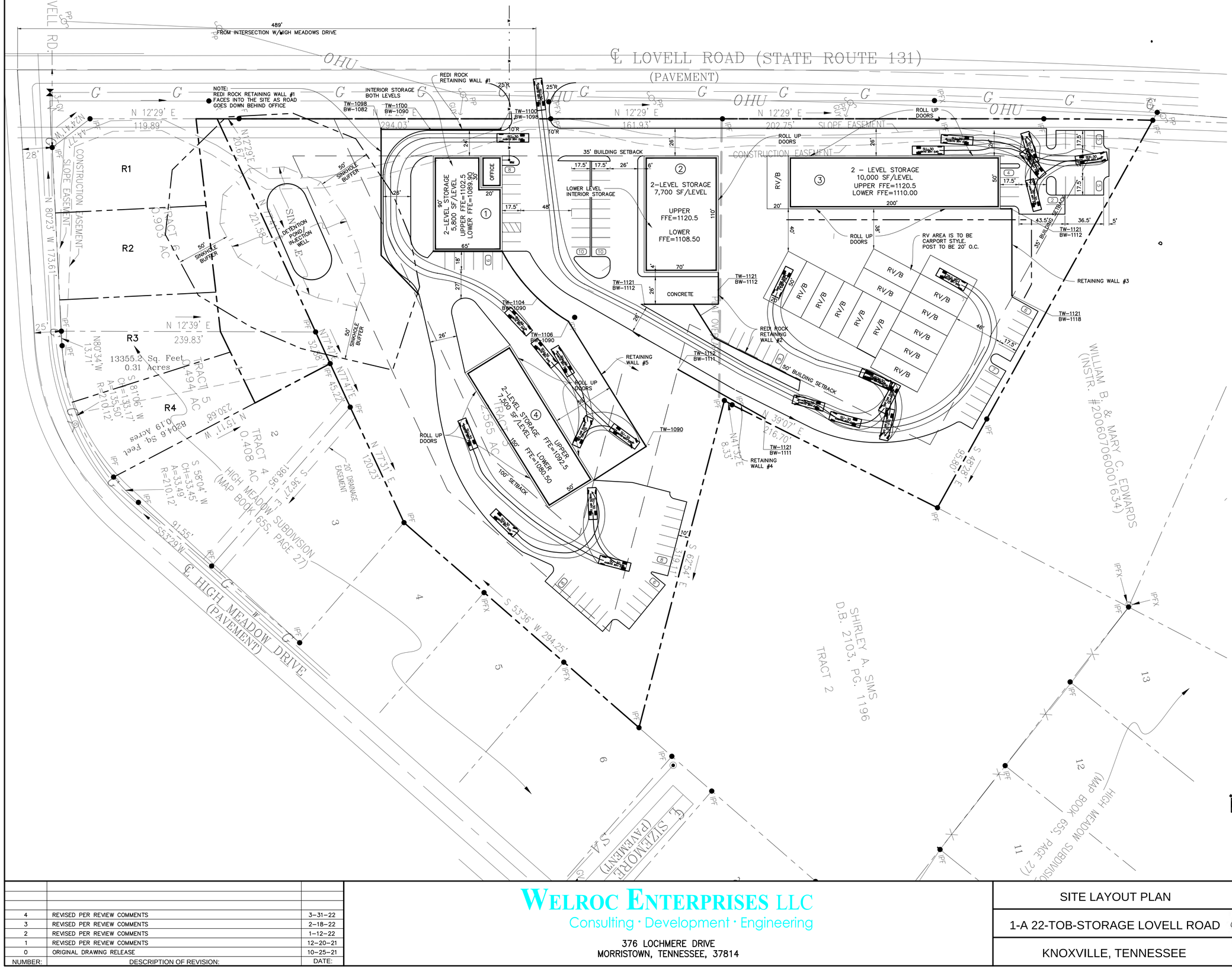

GROUND AREA COVERAGE (GAC) — **MAX ALLOWED**

GROSS BUILDING AREA/GROSS LOT AREA
31,000 s.f./ 279,219.6

0.711 AC/ 6.41 AC	11%	25%	OK

FLOOR AREA RATIO (FAR) — **MAX ALLOWED**

GROSS FLOOR AREA /GROSS LOT AREA
62,000 S.F. /279,219.6

1.42 AC /6.41 AC	22.20%	55%	OK

IMPERVIOUS AREA RATIO — **MAX ALLOWED**

GROSS IMPERVIOUS AREA/GROSS LOT AREA
182,400 s.f. /279,219.6

4.187 AC /6.41 AC	65.30%	70%	OK

GENERAL NOTES

TOTAL SF OF BUILDINGS 62,000 SF

THE TENNESSEE TECHNOLOGY CORRIDOR
PARKING REQUIREMENTS

2 SPACES/1000 SF MIN TO 3 SPACES/ 1,000 SF MAX
TOTAL PARKING REQUIRED 124
TOTAL PROVIDED 127

SETBACK VARIANCE 50' OFF RESIDENTIAL
35' FRONT SETBACK ON LOVELL ROAD

30' OF LOADING ACCESS @ OUTSIDE DOORS

DISTURBED AREA = 182,400 SF

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1" = 40

1-C-22-UR/1-A 22-TOB

NUMBER:	DESCRIPTION OF REVISION:	DATE:
4	REVISED PER REVIEW COMMENTS	3-31-22
3	REVISED PER REVIEW COMMENTS	2-18-22
2	REVISED PER REVIEW COMMENTS	1-12-22
1	REVISED PER REVIEW COMMENTS	12-20-21
0	ORIGINAL DRAWING RELEASE	10-25-21

WELROC ENTERPRISES LLC
Consulting · Development · Engineering
376 LOCHMERE DRIVE
MORRISTOWN, TENNESSEE, 37814

SITE LAYOUT PLAN

1-A 22-TOB-STORAGE LOVELL ROAD

KNOXVILLE, TENNESSEE

SCALE:	1"=40'
DATE:	3/31/22
DRAWN BY:	SH
CHECKED BY:	RC
SHEET:	1 OF 4

