

**It's Just Grass, It Will Grow
Back.
The Double Standard in
Landscape**

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Penn State University, University Park









Mission

Vision

- The OPP landscape team is committed to providing a safe, clean, environmentally friendly, aesthetically pleasing, and academically supportive campus environment that contributes to the university's mission of teaching, research, and service.

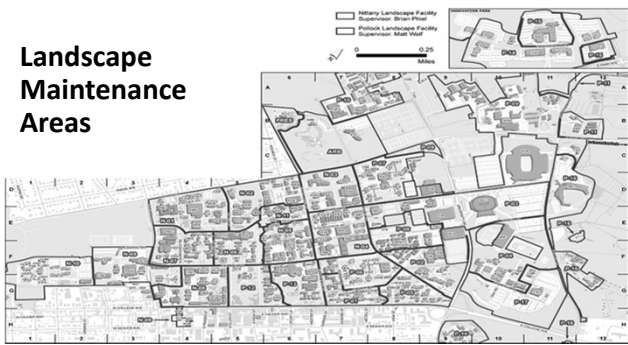
Strategic Goal

- We want the landscape at Penn State University to continue to be the best maintained college campus in the United States, and to be nationally recognized for its policies and procedures. Along the way we want to develop the most highly effective, and best trained grounds maintenance staff.

Grounds Facts

		PLANTING SEEDS	ROADS	SIDEWALKS	TURF	Trees	CONTAINERS	BENCHES	TABLES	TRASH CANS
Maintained Campus Size (Acre)	1,030 Acres	72 Acres	52 Miles	84 Miles	380	17,500	311	737	282	450
Budget	12+ million									
Full Time Employees	78									
Seasonal Help	15									

Landscape Maintenance Areas



Snow Removal

The campus averages 47 inches of snow annually over the past 10 yrs. and has:

- 11,000+ exterior doors
 - 18,000 parking spaces (14,000 surface)
 - 52 miles of paved roads and streets
 - 84 miles of paved walkways
 - 300 fire hydrants and 650 hose connections
 - 46,000+ students, 13,000+ FT faculty and staff
- Snow Management Team - 250
- Central Support/Utilities Crew (Roads and Lots)
 - Landscape Crews (Walks, Decks)
 - Janitorial Force (Entrances)
 - 134 pieces of equipment



Aim for optimal conditions for 7AM

Events on Campus

Football Games



Tailgating



Events on Campus

Arts Fest



The Color Run and other Runs



Community Outreach

Arbor Day with 4th graders



United Way Partnership



Student Engagement



Student Class Projects



University Park Campus Beautification

Purpose

- Capital Funds given by the Administration to assist with improving the aesthetic qualities of campus with a specific focus on improvements made to the public realm.
- **The campus beautification funds are not intended to repair or maintain existing facilities, to provide routine maintenance or to purchase equipment.**

Goals

Priority will be given to projects with multiple funding sources. The collaborative efforts allow projects to be done more completely. 6 goals help in determining if a project warrants campus beautification funds:

- 1)Improvements for Pedestrians
- 2)Streetscape Improvements
- 3)Creation of Memorable Places
- 4)Upgrades to Signage and Wayfinding
- 5)Preservation of University History, Traditions, and Culture
- 6)Hiding Uglies

That's great but what about repairs and damage or plant replacements?

These are in addition to the daily tasks that need to be performed.
Also known as "Job Security"



