

LANDSCAPE AND LIGHTING PLAN
THE ESTATES AT HURSTMONT

679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NEW JERSEY
MORRIS COUNTY
BLOCK 27 - LOT 2

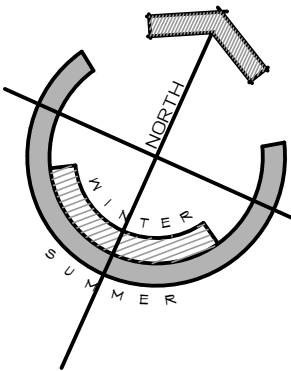
PLANT SCHEDULE MASTER PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
ACE OCT	11	Acer rubrum 'October Glory'	October Glory Red Maple	2"-2.5" CAL.	B4B
AME CAN	7	Amelanchier canadensis	Canadian Serviceberry	6"-8"	B4B MULTISTEM
AME LAE	1	Amelanchier laevis	Allegheny Serviceberry	6"-8"	B4B
BET HER	3	Betula nigra 'Cully'	Heritage® River Birch	6"-8"	B4B MULTISTEM
CAR CAR	3	Carpinus caroliniana	American Hornbeam	2"-2.5" CAL.	B4B
CEL OCC	16	Celtis occidentalis	Common Hackberry	2"-2.5" CAL.	B4B
CER CAN	25	Cercis canadensis	Eastern Redbud Multi-trunk	6"-8"	B4B
CHI VIR	3	Chionanthus virginicus	White Fringetree	2"-2.5" CAL.	B4B MULTISTEM
COR CHE	11	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	6"-8"	B4B
COR CHB	14	Cornus florida 'Cherokee Brave'	Cherokee Brave Dogwood	6"-8"	B4B
COR CLO	11	Cornus florida 'Cloud Nine'	Cloud Nine Dogwood	6"-8"	B4B
CRA WIN	5	Crataegus viridis 'Winter King'	Winter King Hawthorn	6"-8"	B4B
GLE TRI	16	Gleditsia triacanthos inermis	Thornless Honey Locust	2"-2.5" CAL.	B4B
ILE DAN	42	Ilex opaca 'Dan Fenton'	Dan Fenton American Holly	6"-8"	B4B
JUN HET	97	Juniperus chinensis 'Hetzl'	Hetzl Juniper	5"-6"	B4B
JUN KET	42	Juniperus chinensis 'Keteleeri'	Keteleeri Chinese Juniper	6"-8"	B4B
JUN VIR	12	Juniperus virginiana	Eastern Redcedar	6"-8"	B4B
MAG GRE	1	Magnolia virginiana 'Green Mile'	Green Mile Sweetbay Magnolia	6"-8"	B4B, low branched
NYG GRE	13	Nyssa sylvatica 'GREEN GABLE'	Green Gable™ Tupelo	2"-2.5" CAL.	B4B
PIC ABI	51	Picea abies	Norway Spruce	6"-8"	B4B
PLA ECL	11	Platanus x acenfolia Exclamation	London Plane Tree	2"-2.5" CAL.	B4B
QUE PAL	3	Quercus palustris	Pin Oak	2"-2.5" CAL.	B4B

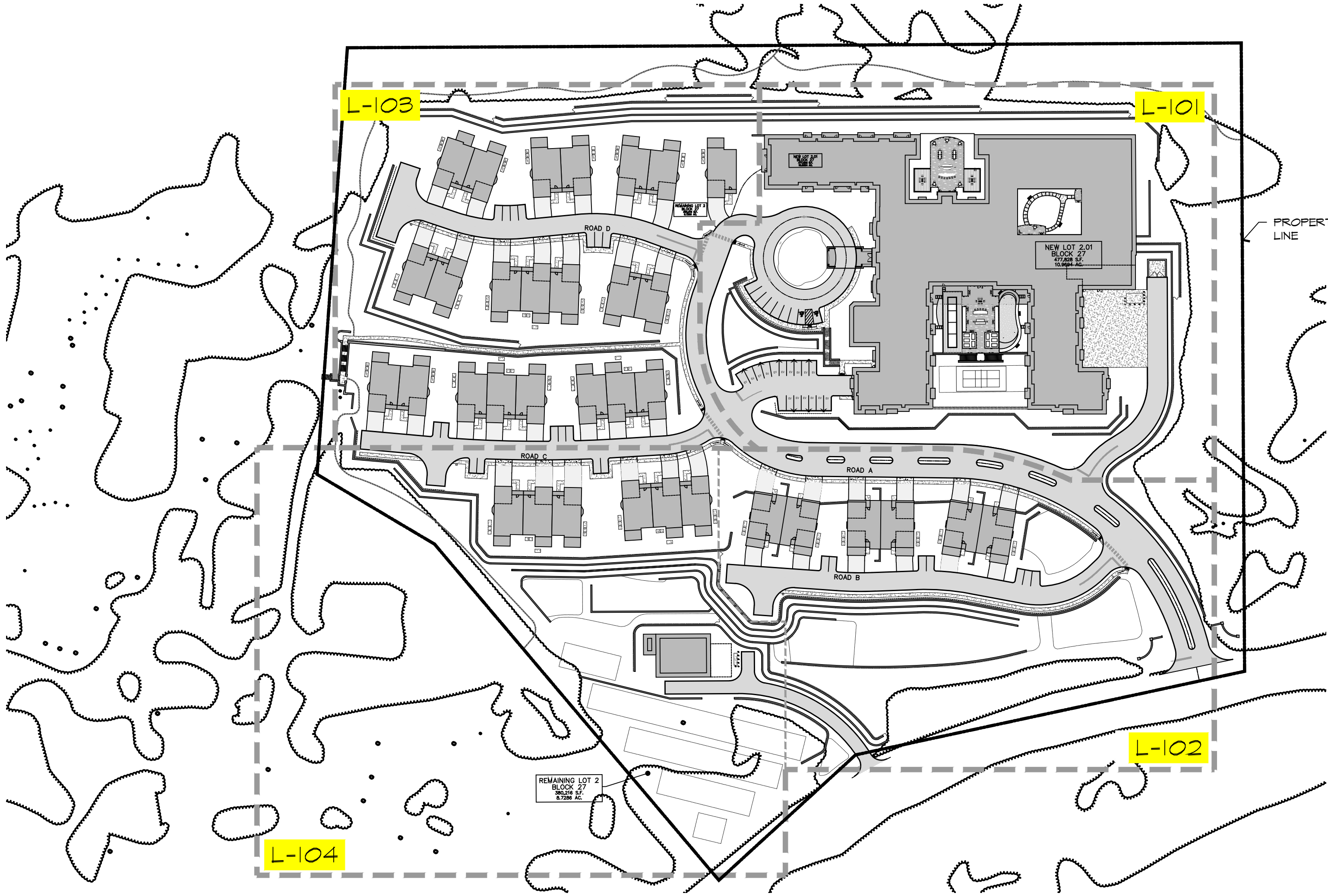
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AES PAR	61	Aesculus parviflora	Bottlebrush Buckeye	24"-30"	B4B
ARO HED	49	Aronia melanocarpa 'Low Scape Hedger'	Low Scape Hedger® Black Chokeberry	24"-30"	CONT.
BUX MOU	6	Buxus x 'Green Mountain'	Green Mountain Boxwood	30"-36"	B4B
CAL ATH	14	Calycanthus floridus 'Athens'	Athens Sweetshrub	24"-30"	B4B
CAL BUR	14	Calycanthus floridus 'Burgundy Spice'	Burgundy Spice Sweetshrub	24"-30"	B4B
CAL MIC	22	Calycanthus floridus 'Michael Lindsey'	Michael Lindsey Sweetshrub	24"-30"	B4B
CEP OCC	12	Cephalanthus occidentalis	Buttonbush	30"-36"	CONT.
CLE COM	30	Clethra alnifolia 'Compacta'	Compact Summersweet	24"-30"	CONT.
CLE HUM	12	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	24"-30"	CONT.
CLE RUB	12	Clethra alnifolia 'Ruby Spice'	Ruby Spice Summersweet	24"-30"	CONT.
CLE SIX	19	Clethra alnifolia 'Sixteen Candles'	Sixteen Candles Summersweet	24"-30"	CONT.
DEU NIK	37	Deutzia gracilis 'Nikko'	Slender Deutzia	24"-30"	CONT.
DEU YUK	7	Deutzia x 'Yuku Cherry Blossom'	Yuku Cherry Blossom® Deutzia	18"-24"	CONT.
FOT GAR	56	Fothergilla gardenii	Dwarf Fothergilla	24"-30"	B4B
FOT SUZ	57	Fothergilla gardenii 'Suzanne'	Dwarf Fothergilla	24"-30"	B4B
HAM AME	13	Hamamelis vernalis 'Amethyst'	Amethyst Ozark Witch Hazel	30"-36"	CONT.
HAM AUT	26	Hamamelis vernalis 'Autumn Embers'	Autumn Embers Ozark Witch Hazel	30"-36"	CONT.
HYD PET	107	Hydrangea petiolaris	Climbing Hydrangea	1 GAL.	CONT.
HYP BLV	7	Hypenicum x 'Blue Velvet'	Blue Velvet™ St. John's Wort	24"-30"	CONT.
ILE COM	563	Ilex glabra 'Compacta'	Compact Inkberry	24"-30"	B4B
ILE JIM	2	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	24"-30"	CONT.
ILE RED	14	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	30"-36"	B4B
ITE HEN	18	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	24"-30"	CONT.
ITE LIT	9	Itea virginica 'Little Henry'	Little Henry Itea	24"-30"	CONT.
ITE MER	38	Itea virginica 'Merlot'™	Short n Sweet Sweetspire	24"-30"	CONT.
LEU AXI	27	Leucothoe axillaris	Coastal Leucothoe	24"-30"	CONT.
LIN BEN	23	Lindera benzoin	Spicebush	24"-30"	CONT.
MOR CER	123	Morella cerifera	Wax Myrtle	30"-36"	B4B
MYR PEN	10	Myrica pensylvanica	Northern Bayberry	24"-30"	CONT.
PRU OTT	22	Prunus laurocerasus 'Otto Luyken'	Otto Luyken English Laurel	24"-30"	B4B
VIB ACE	39	Viburnum acerifolium	Mapleleaf Viburnum	30"-36"	CONT.
VIB CAR	13	Viburnum carlesii	Korean Spice Viburnum	30"-36"	B4B
VIB PRU	1	Viburnum prunifolium	Blackhaw Viburnum	30"-36"	B4B
VIB PRA	103	Viburnum x pragnense	Prague Viburnum	30"-36"	B4B
WEI SPI	54	Weigela florida 'Spilled Wine'	Weigela	24"-30"	CONT.

SHRUB AREAS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ARO MOU	1,950	Aronia melanocarpa Low Scape 'Mound'	Black Chokeberry	1 GAL.	CONT.	18" o.c.
DEU NIK	68	Deutzia gracilis 'Nikko'	Nikko Deutzia	18"-24"	CONT.	36" o.c.
RHU GRO	1,586	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	1 GAL.	CONT.	36" o.c.

GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ALI PIN	53	Allium x 'Pink Planet'	Pink Planet Ornamental Onion	bulb	CONT.	24" o.c.
AMS STO	20	Amsonia tabernaemontana 'Storm Cloud'	Storm Cloud Eastern Bluestar	1 GAL.	CONT.	30" o.c.
AND DAN	316	Andropogon gerardii 'Dancing Wind'	Dancing Wind Big Bluestem	1 GAL.	CONT.	36" o.c.
ANE POC	144	Anemone hepaticensis 'Pocahontas'™	Fantasy Pocahontas Japanese Anemone	1 GAL.	CONT.	18" o.c.
ARU MIS	22	Anuncus x 'Misty Lace'	Misty Lace Goatsbeard	1 GAL.	CONT.	24" o.c.
ARU CHA	73	Anuncus x 'Chantilly Lace'	Chantilly Lace Goatsbeard	1 GAL.	CONT.	36" o.c.
ATH LAD	305	Athyrium filix-femina 'Lady in Red'	Lady in Red Fern	1 GAL.	CONT.	24" o.c.
BAP AUS	22	Baptisia australis	Blue Wild Indigo	1 GAL.	CONT.	36" o.c.
CAL KAR	592	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 GAL.	CONT.	24" o.c.
CAL OVE	446	Calamagrostis x acutiflora 'Overdam'	Overdam Feather Reed Grass	1 GAL.	CONT.	24" o.c.
CAL NEP	377	Calamintha nepeta	Lesser Calamint	1 GAL.	CONT.	16" o.c.
CAR ICE	333	Carex morrowii 'Ice Dance'	Ice Dance Japanese Sedge	1 GAL.	CONT.	24" o.c.
COR VER	250	Coreopsis verticillata 'Moonbeam'	Moonbeam Tickseed	1 GAL.	CONT.	24" o.c.
ELY VIR	31	Elymus virginicus	Virginia Wild Rye	1 GAL.	CONT.	36" o.c.
GER MAC	30	Geranium maculatum	Spotted Geranium	1 GAL.	CONT.	18" o.c.
GER ROZ	505	Geranium x 'Rozanne'	Rozanne Cranesbill	1 GAL.	CONT.	18" o.c.
HEU AUT	369	Heuchera villosa 'Autumn Bnde'	Autumn Bnde Hairy Alumroot	1 GAL.	CONT.	18" o.c.
HEU PUD	1,268	Heuchera x 'Plum Pudding'	Plum Pudding Coral Bells	1 GAL.	CONT.	12" o.c.
HEU TAP	339	Heucherella x 'Tapestry'	Tapestry Foamy Bells	1 GAL.	CONT.	12" o.c.
NEP WAL	354	Nepeta racemosa 'Walker's Low'	Walker's Low Catmint	1 GAL.	CONT.	24" o.c.
PAC PRO	363	Pachysandra procumbens	Allegheny Spurge	1 GAL.	CONT.	18" o.c.
PAN CAP	391	Panicum virgatum 'Cape Breeze'	Cape Breeze Switch Grass	1 GAL.	CONT.	24" o.c.
PAN SHE	809	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 GAL.	CONT.	24" o.c.
PAN SHL	59	Panicum virgatum 'Shelter'	Shelter Switch Grass	1 GAL.	CONT.	30" o.c.
PAN QUI	229	Parthenocissus quinquefolia	Virginia Creeper	1 GAL.	CONT.	36" o.c.
RUD GOL	486	Rudbeckia fulgida 'Little Goldstar'	Little Goldstar Coneflower	1 GAL.	CONT.	16" o.c.
RUD GOL	117	Rudbeckia fulgida sultivanti 'Goldsturm'	Goldsturm Coneflower	1 GAL.	CONT.	24" o.c.
SCH CHA	42	Schizachyrium scoparium 'Chameleon'	Chameleon Little Bluestem	1 GAL.	CONT.	24" o.c.
SCH PRA	301	Schizachyrium scoparium 'Prairie Blues'	Prairie Blues Little Bluestem	1 GAL.	CONT.	18" o.c.
SOR NUT	61	Sorghastrum nutans	Indian Grass	1 GAL.	CONT.	36" o.c.
TIA PIN	785	Tiarella x 'Pink Skyrocket'	Pink Skyrocket Foamflower	1 GAL.	CONT.	12" o.c.



KEY MAP



SHEET INDEX	
COVER SHEET	L-001
LANDSCAPE PLAN	L-100
NORTHEAST PLANTING PLAN	L-101
SOUTHEAST PLANTING PLAN	L-102
NORTHWEST PLANTING PLAN	L-103
SOUTHWEST PLANTING PLAN	L-104
LIGHTING PLAN	L-105
THE CARRIAGE TOWNHOUSES PLANTING PLANS	L-400
THE CARRIAGE AND COTTAGE TOWNHOUSES PLANTING PLANS	L-401
PLANTING DETAILS & SPECIFICATIONS	L-500
LIGHTING DETAILS & SPECIFICATIONS	L-501

THE ESTATES AT HURSTMONT
TOWNSHIP OF HARDING, NJ

COVER SHEET

PREPARED FOR:
THE ESTATES AT HURSTMONT
BLOCK 27 LOT 2
679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NJ
PREPARED BY:
BOSENBERG
LANDSCAPE ARCHITECTURE
PO BOX 486
FAR HILLS, NJ 07931
(908)234-0557
DATE: MAY 5, 2023
SCALE: AS NOTED
REVISIONS:

NJ Certificate of Authorization
JM000026
JM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800
Jim Mazucco
SHEET **L-001**

SCOPE OF WORK

It is the intention and meaning of these specifications to specify and secure all labor, materials, equipment, workmanship and supervision required for the installation of the work in accordance with the drawings and specifications and all else not necessarily shown nor mentioned, but which may be essential for a complete and workmanlike job as intended. Contractor is responsible to verify any planting or quantity lists on the plans. Any items contained within the plans shall be included in the contractor's scope of work unless otherwise specified. Prices shall include all operations and permits necessary for the construction and installation as specified on the drawings and herein.

CONSTRUCTION NOTES

1. Contractor shall obtain and be responsible for all permits and inspections. All work shall be performed in accordance with the IRC 2018 New Jersey Edition and Harding Township. All work shall be in compliance with all Federal, State, County, and Local regulations and ordinances. Contractor shall follow and be guided by Soil Conservation Service regulations.

2. Once the construction permit is issued by Federal, State or Municipal officials, the landscape architect shall not be responsible for any changes to the scope of work, alterations to the project, materials specified, site furnishings, drainage design, guard rails or hand rails that are found not to be in compliance with all Federal, State or Municipal building codes. The landscape architect is not responsible for discrepancies discovered by the final inspection for the certificate of occupancy or Federal, State or Municipal inspections / approvals that were not identified at the time that the permits were issued by Federal, State or Municipal officials for the project.

3. The contractor shall follow and be guided by OSHA safety regulations. Contractor shall furnish to owner and landscape architect a certificate of insurance prior to start of work. The landscape architect shall not have control over or charge of and shall not be responsible for construction means, safety precautions, and safety programs in conjunction with the work. These are solely the contractor's responsibility.

4. Existing site conditions: The contractor shall thoroughly investigate all site conditions and take field measurements prior to the start of work. Field check all measurements, existing and proposed topography prior to the start of work. Check and verify all existing dimensions on job site.

5. All proposed improvements shall be laid out in the field by a NJ licensed surveyor prior to construction.

6. Contractor shall notify the landscape architect of any discrepancy in the plans or specification before proceeding with any work related to or affected by the discrepancy or error. Give 72-hour notice prior to the need for additional information or for clarification.

7. Written dimensions govern. Do not scale drawing. Specifications govern drawings.

8. The property owner shall submit these drawings for municipal approval before commencing ANY CONSTRUCTION. The landscape architect shall not be responsible or liable for any adjustments to the drawings, materials, site work, walls, pools, structures, fences, buildings, plantings, etc. If required by regulation compliance or changes made by owner after construction has started.

9. Locate, determine the depth of, and be responsible for all underground utilities prior to start of work / construction. The contractor is responsible for all repairs to any underground or overhead utility damaged by him or his sub-contractor during construction. It is illegal to perform excavation without a proper markout performed by a qualified agency. Within NJ call 1-800-272-1000.

Septic system: Contractor shall locate septic system and septic laterals and protect them during construction. Do not park equipment on or drive across these areas.

10. At the commencement of the project, the contractor shall furnish the owner and landscape architect with a time schedule for the completion of the various phases of the proposed work. Contractor shall keep the owner and the landscape architect notified of schedule changes.

The landscape architect shall not be responsible for the contractor's schedules or ability to carry out the work in accordance with the plans and specifications. The landscape architect shall have no control over or charge of acts or omissions of the contractor, subcontractor or their agents or employees or other persons performing portions of their work.

11. Site protection: Protect lawns, meadows, buildings and existing trees & shrubs from construction damage. Do not park equipment or stockpile materials on lawn, meadow or within the root zone/dropline of trees areas. Tree protection fencing shall be provided around all existing trees to be save that are within the work zone. Contractor is responsible for the repair of any damage outside of work area.

12. Site clean up and debris removal: At the completion of each phase, the contractor is responsible to remove his own debris. Cost of such removal shall be included in cost estimates. AT ALL TIMES, JOB SITE SHALL BE KEPT NEAT AND CLEAN!!!!!!!

13. Topsoil: Supply source and sample of topsoil at the time of the bid submission. Spread topsoil 12"-18" (for larger shrubs make 4' deeper than root ball) deep in all plant bed areas and 4" in all lawn areas. Excavate plant bed areas as required in order to facilitate the installation of topsoil and drainage.

14. Contractor is responsible for removing and/or supplying fill dirt or topsoil as may be required for the project. Do not dispose of excess fill material on site.

15. The landscape architect shall not be responsible for maintenance, or possible removal of the following items from the project site which may be discovered during the course of excavation, demolition and construction:

- a. Underground drainage systems, storage tanks, utilities, and/or septic systems.
- b. Asbestos, lead, or any other material classified as hazardous.
- c. Buried debris or trash.

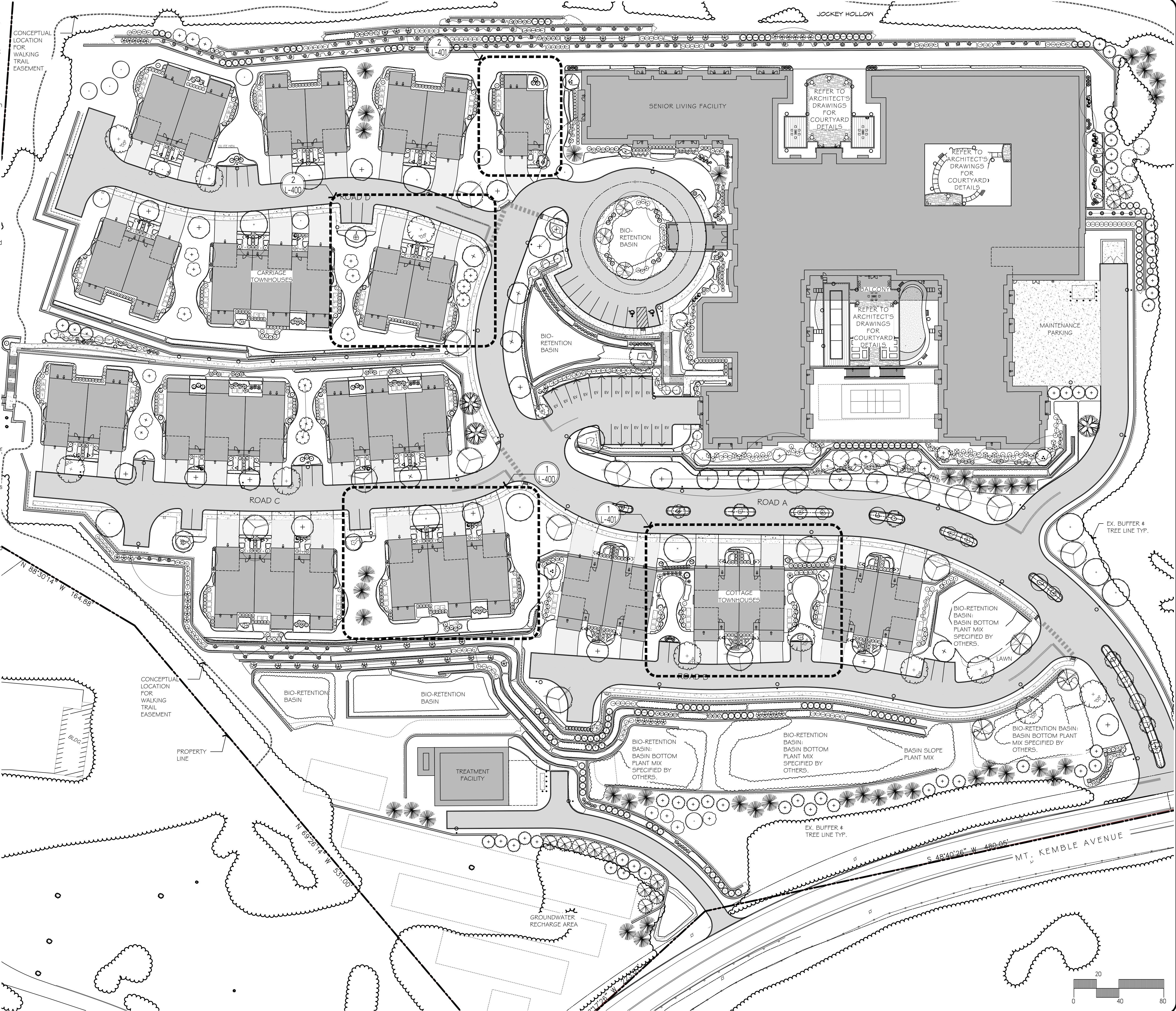
Upon discovery the contractor shall not disturb or damage any of the above mentioned items; but shall notify the owner immediately of the above-mentioned situation. Furthermore, the contractor shall proceed with arranging for all inspections and for hiring appropriate licensed professionals as required to rectify the discovered problem. The contractor shall advise the owner of all extra costs before proceeding with the work, and shall obtain approvals from all regulatory agencies.

