# 88 Glen Alpin Road, LLC

HARDING TOWNSHIP, NJ MORRIS COUNTY BLOCK 26 - LOT 11 Zone: R-1

	ZONING SCHEE	DULE	
	ZONE R-1		
BULK ITEM	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	3.0 AC	2.424 AC*	2.424 AC*
MIN. LOT FRONTAGE	300 FT	308.75 FT	308.75 FT
MAIN HOUSE			
MIN. FRONT YARD	100 FT	40.3 FT*	40.3 FT (V)
MIN. REAR YARD	100 FT	184.2 FT	162.92 FT
MIN. SIDE YARD	100 FT	37.5 FT*	35.9 FT (V)
MAX. BUILDING HEIGHT	2-1/2 STORIES	2-1/2 STORIES	
	35 FT	34 FT	
STUDIO			
MIN. FRONT YARD	100 FT	107.4 FT	107.4 FT
MIN. SIDE YARD	100 FT	114.4 FT	114.4 FT
MAX. BUILDING HEIGHT	25 FT	24.5 FT	NO CHANGE
SHED			
MIN. FRONT YARD	100 FT	21.1 FT	21.1 FT (V)
MIN. SIDE YARD	100 FT	177.5 FT	177.5 FT
MAX. BUILDING HEIGHT	25 FT	15 FT	NO CHANGE
GARAGE			
MIN. FRONT YARD	100 FT	23 FT	23 FT
MIN. SIDE YARD	100 FT	92.1 FT	90.8 FT
MAX. BUILDING HEIGHT	25 FT	23 FT	NO CHANGE
COVERAGE			
MAX. BUILDING COVERAGE	3%	3.14%*	4.00% (V)
MAX. LOT COVERAGE	10%	8.8%	9.8%

\* EXISTING NON-CONFORMING (V) VARIANCE REQUIRED

- THE PROPOSED PROJECT DOES NOT CONTAIN ANY AND WILL NOT DISTURB ANY FRESHWATER WETLANDS OR BOUNDARY AREAS.
- 2. NO FLOOD PLAIN LIMITS ARE PRESENT ON THE PROPERTY.

## 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 Township of Harding. 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 libel 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
- 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.

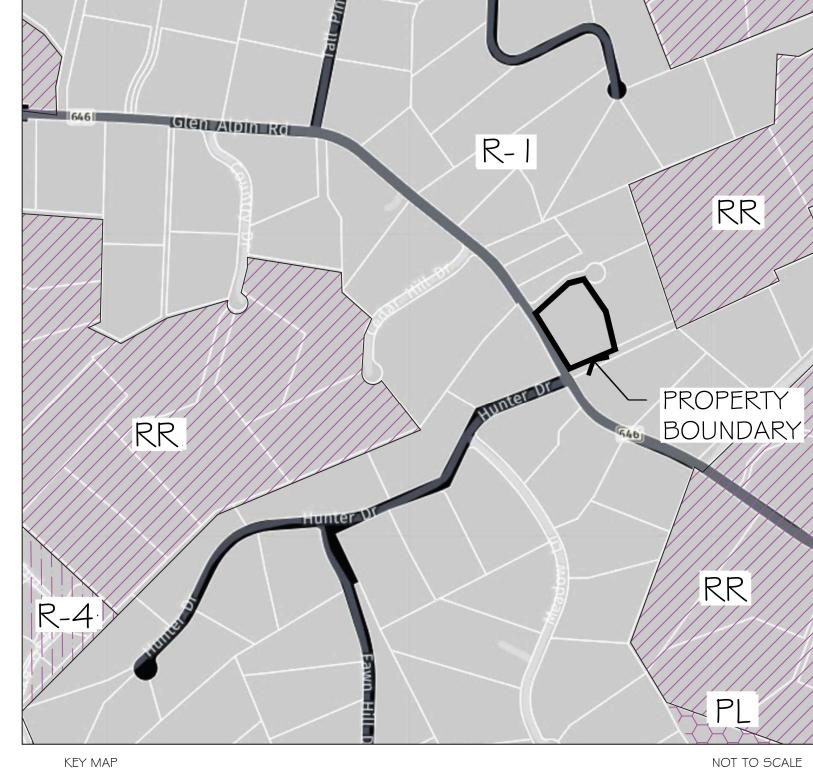
- II. Site protection: Protect lawns, meadows, buildings and existing trees \$ shrubs from construction damage. Do not park equipment or stockpile materials on lawn, meadow or within the root zone/dripline of trees areas. Tree protection fencing shall be provided around all existing trees to be save 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 dramage systems, storage tanks, utilities, and/or septic systems.
- 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
- 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.

- 2. Lime to be added to the soil at a rate of 2 tons per acre or as dictated by soil tests.
- 3. 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.
- 4. 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.
- 5. 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

6. Produce dense, vigorous, well-established grass areas. Reseed areas as required. Owner is responsible for proper watering to ensure turf establishment.

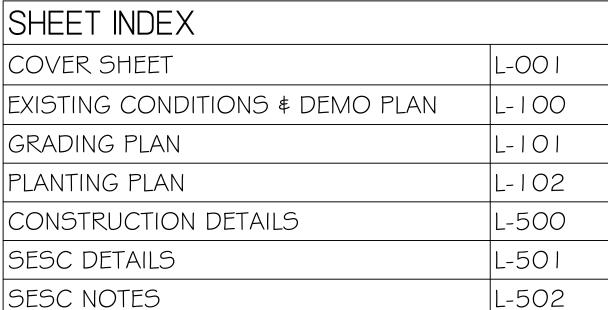
7. Once established, the lawn, shall be moved to a height of 4" to allow for dense root growth.

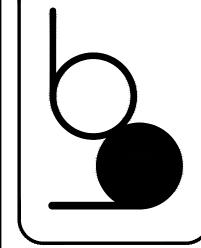


[SOURCE: Nearmap 9/14/23]