Walking Paths



Vehicle Damage



Vehicle Damage



Steam Lines/Underground Utilities



Unexpected Repairs



Poor design



Repaired repairs



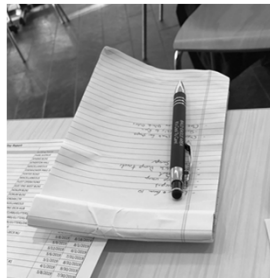
Winter Damage



Ways we kept track

Emails, Spreadsheets or Notebooks

From	To	Subject	Date	Time
John Doe	Jane Smith	Meeting notes	10/10/2018	10:00
Jane Smith	John Doe	Re: Meeting notes	10/11/2018	14:30
John Doe	Jane Smith	Project update	10/12/2018	09:15
Jane Smith	John Doe	Re: Project update	10/13/2018	11:45
John Doe	Jane Smith	Client feedback	10/14/2018	16:20
Jane Smith	John Doe	Re: Client feedback	10/15/2018	08:50
John Doe	Jane Smith	Weekly report	10/16/2018	13:10
Jane Smith	John Doe	Re: Weekly report	10/17/2018	15:40
John Doe	Jane Smith	Team meeting	10/18/2018	10:30
Jane Smith	John Doe	Re: Team meeting	10/19/2018	12:00
John Doe	Jane Smith	Project status	10/20/2018	09:45
Jane Smith	John Doe	Re: Project status	10/21/2018	14:15
John Doe	Jane Smith	Client meeting	10/22/2018	11:00
Jane Smith	John Doe	Re: Client meeting	10/23/2018	13:30
John Doe	Jane Smith	Project plan	10/24/2018	10:15
Jane Smith	John Doe	Re: Project plan	10/25/2018	12:45
John Doe	Jane Smith	Team meeting	10/26/2018	09:30
Jane Smith	John Doe	Re: Team meeting	10/27/2018	11:15
John Doe	Jane Smith	Project update	10/28/2018	14:00
Jane Smith	John Doe	Re: Project update	10/29/2018	16:30
John Doe	Jane Smith	Client meeting	10/30/2018	10:45
Jane Smith	John Doe	Re: Client meeting	10/31/2018	13:15
John Doe	Jane Smith	Project status	11/01/2018	09:00
Jane Smith	John Doe	Re: Project status	11/02/2018	11:30
John Doe	Jane Smith	Team meeting	11/03/2018	14:15
Jane Smith	John Doe	Re: Team meeting	11/04/2018	16:45
John Doe	Jane Smith	Project update	11/05/2018	10:30
Jane Smith	John Doe	Re: Project update	11/06/2018	13:00
John Doe	Jane Smith	Client meeting	11/07/2018	15:45
Jane Smith	John Doe	Re: Client meeting	11/08/2018	18:15
John Doe	Jane Smith	Project status	11/09/2018	11:00
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Random Pictures



Problems with these methods

- Everyone had their own list = Lots of duplication
- Things fell through the cracks or forgotten
- No way to report progress
- Hard to **quantify** how much time we spent away from routine maintenance

Another Problem – Comparing Apples to Apples

- No quantitative data – trades have numbers of work orders
- No realistic industry standards – APPA/PGMS Standards
 - Level 1- State-of- the-art maintenance applied to a high-quality diverse landscape>>> (1) FTE for every 1.2 acres = 243 employees)
 - Level 2- High level maintenance associated with well-developed public areas>>> (1) FTE for every 2.3 acres = 127 employees)
 - ***Recommended level for most organizations***
 - Level 3- Moderate-level maintenance>>> (1) FTE for every 2.6 acres =112 employees during growing season)
 - *** Target Level to be competitive with peer universities in Higher Education***
 - Level 4- Moderately low-level maintenance>>> (1) FTE for every 5.75 acres = 50 employees
 - ***Current PSU Level= 34 employees per shop during growing season (1) FTE for every 13.2 acres ***

Take Pictures



More Pictures



Results of initial walk about

- 241 areas of improvement identified on campus including housing.
- Examples of issues include:
 - adding soil along sidewalk edges
 - Replacing missing plant material
 - River stone around inlets
 - Add concrete pad for trash can

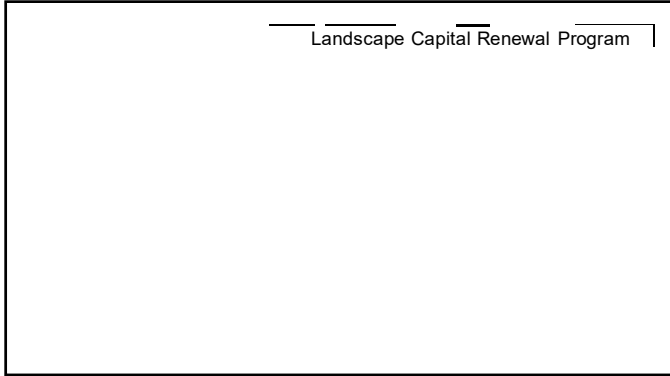
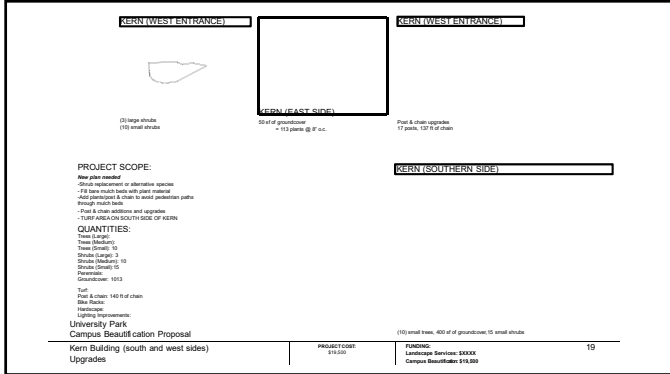
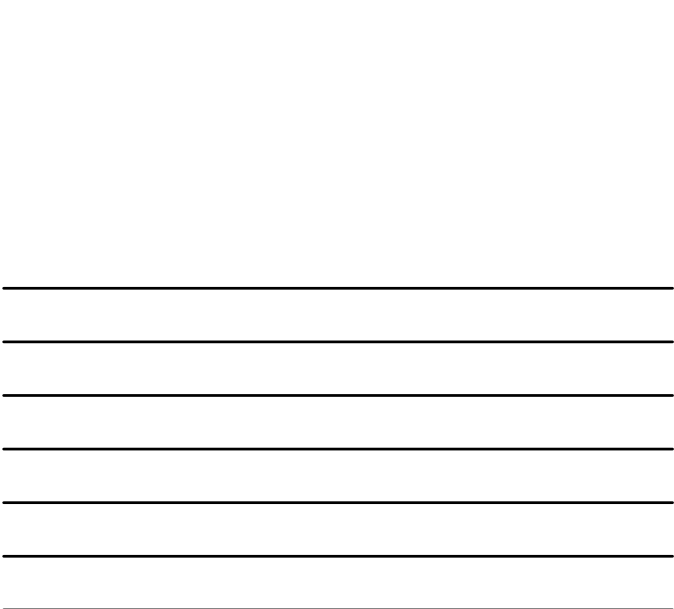