16. The Client acknowledges and agrees that proper project maintenance is required after the project is complete. A lack of or improper maintenance may result in damage to property or persons. Client further acknowledges that, as between the parties to this agreement, client is solely responsible for the results of any lack of or improper maintenance.

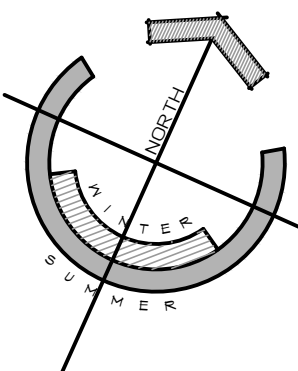
17. The Client is responsible for the determining and delineating all wetlands, streams and their associated buffers.

LAWN SEEDING SPECIFICATIONS

- Ground preparation: Area to be seeded must be friable to a depth of 4" and contain no debris of any kind, including but not limited to clumps, branches, stones, wood construction debris, rubbish and dead plant material. Debris over 1 1/2" dia. are a "must remove" item. After soil is prepared no heavy equipment shall be moved over the area.
- Lime to be added to the soil at a rate of 2 tons per acre or as dictated by soil tests.
- Apply starter fertilizer such as 18-24-12 at a rate of 5 lb. per 1000 sq. ft. incorporate into the top three inches of the soil.
- Seed at the rate of 6 lb. per 1000 sq. ft. in all lawn areas. Contractor shall use FM Brown's, Inc. (800-334-8816) www.fmbrown.com "Green Turf" Sun & Shade Mixture" seed mix or equal with 25% perennial rye grass blend added. Seed to be incorporated into the soil by 1/16" - 1/8" by dragging or raking.
- Straw mulch at a rate of 2-2 1/2 tons per acre. Straw mulch or equal shall be applied by the means of a mechanical mulcher. Tack Straw as required to stabilize.
- Produce dense, vigorous, well-established grass areas. Reseed areas as required. Owner is responsible for proper watering to ensure turf establishment.
- Once established, the lawn, shall be mowed to a height of 4" to allow for dense root growth.



THE ESTATES OF HURSTMONT
HARDING TOWNSHIP, NJ



LANDSCAPE PLAN

PREPARED FOR:
THE ESTATES AT HURSTMONT
BLOCK 27 LOT 2
679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NJ

PREPARED BY:
BOSENBERG

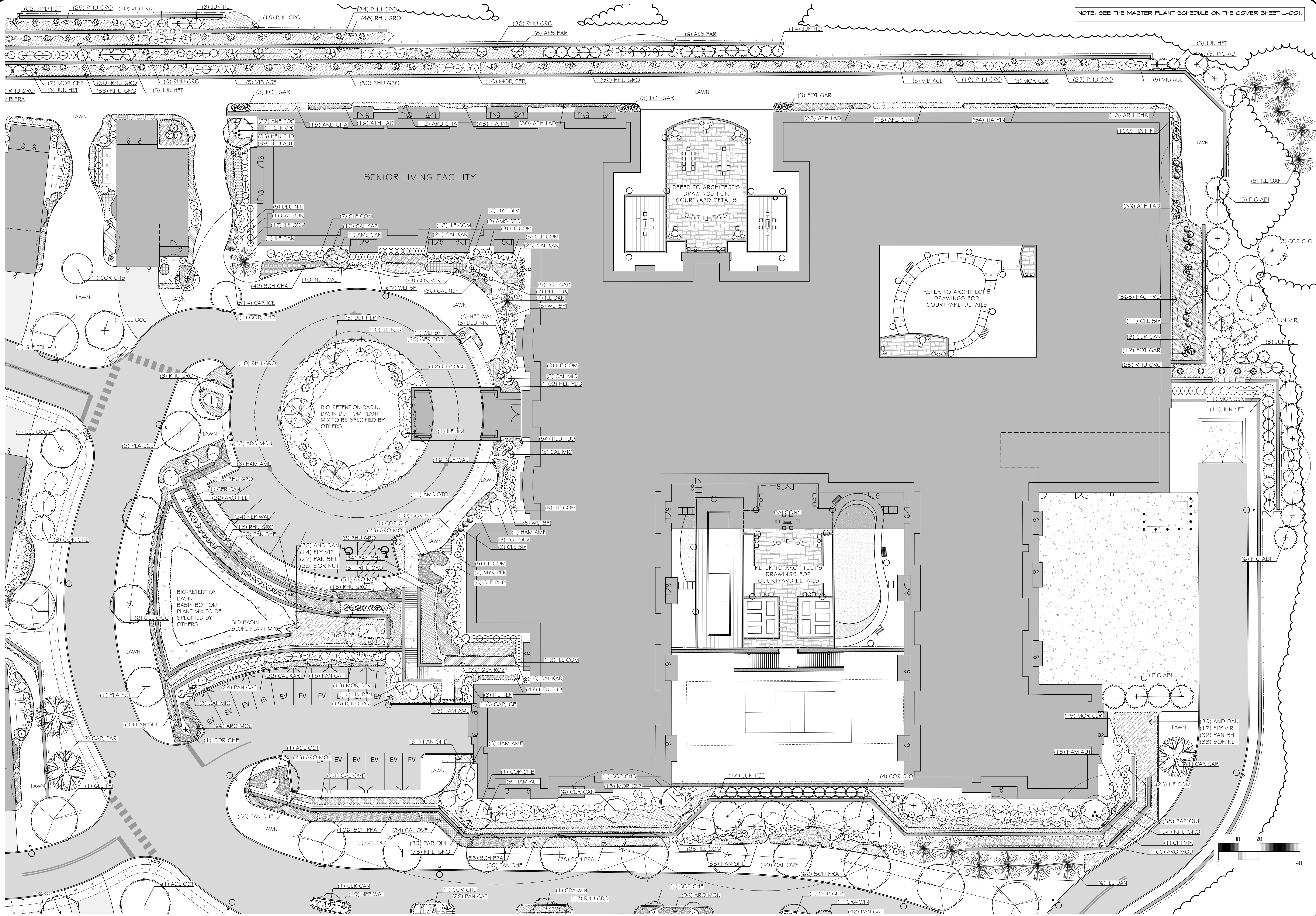
LANDSCAPE ARCHITECTURE
PO BOX 486
FAR HILLS, NJ 07931
(908)234-0557

DATE: MAY 5, 2023
SCALE: 1"=40'
REVISIONS:

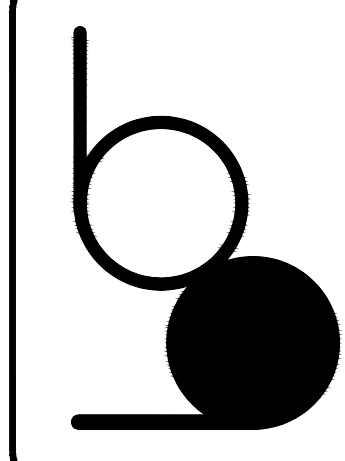
May 26, 2023 - Issued for review

NJ Certificate of Authorization
M4000126
JIM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800

Jim Mazucco
SHEET **L-100**



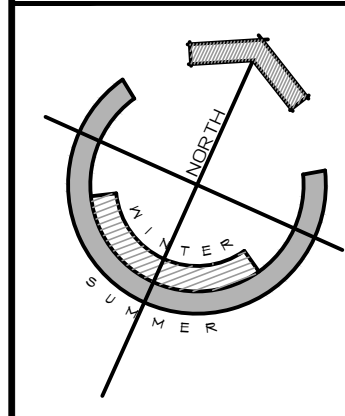
NOTE: SEE THE MASTER PLANT SCHEDULE ON THE COVER SHEET L-001.



WARNING:
If this drawing does not contain a raised seal impression and an original signature by the professional, it is not an original document. It may have been altered and should not be used for construction.

SOURCE INFORMATION:
SITE PLAN AND SURVEY:
GLADSTONE DESIGN INC.
255 Main Street, P.O. Box 400
Gladstone, New Jersey 07934
T: (908) 234-0309 ext. 44
F: (908) 795-3320

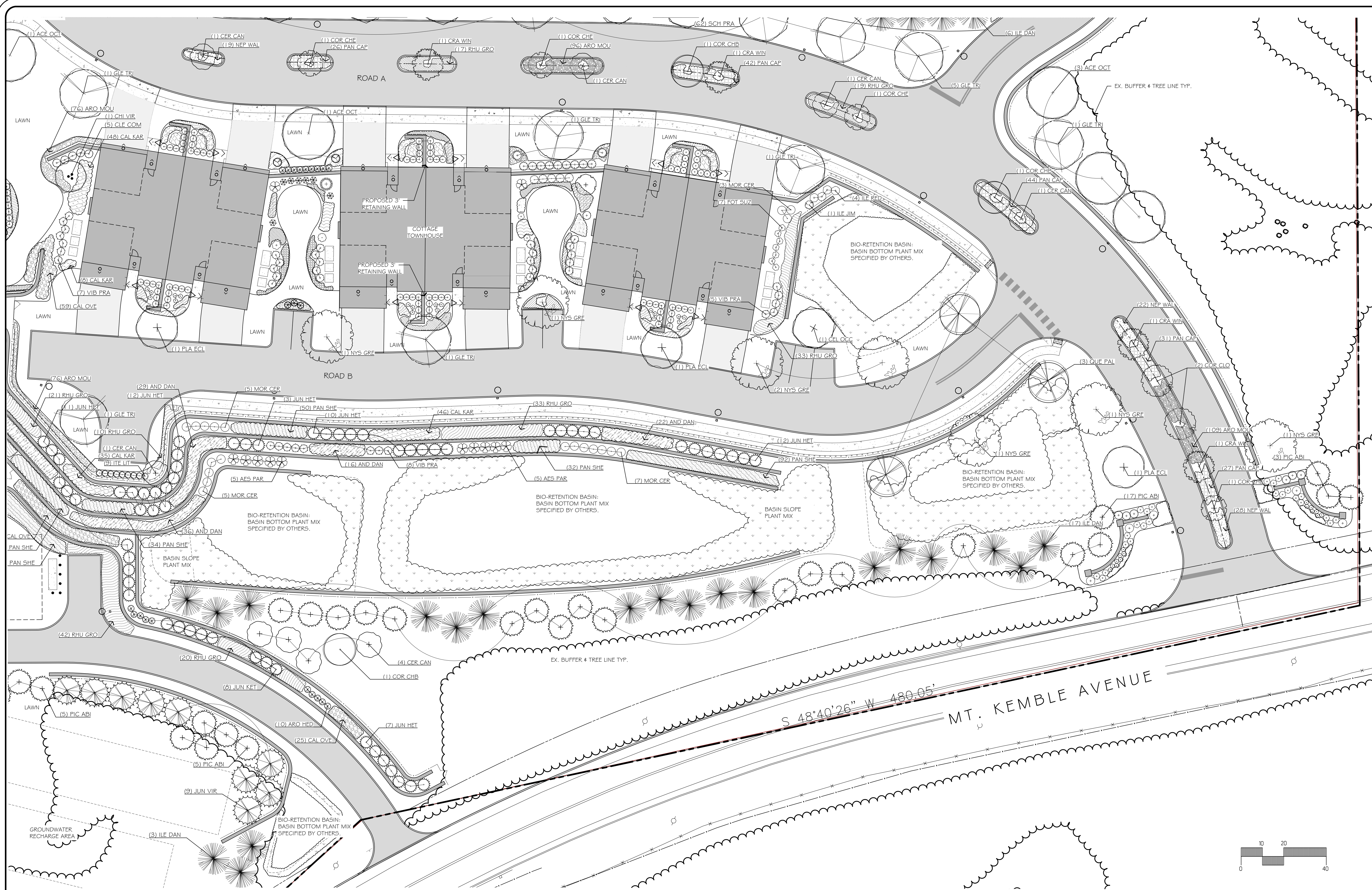
THE ESTATES AT HURSTMONT HARDING TOWNSHIP, NJ



NORTHEAST
PLANTING PLAN
PREPARED FOR:
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BLOCK 27 LOT 2
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HARDING TOWNSHIP, NJ
PREPARED BY:
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LANDSCAPE ARCHITECTURE
PO BOX 486
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DATE: MAY 5, 2023
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May 26, 2023 - Issued for review

NJ Certificate of Authorization
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JIM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800

Jim Mazzucco
SHEET L-101



NOTES: SEE THE MASTER PLANT SCHEDULE ON THE COVER SHEET L-001.