R-I - RESIDENCE R-4 - RESIDENCE RR - RURAL RESIDENTIAL PL - PUBLIC LAND

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COVER SHEET

REPARED FOR: 88 GLEN ALPIN ROAD, LLC LOT 11 BLOCK 26 88 GLEN ALPIN ROAD HARDING TOWNSHIP, NJ

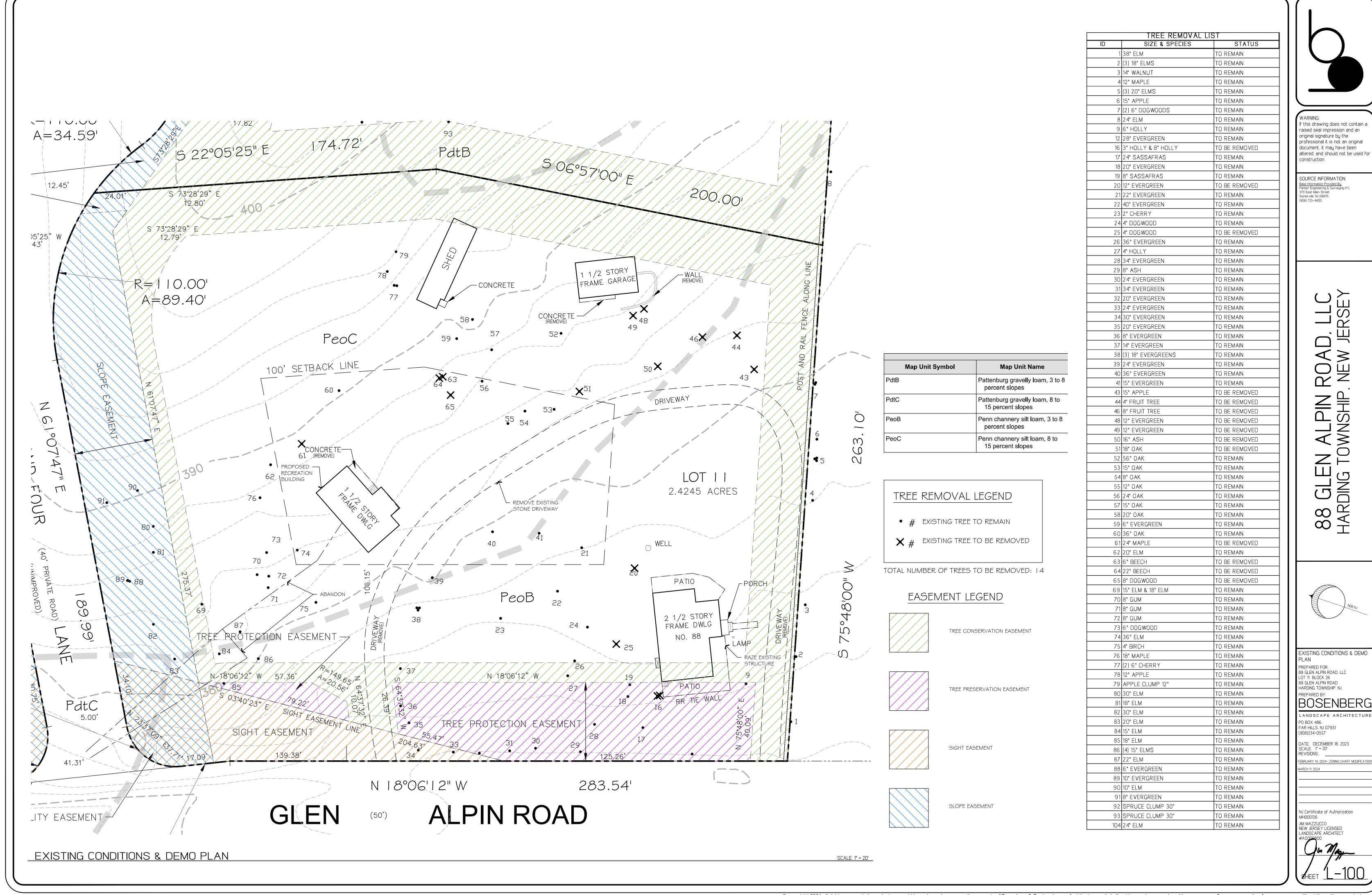
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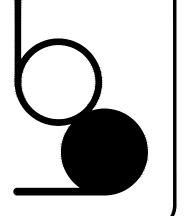
FAR HILLS, NJ 07931 (908)234-0557 DATE: DECEMBER 18, 2023

REVISIONS: BRUARY 14, 2024- ZONING CHART MODIFICAT RCH 11, 2024

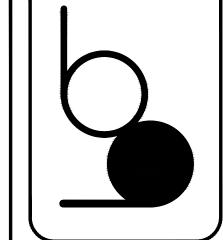
IJ Certificate of Authorization

JIM MAZZUCCO NEW JERSEY LICENSED ANDSCAPE ARCHITECT





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SOURCE INFORMATION: Base Information Provided By: Parker Engineering & Surveying P.C. 370 East Main Street Somerville. NJ 08876 (908) 725-4400

Architectural Information Provided By: Studio 1200 Architecture + Design 511 Milburn Ave. Short Hills. NJ 07078 (973) 376-5111

N ALPIN TOWNSHIP.

GRADING PLAN

PREPARED FOR: 88 GLEN ALPIN ROAD, LLC LOT 11 BLOCK 26

BOSENBERG

FAR HILLS. NJ 07931 (908)234-0557

JIM MAZZUCCO NEW JERSEY LICENSED



Lot Area	105,611	sf.	
Allowable Lot Coverage (10%)	10,561.10	sf.	
Lot Coverage Calculations			
Proposed Residence	1,803.00	sf.	
Front walk	213.57	sf.	
Walk (side)	43.88	sf.	
Patio (main house)	283.30	sf.	
Step Stones (main house)	22.50	sf.	
Proposed Driveway	4,027.10	sf.	
Existing Garage	544.46	sf.	
Proposed Garage Addition	212.00	sf.	
Landing (Garage)	20.84	sf.	
Proposed Pool	880.00	sf.	
Proposed Pool patio and walks	658.46	sf.	
Existing Cottage	920.25	sf.	
Existing Shed	574.35	sf.	
Misc. steps, landing	24.00	sf.	
Utilities ( ac, generator)	68.00	sf.	
Total Proposed Lot Coverage:	10,295.71	( 9.7%	)
Building Coverage Calculations			
Proposed Residence	1,803.00	sf.	
Existing Garage	544.46	sf.	
Proposed Garage Addition	212.00	sf.	
Existing Shed	574.35	sf.	
Existing Cottage	920.25	sf.	_
Proposed Building Coverage:	4,054.06	( 4.0%	)

	Slopes Table					
Number	Minimum Slope	Maximum Slope	Color	SF.		
1	0.00%	7.90%		46,196.12		
2	8.00%	11.90%		40,910.41		
3	12.00%	15.90%		11,137.06		
4	16.00%	19.90%		3,461.28		
5	20.00%	24.90%		807.04		
6	25.00%	29.90%		309.52		
7	30.00%	100.00%		464.20		

Slope Category	Total Area (sf.)	Disturbed Area (sf.)	Slope Adjustment Factor	Adjusted Graded Area (sf.)
0% - 7.9%	48,521.49	16,421.2	1.0	16,421.2
8% - 11.9%	40,910.41	7,648.5	1.5	11,472.8
12% - 15.9%	11,137.06	1,645.1	2.6	4,277.4
16% - 19.9%	3,461.28	458.7	3.8	1,743.0
20% - 24.9%	807.04	-	5.5	-
25% - 29.9%	309.52	-	7.5	_
30% or Greater	464.20	-	8.6	-
<u> </u>				33.914.4

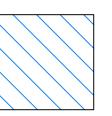
# EASEMENT LEGEND

TREE CONSERVATION EASEMENT

TREE PRESERVATION EASEMENT



SIGHT EASEMENT



SLOPE EASEMENT

PLANTING PLAN

# PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
TREES					
ACE OCT	3	Acer rubrum 'October Glory'	October Glory Red Maple	2"-2.5" CAL.	В≰В
CEL OCC	1	Celtis occidentalis	Common Hackberry	2"-2.5" CAL.	B≰B
COR CHE	1	Cornus florida `Cherokee Princess`	Cherokee Princess Dogwood	6`-8`	B≰B
FAG SYL	57	Fagus sylvatica	European Beech	2"-2.5" CAL.	B&B, low branched
GLE SHA	2	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	2"-2.5" CAL.	B≰B
ILE DAN	1.1	llex opaca 'Dan Fenton'	Dan Fenton American Holly	8`-10`	В≰В
ILE NEL	2	llex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	8`-10`	B≰B
JUN VIR	4	Juniperus virginiana	Eastern Redcedar	8`-10`	В≰В
NYS GRE	5	Nyssa sylvatica 'NSUHH'	Green Gable™ Tupelo	2"-2.5" CAL.	B&B, 4` branching
NYS GR2	5	Nyssa sylvatica 'NSUHH'	Green Gable™ Tupelo	2"-2.5" CAL.	B&B, low branched
PIC ABI	8	Picea abies	Norway Spruce	8`-10`	В≰В
PIN STR	2	Pinus strobus	White Pine	8`-10`	В≰В
QUE BIC	1	Quercus bicolor	Swamp White Oak	2"-2.5" CAL.	B≰B
QUE PAL	4	Quercus palustris	Pın Oak	2"-2.5" CAL.	B≰B
QUE PHE	1	Quercus phellos	Willow Oak	2"-2.5" CAL.	B¢B
SHRUBS					
BUX GRE	44	Buxus x 'Green Velvet'	Green Velvet Boxwood	24"-30"	B≰B
HAM DIA	2	Hamamelis x intermedia 'Diane'	Diane Witch Hazel	5`-6`	В≰В
MOR PEN	25	Morella pensylvanıca	Northern Bayberry	30"-36"	CONT.
VIB WIN	12	Viburnum nudum `Winterthur`	Winterthur Viburnum	30"-36"	B¢B

