnursery.com

Local ecoregion/restoration plant nursery 323 Island Road, Columbus, NJ 08022 | (609) 291-9486

Archewilde archewild.com

Local ecoregion/restoration plant nursery 2191 Hillcrest Road Quakertown, PA 18951

#### GENERAL PLANTINFO

Gardens Alive
North Creek Nursery
Missouri Botanical Garden
Longwood Gardens
Arbor day foundation
Vegetable gardening
Invasive Plants

northcreeknurseries.com
missouribotanicalgarden.org
plantexplorer.longwoodgardens.org
arborday.org
extension.psu.edu/programs/master-gardener
dcnr.pa.gov/Conservation/WildPlants/InvasivePlants

gardensalive.com

#### **USEFUL LINKS + RESOURCES:**

#### GARDENING WORKSHOPS AND RESOURCES

The Pennsylvania Horticultural Society phsonline.org

Provides workshops, community garden information, and resources for gardeners

Grounded in Philly groundedinphilly.org/

Provides legal assistance, usable data, and informatīve guides to help obtain lots, insurance, compost, information about starting a garden.

Greensgrow greensgrow.org/about-us

Is an educational urban farm and demonstration garden that provides an essential connection to food and nature in an urban community.

Brandywine Conservancy brandywine.org/conservancy/resources

#### TREE, SHRUB AND PERENNIAL PLANTING

Containerize tree planting arborday.org/trees/planting/containerized.cfm

Tree planting wlvt.org/television/you-bet-your-garden/

youtube.com/watch?v=QYmgrw0PgLU

How to plant a shrub youtube.com/watch?v=Tim4LEo6l10

#### TREE, SHRUB AND PERENNIAL PRUNING

Tree pruning youtube.com/watch?v=pY5A-5gUqwo

Shrub pruning gardenersworld.com/how-to/grow-plants

#### FRUIT TREES AND SHRUB CARE

Arbor Day Foundation arborday.org/trees/fruit/

Provides information about planting and caring for trees

Philadelphia Orchard Project phillyorchards.org/

Helps communities plan and plant orchards. Lots of good info on fruiting plants

#### ONLINE FRUIT TREE PURCHASE

Burpee burpee.com/fruit/fruit-trees/

Stark Brothers starkbros.com/products/fruit-trees

Gurneys gurneys.com/category/fruits-and-berries

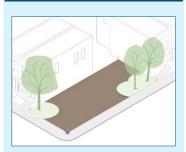
Willis Orchards willisorchards.com/category/fruit-trees



# PRIMARY ACTIVITIES:

#### PHASE 1

#### PREPARE LOT



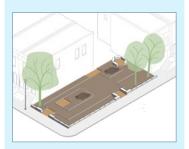
All necessary work to remove undesirable vegetation, debris, and other unwanted materials. This step also includes due diligence to make sure your park site is safe for building activities.

Purchase and deliver all gabion materials

Begin fabrication of all site elements that can be created in advance and installed later.

#### PHASE 2

#### LOCATE EDGES



Measure layout and location of planting bed edges and path edges. This step also includes fabricating gabions or other elements to be located along the park edges.

Order and deliver all geotextile and recycled concrete aggregate

Continue fabrication of all site elements that can be created in advance and installed later.

#### PHASE 3

#### INSTALL SUBBASE



Installation of geotextile fabric in all areas to have aggregate surfacing. Installation of recycled concrete aggregate atop geotextile. Compacting aggregate to uniform surface elevation.

Order and deliver all aggregate surface material.

Purchase plants and arrange for future delivery.

# PREPARATIONS FOR NEXT STEP:

#### PHASE 4

#### INSTALL AGGREGATE SURFACE



Compact recycled aggregate to ensure firm and stable sub-base. Install finish aggregate material in all locations with walking surfaces.

Complete fabrication of all site elements that can be created in advance.

Order and deliver materials for site elements that must be fabricated in place.

#### **PHASE 5**

#### INSTALL PARK ELEMENTS



Installation of all park elements, such as benches, shed, raised planting beds and other add-on elements.

Order and deliver topsoil for planting

Purchase all remaining plants and arrange for future delivery.

#### **PHASE 6**

#### PLACE TOPSOIL



Placement of topsoil in all planting beds and raking to create uniform planting soil depth.

Confirm all plants are purchased and authorize delivery to park. Purchase and deliver mulch.

Confirm all volunteers available for planting day

#### **PHASE 7**



Planting all trees, shrubs, perennials and other plants. Installation of mulch in planting beds.

Water and monitor plants for mortality. Replace as needed.

Organize upcoming park opening celebrate for a future weekend.