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SOURCE INFORMATION:
SITE PLAN AND SURVEY:
GLADSTONE DESIGN INC.
265 Main Street, P.O. Box 400
Gladstone, New Jersey 07934
T: (908) 234-0309 ext. 44
F: (908) 795-3320

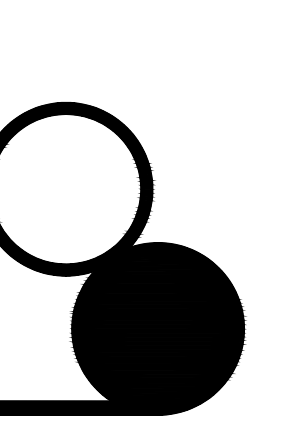
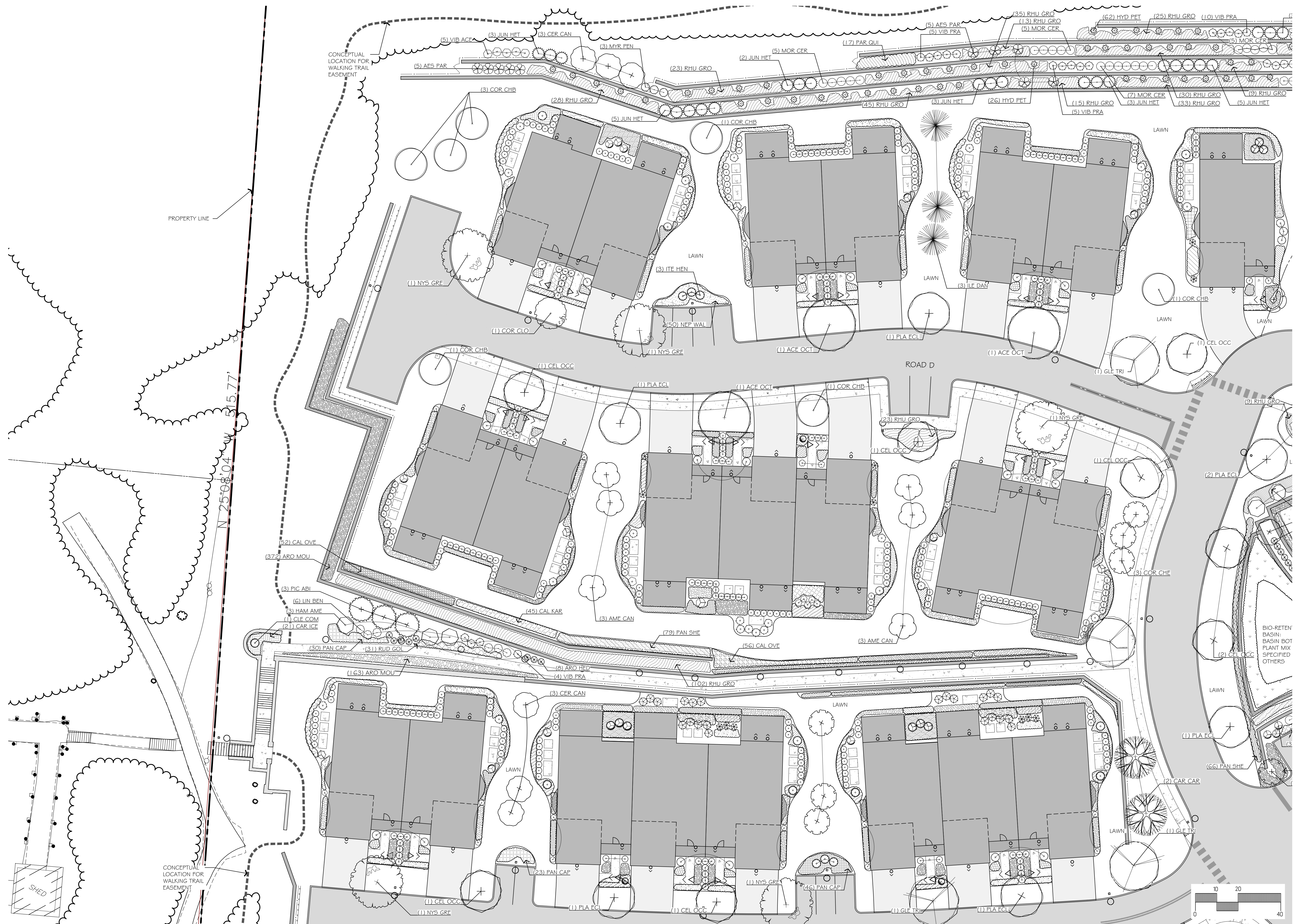
THE ESTATES AT HURSTMONT
HARDING TOWNSHIP, NJ

SOUTHEAST
PLANTING PLAN
PREPARED FOR:
THE ESTATES AT HURSTMONT
BLOCK 27 LOT 2
679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NJ
PREPARED BY:
BOSENBERG
LANDSCAPE ARCHITECTURE
PO BOX 486
FAR HILLS, NJ 07931
(908)234-0557
DATE: MAY 5, 2023
SCALE: 1"=20'
REVISIONS:
May 26, 2023 - Lighting levels

NJ Certificate of Authorization
MH000126
JM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800

SHEET
L-102

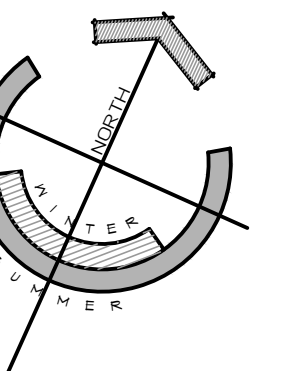
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SOURCE INFORMATION:
 SITE PLAN AND SURVEY:
 LADSTONE DESIGN, INC.
 65 Main Street, P.O. Box 400
 Ladstone, New Jersey 07934
 (908) 234-0309, ext. 44
 (908) 719-3320

THE ESTATES AT HURSTMONT
HARDING TOWNSHIP, NJ



NORTHWEST
 PLANTING PLAN
 PREPARED FOR:
 THE ESTATES AT HURSTMONT
 BLOCK 27 LOT 2
 79 T. KEMBLE AVENUE
 BORDENTOWN TOWNSHIP, NJ
 PREPARED BY:
BOSENBERG
 LANDSCAPE ARCHITECTURE
 10 BOX 486
 HILLIS, NJ 07931
 081234-0557
 DATE MAY 5, 2023
 SCALE 1"=20'
 REVISIONS: _____

U Certificate of Authorization
H000126
M MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
AS000800

SHEET L-103



Manufacturer								
Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	LLF	Total Output
	A	14	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F01-LED-E-U-SL3-HSS-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (3) LIGHTBARS WITH ACQULED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL	7	0.9	1147
	B	8	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F01-LED-E-U-SL3-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (3) LIGHTBARS WITH ACQULED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL	7	0.9	2015
	C	5	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F02-LED-E-U-SL3-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (2) LIGHTBARS WITH ACQULED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL	14	0.9	4030
	D	7	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F01-LED-E-U-SL4-HSS-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (3) LIGHTBARS WITH ACQULED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD	7	0.9	1344
	E	2	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F02-LED-E-U-SL4-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (2) LIGHTBARS WITH ACQULED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL	14	0.9	3936
	F	3	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F01-LED-E-U-SL4-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (3) LIGHTBARS WITH ACQULED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL	7	0.9	1968
	G	1	COOPER LIGHTING SOLUTIONS - STREETWORKS (FORMERLY EATON)	CEM-F02-LED-E-U-SL4-HSS-8027	EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE (2) LIGHTBARS WITH ACQULED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD	14	0.9	2688
	H	171	American Nail Plate	WM926M009LDNW40K	8" DIA. X 6.57" SH RLM MIN WAREHOUSE SHADE	1	0.9	648
	I	1	COOPER LIGHTING SOLUTIONS - MCGRAW-EDISON (FORMERLY EATON)	ISS-SA1A-727-U-SL4	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE (1) 70 CRl 2700K 350mA LIGHTSQUARE WITH 16 LEDs AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS	16	0.9	2241
	J	40	FX Luminaire / Lumescape	MPL-LED-FW / aLNC6-LED-WT	Lumiled 1LED 2700K	1	0.9	116
	K	39	Generation Brands	7000BSTR42SCUNV830C	LED BOLLARD	1	0.9	1254
	L	4	COOPER LIGHTING SOLUTIONS - HALO	LT83059F335IEWHWR	6" Round Fixture at 2700K	1	0.9	533

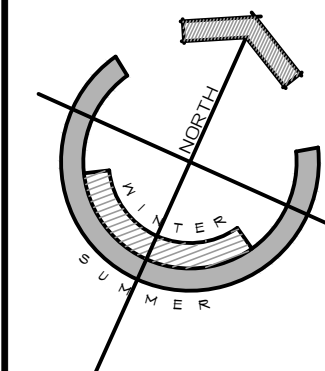
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Description	Symbol	Avg	Min	Avg/Min
Intersections	+	0.8 fc	0.3 fc	3:11
Parking Areas	+	0.4 fc	0.1 fc	4:1
Roads	+	0.4 fc	0.1 fc	7:21
Sidewalks	+	0.3 fc	0.02 fc	13:1
Site	+	0.2 fc	0.0 fc	N/A

All fixtures to be full cut off type fixtures. The plan is in compliance with the Township 'Dark Sky' ordinance (Chapter 223)

w = waiver requested

Classification	Average Maintained Requirements (225-85, C)		Illuminating Engineering Society Recommendations		Proposed	
	Average Maintained Illumination	Average to Minimum Ratio	Average Maintained Illumination	Average to Minimum Ratio	Average Maintained Illumination	Average to Minimum Ratio
Residential Interior Roads and Access Drives	0.4	8:1	0.3	6:1	0.4	7.2:1
Residential Parking Areas	0.4	6:1	0.3	6:1	0.4	4.4:1
Residential Sidewalks	0.2	8:1	0.3	6:1	0.3	13.4:1
Intersections	1.0 to 2.0	4:1	0.7	6:1	0.8	3.1:1

THE ESTATES AT HURSTMONT
HARDING TOWNSHIP, NJ



LIGHTING PLAN

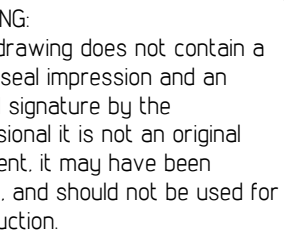
PREPARED FOR:
THE ESTATES AT HURSTMONT
BLOCK 27 LOT 2
679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NJ
PREPARED BY:
BOSENBERG
LANDSCAPE ARCHITECTURE
PO BOX 486
FAR HILLS, NJ 07931
(908)234-0557

DATE: MAY 5, 2023
SCALE: 1"=50'
REVISIONS:

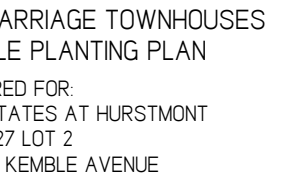
May 26, 2023 - Lighting levels

NJ Certificate of Authorization
MH000126
JIM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#A5000800

