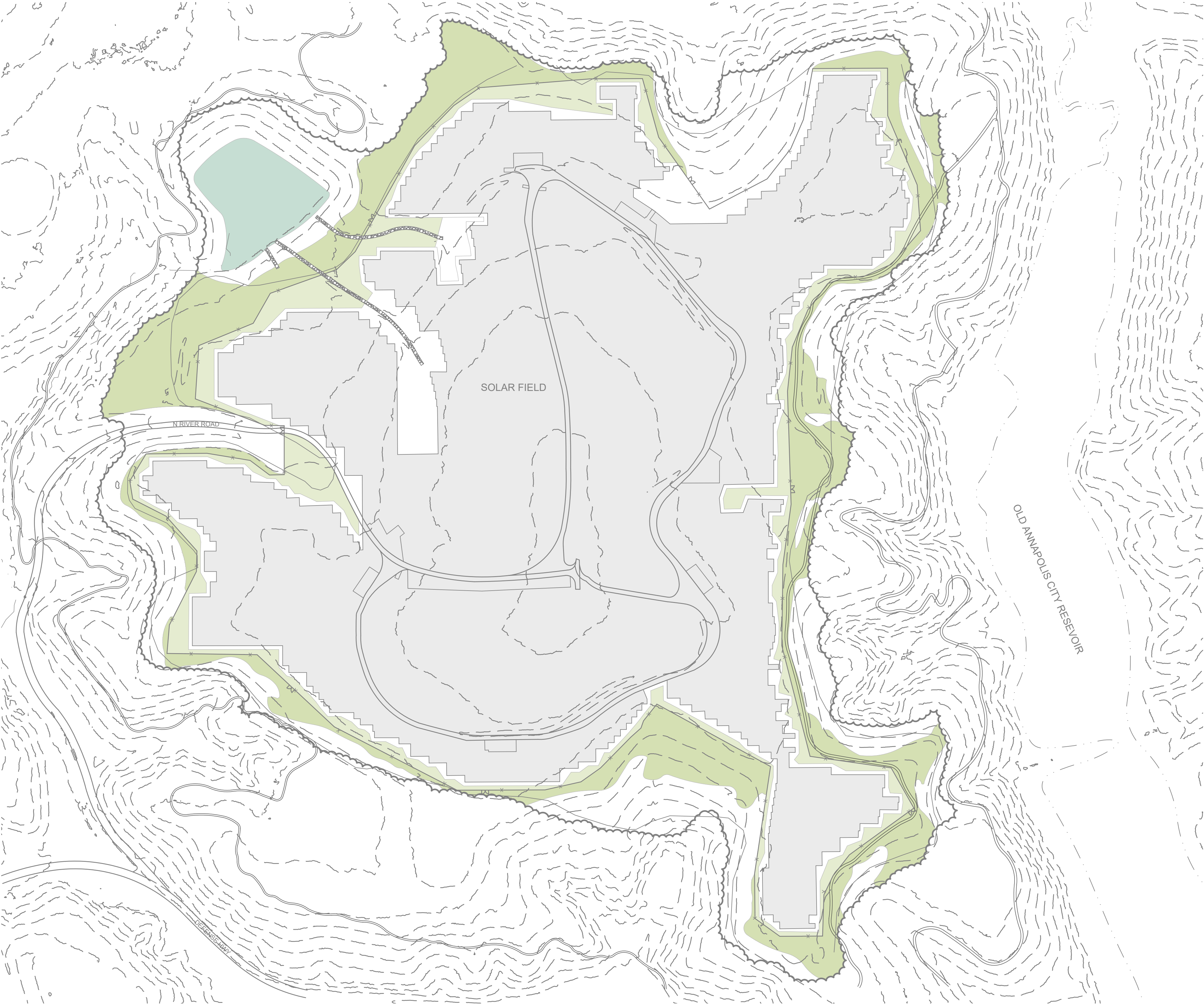
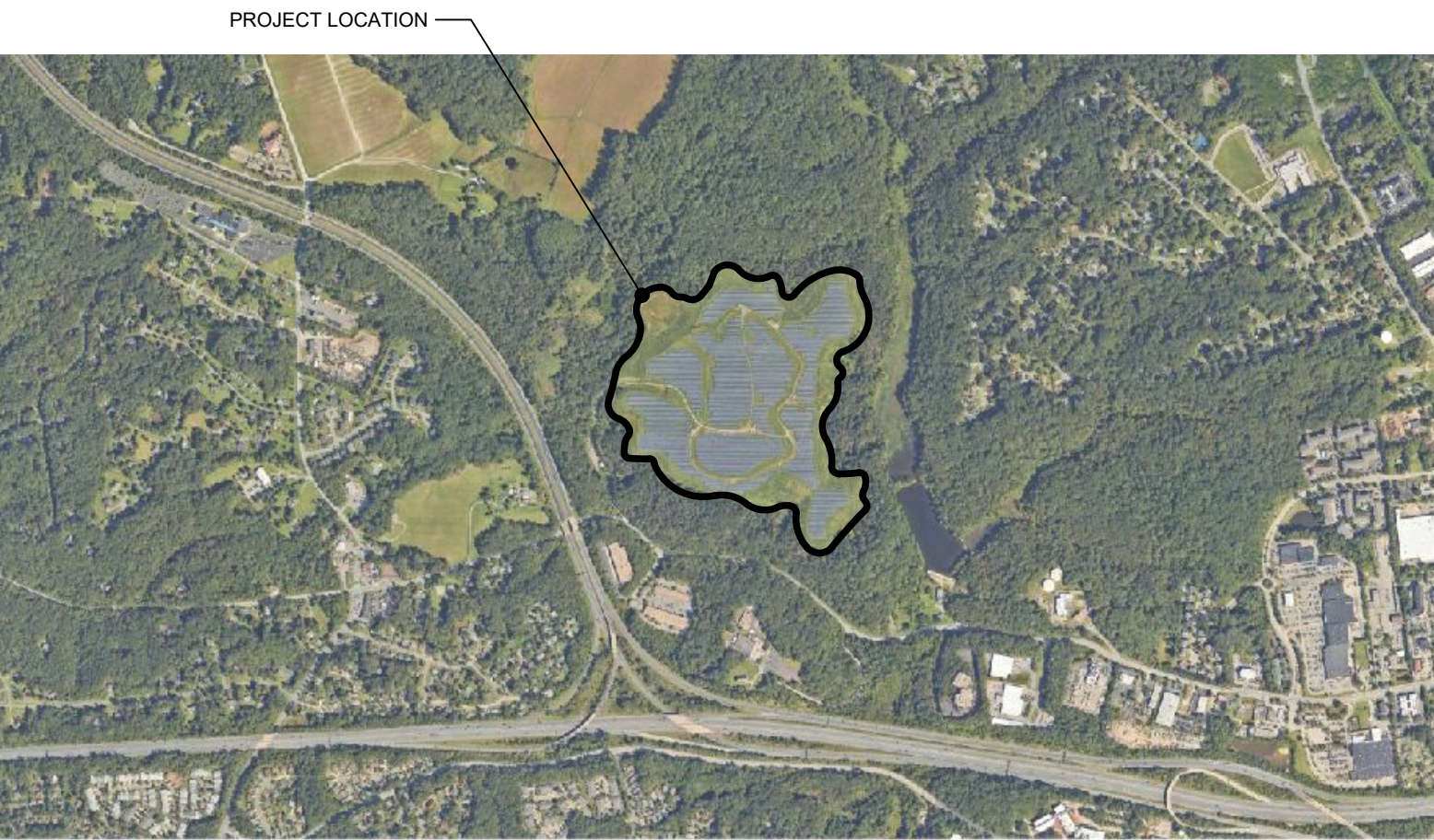