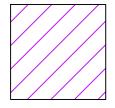
ID	TREE REMOVAL	
ID .	SIZE & SPECIES	STATUS
	38" ELM	TO REMAIN
2	, ,	TO REMAIN
	14" WALNUT	TO REMAIN
	12" MAPLE	TO REMAIN
	(3) 20" ELMS	TO REMAIN
	15" APPLE	TO REMAIN
7	(-)	TO REMAIN
	24" ELM	TO REMAIN
	6" HOLLY	TO REMAIN
	28" EVERGREEN	TO REMAIN
	3" HOLLY & 8" HOLLY	TO BE REMOVED
	24" SASSAFRAS	TO REMAIN
	20" EVERGREEN	TO REMAIN
	8" SASSAFRAS	TO REMAIN
	12" EVERGREEN	TO BE REMOVED
	22" EVERGREEN	TO REMAIN
	40" EVERGREEN	TO REMAIN
	2" CHERRY	TO REMAIN
	4" DOGWOOD	TO REMAIN
	4" DOGWOOD	TO BE REMOVED
	36" EVERGREEN	TO REMAIN
	4" HOLLY	TO REMAIN
	34" EVERGREEN	TO REMAIN
	8" ASH	TO REMAIN
	24" EVERGREEN	TO REMAIN
	34" EVERGREEN	TO REMAIN
	20" EVERGREEN	TO REMAIN
	24" EVERGREEN	TO REMAIN
	30" EVERGREEN	TO REMAIN
	20" EVERGREEN	TO REMAIN
	8" EVERGREEN	TO REMAIN
	14" EVERGREEN	TO REMAIN
	(3) 18" EVERGREENS	TO REMAIN
	24" EVERGREEN	TO REMAIN
	36" EVERGREEN	TO REMAIN
	15" EVERGREEN	TO REMAIN
	15" APPLE	TO BE REMOVED
	4" FRUIT TREE	TO BE REMOVED
46	8" FRUIT TREE	TO BE REMOVED
48	12" EVERGREEN	TO BE REMOVED
49	12" EVERGREEN	TO BE REMOVED

	TREE REMOVAL	
ID	SIZE & SPECIES	STATUS
	18" OAK	TO BE REMOVED
	56" OAK	TO REMAIN
	15" OAK	TO REMAIN
	8" OAK	TO REMAIN
55	12" OAK	TO REMAIN
56	24" OAK	TO REMAIN
57	15" OAK	TO REMAIN
58	20" OAK	TO REMAIN
59	6" EVERGREEN	TO REMAIN
60	36" OAK	TO REMAIN
61	24" MAPLE	TO BE REMOVED
62	20" ELM	TO REMAIN
63	6" BEECH	TO BE REMOVED
64	22" BEECH	TO BE REMOVED
65	8" DOGWOOD	TO BE REMOVED
69	15" ELM & 18" ELM	TO REMAIN
70	8" GUM	TO REMAIN
71	8" GUM	TO REMAIN
72	8" GUM	TO REMAIN
73	6" DOGWOOD	TO REMAIN
74	36" ELM	TO REMAIN
75	4" BIRCH	TO REMAIN
76	18" MAPLE	TO REMAIN
77	(2) 6" CHERRY	TO REMAIN
	12" APPLE	TO REMAIN
	APPLE CLUMP 12"	TO REMAIN
80	30" ELM	TO REMAIN
	18" ELM	TO REMAIN
	30" ELM	TO REMAIN
	20" ELM	TO REMAIN
	15" ELM	TO REMAIN
	18" ELM	TO REMAIN
86		TO REMAIN
87		TO REMAIN
	6" EVERGREEN	TO REMAIN
	10" EVERGREEN	TO REMAIN
	10" ELM	TO REMAIN
	8" EVERGREEN	TO REMAIN
	SPRUCE CLUMP 30"	TO REMAIN
	SPRUCE CLUMP 30"	
	24" ELM	TO REMAIN TO REMAIN

# EASEMENT LEGEND



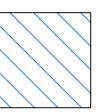
TREE CONSERVATION EASEMENT



TREE PRESERVATION EASEMENT



SIGHT EASEMENT



SLOPE EASEMENT

# TREE REMOVAL LEGEND

# EXISTING TREE TO REMAIN

TOTAL NUMBER OF TREES TO BE REMOVED: 14

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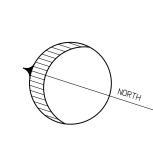
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SOURCE INFORMATION: Base Information Provided By:
Parker Engineering & Surveying P.C
370 East Main Street
Somerville. NJ 08876
[908] 725-4400

construction.

Architectural Information Provided By: Studio 1200 Architecture + Design

511 Millburn Ave. Short Hills, NJ 07078 (973) 376-5111



PLANTING PLAN

PREPARED FOR: 88 GLEN ALPIN ROAD, LLC LOT 11 BLOCK 26 88 GLEN ALPIN ROAD HARDING TOWNSHIP, NJ

BOSENBERG

PO BOX 486. FAR HILLS. NJ 07931 (908)234-0557

JIM MAZZUCCO NEW JERSEY LICENSED

PREPARED FOR: 88 GLEN ALPIN ROAD. LLC LOT 11 BLOCK 26 88 GLEN ALPIN ROAD HARDING TOWNSHIP, NJ

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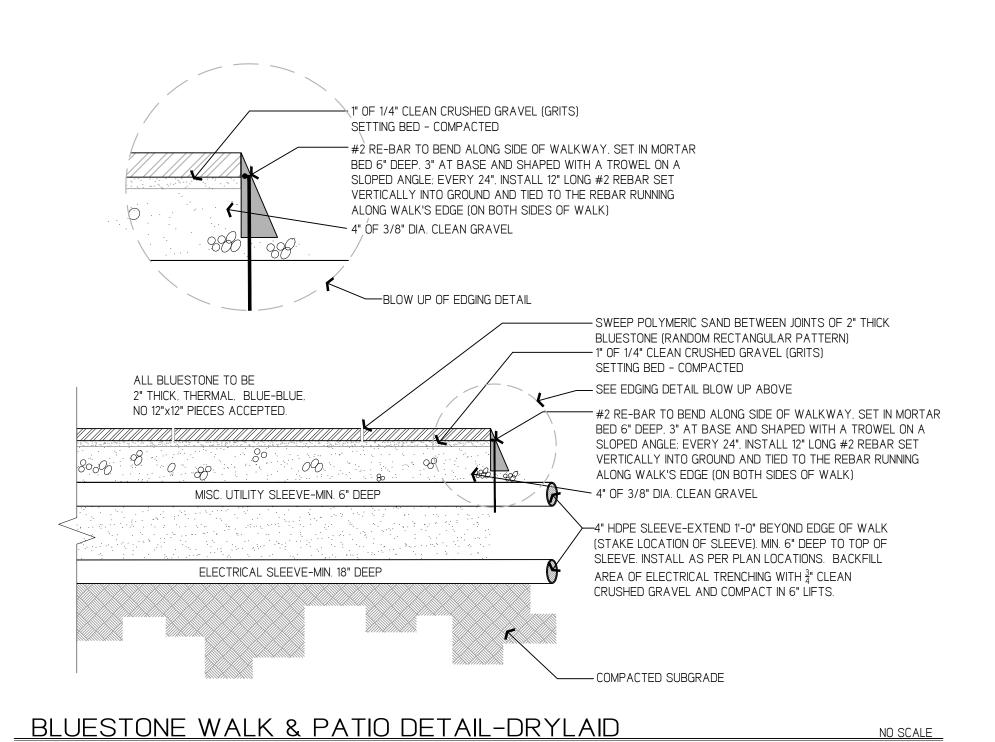
FAR HILLS. NJ 07931 (908)234-0557 DATE: DECEMBER 18, 2023 SCALE: AS NOTED