Jim Mazucco
SHEET
L-105



THE ESTATES AT HURSTMONT
HARDING TOWNSHIP, NJ



SCAPE ARCHITECTURE
486.
LS. NJ 07931
4-0557

ificate of Authorization
26
ZUCCO
RSEY LICENSED
CAPE ARCHITECT
0800

ET L-400

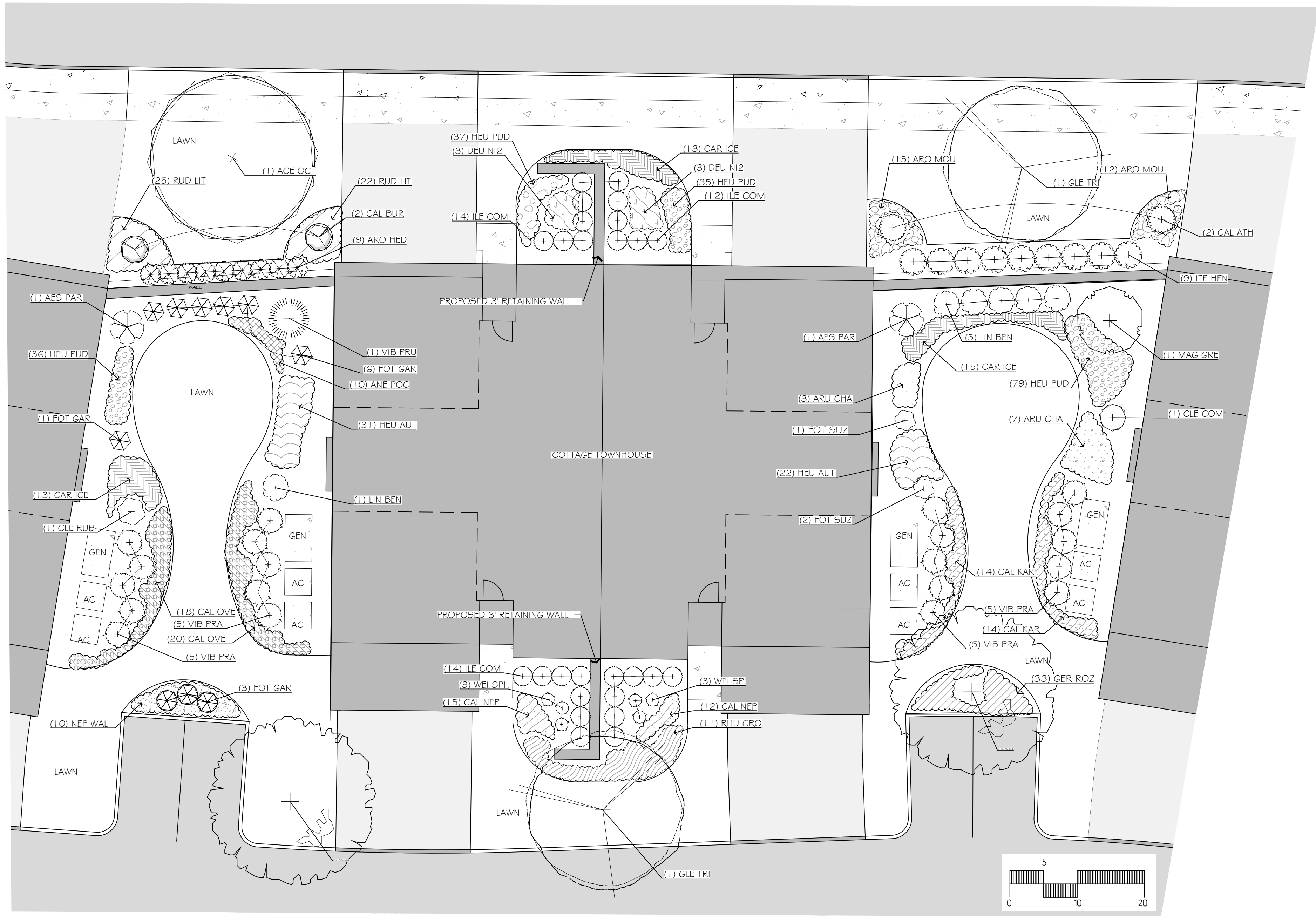


REFS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
ACE OCT	1	Acer rubrum 'October Glory'	October Glory Red Maple	2'-2.5' CAL.	B4B	
CEL OCC	1	Celtis occidentalis	Common Hackberry	2'-2.5' CAL.	B4B	
COR CHB	1	Cornus florida 'Cherokee Brave'	Cherokee Brave Dogwood	6'-8'	B4B	
ILE DAN	3	Ilex opaca 'Dan Fenton'	Dan Fenton American Holly	6'-8'	B4B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
ILE COM	2	Clethra alnifolia 'Compacta'	Compact Summersweet	24"-30"	CONT.	
ILE RUB	1	Clethra alnifolia 'Ruby Spice'	Ruby Spice Summersweet	24"-30"	CONT.	
ILE SIX	1	Clethra alnifolia 'Sixteen Candles'	Sixteen Candles Summersweet	24"-30"	CONT.	
DEU NIK	37	Deutzia gracilis 'Nikko'	Slender Deutzia	24"-30"	CONT.	
FOT GAR	4	Fothergilla gardenii	Dwarf Fothergilla	24"-30"	B4B	
FOT SUZ	5	Fothergilla gardenii 'Suzanne'	Dwarf Fothergilla	24"-30"	B4B	
ILE COM	3	Ilex glabra 'Compacta'	Compact Inkberry	24"-30"	B4B	
LEU AXI	5	Leucothoe axillaris	Coastal Leucothoe	24"-30"	CONT.	
VIB CAR	1	Viburnum carlesii	Korean Spice Viburnum	30"-36"	B4B	
VIB PRA	7	Viburnum x pragensae	Praque Viburnum	30"-36"	B4B	
SHRUB AREAS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ARO MOU	71	Aronia melanocarpa Low 'Scape 'Mound'	Black Chokeberry	1 GAL.	CONT.	18" o.c.
RHU GRO	37	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	1 GAL.	CONT.	36" o.c.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
BAP AUS	9	Baptisia australis	Blue Wild Indigo	1 GAL.	CONT.	36" o.c.
CAL KAR	50	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 GAL.	CONT.	24" o.c.
CAL NEP	51	Calamintha nepeta	Lesser Calamint	1 GAL.	CONT.	16" o.c.
CAR ICE	21	Carex morrowii 'Ice Dance'	Ice Dance Japanese Sedge	1 GAL.	CONT.	24" o.c.
COR VER	21	Coreopsis verticillata 'Moonbeam'	Moonbeam Tickseed	1 GAL.	CONT.	24" o.c.
GER ROD	67	Geranium x 'Rozanne'	Rozanne Cranesbill	1 GAL.	CONT.	18" o.c.
HUE LUT	38	Heuchera villosa 'Autumn Bride'	Autumn Bride Hairy Alumroot	1 GAL.	CONT.	18" o.c.
HUE PUD	35	Heuchera x 'Plum Pudding'	Plum Pudding Coral Bells	1 GAL.	CONT.	12" o.c.
HUE TAP	63	Heucherella x 'Tapestry'	Tapestry Foamy Bells	1 GAL.	CONT.	12" o.c.
NEP WAL	20	Nepeta racemosa 'Walker's Low'	Walker's Low Catmint	1 GAL.	CONT.	24" o.c.
PAN CAP	23	Panicum virgatum 'Cape Breeze'	Cape Breeze Switch Grass	1 GAL.	CONT.	24" o.c.
PAN SHE	29	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 GAL.	CONT.	24" o.c.
PAR QUI	23	Parthenocissus quinquefolia	Virginia Creeper	1 GAL.	CONT.	36" o.c.
RUD LIT	67	Rudbeckia fulgida 'Little Goldstar'	Little Goldstar Coneflower	1 GAL.	CONT.	16" o.c.

2 THE CARRIAGES 2-UNIT TOWNHOUSE SAMPLE PLANTING PLAN SCALE 1"=10'

REFS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
AME CAN	3	Amelanchier canadensis	Canadian Serviceberry	6'-8"	B4B MULTISTEM	
CEL OCC	2	Celtis occidentalis	Common Hackberry	2'-2.5' CAL.	B4B	
COR CHE	3	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	6'-8"	B4B	
GLE TRI	1	Gleditsia triacanthos inermis	Thornless Honey Locust	2'-2.5' CAL.	B4B	
NYS GRE	1	Nyssa sylvatica 'GREEN GABLE'	Green Gable™ Tupelo	2'-2.5' CAL.	B4B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
CAL BUR	1	Calycanthos floridus 'Burgundy Spice'	Burgundy Spice Sweetshrub	24"-30"	B4B	
CAL MIC	1	Calycanthos floridus 'Michael Lindsey'	Michael Lindsey Sweetshrub	24"-30"	B4B	
CLE COM	2	Clethra alnifolia 'Compacta'	Compact Summersweet	24"-30"	CONT.	
DEU NIK	4	Deutzia gracilis 'Nikko'	Slender Deutzia	24"-30"	B4B	
FOT GAR	2	Fothergilla gardenii	Dwarf Fothergilla	24"-30"	CONT.	
ILE COM	3&	Ilex glabra 'Compacta'	Compact Inkberry	24"-30"	B4B	
ITE MER	10	Itea virginica 'Merlot' TM	Short n Sweet Sweetspire	24"-30"	CONT.	
LEU AXI	3	Leucothoe axillaris	Coastal Leucothoe	24"-30"	CONT.	
VIB CAR	1	Viburnum carlesii	Korean Spice Viburnum	30"-36"	B4B	
VIB FRA	3	Viburnum x pragnense	Frague Viburnum	30"-36"	B4B	
SHRUB AREAS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ARO MOU	67	Aronia melanocarpa Low Scape 'Mound'	Black Chokeberry	1 GAL.	CONT.	18' o.c.
RHU GRU	23	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	1 GAL.	CONT.	36' o.c.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ANE POC	15	Anemone hepuchensis 'Pocahontas' TM	Fantasy Pocahontas Japanese Anemone	1 GAL.	CONT.	18' o.c.
CAL KAR	64	Calamagrostis x acutifolia 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 GAL.	CONT.	24' o.c.
CAL NEP	19	Calamintha nepeta	Lesser Calamint	1 GAL.	CONT.	16' o.c.
CAR ICE	15	Carex morrowi 'Ice Dance'	Ice Dance Japanese Sedge	1 GAL.	CONT.	24' o.c.
CEL VER	22	Ceropegia verticillata 'Moonbeam'	Moonbeam Tickseed	1 GAL.	CONT.	24' o.c.
GER ROZ	61	Geranium x 'Rozanne'	Rozanne Cranesbill	1 GAL.	CONT.	18' o.c.
HUF GUD	15	Heuchera x 'Plum Pudding'	Plum Pudding Coral Bells	1 GAL.	CONT.	12' o.c.
HEU TAP	75	Heucherella x 'Tapestry'	Tapestry Foamy Bells	1 GAL.	CONT.	12' o.c.
PAN SHE	35	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 GAL.	CONT.	24' o.c.
PAR QUI	28	Pardanthocissus quinquefolia	Virginia Creeper	1 GAL.	CONT.	36' o.c.
RUD GOL	8	Rudbeckia fulgida sullivanti 'Goldsturm'	Goldsturm Coneflower	1 GAL.	CONT.	24' o.c.