ANNAPOLIS SOLAR PARK MEADOW

420 DEFENSE HIGHWAY, ANNAPOLIS, MD 21401

MEADOW DESIGN

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	SITE PREPARATION PLAN
4	INSTALLATION AND MAINTENANCE CALENDARS
5	SEEDING PLAN
6	SEED SCHEDULES
7	MEADOW DEVELOPMENT IMAGES
8	PRECEDENT IMAGES

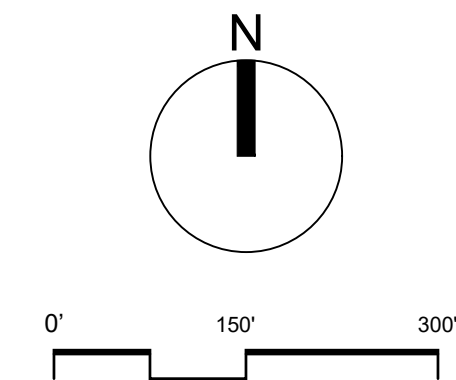


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ANNAPOLIS SOLAR PARK MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

DRAFT DESIGN
MEADOW DESIGN



PROJECT NUMBER: 1245
ISSUE DATE: 3/18/2025
REVISIONS

DRAWN: MTK REVIEWED: ED, JW

DRAWING TITLE

COVER SHEET

DRAWING NUMBER

01
OF 8

Mapping Notes:
1. LWLA performed site mapping and analysis on 10/21/24.
2. NOAA lidar mapping accessed 01/22/2025.
3. Solar Park Site Plan by ARM Group Inc. provided by client on 09/24/2024.