REVISIONS:

EBRUARY 14. 2024- ZONING CHART MODIFICAT

NJ Certificate of Authorization

JIM MAZZUCCO NEW JERSEY LICENSED LANDSCAPE ARCHITECT



MAGNA LATCH - 6x6 GATE POST POST

NO SCALE

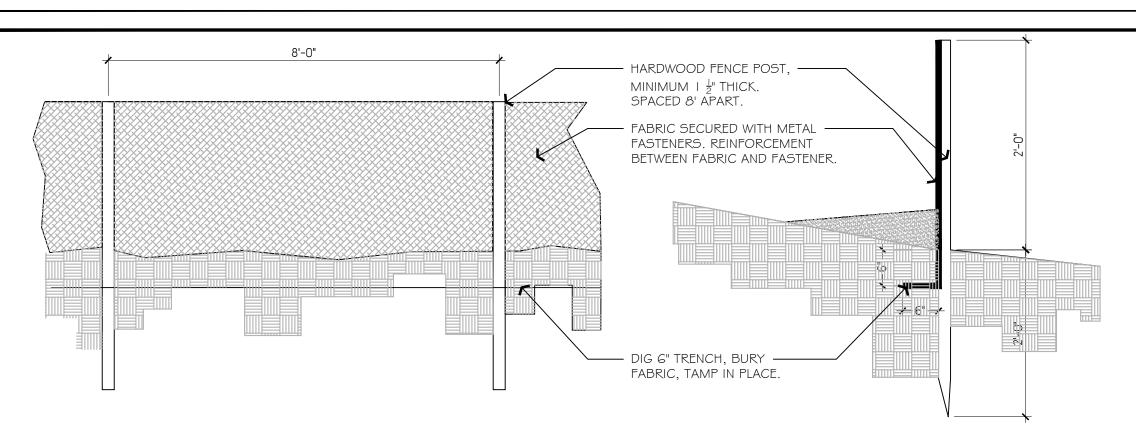
D&D TECHNOLOGIES SELF CLOSING -HYDRAULIC HINGE. MODEL# 57 SF AT90 S WITH 7515 MOUNTING BRACKET)

HINGE CONNECTION-PLAN VIEW NO SCALE

ALL GATES TO OPEN OUT AND SHALL BE SELF CLOSING AND SELF LOCKING. LATCH TO BE LOCATED NO LESS THAN 54" FROM THE BOTTOM OF THE GATE.

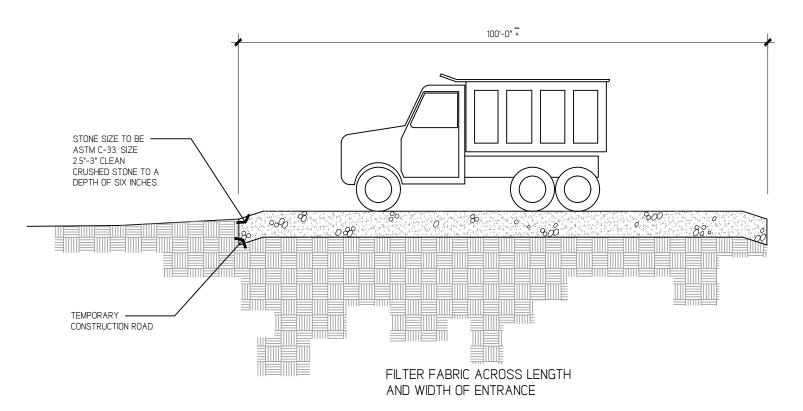
 FENCING TO MEET ALL LOCAL CODE REQUIREMENTS. 4' WIDE SPLIT RAIL POOL FENCE GATE DETAIL

4' SPLIT RAIL FENCE DETAIL SCALE: 1/2" = 1'-0"

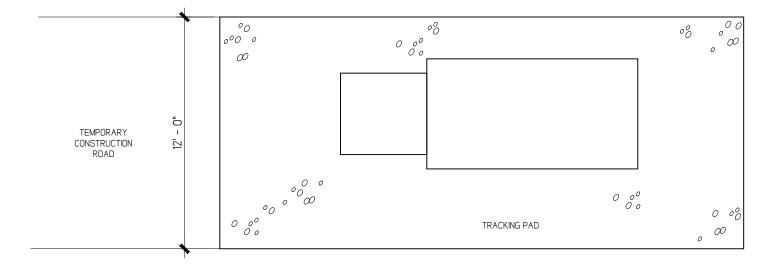


- I. FENCE POST TO BE PLACED 8 FEET CENTER TO CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM THICKNESS OF 1 ½".
- 2. A METAL FENCE WITH 6" OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR THE PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- 3. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLPN WEBBING, GROMMETS, WASHERS) PLACED BETWEEN THE FABRIC AND THE FASTENER. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FRO THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

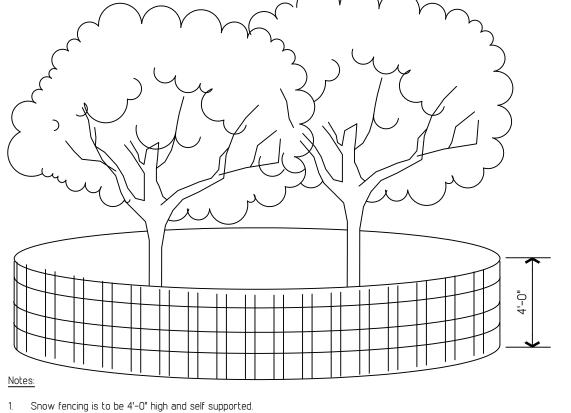
SILT FENCE NOT TO SCALE



# PROFILE VIEW



PLAN VIEW TRACKING PAD



- Do not stockpile materials or store equipment within the tree protection fencing.

  Snow fence to be installed at drip line of existing tree or tree cluster to be protected or no closer than 6'
- from tree trunk if necessary.

  4. If the project area encompasses a portion of the drip line of the tree, no more than one third of the of the total area of within the drip line should be disturbed by construction or regarding and a temporary 3" thick
- total area of within the drip line should be disturbed by construction or regrading and a temporary 3" thick layer of mulch shall be installed over the area of the drip line which is not protected by fencing to provide a

NO SCALE

TREE PROTECTION DETAIL

INLET FILTER INSTALLATION WITHOUT FRAME AND GRATE - WIRE SUPPORT - MOULD 6"X6", 5/5 GA. 49 #/100 SQ. FT. WELDED WIRE SUPPORT. EXTEND 6" MIN. AT SIDES SECURE FILTER FABRIC TO FRAME AND GRATE STABILIZE WITH TEMPORARY SEEDING PER THE SOIL EROSION BACKFILL AFTER INSTALLATION OF INLET FILTER — AND SEDIMENTATION CONTROL SPECIFICATIONS SOIL STOCK PILE SILT FENCE (SEE DETAIL) SILT FENCE (SEE DETAIL) I. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.

2. CONTRACTOR TO REMOVE FABRIC
JUST PRIOR TO PAVING. SOIL STOCKPILE DETAIL INLET FILTER DETAIL NO SCALE NOT TO SCALE

NOT TO SCALE

# Soil De-compaction and Testing Requirements

# Soil Compaction Testing Requirements

1. Subgrade soils **prior to the application of topsoil** (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.

2. Areas of the site which are subject to compaction testing and/or mitigation are **graphically denoted** on the certified soil erosion control plan.

3. <u>Compaction testing locations</u> are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction mitigation verification form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.