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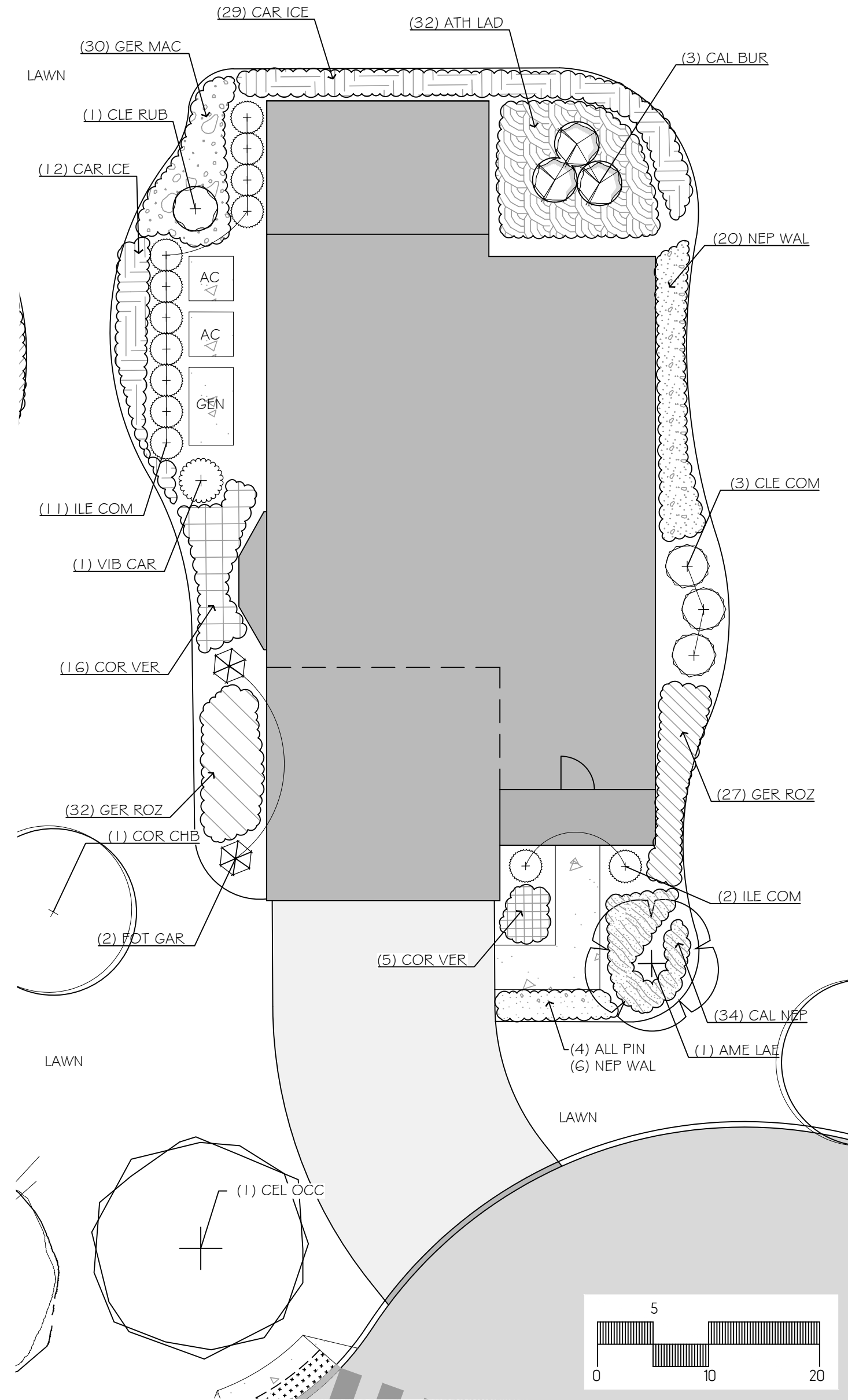
1 THE COTTAGES 2-UNIT TOWNHOUSE SAMPLE PLANTING PLAN

SCALE: 1"=10'

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
ACE OCT	1	Acer rubrum 'October Glory'	October Glory Red Maple	2"-2.5" CAL.	B4B	
GLE TRI	2	Gleditsia tinacanthos inermis	Thornless Honey Locust	2"-2.5" CAL.	B4B	
MAG GRE	1	Magnolia virginiana 'Green Mile'	Green Mile Sweetbay Magnolia	6" -8"	B4B, low branched	
NYS GRE	2	Nyssa sylvatica 'GREEN GABLE'	Green Gable™ Tupelo	2"-2.5" CAL.	B4B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
AES PAR	2	Aesculus parviflora	Bottlebrush Buckeye	24"-30"	B4B	
ARO HED	9	Aronia melanocarpa 'Low Scape Hedger'	Low Scape Hedger® Black Chokeberry	24"-30"	CONT.	
CAL ATH	2	Calycanthus flondus 'Athens'	Athens Sweetshrub	24"-30"	B4B	
CAL BUR	2	Calycanthus flondus 'Burgundy Spice'	Burgundy Spice Sweetshrub	24"-30"	B4B	
CLE COM	1	Clethra alnifolia 'Compacta'	Compact Summersweet	24"-30"	CONT.	
CLE RUB	1	Clethra alnifolia 'Ruby Spice'	Ruby Spice Summersweet	24"-30"	CONT.	
FOT GAR	10	Fothergilla gardenii	Dwarf Fothergilla	24"-30"	B4B	
FOT SUZ	2	Fothergilla gardenii 'Suzanne'	Dwarf Fothergilla	24"-30"	B4B	
ILE COM	26	Ilex glabra 'Compacta'	Compact Inkberry	24"-30"	B4B	
ITE HEN	9	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	24"-30"	CONT.	
LIN BEN	1	Lindera benzoin	Spicebush	24"-30"	CONT.	
VIB PRU	6	Viburnum prunifolium	Blackhaw Viburnum	30"-36"	B4B	
VIB PRA	20	Viburnum x pragnense	Prague Viburnum	30"-36"	B4B	
WEI SPI	6	Weigela florida 'Spilled Wine'	Weigela	24"-30"	CONT.	
SHRUB AREAS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ARO MOU	27	Aronia melanocarpa 'Low Scape Mound'	Black Chokeberry	1 GAL.	CONT.	18" o.c.
DEU NI2	6	Deutzia gracilis 'Nikko'	Nikko Deutzia	18"-24"	CONT.	36" o.c.
RHU GRO	11	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	1 GAL.	CONT.	36" o.c.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ANE FOC	10	Anemone hepatica 'Pocahontas' TM	Fantasy Pocahontas Japanese Anemone	1 GAL.	CONT.	18" o.c.
ARU CHA	10	Aruncus x 'Chantilly Lace'	Chantilly Lace Goatsbeard	1 GAL.	CONT.	36" o.c.
CAL KAR	28	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 GAL.	CONT.	24" o.c.
CAL OVE	38	Calamagrostis x acutiflora 'Overdam'	Overdam Feather Reed Grass	1 GAL.	CONT.	24" o.c.
CAL NEP	27	Calamintha nepeta	Lesser Calamint	1 GAL.	CONT.	16" o.c.
CAR ICE	41	Carex morrowii 'Ice Dance'	Ice Dance Japanese Sedge	1 GAL.	CONT.	24" o.c.
GER ROZ	33	Geranium x 'Rozanne'	Rozanne Cranesbill	1 GAL.	CONT.	18" o.c.
HEU AUT	53	Heuchera villosa 'Autumn Brnde'	Autumn Brnde Hairy Alumroot	1 GAL.	CONT.	18" o.c.
HEU PUD	187	Heuchera x 'Plum Pudding'	Plum Pudding Coral Bells	1 GAL.	CONT.	12" o.c.
NEP WAL	10	Nepeta racemosa 'Walker's Low'	Walker's Low Catmint	1 GAL.	CONT.	24" o.c.
RUD LIT	47	Rudbeckia fulgida 'Little Goldstar'	Little Goldstar Coneflower	1 GAL.	CONT.	16" o.c.

NOTES: SEE THE MASTER PLANT SCHEDULE ON THE COVER SHEET L-001.



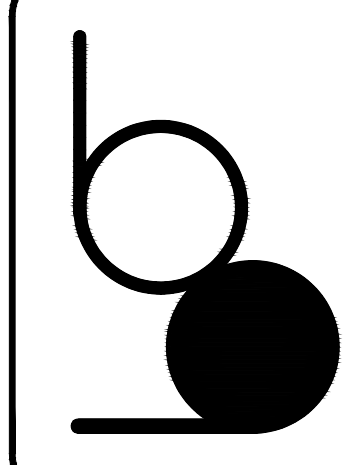
2 THE CARRIAGES SINGLE-UNIT TOWNHOUSE SAMPLE PLANTING PLAN

SCALE: 1"=10'

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
AME LAE	1	Amelanchier laevis	Allegheny Serviceberry	6'-8"	B4B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	
CAL BUR	3	Calycanthus flondus 'Burgundy Spice'	Burgundy Spice Sweetshrub	24"-30"	B4B	
CLE COM	3	Clethra alnifolia 'Compacta'	Compact Summersweet	24"-30"	CONT.	
CLE RUB	1	Clethra alnifolia 'Ruby Spice'	Ruby Spice Summersweet	24"-30"	CONT.	
FOT GAR	2	Fothergilla gardenii	Dwarf Fothergilla	24"-30"	B4B	
ILE COM	13	Ilex glabra 'Compacta'	Compact Inkberry	24"-30"	B4B	
VIB CAR	1	Viburnum carlesii	Korean Spice Viburnum	30"-36"	B4B	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
ALL PIN	4	Allium x 'Pink Planet'	Pink Planet Ornamental Onion	bulb	CONT.	24" o.c.
ATH LAD	32	Athyrium filix-femina 'Lady in Red'	Lady in Red Fern	1 GAL.	CONT.	24" o.c.
CAL NEP	34	Calamintha nepeta	Lesser Calamint	1 GAL.	CONT.	16" o.c.
CAR ICE	41	Carex morrowii 'Ice Dance'	Ice Dance Japanese Sedge	1 GAL.	CONT.	24" o.c.
COR VER	21	Coreopsis verticillata 'Moonbeam'	Moonbeam Tickseed	1 GAL.	CONT.	24" o.c.
GER MAC	30	Geranium maculatum	Spotted Geranium	1 GAL.	CONT.	18" o.c.
GER ROZ	59	Geranium x 'Rozanne'	Rozanne Cranesbill	1 GAL.	CONT.	18" o.c.
NEP WAL	26	Nepeta racemosa 'Walker's Low'	Walker's Low Catmint	1 GAL.	CONT.	24" o.c.

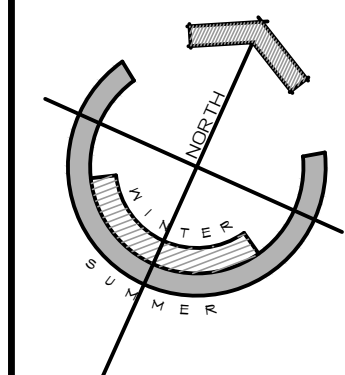
NOTES: SEE THE MASTER PLANT SCHEDULE ON THE COVER SHEET L-001.



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SOURCE INFORMATION:
SITE PLAN AND SURVEY:
GLADSTONE DESIGN, INC.
355 Main Street, P.O. Box 400
Gladstone, New Jersey 07934
T: (908) 234-0309 ext. 44
F: (908) 795-3320

THE ESTATES AT HURSTMONT
HARDING TOWNSHIP, NJ



THE CARRIAGE AND COTTAGE
SAMPLE PLANTING PLANS

PREPARED FOR:
THE ESTATES AT HURSTMONT
BLOCK 27 LOT 2
679 MT. KEMBLE AVENUE
HARDING TOWNSHIP, NJ

PREPARED BY:
BOSENBERG

LANDSCAPE ARCHITECTURE
PO BOX 486
FAR HILLS, NJ 07931
(908)234-0557

DATE: MAY 5, 2023
SCALE: AS NOTED
REVISIONS:

May 26, 2023 - Lighting levels

NJ Certificate of Authorization
MH000126
JIM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800

Jim Mazzucco
SHEET **L-401**

10 SELECTION AND HANDLING OF PLANT MATERIAL

- CONTRACTOR TO VERIFY PLANT LIST(S), PLANT SPECIES AND QUANTITIES COORDINATE WITH PLANTING PLANS.
- CONTRACTOR TO SUPPLY NURSERY SOURCE FOR ALL PLANT MATERIAL. PLANTS SHALL BE Sourced FROM THE SAME GEOLOGICAL REGION.
- PLANTS WITH UNDERSIZED OR BROKEN ROOT BALLS: EXCESSIVE CURLING AND/OR GROUNDING OF ROOTS: INJURY FROM ROUGH TREATMENT, OR DROUGHT STRESS WILL BE REJECTED.
- PLEASE NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO GUARANTEE THAT THE ROOT BALLS ARE PROPERLY SIZED. PLEASE BE AWARE THAT FOR PROPER SIZING, EXCESS ALIEN SOIL SHALL BE REMOVED PRIOR TO DIGGING. SEE DIAGRAM 12.
- ROOT BALLS SHALL BE KEPT MOIST AT ALL TIMES.
- PLANTS SHALL BE COVERED DURING TRANSPORT TO PREVENT DESICCATION FROM WIND. IN WARM WEATHER PLANTS SHALL BE COVERED JUST PRIOR TO TRAVEL AND UNCOVERED IMMEDIATELY UPON REACHING DESTINATION TO AVOID HEAT BUILD UP UNDER THE TARP. PLANT MATERIAL SHALL NOT BE LEFT IN DIRECT SUNLIGHT OR IN HIGH HEAT ABSORPTION MATERIALS, SUCH AS BUT NOT LIMITED TO, ASPHALT AND/OR METAL TRUCK BEDS TO PREVENT THE WILTING OF MATERIAL.
- TREES SHALL BE MOVED BY THEIR ROOT BALL NOT THEIR TRUNK. TREES LARGER THAN 6" SHALL BE MOVED WITH PROPER STRAPPING SECURING ROOT BALL TO EQUIPMENT. WEAVE STRAPPING THROUGH THE LACING, NOT AROUND THE TRUNK. TREE TRUNK SHALL BE PROTECTED AT ALL TIME FROM COMPRESSION AND SEARING.
- IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN:
 - PLACE IN PARTIAL SHADE WHEN POSSIBLE.
 - COVER ROOT BALL WITH MOISTENED MULCH OR AGED WOOD CHIPS.
 - SUPPLY PROPER IRRIGATION AS NOT TO ALLOW THE ROOT BALL TO DRY OUT.
 - UNITE PLANT MATERIAL AND ALLOW PROPER SPACING OF PLANTS FOR AIR CIRCULATION TO PREVENT DISEASE, WILTING, LEAF LOSS AND GENERAL HEALTH OF PLANTS.