LEGEND

EXISTING CONDITIONS

- MAJOR 10' CONTOUR
- GEOMEMBRANE LIMIT LINE
- FENCE
- BROAD CREEK
- OLD ANNAPOLIS CITY RESERVOIR
- ANNAPOLIS WATERWORKS TRAIL
- ASPHALT ROAD
- CANOPY EDGE
- RIPRAP
- SOLAR PANEL COVER
- SOIL SAMPLE LOCATION

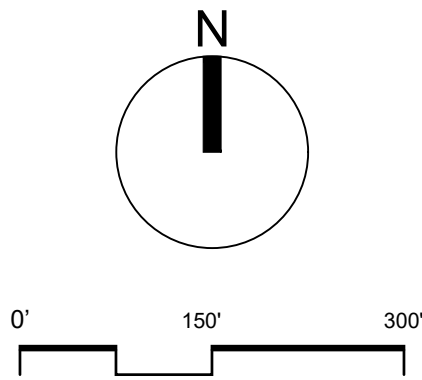
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s2	6.1	4.4	Sandy Loam
s3	6.1	3.9	Sandy Loam
s4	5.3	4.2	Sandy Loam
s5	6.8	4.2	Sandy Loam
s6	6.9	6.6	Sandy Clay Loam
s7	6.3	3.4	Sandy Clay Loam
s8	6.7	7.7	Sandy Loam
s9	6.7	4.8	Sandy Loam
s10	4.7	12.6	Sandy Loam

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ANNAPOLIS
SOLAR PARK
MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

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MEADOW DESIGN



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DRAWING TITLE

EXISTING
CONDITIONS PLAN

DRAWING NUMBER

02
OF 8



LEGEND

EXISTING CONDITIONS

- MAJOR 10' CONTOUR
- GEOMEMBRANE LIMIT LINE
- FENCE
- BROAD CREEK
- OLD ANNAPOLIS CITY RESERVOIR
- ANNAPOLIS WATERWORKS TRAIL
- ASPHALT ROAD
- CANOPY EDGE

RIPRAP

SOLAR PANEL COVER

SITE PREPARATION

BROADCAST HERBICIDE TREATMENT

SITE PREPARATION NOTES:

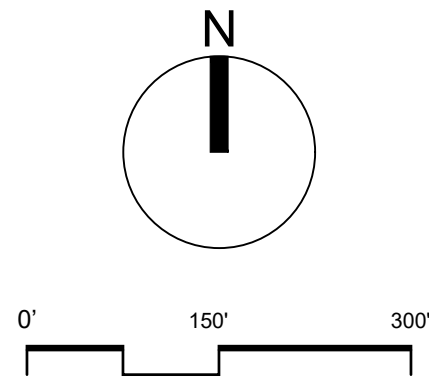
- ALL MOWING SHOULD CEASE 6 WEEKS PRIOR TO THE FIRST HERBICIDE APPLICATION AND SHOULD THEN ONLY FOLLOW THE SITE PREPARATION SCHEDULE.
- SITE PREPARATION SCHEDULE REFLECTS EXISTING CONDITIONS AND DOES NOT ACCOUNT FOR FUTURE WEED GROWTH.
- FOR ALL SITE PREPARATION REQUIREMENTS REFER TO SITE PREPARATION SPECIFICATION (PROVIDED WITH FINAL DESIGN DOCUMENTATION).

STAMP

**ANNAPOLIS
SOLAR PARK
MEADOW**

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

DRAFT DESIGN
MEADOW DESIGN



PROJECT NUMBER: 1245
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DRAWING TITLE

**SITE PREPARATION
PLAN**

DRAWING NUMBER

03
OF 8

		March	April	May	June	July	Aug.	Sept.	Oct.	Nov./ Dec.
Year 1	HERBICIDE APPLICATION							Spray #1		
	MOWING								Mow #1	
	COVER CROP SEEDING Grain Rye									
Year 2	HERBICIDE APPLICATION			Spray #2	Spray #3					
	MOWING			Mow #2	Mow #3					
	NATIVE MEADOW SEEDING									