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2



Phase 2 – The rest

Landscape Renewal Program (Deferred Maintenance)

- This program was created to document in the landscape that have occurred overtime or have slipped through the boundaries of various campus projects.
- The renewal program uses landscape maintenance funds to replace missing plant material, renovate small areas and other more maintenance related issues over time based on priority and area.

LANDSCAPE RENEWAL PROJECTS TO BE COMPLETED	W/O Number	Who	Priority Level	Resources needed
Academic Project Bldg Need to add new rocks and landscaping on the North East corner	F523978	Matt	2	design needed
Ag Admin - NW - add yews	F523780	Brian	2	plants ordered
Ag Admin Bldg needs ground covering.	F398680	Brian	1	plants ordered
Bank of America Career Svcs is in need of ground covering and plant material.	F399614	Brian	2	design needed
Carnegie building Install concrete pad for bike rack and trash can, and plant ground cover.	F410947	Brian	1	in progress
Chapel - East - add plants to bed	F523790	Brian	1	plants ordered
Child Care wall - replace clematis	F523788	Brian	1	plants ordered
Dieke Building needs plant material on teh East side by N Burrows Rd. Plant material needed on the East side parking lot.	F399655	Jeff	1	design needed
Eisenhower Chapel.	F386037	Brian	1	Re-evaluate scope
Elec Eng East needs sidewalk edge repairs on the side walk running past the building toward Old Main and between the Elec Eng and Willard Bldg.	F399988	Brian	1	design needed
Ferguson bldg needs plant material.	F400020	Brian	1	plants ordered
Ferguson bldg needs sidewalk edge repairs.	F400020	Brian	2	Complete
Fraser Rd Replace (1) Juniper	F523794	Brian	2	Complete
Fraser Road	F410132			
Bare Mulch along curb line and weeds . Apply weed control install more ground cover.		Jeff	2	Complete
Fraser Road has washout at base of sparks steps. Investigate drainage and potential solutions.	F412743	Jeff	2	Complete
Fraser Rd Please add sidewalk edge repairs.	F399640	Brian	2	Complete

HUGE CULTURE SHOCK!!!!

How can landscape have such a large deferred maintenance list? Meanwhile there is over 1 billion dollar (\$1,000,000,000) list for buildings.

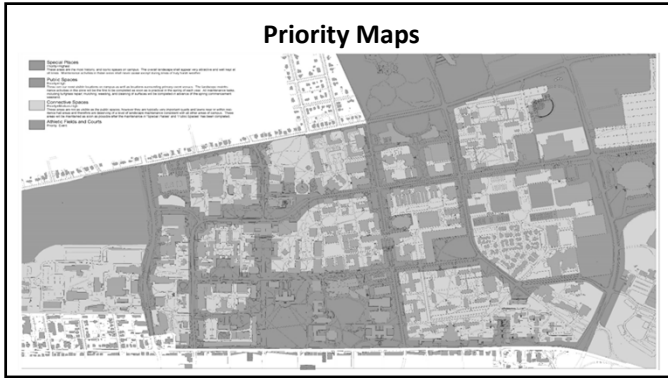
FIX IT NOW!!!!!!

Results

- Completed 160 of 175 work orders related to the renewal program
- A new Planner/Estimator was hired for landscape
- Added 3 new positions to landscape
- Campus looked amazing
- HUGE BUDGET OVERRUNS- program was not intended to fix everything at once.