4. In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.

# **Compaction Testing Methods**

- A. Probing Wire Test (see detail)
- B. Hand-held Penetrometer Test (see detail)
- C .Tube Bulk Density Test (licensed professional engineer required D. Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

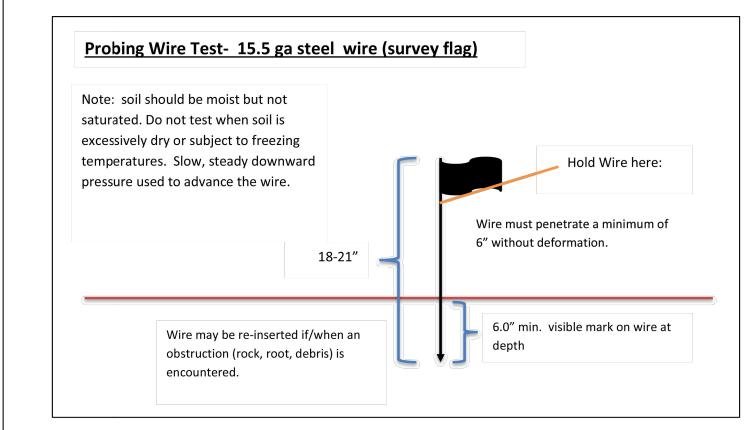
<u>Soil compaction testing is not required</u> if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

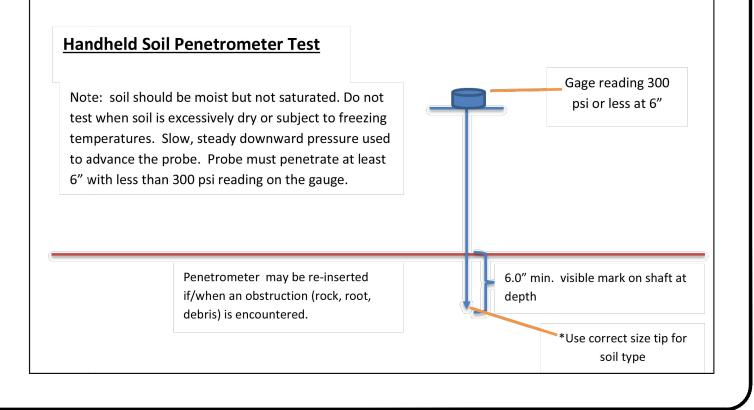
# Procedures for Soil Compaction Mitigation

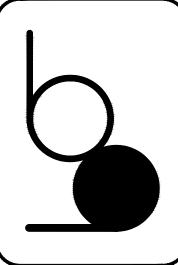
Procedures shall be used to mitigate excessive soil compaction **prior to placement of topsoil** and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

# **Simplified Testing Methods**







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:

88 GLEN ALPIN KUAU, LLC HARDING TOWNSHIP, NEW JERSEY

SESC DETAILS REPARED FOR: 88 GLEN ALPIN ROAD, LLC \_OT 11 BLOCK 26 88 GLEN ALPIN ROAD HARDING TOWNSHIP, NJ PREPARED BY: BOSENBERG PO BOX 486. FAR HILLS, NJ 07931 (908)234-0557 DATE: DECEMBER 18, 2023 SCALE: AS NOTED REVISIONS: EBRUARY 14, 2024- ZONING CHART MODIFICAT MARCH 11. 2024

NJ Certificate of Authorization
MH000126

JIM MAZZUCCO
NEW JERSEY LICENSED
LANDSCAPE ARCHITECT
#AS000800

# SOIL EROSION AND SEDIMENT CONTROL NOTES MORRIS COUNTY SOIL CONSERVATION DISTRICT

#### SEQUENCE OF CONSTRUCTION

The Somerset - Union Soil Conservation District shall be notified at least 48 hours in advance of beginning of project and upon completion of permanent stabilization of all disturbed areas.

Install all soil erosion and sediment control (SESC) plan requirements as specified on-plan (page L-100); including stabilized construction access, silt fencing and soil erosion and sediment control measures, as well as tree protection where applicable. (1 week)

- 2. Clear site, strip and stockpile soil. (1 week)
- Trench for utilities, schedule inspection. (3 weeks)
- 4. Grade sub-base in preparation for installation of hardscape elements. (1 week)
- 5. Construction of on site improvements. (2 weeks)
- 6. Fine grade disturbed areas, scarify top 6" of sub-base soil, perform compaction test. (1 week)
- 7. Install 5" of topsoil, seed lawn areas, install landscaping and permanent stabilization. (3 days)
- Remove temporary silt fence, inlet protection and other soil erosion controls. (1 day)

#### STANDARD FOR DUST CONTROL

Applicable to areas subject to dust blowing and movement where on-site and off-site damage is likely without treatment. Consult with local municipal ordinances on any restrictions.

Planning Criteria: The following methods should be considered for controlling dust:

Mulches - See Standard of Stabilization with Mulches Only, pg. 5-1

Vegetative Cover - See Standard for: Temporary Vegetative Cover, pg. 7-1, Permanent Vegetative Cover for Soil Stabilization pg. 4-1 and Permanent Stabilization with Sod, pg. 6-1

Spray-On Adhesives - On mineral soils (not effective on muck soils). Keep traffic off these areas.

Table 16-1: Dust Control

Material	Water Dilution	Type of nozzle	Apply Gal./acre
Anionic asphalt emulsion	7:1	Coarse spray	1200
Latex emulsion	12.5.:1	Fine spray	235
Resin in water	4:1 Fine spray		300
Polyacrylamide(PAM)-spray on Polyacrylamide (PAM)- dry spray	Apply according to manufacturer's instructions. May also be used as addative to sediment Basins to flocculate and precipitate suspended colloids. See Sediment Basin Standards (pg26-1)		
Acıdulated Soy Bean Soap Stick	None	Coarse spray	1200

Tillage - To roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart and spring-toothed harrows are examples of equipment which may produce the desired effect.

#### Sprinkling - Site is sprinkled until the surface is wet.

Barriers - Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing.

Calcium Chloride - Shall be in the form of loose, dry granules or flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes, then use other practices to prevent washing into streams or accumulation around plants.

Stone - Cover surface with crushed stone or coarse gravel.

#### STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

#### Applicable on exposed soils that have a potential for causing off-site environmental damage.

#### 1. Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.
- B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.
- C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.
- D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.

#### 2. Seedbed Preparation

- A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices (http://njaes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
- B. Mork lime and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
- C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed reparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

#### Seeding

- A. Select a mixture from Table 4-3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.
- 1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.
- 2. Marm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 850 F and above. See Table 4-3 mixtures 1 to 7. Planting rates for warm-season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.
- 3. Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 85 degrees F. Many grasses become active at 65 degrees F. See Table 4-3, mixtures 8-20. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.
- B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.
- C. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
- D. Hydroseeding is a broadcast seeding method usually involving a truck, or trailer-mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Shortfibered mulch may be applied with a hydroseeder following seeding. (also see Section 4-Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. When poor seed to soil contact occurs, there is a reduced seed germination and growth.

## 4. Mulching

Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

- A. Straw or Hay. Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifuing or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed. Application - Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.
- 1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
- 2. Mulch Nettings Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
- 3. Crimper (mulch anchoring coulter tool) A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
- 4. Liquid Mulch-Binders May be used to anchor salt hay, hay or straw mulch.

a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

# b. Use one of the following:

- (1) Organic and Vegetable Based Binders Naturally occurring, powder-based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
- (2) Synthetic Binders High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or dispersible in water. Binder shall be applied at rates recommended by the manufacturer and remain tacky until germination of Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other
- products.
- B. Mood-fiber or paper-fiber mulch shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
- C. Pelletized mulch compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weedseed free mulch is desired, or on sites where straw mulch and tackifier agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

5. Irrigation (where feasible) If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

# 6. Topdressing

Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A - Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.

# 7. Establishing Permanent Vegetative Stabilization

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise

## Harding Township

#### Soil Erosion and Sediment Control Notes

#### GENERAL NOTES:

Control facilities.