1

SITE PREPARATION SCHEDULE - FALL

SCALE: NTS

		March	April	May	June	July	Aug.	Sept.	Oct.	Nov./ Dec.
Year 1	HERBICIDE APPLICATION			Spray #1	Spray #2			Spray #3		
	MEADOW MOWING			Mow #1		Mow #2			Mow #3	
	NATIVE MEADOW SEEDING									

2

SITE PREPARATION SCHEDULE - SPRING

SCALE: NTS

		March	April	May	June	July	Aug.	Sept.	Oct.	Nov./ Dec.
1st Growing Season	MONITOR FOR/ CONTROL PROBLEM WEEDS									Evergreen weeds
	MEADOW MOWING									
	PATH MOWING									
	NATIVE MEADOW SEEDING									
2nd Growing Season	MONITOR FOR/ CONTROL PROBLEM WEEDS									Evergreen weeds
	BI-ANNUAL MEADOW MOW									
	PATH MOWING									

3

MAINTENANCE SCHEDULE - ESTABLISHMENT

SCALE: NTS

		March	April	May	June	July	Aug.	Sept.	Oct.	Nov./ Dec.
3rd+ Growing Season	MONITOR FOR/ CONTROL PROBLEM WEEDS									Evergreen weeds
	BI-ANNUAL MEADOW MOW									
	PATH MOWING									

4

MAINTENANCE SCHEDULE - LONG TERM

SCALE: NTS

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ANNAPOLIS
SOLAR PARK
MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

DRAFT DESIGN
MEADOW DESIGN

Not to Scale

PROJECT NUMBER: 1245
ISSUE DATE: 3/18/2025
REVISIONS

DRAWN: MTK REVIEWED: ED, JW

DRAWING TITLE

INSTALLATION AND
MAINTENANCE
CALENDARS

DRAWING NUMBER

04
OF 8



LEGEND

EXISTING CONDITIONS

- MAJOR 10' CONTOUR
- GEOMEMBRANE LIMIT LINE
- FENCE
- BROAD CREEK
- OLD ANNAPOLIS CITY RESERVOIR
- ANNAPOLIS WATERWORKS TRAIL
- ASPHALT ROAD
- CANOPY EDGE

- RIPRAP
- SOLAR PANEL COVER

PROPOSED

- M1 - FENCE INTERIOR SEED MIX
- M2 - FENCE EXTERIOR SEED MIX
- M3 - BASIN SEED MIX

NOTE:
SEEDING AREA COVERS 17 ACRES. MEADOW EXTENTS
TO BE VERIFIED IN THE FIELD BY JENNIFER FEIGHT.

LWLA

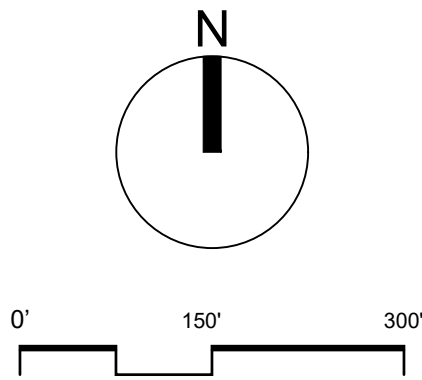
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lwladesign.com

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ANNAPOLIS
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MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

DRAFT DESIGN
MEADOW DESIGN



PROJECT NUMBER: 1245
ISSUE DATE: 3/18/2025
REVISIONS

DRAWN: MTK REVIEWED: ED, JW

DRAWING TITLE

SEEDING PLAN

DRAWING NUMBER

05
OF 8

Botanical Name	Common Name	Nectary or Host Plant	Target Pollinators	Ht (ft/in)	Season/ Color
Grasses, Sedges and Rushes					
Agrostis hyemalis	Hair Grass	H	N/A	1-2'	cool
Bouteloua curtipendula	Sideoats Grama	H	N/A	1-3'	warm
Bouteloua gracilis	Blue Grama Grass	H	N/A	1-2'	warm
Carex brevior	Plains Oval Sedge	H	N/A	1-3	cool
Carex vulpinoidea	Fox Sedge	H	N/A	1-3	cool
Eragrostis spectabilis	Purple Lovegrass	H	N/A	1-2	warm
Juncus tenuis	Path Rush		N/A	1'	cool
Panicum anceps	Beaked Panic Grass	H	N/A	2-4	
Schizachyrium scoparium	Little Bluestem	H	N/A	2-3	warm