Phase 3 – Ongoing upkeep

The shock continues



OPP Landscape Management

Name: _____

Date: _____

Location: _____

Landscape Area: _____

Turf: _____ **Tree/Shrub:** _____ **Site furnishing/Hardscape:** _____ **Other:** _____

Problem: For example- Dead Plant, Bare Spot in Turf, Broken Bench, Missing Bricks, Street Lights Out

Caused By: _____

Plant Material Removed Y/N: _____

Area Inspection - Spring 2018

Area N6 3/7/18			
		Priority 1 must be done by Blue/White	
		Priority 2 must be done by Graduation	
Leaf Clean-up Needs		Edging & Mulching Needs	
		Priority	
Boxwoods along Hollock Rd		Pattee - North along bldg and South along bldg	1
Pattee - N along bldg		Pattee - East tree rings	2
Pond - E		Whitmore/Pong - tree rings	3
Chandlee - S		Pond - NE hillside	3
Burrows/Pond/Woodland - twigs		Chandlee - S beds and tree rings	1
Speaks - courtyards and SE, and South		Chandlee/Old Botany - tree rings	1
Hall - stairs		Carnegie - S and SW	1
Carnegie - E		Speaks - SW, West and NW tree rings	2
		Old Botany - N beds, and SW maple bed	1
Perennial Cutback (Gr8)			
Speaks - top off walls			
Pattee/Paterno - south courtyard			
Pre-emergent Application Needs			
Pruning (Gr7)			
Chandlee - S - boxwood		Burrows - N and W	
Chandlee - E - big new		Pattee - N and S	
Substation - SW - (S) Burning Bush		Chandlee - S	
		Mueller - N and S	
Projects			
		Davey - SW	
Check Pattee window wells		Carnegie - S and E	
Install riverstone in triangle beds at Mueller		Fraser Red beds	
Fill wooden posts on Paterno - E		Turf Repairs	

In Addition to Renewal Program

- Created Landscape Management Guidelines and Handbook
 - To help ensure consistency between maintenance areas and shop
 - To ensure expectations were known
- Created Driving on Landscape and Walkways Guidelines
- Developed Pre/Post work inspection Work Orders
- Added new construction position for smaller plant installations
 - For the ones and twos plant replacements

LANDSCAPE MANAGEMENT GUIDE

- **Meets Standards:**
 - Lawn area is 85% weed free, good health and vigor. No Bare spots evident
 - No visible weeds in planting beds
 - Paved areas clean and free of weeds
 - Driving on walks and landscaped areas/turf only when necessary to do ones job
 - No suckers on trees
 - Sufficient mulch present
 - Tree rings uniform in circular shape, Free of water sprouts, suckers
 - Appropriate use of string trimmer. No scalping or trimming around base of trees
 - Area is litter-free, walks and patios are clean
 - Site furnishings (Post and Chain, Trash barrels, Bike racks, Benches, Bus Shelters, Railings, Signs, Maps, Etc.) are clean, safe, functioning, and/or in good appearance
 - Posts, fences, and walls straight and free of marks, trimmer damage
 - Groundcover is pruned, healthy in appearance and weed-free
 - No dead plants in area
 - Plants pruned to allow clearance for street lights, walk way lights, doors and windows

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PSU LANDSCAPE CHECKLIST

Document No.
80004
Landscape Inspection
Baltimore/Chesapeake / Issues
Location
The Pennsylvania State University
University Park, PA 16802
University Park, PA
412-863-7421 / 717-863-6213
8/26/17
Prepared by
Ryan MacLaughlin
Issue #
1634 - 06-876

GENERAL - 6/8 - 75%


Question	Response	Details
Landscape areas free of litter		
Paved areas clean and free of weeds	Meets Standards	
No dead or dying plant material visible	Meets Standards	
Bike Rackings (Post and Chain, Trash barrels, Bike racks, Benches, Bus Shelters, Railings, Signs, Maps, Etc.) are Clean, Safe, Functioning, and/or in Good Appearance	Meets Standards	
Posts, fences, and walls straight and free of animal marks, trimmer damage	Meets Standards	
Lighting not obstructed by foliage or debris		
Work areas cleaned up, Tools and personal effects not in use out of place	Meets Standards	
Undisturbed work areas are completely as possible when undisturbed, signposts/turn area clearly marked for safety	Meets Standards	

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SHRUBS-FLOWER BEDS - 3/6 - 50%

Question	Response	Details
<p>Append 1</p> <p>Append 2</p> <p>Good health and vigor. Dead and dying material removed.</p> <p>Append 3</p> <p>Append 4</p>		
<p>Her missing Plant material</p>	Meets Standards	
<p>Sufficient mulch present</p>	Meets Standards	
<p>Pruned to maintain appropriate size</p>	Meets Standards	
<p>Debris removed and not visible</p>	N/A	


Media




Appendix 1



Appendix 2



Appendix 3



Appendix 4

Examples of Landscape Renewal Projects

Before



After



Examples of Landscape Renewal Projects

Before



After



Examples of Landscape Renewal Projects

Before



After



Examples of Landscape Renewal Projects

Before



After



Examples of Landscape Renewal Projects

Before



After



Any Questions?

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Please Stay off the grass.