- 1. All Soil erosion and -Sediment Control Practices Will be Installed In accordance with the Standards for Soil Erosion and Sedimentation Control in the State of New Jersey, and will be in place prior to any major soil disturbance, or in their proper sequence and maintained until permanent protection is established.
- 2. Any disturbed area that will be left exposed for more than thirty (30) days and not subject to construction traffic shall immediately receive a temporary seeding. If the season prohibits temporary seeding, the disturbed area will be mulched with straw or hey and tacked in accordance with the New Jersey Standards. See Note 21 below.
- 3. Permanent vegetation is to be established on exposed areas within ten (10) days after final grading. Mulch is to be used for protection until vegetation is established. See Note 22 below.
- 4. Immediately following initial disturbance or rough grading. All critical areas (steep slopes, sandy sails, wet conditions) subject to erosion will receive temporary seeding in accordance with Note 21 below.
- 5. Temporary Diversion Berms are to be installed on all cleared roadways and easement areas in accordance with Section 4:21 of
- 6. Permanent seeding and stabilization to be In accordance with the Standards for Permanent Vegetative Cover. Specified rates
- and locations shall be on the approved Soil Erosion and Sedimentation Control Plan. 7. The site shall at all times be graded and maintained so that all storm water runoff is diverted to Soil Erosion and Sedimentation
- 8. All sedimentation structures (silt fence, inlet filters, and sediment basins) will be inspected and maintained daily.
- 9. Stockpiles shall not be located within 50'of a floodplain, slope, drainage facility or roadway. All stockpile bases shall be protected by a silt fence.
- 10. A crushed stone, vehicle wheel-cleaning blanket (stabilized construction access) will be installed per the detail.
- 11.All new roadways will be treated suitable subbase upon establishment of final grade elevations.
- 12. Paved roadways must be kept clean at all times. 13. All catch basin inlets will be protected in accordance with the inlet filter detail provided on the plans.
- 14. Before discharge points become operational, all storm drainage outlets will be stabilized as required.
- 15. All dewatering operations must be discharged directly into a sediment filter area. The sediment filter should be composed of a suitable sediment fabric. See the Dewatering detail.
- 16. All sedimentation basins will be cleaned when the capacity has been reduced by 50%. A clean out elevation will be identified on the plan and a marker installed on the site.
- 17. During and after construction the owner will be responsible for the maintenance and upkeep of the drain structures, vegetation cover, and any other measures deemed appropriate by the Township Engineer. Said responsibility will preclude when all work is
- approved by the Township Engineer. 18. All trees to remain after construction are to be protected with tree protection devices. See the Tree Protection detail. 19. The Township Engineer may request additional measures to minimize on site or off site erosion problems during construction.

# TOP SOIL STOCKPILE PROTECTION

1. Construct temporary diversion berm and/or hay bale barrier around stockpile area as required.

20. The Township Engineer must be notified, in writing, at least 72 hours prior to any land

- 2. Apply limestone at a rate of 90 lbs./1000 S.F.
- 3. Apply fertilizer (10-20-10) at a rate of 11 lbs. / 1000 S.F.
- 4. Apply perennial Ryegrass at a rate of 1 lb/1000 S.F. and Annual Ryegrass at a rate of 1lb/1000 S.F.
- 5. Mulch with unrotted salt hay or small grain straw immediately after seeding. Apply at a rate of 90 lbs./1000 S.F. 6. Apply liquid mulch binder or tack to straw or hau mulch

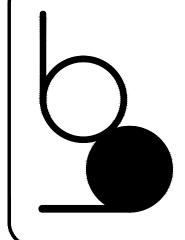
# TEMPORARY STABILIZATION SPECIFICATIONS

- 1. Apply ground limestone at a rate of 90 lbs/1000 S.F.
- 2. Apply fertilizer (10-20-10) at a rate of 11 lbs. / 1000 S.F. and work into soil 4" deep. 3. Apply seed mixture.
- Perennial Ryegrass at a rate of 40 lbs./acre and Annual Ryegrass at 40 lbs./acre or approved equal.
- 4. Mulch with unrotted salt hay or small grain straw immediately after seeding. Apply at a rate of 90 lbs./1000 S.F. and secure by applying a liquid mulch binder or tack to straw or hay mulch.
- 5. Plant seed between March 1 & May 15 or between Aug. 15 & Oct. 1, if possible

# PERMANENT STABILIZATION SPECIFICATIONS

- 1. Apply topsoil to a depth of 5" (loose).
- 2. Apply ground limestone at a rate of 90 lbs/1000 S.F. and work 4" into soil.
- 3. Apply fertilizer (10-20-10) at a rate of 11 lbs. / 1000 S.F. and work into soil 4" deep.
- 4. Apply seed mixture.
- Perennial Ryegrass at a rate of 10 lbs./acre, Kentucky Bluegrass at a rate of 25 lbs./acre, Red Fescue at 15 lbs./acre or approved equal.
- 5. Mulch with unrotted salt hay or small grain straw immediately after seeding. Apply at a rate of 90 lbs./1000 S.F. and secure by applying a liquid mulch binder or tack to straw or hay mulch. If possible, plant seed between March 1 & May 15 or between Aug. 15

NOTE: 72 HOURS PRIOR TO ANY SOIL DISTURBANCE, NOTICE OF SUCH IN WRITING SHALL BE GIVEN TO THE TOWNSHIP



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:

PREPARED FOR: 88 GLEN ALPIN ROAD, LLC OT 11 BLOCK 26 88 GLEN ALPIN ROAD HARDING TOWNSHIP, NJ PREPARED BY

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

DATE: DECEMBER 18, 2023 REVISIONS: FEBRUARY 14, 2024- ZONING CHART MODIFICA

NJ Certificate of Authorization MH000126 JIM MAZZUCCO NEW JERSEY LICENSE LANDSCAPE ARCHITEC

2. CONTRACTOR TO SUPPLY NURSERY SOURCE FOR ALL PLANT MATERIAL. PLANTS SHALL BE SOURCED FROM THE SAME GEOLOGICAL REGION.

3. PLANTS WITH UNDERSIZED OR BROKEN ROOT BALLS, EXCESSIVE CURLING AND/OR GIRDLING OF ROOTS, INJURY FROM ROUGH TREATMENT, OR DROUGHT

4. 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 1.2.

5. ROOT BALLS SHALL BE KEPT MOIST AT ALL TIMES. 6. 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 ON HIGH HEAT ABSORPTION MATERIALS, SUCH AS BUT NOT LIMITED TO. ASPHALT AND/ OR METAL TRUCK BEDS TO PREVENT THE WILTING OF MATERIAL.

7. 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.

8. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN:

a. PLACE IN PARTIAL SHADE WHEN POSSIBLE. b. COVER ROOT BALL WITH MOISTENED MULCH OR AGED WOOD CHIPS.

. SUPPLY PROPER IRRIGATION AS NOT TO ALLOW THE ROOT BALL TO DRY OUT. d. UNTIE PLANT MATERIAL AND ALLOW PROPER SPACING OF PLANTS FOR AIR CIRCULATION TO PREVENT DISEASE, WILTING, LEAF LOSS AND GENERAL HEATH OF PLANTS.

#### 1.1 STANDARD ROOT BALL SIZES FOR NURSERY -GROWN SHADE TREES

DECIDUOL	JS TREES			
CALIPER* (IN.)	HEIGHT RANGE	MAX. HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN
1/2"	5'-6'	8'	12"	9"
3/4"	6'-8'	10'	14"	10 ½"
1"	8'-10'	11'	16"	12"
11/4"	8'-10'	12'	18"	13 1/2"
1½"	10'-12'	14'	20"	13 1/2"
1 3/4"	10'-12'	14'	22"	14 ½"
2"	12'-14'	16'	24"	16"
2 ½"	12'-14'	16'	28"	18 ½"
3"	14'-16'	18'	32"	19 ½"
3 ½"	14'-16'	18'	38"	23"
4"	16'-18'	22'	42"	25"
5"	18'-20'	26'	54"	32 1/2"

MULTI-S7	TEM TREES		CONIFE	ROUS TREES	
HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN.)	HEIGHT	MIN. BALL DIA. (IN.)	MIN. BALL DEPTH (IN.
4'	14"	10 ½"	4'	16"	12"
5'	16"	12"	5'	20"	13 ½"
6'	18"	13 ½"	6'	22"	14 ½"
7'	20"	13 ½"	7'	24"	16"
8'	22"	14 ½"	8'	27"	18 ½"
10'	24"	16"	10'	34"	211/2"
12'	28"	18 ½"	12'	38"	25 ½"
14'	32"	21 ½"	14'	42"	28"
16'	38"	25 ½"	16'	46"	32"
18'	42"	28"	18'	50"	33 1/2
20'	48"	32"			

1. SEE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1, FOR COMPLETE LIST OF NURSERY STANDARDS FOR OTHER TYPES AND SIZES OF TREES

2. 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.