Forbs					
Achillea millefolium	Yarrow	H, N	1, 6, 7, 12	2-3	Summer
Allium cernuum	Nodding Pink Onion	N	4, 5, 6, 8, 9	1-2	Summer
Asclepias tuberosa	Butterfly Weed	H, N	1, 2, 4, 7, 8, 9, 12, 13	1-3	Summer
Aster lateriflorus (Symphiotrichum)	Calico Aster	H, N	1, 4, 6, 8, 9	1-4	Fall
Aster oblongifolius (Symphiotrichum)	Aromatic Aster	H, N	1, 2, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14	1-3	Fall
Blephilia ciliata	Downy Wood Mint	N	2, 3, 4, 5, 6, 9, 10, 12, 14	1-2	Spring
Chamaecrista fasciculata (Cassia)	Partridge Pea	H, N	4, 5, 6, 9, 14	1-4	Summer
Coreopsis lanceolata	Tickseed	H, N	6, 8, 12	2-3	Spring
Eupatorium coelestinum (Conoclinium)	Mistflower	H, N	1, 2, 4, 12, 13	1-3	Fall
Gnaphalium obtusifolium	Sweet Everlasting	H, N	11, 12	1-3	Summer
Hypericum punctatum	Dotted St. John's Wort	H, N	4	1-2	Summer
Lespedeza virginica	Slender Bush Clover	N	4	1-3	Summer
Liatis aspera	Rough Blazingstar	N	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14	2-3	Fall
Lobelia spicata	Spike Lobelia	H, N	1, 2, 3, 4, 5, 6, 7, 9	1-4	Spring
Monarda citriodora	Lemon Mint	N	3	2-3	Summer
Monarda punctata	Horsemint	H, N	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	1-2	Summer
Penstemon digitalis	White Beardtongue	N	1, 3, 4, 5, 6, 7, 9	2-4	Spring
Penstemon laevigata	Appalachian Beardtongue	H, N	1, 3, 4	2-3	Spring
Penstemon pallidus	Pale Beardtongue	N	1, 3, 4, 7	1-2	Spring
Pycnanthemum tenuifolium	Slender Mountain Mint	N	1, 2, 4, 6, 12, 13, 14	2-3	Summer
Rudbeckia hirta	Black Eyed Susan	H, N	2, 5, 6, 7, 8, 9, 12, 13	1-3	Summer
Salvia lyrata	Lyre Leaved Sage	H, N	5	1'	Spring
Solidago juncea	Early Goldenrod	H, N	1, 4, 5, 6, 8	1-3	Summer
Solidago nemoralis	Gray Goldenrod	H, N	1, 2, 4, 5, 6, 9	1-3	Fall
Tradescantia virginiana	Virginia Spiderwort	N	1, 4, 6, 9	1-3	Spring
Verbena stricta	Hoary Vervain	H, N	1, 2, 4, 5, 6, 7, 9, 11, 12, 14	2-4	Summer
Zizia aurea	Golden Alexander	H, N	4, 5, 6, 8, 9, 12,	1-3	Spring

Nurse Crop			
Lolium multiflorum	Annual Ryegrass		

1

M1 - FENCE INTERIOR SEED MIX

SCALE: NTS

Pollinator Reference Chart	
Mid-Atlantic Rare/In Decline Species	
1 <i>Bombus affinis</i>	Rusty Patched Bumblebee
2 <i>Danaus plexippus</i>	Monarch
3 <i>Bombus fervidus</i>	Yellow Bumble Bee
4 <i>Bombus pensylvanicus</i>	American Bumble Bee
Common Species	
5 <i>Xylocopa virginica</i>	Eastern Carpenter Bee
6 <i>Bombus impatiens</i>	Common Eastern Bumblebee
7 <i>Bombus bimaculatus</i>	Two-spotted Bumble Bee
8 <i>Augochlora pura</i>	Pure Green Sweat Bee
9 <i>Bombus griseocollis</i>	Brown-Belted Bumble Bee
10 <i>Papilio glaucus</i>	Eastern Tiger Swallowtail
11 <i>Atalopedes huron</i>	Huron Sachem
12 <i>Phyciodes tharos</i>	Pearl Crescent
13 <i>Poanes zabulon</i>	Zabulon Skipper
14 <i>Epargyreus clarus</i>	Silver Spotted Skipper

NOTE:
Rare species list created by comparing species listed in Maryland DNR List of Rare, Threatened, and Endangered Animals of Maryland against the host and nectar/pollen species present in the meadow and likely habitat adjacencies.

Common species selected based on frequency of iNaturalist observations within Ann Arundel County.