11 STANDARD ROOT BALL SIZES FOR NURSERY-GROWN SHADE TREES

DECIDUOUS TREES				
CALIPER* (IN)	HEIGHT RANGE	MAX HEIGHT	MIN BALL DIA (IN)	MIN BALL DEPTH (IN)
1/2"	5'-6'	8'	12"	9"
1/2"	6'-8'	10'	14"	10 1/2"
1"	8'-10'	12'	16"	12"
1 1/2"	8'-10'	12'	18"	13 1/2"
1 1/2"	10'-12'	14'	20"	15 1/2"
1 1/2"	10'-12'	14'	22"	16 1/2"
2"	12'-14'	16'	24"	18"
2 1/2"	12'-14'	16'	28"	18 1/2"
3"	14'-16'	18'	32"	19 1/2"
3 1/2"	14'-16'	18'	38"	23"
4"	16'-18'	22'	42"	25"
5"	18'-20'	26'	54"	32 1/2"

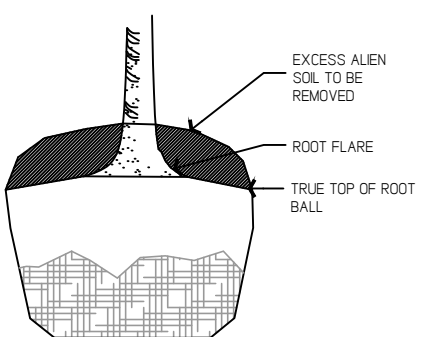
MULTI-STEM TREES		
HEIGHT	MIN BALL DEPTH (IN)	MIN BALL DEPTH (IN)
4'	14"	12"
5'	16"	12"
6'	18"	13 1/2"
7'	20"	13 1/2"
8'	22"	14 1/2"
10'	24"	16"
12'	28"	18 1/2"
14'	32"	21 1/2"
16'	38"	25 1/2"
18'	42"	28"
20'	48"	32"

CONIFEROUS TREES		
HEIGHT	MIN BALL DIA (IN)	MIN BALL DEPTH (IN)
4'	14"	12"
5'	16"	13 1/2"
6'	18"	14 1/2"
7'	24"	16"
8'	22"	18 1/2"
10'	34"	21 1/2"
12'	38"	23 1/2"
14'	42"	28"
16'	46"	32"
18'	50"	33 1/2"

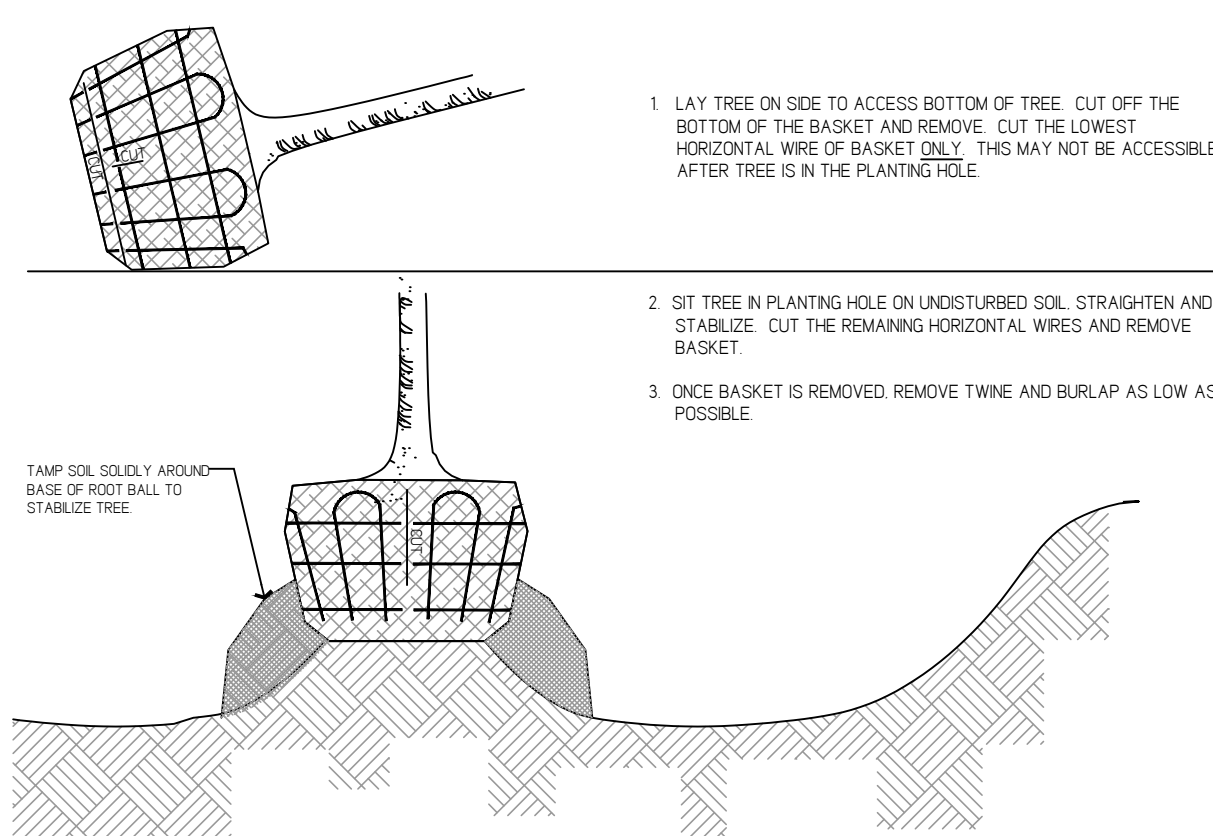
- SEE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1, FOR COMPLETE LIST OF NURSERY STANDARDS FOR OTHER TYPES AND SIZES OF TREES AND SHRUBS.
- UP TO AND INCLUDING THE 4-IN. CALIPER SIZE, THE CALIPER MEASUREMENT INDICATES THE DIAMETER OF THE TRUNK 6 IN. ABOVE GROUND LEVEL. FOR LARGER SIZES, THE CALIPER MEASUREMENT IS TAKEN 12 IN. ABOVE GROUND LEVEL.

12 TREE ROOT FLARE DIAGRAM

- PRIOR TO DIGGING TREE AT NURSERY LOCATE THE ROOT FLARE. THIS WILL ALLOW FOR PROPER ROOT BALL SIZING BEFORE DIGGING.
- PRIOR TO PLANTING, VERIFY THE TOP ELEVATION OF THE TRUE ROOT BALL BY REMOVING BURLAP & ALIEN SOIL. SOIL IS PRESENT REMOVE UNTIL THE ROOT FLARE IS EXPOSED.
- AT THIS TIME ANY GROUNDING OR CRUISING ROOTS SHOULD BE REMOVED. EXCESSIVE GROUNDING OR CRUISING ROOTS WILL CAUSE THE TREE TO BE REJECTED.
- ONCE SOIL IS REMOVED RETIE DRUM LACING IF BASKET IS PRESENT. RETIE TO BASKET.
- IF TO MUCH SOIL IS REMOVED IN THE FIELD THE ROOT BALL IS EFFECTIVELY UNDERSIZED AND WILL BE REJECTED.



13 REMOVAL OF WIRE BASKETS (if present)



14 GENERAL RANGE OF SOIL MODIFICATIONS AND VOLUMES FOR VARIOUS SOIL CONDITIONS

POST CONSTRUCTION SOIL CONDITION	MIN. WIDTH PREPARED SOIL FOR TREES (X)	TYPE OF PREPARATION
GOOD SOIL (NOT PREVIOUSLY GRADED OR COMPACTED TOPSOIL LAYER IN PLACE)	6 FT. OR TWICE THE WIDTH OF THE ROOT BALL, WHICHEVER IS GREATER	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN ON PLANTING DETAILS
COMPACTED SOIL (NOT PREVIOUSLY GRADED TOPSOIL LAYER DISTURBED BUT NOT ELIMINATED)	6 FT.	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN ON PLANTING DETAILS. ADD COMPOSTED ORGANIC MATTER TO BRING THE CONTENT UP TO 15% DRY WEIGHT.
GRADED SUBSOILS AND CLEAN FILLS WITH CLAY CONTENT BETWEEN 35 AND 55 %	20 FT.	MINIMUM TREATMENT: LOOSEN EXISTING SOILS TO WIDTHS AND DEPTHS SHOWN, ADD COMPOSTED ORGANIC MATTER TO BRING ORGANIC CONTENT UP TO 15% DRY WEIGHT. OPTIMUM TREATMENT: REMOVE TOP 8 TO 10 IN. OR THE EXISTING MATERIAL, LOOSEN EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN IN THE PLANTING DETAILS, ADD 8-10 IN. OF LOAM TOPSOIL.
POOR QUALITY FILLS HEAVY CLAY SOILS, CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL, EXISTING SOIL	20 FT.	REMOVE EXISTING MATERIAL AND REPLACE WITH A LOAM TOPSOIL TO A MINIMUM DEPTH OF 24". THE DEPTHS OF LOAM TOPSOIL MAY BE GREATER THAN 24" DUE TO THE SIZE OF PLANT MATERIAL. AT TIME OF INSTALLATION REFER TO CHART 11 FOR DEPTHS. THE WIDTH SHALL BE 20 FT. OR GREATER EXTENT FEASIBLE BASED UPON SITE CONSTRAINTS.

14 SOIL MODIFICATIONS cont.

- THE QUALITY OF SOIL AVAILABLE FOR PLANTING VARIES WIDELY FROM SITE TO SITE, ESPECIALLY AFTER CONSTRUCTION ACTIVITY HAS OCCURRED. THE NATURE OF CONSTRUCTION RESULTS IN COMPACTION, FILLING, CONTAMINATION, AND GRADING OF THE ORIGINAL SOIL ON A SITE, RAPIDLY MAKING IT USELESS FOR PLANTING. PREVIOUS HUMAN ACTIVITY AT A SITE CAN ALSO AFFECT THE ABILITY OF THE SOIL TO SUPPORT PLANTS.
- WHENEVER POSSIBLE THE SOIL IMPROVEMENT AREA SHOULD BE CONNECTED FROM TREE TO TREE.
- ALWAYS TEST SOIL FOR PH, NUTRIENT LEVELS, AND TEXTURAL CLASS AND ADJUST THESE AS REQUIRED. SUBMIT TEST RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO PLANTING ALONG WITH SOIL IMPROVEMENT SUGGESTIONS. SOIL TESTS CAN BE ACQUIRED FROM YOUR LOCAL COUNTY AGRICULTURAL EXTENSION OR AT NURSERY COOPERATIVE EXTENSION 732-932-9295.
- LOOSEN SOIL WITH A BACK HOE OR OTHER LARGE COARSE-TILING EQUIPMENT (SUB-SOLIER) WHEN POSSIBLE. THIS SHOULD NOT BE PERFORMED WHEN SOIL IS FROZEN OR EXCESSIVELY WET. TILLING THAT PRODUCES LARGE COARSE CHAINS OF SOIL IS PREFERABLE TO TILLING THAT RESULTS IN FINE GRANS UNIFORM IN TEXTURE. AFTER THE PLANTING AREA IS LOOSENED IT SHALL NOT BE CRUSHED OVER BY ANY VEHICLE.
- PLANT BED/TREE PIT DRAINAGE: LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO INSTALLATION OF PLANTS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO PLANTING.
- PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:
 - FOR ALL PLANT BED PREPARATIONS:
 - ORGANIC MECHANICS BIOCHAR BLEND OR APPROVED EQUAL. CONTAINS BIOCHAR, COMPOST, EARTHWORK CASTINGS, BONE CHAR, AZOMITE, ZEOLITE, ALFALFA MEAL, AND KELP MEAL. BIOCHAR IS BIOLOGICAL CHARCOAL THAT IS USED AS A SOIL CONDITIONER TO INCREASE WATER RETENTION, SOIL PH, AND MICROBIAL ACTIVITY. BIOCHAR THAT IS CHARGED HAS BEEN INOCULATED WITH NUTRIENTS AND MICROBES FROM A SOURCE OF ORGANIC MATTER, SUCH AS COMPOST. THIS PREVENTS THE BIOCHAR FROM DEPLETING EXISTING NUTRIENTS FROM THE SOIL WHEN FIRST APPLIED.
 - DIRECTIONS FOR USE: MIX 3" INTO THE TOP 6" OF THE SOIL AT A RATE OF 15 CUBIC YARDS PER 1000 S.F. OR EQUIVALENT WEIGHT APPLICATION.
 - FOR SINGULAR SHRUB AND TREE PLANTINGS:
 - ORGANIC MECHANICS FULFERTHROLOTTI ROOT ZONE FEEDER PACKS OR APPROVED EQUAL. CONTAINS A MEASURED DOSE OF FERTILIZER, MYCORRHIZAE, BIOCHAR, AZOMITE, AND MICROBIZED OYSTER SHELL.
 - DIRECTIONS FOR USE: TO BE ADDED AT TIME OF PLANTING DIRECTLY BESIDE OR UNDERNEATH THE ROOT BALL. USE 1 PER PLANT. IF PLANTING SIZE IS LARGER THAN A 5 GALLON CONTAINER, USE 1 PACK PER EVERY 5 GALLONS.