## 1.2 TREE ROOT FLARE DIAGRAM

PRIOR TO DIGGING TREE AT NURSERY LOCATE THE ROOT FLARE. THIS WILL ALLOW FOR PROPER ROOT BALL SIZING BEFORE DIGGING.

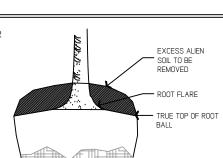
PRIOR TO PLANTING, VERIFY THE TOP ELEVATION OF THE TRUE ROOT BALL BY REMOVING

BURLAP. IF ALIEN SOIL IS PRESENT REMOVE UNTIL THE ROOT FLARE IS EXPOSED. 3. AT THIS TIME ANY GIRDLING OR CIRCLING ROOTS SHOULD BE REMOVED. EXCESSIVE GIRDLING OR

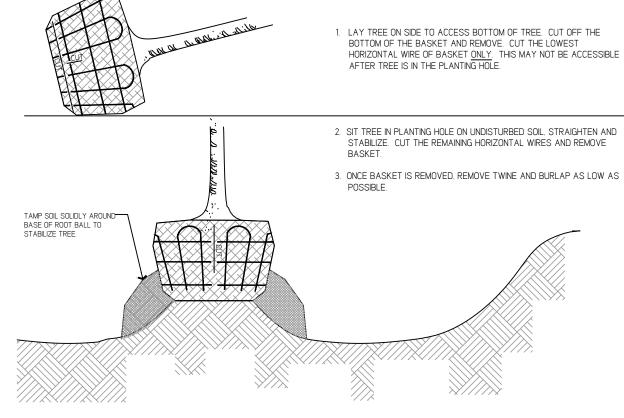
CIRCLING ROOTS WILL CAUSE THE TREE TO BE REJECTED.

4. ONCE SOIL IS REMOVED RETIE DRUM LACING. IF BASKET IS PRESENT, RETIE TO BASKET.

5. IF TO MUCH SOIL IS REMOVE IN THE FIELD THE ROOT BALL IS EFFECTIVELY UNDERSIZED AND WILL BE REJECTED.



# 1.3 REMOVAL OF WIRE BASKETS (if present)



#### 1.4 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 INTACT)	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)	15 FT.	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN ON PLANTING DETAILS: ADD COMPOSTED ORGANIC MATTER TO BRING THE CONTENT UP TO 5% DRY WEIGHT.
GRADED SUBSOILS AND CLEAN FILLS WITH CLAY CONTENT BETWEEN 5 AND 35 %	20 FT.	MINIMUM TREATMENT: LOOSEN EXISTING SOILS TO WIDTHS AND DEPTHS SHOWN, ADD COMPOSTED ORGANIC MATTER TO BRING ORGANIC CONTENT UP TO 5 % 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. SOILS CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL. I EXISTING SOIL	20 FT. IO	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 GREATEST EXTENT FEASIBLE BASED UPON SITE CONSTRAINTS.

### 1.4 SOIL MODIFICATIONS cont.

- 1. 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.
- 2. WHENEVER POSSIBLE THE SOIL IMPROVEMENT AREA SHOULD BE CONNECTED FROM TREE TO TREE.
- 3. 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 RUTGERS COOPERATIVE EXTENSION
- 4. LOOSEN SOIL WITH A BACK HOE OR OTHER LARGE COARSE-TILING EQUIPMENT (SUB-SOILER) WHEN POSSIBLE. THIS SHOULD NOT BE PERFORMED WHEN SOIL IS FROZEN OR EXCESSIVELY WET. TILLING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILLING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE PLANTING AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
- 5. 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.
- 6. PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

#### a. FOR ALL PLANT BED PREPARATIONS

- ORGANIC MECHANICS BIOCHAR BLEND OR APPROVED EQUAL
CONTAINS BIOCHAR, COMPOST, EARTHWORM CASTINGS, BONE CHAR, AZOMITE, ZEOLITE, ALFALFA MEAL, AND KELP MEAL, BIOCHAR IS BIOLOGICAL CHARCOAL THAT IS USED AS A SOIL
TO STAND WITH AN INDICATE AND MICRORES FROM A SOILROS 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.

## <u>DIRECTIONS FOR USE:</u> MIX 3" INTO THE TOP 6" OF THE SOIL AT A RATE OF 1.5 CUBIC YARDS PER 1.000 S.F. OR EQUIVALENT WEIGHT APPLICATION.

b. FOR SINGULAR SHRUB AND TREE PLANTINGS

- ORGANIC MECHANICS FUHGEDDABOUDITI ROOT ZONE FEEDER PACKS OR APPROVED EQUAL CONTAINS A MEASURED DOSE OF FERTILIZER. MYCORRHIZAE. BIOCHAR. AZOMITE, AND MICRONIZED 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 The Organic Mechanics Soil Company, LLC

Modena, PA 19358

P: 610-380-4598 F: 866-928-1171 eric@organicmechanicsoil.com

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 COUNTERACT THE ABOVE STEPS TAKEN TO FOSTER SOIL AND PLANT HEALTH.
- 8. 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 SOILS, UNDER-DRAINAGE MAY BE REQUIRED.

#### 1.5 BARE ROOT TREE PLANTINGS

FOR BARE ROOT TREES AND SHRUBS:

BIOPLEX ORGANICS 1-2-3 BAREROOT GEL PLUS SOIL & ROOT INOCULANT OR APPROVED EQUAL

OMBINES TRANSPLANT CONCENTRATE AND PLANT ENHANCER. GRANULAR ENDO-ECTO MYCORRHIZAL SOIL AND ROOT INOCULANTS, AND ADVANCED POLYMER GEL CRYSTALS TO INCREASE

PLANT HYDRATION AND IMPROVE PLANT ESTABLISHMENT. MIX 3 OZ. OF BIOPLEX 1-2-3 BAREROOT GEL PER EACH 1 GALLON OF WATER. LET STAND FOR 30 MINUTES TO ACTIVATE. DIP OR SOAK BARE ROOT PLANTS IN MIXTURE FOR 5 MINUTES

PLANTING DIRECTIONS:

1. CULL TREE WITH ROOTS IN LESS THAN THREE QUADRANTS 2. PRUNE OFF ALL BROKEN, DEAD OR DISEASED ROOTS.

. 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.