Botanical Name	Common Name	Nectar or Host Plant	Target Pollinators	Ht (ft/in)	Season/ Color
Grasses, Sedges and Rushes					
Agrostis hyemalis	Hair Grass	H	N/A	1-2'	cool
Andropogon virginicus	Broomsedge	H	N/A	2-4'	warm
Bouteloua curtipendula	Sideoats Grama	H	N/A	1-3'	warm
Carex brevior	Plains Oval Sedge	H	N/A	1-3	cool
Carex vulpinoidea	Fox Sedge	H	N/A	1-3	cool
Eragrostis spectabilis	Purple Lovegrass	H	N/A	1-2	warm
Juncus tenuis	Path Rush		N/A	1'	cool
Panicum anceps	Beaked Panic Grass	H	N/A	2-4	
Schizachyrium scoparium	Little Bluestem	H	N/A	2-3	warm

Forbs					
Achillea millefolium	Yarrow	H, N	1, 6, 7, 12	2-3	Summer
Agastache foeniculum	Anise Hyssop	N	1, 3, 6, 7, 9, 14	1-4	Summer
Allium cernuum	Nodding Pink Onion	N	4, 5, 6, 8, 9	1-2	Summer
Asclepias tuberosa	Butterfly Weed	H, N	1, 2, 4, 7, 8, 9, 12, 13	1-3	Summer
Aster laevis (Symphiotrichum)	Smooth Aster	H, N	1, 2, 4, 5, 6, 7, 9,	2-5	Fall
Aster lateriflorus (Symphiotrichum)	Calico Aster	H, N	1, 4, 6, 8, 9	1-4	Fall
Chamaecrista fasciculata (Cassia)	Partridge Pea	H, N	4, 5, 6, 9, 14	1-4	Summer
Coreopsis lanceolata	Tickseed	H, N	6, 8, 12	2-3	Spring
Desmodium canadense	Canada Tick-Trefoil	H, N	4, 9	2-5	Summer
Echinacea purpurea	Purple Coneflower	H, N	1, 2, 4, 5, 6, 9, 10, 13, 14	3-5	Summer
Eryngium yuccifolium	Rattlesnake Master	H, N	2, 3, 4, 6, 8, 9, 10, 12	3-5	Summer
Eupatorium coelestinum (Conoclinium)	Mistflower	H, N	1, 2, 4, 12, 13	1-3	Fall
Gnaphalium obtusifolium	Sweet Everlasting	H, N	11, 12	1-3	Summer
Hypericum punctatum	Dotted St. John's Wort	H, N	4	1-2	Summer
Lespedeza capitata	Round-headed Bush Clover	H, N	4, 6	2-4	Summer
Liatis aspera	Rough Blazingstar	N	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14	2-3	Fall
Liatis pycnostachya	Prairie Blazingstar	H, N	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 13, 14	2-5	Summer
Monarda fistulosa	Wild Bergamot	H, N	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	2-4	Summer
Monarda punctata	Horsemint	H, N	4, 5, 6, 7, 8, 9, 14	1-2	Summer
Parthenium integrifolium	Wild Quinine	N	12	2-5	Summer
Penstemon digitalis	White Beardtongue	N	1, 3, 4, 5, 6, 7, 9	2-4	Spring
Penstemon laevigata	Appalachian Beardtongue	H, N	1, 3, 4	2-3	Spring
Pycnanthemum pilosum	Hairy Mountain Mint	N	4, 6, 12, 13, 14	2-3	Summer
Pycnanthemum tenuifolium	Slender Mountain Mint	N	1, 2, 4, 6, 12, 13, 14	2-3	Summer
Ratibida pinnata	Yellow Coneflower	N	4, 5, 6, 9, 12	3-6	Summer
Rudbeckia hirta	Black Eyed Susan	H, N	2, 5, 6, 7, 8, 9, 12, 13	1-3	Summer
Solidago juncea	Early Goldenrod	H, N	1, 4, 5, 6, 8	1-3	Summer
Solidago rigida (Oligoneuron)	Stiff Goldenrod	H, N	1, 2, 4, 5, 6, 7, 9, 12	1-5	Fall
Tradescantia ohiensis	Ohio Spiderwort	N	1, 4, 5, 6, 7, 8, 9	2-4	Spring
Verbena stricta	Hoary Vervain	H, N	1, 2, 4, 5, 6, 7, 9, 11, 12, 14	2-4	Summer
Zizia aurea	Golden Alexander	H, N	4, 5, 6, 8, 9, 12,	1-3	Spring