MANUFACTURER INFORMATION

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PROOF OF COMPLIANCE WITH SPECIFICATIONS

THE CONTRACTOR WILL DEMONSTRATE COMPLIANCE BY PRESENTING THE LANDSCAPE ARCHITECT WITH THE FOLLOWING:

INVOICES TO PROVE PURCHASE OF PRODUCT IN SUFFICIENT QUANTITY TO COVER THE PROJECT AT THE RATES RECOMMENDED BY THE MANUFACTURER. INCLUDE PROJECT NAME, DATE OF PURCHASE OF PRODUCT, AND NAME OF CONTACT.

SUBMIT EMPTY PRODUCT CONTAINERS AND/OR PACKAGING AFTER INSTALLATION IN THE QUANTITY SPECIFIED TO COVER THE PROJECT AT THE RATES RECOMMENDED BY THE MANUFACTURER.

THE USE OF CHEMICAL PESTICIDES AND HERBICIDES IS LINKED TO A DIMINISHMENT OF SOIL LIFE AND SUBSEQUENT DEGRADATION OF SOIL AND PLANT HEALTH. WE DO NOT RECOMMEND THE USE OF THESE SUBSTANCES ON THE LANDSCAPE AS THEY WILL CONTRACTOR THE ABOVE STEPS TAKEN TO FOSTER SOIL AND PLANT HEALTH.

OVER-IRRIGATION WILL RESULT IN A LACK OF OXYGEN IN THE SOIL, HINDERING THE GROWTH OF PLANT AND SOIL LIFE AND POTENTIALLY LEADING TO PLANT ROOT ROT AND/OR DISEASE FOR EXCESSIVELY WET AND POOR DRAINING SITES. UNDER-DRAINAGE MAY BE REQUIRED.

15 BARE ROOT TREE PLANTINGS

FOR BARE ROOT TREES AND SHRUBS

SHRUB EX DRAM'S 3-2-3 BARE-ROOT GEL, PLUS SOIL & ROOT INOCULANT OR APPROVED EQUAL.

COMBINES TRANSPARENT CONCENTRATE AND PLANT ENHANCER. GRANULAR END-USE TO MYCORRHIZAL SOIL AND ROOT INOCULANTS, AND ADVANCED POLYMER GEL CRYSTALS TO INCREASE PLANT HYDRATION AND IMPROVE PLANT ESTABLISHMENT.

MIXING DIRECTIONS:

MIX 3 OZ. OF PRODUCT 1-2-3 BARE-ROOT GEL PER EACH 1 GALLON OF WATER. LET STAND FOR 30 MINUTES TO ACTIVATE OR SOAK BARE ROOT PLANTS IN MIXTURE FOR 5 MINUTES PRIOR TO PLANTING.

PLANTING DIRECTIONS:

1. CULL TREE WITH ROOTS IN LESS THAN THREE QUADRANTS.

2. PRUNE OFF ALL BROKEN, DEAD OR DISEASED ROOTS.

3. MAKE FRESH CUTS AT ENDS OF ROOTS.

4. DIG PLANT HOLES AT LEAST 3 X THE WIDTH AND DEPTH OF THE ROOT MASS.

5. PLANT ROOT FLARE AT GRADE OR GRAFT JUST ABOVE GRADE.

6. BACK FILL ALL HOLES WITH PLANTING MIX APPROVED BY LANDSCAPE ARCHITECT. UN-COMPACTED NATIVE SOILS ARE PREFERRED WITH A TOP DRESSING OF ORGANIC MULCH.

PROOF OF COMPLIANCE WITH SPECIFICATIONS

THE CONTRACTOR WILL DEMONSTRATE COMPLIANCE BY PRESENTING THE LANDSCAPE ARCHITECT WITH THE FOLLOWING:

INVOICES TO PROVE PURCHASE OF PRODUCT IN SUFFICIENT QUANTITY TO COVER THE PROJECT AT THE RATES RECOMMENDED BY THE MANUFACTURER. INCLUDE PROJECT NAME, DATE OF PURCHASE OF PRODUCT, AND NAME OF CONTACT.

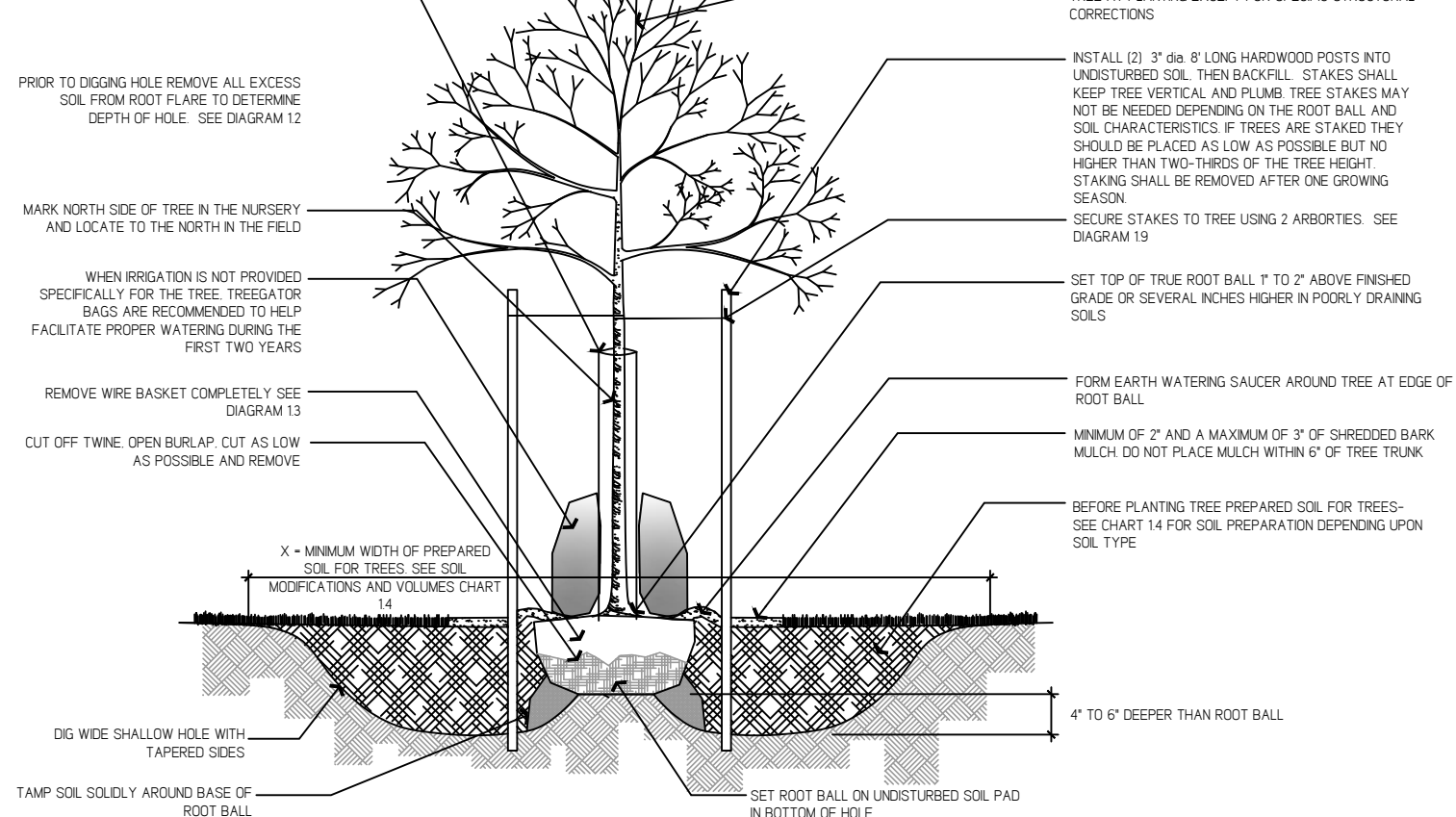
SUBMIT EMPTY PRODUCT CONTAINERS AND/OR PACKAGING AFTER INSTALLATION IN THE QUANTITY SPECIFIED TO COVER THE PROJECT AT THE RATES RECOMMENDED BY THE MANUFACTURER.

THE USE OF CHEMICAL PESTICIDES AND HERBICIDES IS LINKED TO A DIMINISHMENT OF SOIL LIFE AND SUBSEQUENT DEGRADATION OF SOIL AND PLANT HEALTH. WE DO NOT RECOMMEND THE USE OF THESE SUBSTANCES ON THE LANDSCAPE AS THEY WILL CONTRACTOR THE ABOVE STEPS TAKEN TO FOSTER SOIL AND PLANT HEALTH.

OVER-IRRIGATION WILL RESULT IN A LACK OF OXYGEN IN THE SOIL, HINDERING THE GROWTH OF PLANT AND SOIL LIFE AND POTENTIALLY LEADING TO PLANT ROOT ROT AND/OR DISEASE FOR EXCESSIVELY WET AND POOR DRAINING SITES. UNDER-DRAINAGE MAY BE REQUIRED.

16 DECIDUOUS TREE PLANTING DETAIL

- FOR CONTAINER GROWN TREES USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CURLING THE PERIMETER OF THE CONTAINER.
- INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.
- PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
- THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO GROWING SEASONS. WHEN IRRIGATION IS NOT PROVIDED SPECIFICALLY FOR THE TREE, IT IS RECOMMENDED THAT GATOR BAGS ARE USED TO HELP FACILITATE THE PROPER AMOUNT AND RATE OF WATER ARE ACHIEVED. GATOR BAGS SHALL BE INSTALLED AT THE BEGINNING OF EACH GROWING SEASON AND REMOVED EACH FALL. THIS WILL ALLOW FOR THE AREA BENEATH THE GATOR BAG TO DRY OUT REDUCING THE GROWTH OF FUNGUS AND REMOVE POSSIBLE HIDING SPOTS FOR RODENTS. THE GATOR BAGS WILL BE REMOVED AT THE END OF THE SECOND GROWING SEASON UNLESS OTHERWISE ADVISED.



17 CONIFEROUS TREE PLANTING DETAIL

- FOR CONTAINER GROWN TREES USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CURLING THE PERIMETER OF THE CONTAINER.
- INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.
- PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
- THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS. WHEN IRRIGATION IS NOT PROVIDED SPECIFICALLY FOR THE TREE, IT IS RECOMMENDED THAT GATOR BAGS ARE USED TO HELP FACILITATE THE PROPER AMOUNT AND RATE OF WATER ARE ACHIEVED. GATOR BAGS SHALL BE INSTALLED AT THE BEGINNING OF EACH GROWING SEASON AND REMOVED EACH FALL. THIS WILL ALLOW FOR THE AREA BENEATH THE GATOR BAG TO DRY OUT REDUCING THE GROWTH OF FUNGUS AND REMOVE POSSIBLE HIDING SPOTS FOR RODENTS.