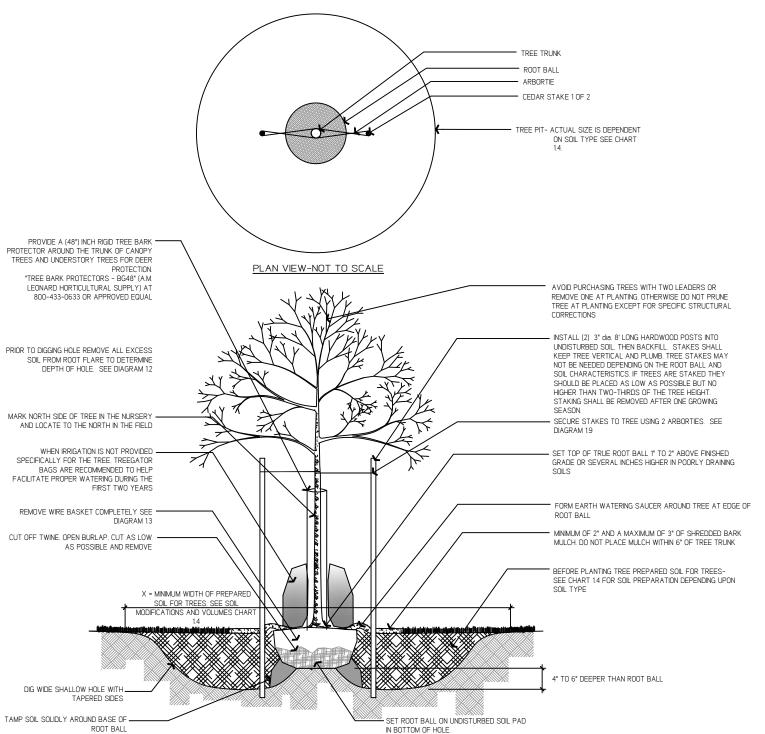
# PROOF OF COMPLIANCE WITH SPECIFICATIONS: THE CONTRACTOR WILL DEMONSTRATE COMPLIANCE BY PRESENTING THE LANDSCAPE ARCHITECT WITH THE FOLLOWING:

PRIOR TO PLANTING.

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

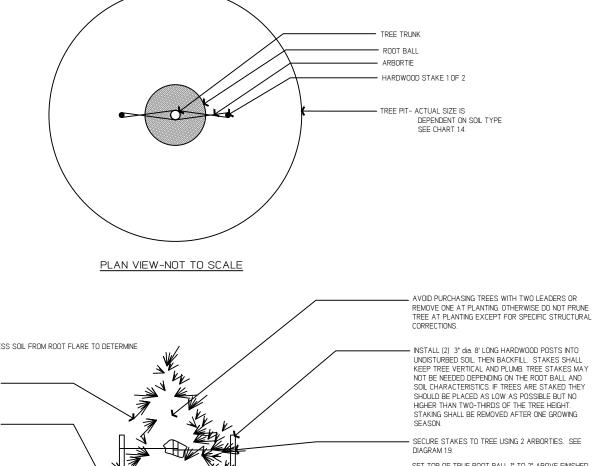
# 1.6 DECIDUOUS TREE PLANTING DETAIL

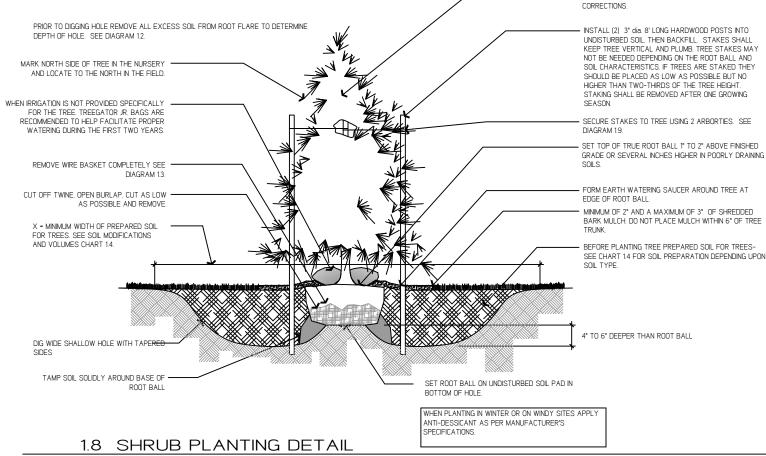
- 1. FOR CONTAINER GROWN TREES USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.
- 2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.
- 3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
- 4. 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



#### 1.7 CONIFEROUS TREE PLANTING DETAIL

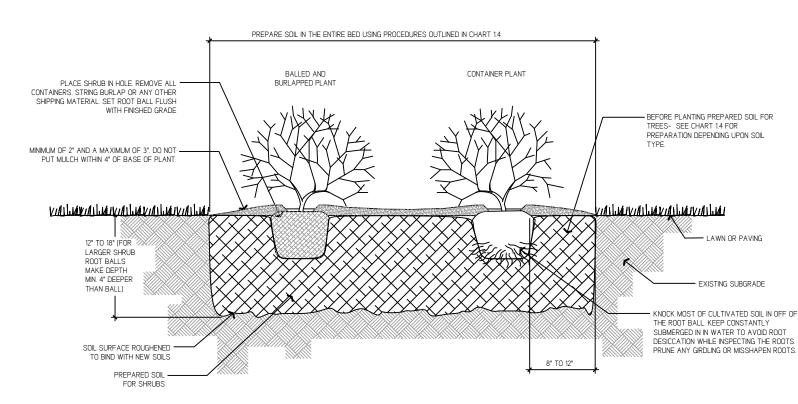
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- 2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE
- 3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
- 4. 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.





# 1. 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 CIRCLING

- 2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE
- 3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
- 4. 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.



# 1.9 ARBORTIE DETAIL

- 1. LOOP TIE AROUND TREE AND NAIL TO CEDAR STAKE
- 2. REMOVE ALL STAKING AND TIES AT END OF FIRST GROWING SEASON.
- SOURCES INCLUDE:

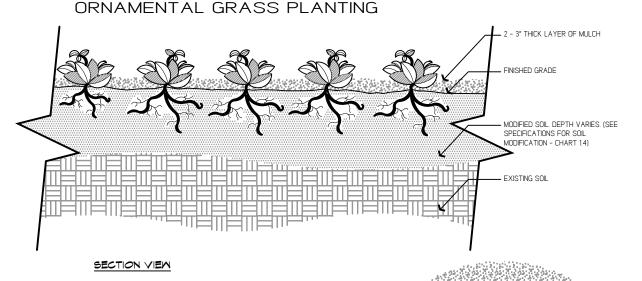


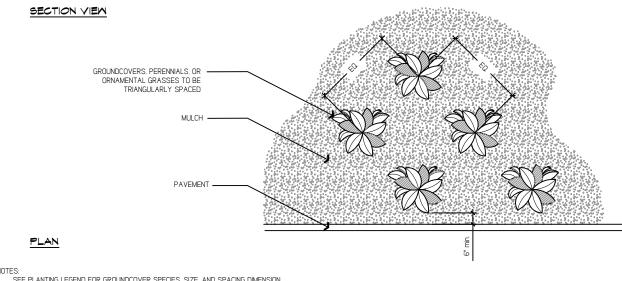
STAKING DETAIL

# 1.10 PLANT MATERIAL GUARANTEE

- 1. LANDSCAPE CONTRACTOR SHALL SUPPLY A TWO YEAR PLANT MATERIAL GUARANTEE
- 2. CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE PLANTINGS IF OWNER FAILS TO PROVIDE PROPER CARE AND WATERING DURING GUARANTEE PERIOD. PROPER CARE MAY REQUIRE UNDER DRAINAGE AND/OR STRICT MOISTURE MONITORING OF THE SOIL TO MITIGATE OVER-WATERING.
- 3. CONTRACTOR SHALL INSTRUCT OWNER AS TO PROPER CARE OF MATERIAL

# 1.11 GROUNDCOVER, PERENNIAL, AND





SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
 SMALL ROOTS (¾\* OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF

PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER 3. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

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:

PLANTING DETAILS PREPARED FOR:

88 GLEN ALPIN ROAD, LLC

OT 11 BLOCK 26

88 GLEN ALPIN ROAD

PO BOX 486.

JIM MAZZUCCO

HARDING TOWNSHIP, NJ

PREPARED BY: LANDSCAPE ARCHITECTUR

FAR HILLS, NJ 07931 (908)234-0557 DATE: DECEMBER 18, 2023 REVISIONS:

NJ Certificate of Authorization MH000126

NEW JERSEY LICENSE LANDSCAPE ARCHITECT