Nurse Crop			
Lolium multiflorum	Annual Ryegrass		

2

M2 - FENCE EXTERIOR SEED MIX

SCALE: NTS

Botanical Name	Common Name	Nectar or Host Plant	Target Pollinators	Ht (ft/in)	Season/ Color
Grasses, Sedges and Rushes					
Andropogon virginicus	Broomsedge	H	N/A	2-4'	warm
Carex bebbii	Bebbs Oval Sedge	H	N/A	2-3	cool
Carex comosa	Bristly Sedge	H	N/A	2'	cool
Carex crinita	Fringed Sedge	H	N/A	2-5	cool
Carex cristatella	Crested Oval Sedge	H	N/A	2-3	cool
Carex normalis	Spreading Oval Sedge	H	N/A	1-3'	cool
Carex projecta	Loose-headed Oval Sedge	H	N/A	1-2	cool
Carex vulpinoidea	Fox Sedge	H	N/A	1-3	cool
Eleocharis obtusa	Blunt Spike Rush	H	N/A	1'	cool
Juncus effusus	Common Rush	H	N/A	2-5	cool
Juncus tenuis	Path Rush	H	N/A	1'	cool
Scirpus atrovirens	Dark-Green Bulrush	H	N/A	3-5	cool
Tridens flavus	Purpletop	H	N/A	2-5	warm

Forbs					
Asclepias incarnata	Swamp Milkweed	H, N	1, 2, 4, 5, 6, 9, 10, 12, 14	3-5	Summer
Aster lateriflorus (Symphiotrichum)	Calico Aster	H, N	1, 4, 6, 8, 9	1-4	Fall
Aster novae-angliae (Symphiotrichum)	New England Aster	H, N	1, 2, 3, 4, 5, 6, 9, 12	3-6	Fall
Aster umbellatus (Doellingeria umbellata)	Flat-topped Aster	H, N	6, 8, 11, 14	1-6	Summer
Bidens polylepsis	Bearded Beggarticks	H, N	5, 6, 8	3'	Fall
Chelone glabra	White Turtlehead	H, N	1, 3, 6	2-4	Fall
Cirsium muticum	Swamp Thistle	H, N	1, 2, 3, 5, 6, 9, 10, 11, 12	5-6	Fall
Eupatorium coelestinum (Conoclinium)	Mistflower	H, N	1, 2, 4, 12, 13	1-3	Fall
Eupatorium maculatum (Euptrochium)	Spotted Joe-Pye weed	H, N	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4-6	Summer
Eupatorium perfoliatum	Boneset	H, N	1, 2, 4, 5, 6, 8, 9, 12, 13, 14	3-5	Summer
Helenium flexuosum	Helen's Flower	N	13	1-3	Fall
Hypericum punctatum	Dotted St. John's Wort	H, N	4	1-2	Summer
Liatis spicata	Blazing Star	H, N	1, 2, 3, 4, 5, 6, 7, 9, 13	2-6	Summer
Lobelia cardinalis	Cardinal Flower	N	4	2-5	Fall
Lobelia siphilitica	Great Blue Lobelia	N	1, 2, 3, 4, 6, 9	1-4	Fall
Ludwigia alternifolia	Seedbox	N	1, 3, 4, 5, 6, 7, 8, 9	2-4	Summer
Mimulus ringens	Monkey Flower	N	3, 4, 5, 6, 8, 9, 14	2-4	Summer
Penstemon digitalis	White Beardtongue	N	1, 3, 4, 5, 6, 7, 9	2-4	Spring
Physostegia virginiana	Obediant Plant	N	2, 4, 5, 6	1-4	Fall
Pycnanthemum muticum	Big Leaf Mountain Mint	N	4, 6, 12, 13, 14	2-3	Summer
Pycnanthemum virginianum	Mountain Mint	N	1, 4, 6, 12, 13, 14	2-3	Summer
Rudbeckia triloba	Thin-leaf Coneflower	N	9, 12, 13	2-5	Fall
Scutellaria laterifolia	Mad-dog Skullcap	H, N	4, 6, 8	1-3	Summer
Solidago patula	Swamp Goldenrod	H, N	5, 6	2-7	Fall
Solidago ulmifolia	Elm-leaved Goldenrod	H, N	6, 8	2-4	Summer
Thalictrum pubescens	Tall Meadow Rue	H, N	8, 10	5-7	Summer
Verbena hastata	Blue Vervain	N	4, 6, 7, 8, 9, 14	3-5	Summer
Vernonia noveboracensis	New York Ironweed	H, N	13	5-7	Fall
Zizia aurea	Golden Alexander	H, N	4, 5, 6, 8, 9, 12,	1-3	Spring

Nurse Crop			
Lolium multiflorum	Annual Ryegrass		

3

M3 - BASIN SEED MIX

SCALE: NTS



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ANNAPOLIS
SOLAR PARK
MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

DRAFT DESIGN
MEADOW DESIGN

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DRAWING TITLE

SEED SCHEDULES

DRAWING NUMBER

06
OF 8



BARE SOIL PREPPED FOR SEEDING



FIRST GROWING SEASON



SECOND GROWING SEASON



THIRD GROWING SEASON



MATURE MEADOW

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ANNAPOLIS
SOLAR PARK
MEADOW

470 DEFENSE HIGHWAY
ANNAPOLIS, MD 21401

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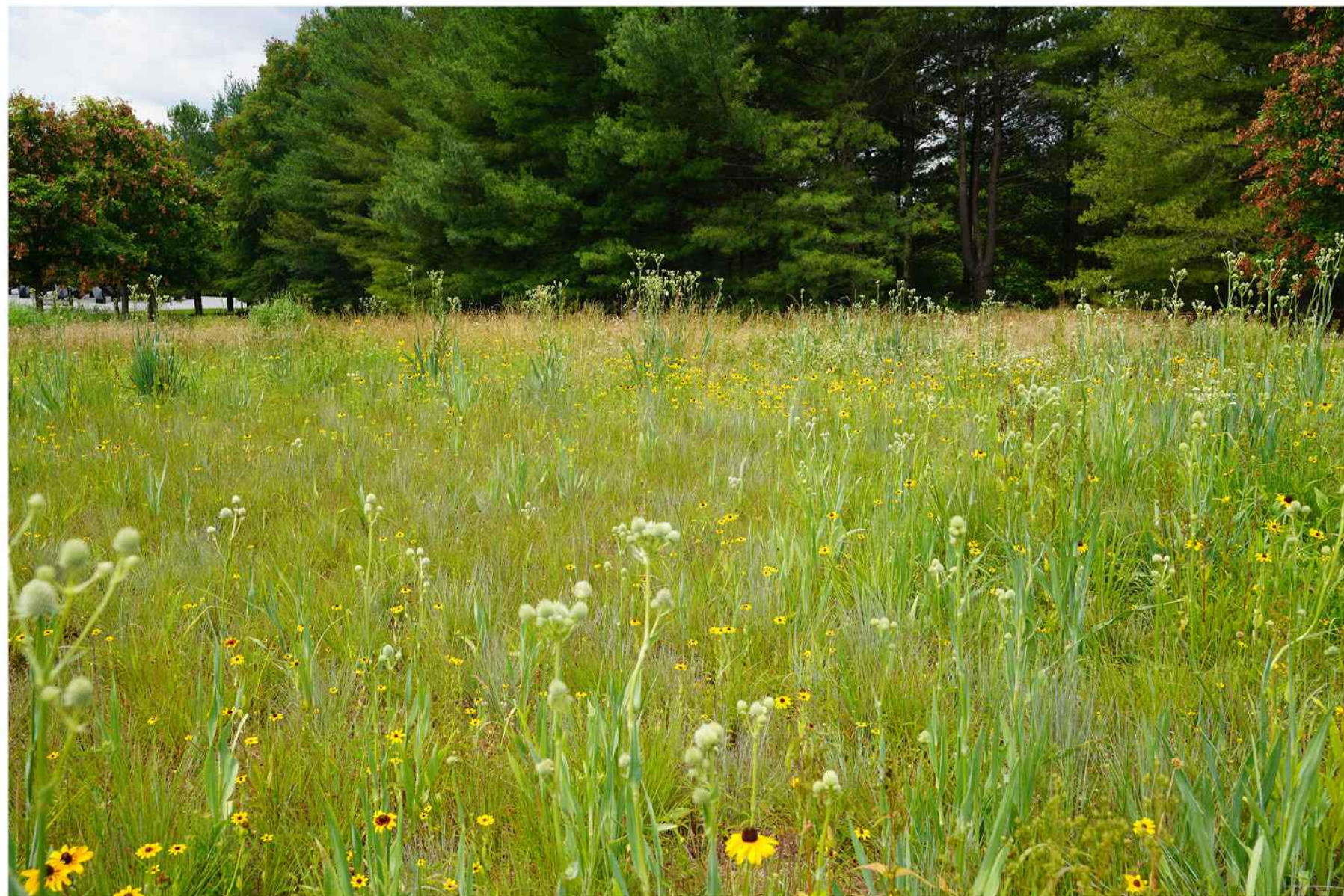
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DRAWING TITLE

MEADOW
DEVELOPMENT
IMAGES

DRAWING NUMBER

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MEADOW

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DRAWING TITLE

PRECEDENT
IMAGES

DRAWING NUMBER

08
OF 8