INSTALL 2" WATER LINE TAP AND BORE LEVELL ROAD TO SERVICE OFFICE.

489' FROM INTERSECTION W/ HIGH MEADOWS DRIVE

SSMH NO. STA 3+50

SSMH NO. STA 5+70

SSMH NO. STA 8+00

220 LF 8" SS

230 LF 8" SS

℄ LOVELL ROAD (STATE ROUTE 131)

(PAVEMENT)

REDI ROCK RETAINING WALL #1

NOTE: REDI ROCK RETAINING WALL #1 FACES INTO THE SITE AS ROAD GOES DOWN BEHIND OFFICE

INTERIOR STORAGE BOTH LEVELS

TW-1098
BW-1082

TW-1100
BW-1090

TW-1100
BW-1098

ROLL UP DOORS

LOWER LEVEL INTERIOR STORAGE

3.49%

RV AREA IS TO BE CARPORT STYLE. POST TO BE 20' O.C.

TW-1121
BW-1112

TW-1121
BW-1118

RETAINING WALL #3

TW-1104
BW-1090

TW-1106
BW-1090

REDI ROCK RETAINING WALL #2

7.50%

TW-1112
BW-1111

RETAINING WALL #5

TW-1090

TW-1121
BW-1111

RETAINING WALL #4

R1

R2

350 LF 8" SS

R3

13355.2 Sq. Feet
0.31 Acres

R4

8274.6 Sq. Feet
0.19 Acres

SINKHOLE

TRACT 5
0.903 AC

TRACT 4
0.494 AC

TRACT 2
0.408 AC

TRACT 1
2.565 AC

20' DRAINAGE EASEMENT

SSMH NO.
STA 0+00
TIE INTO EXISTING SEWER AND EXTENT TO OFFICE

℄ HIGH MEADOW DRIVE
(PAVEMENT)

℄ SYCAMORE LANE
(PAVEMENT)

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1" = 40

1-C-22-UR/1-A 22-TOB

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0	ORIGINAL DRAWING RELEASE	10-25-21

WELROC ENTERPRISES LLC
Consulting · Development · Engineering
376 LOCHMERE DRIVE
MORRISTOWN, TENNESSEE, 37814

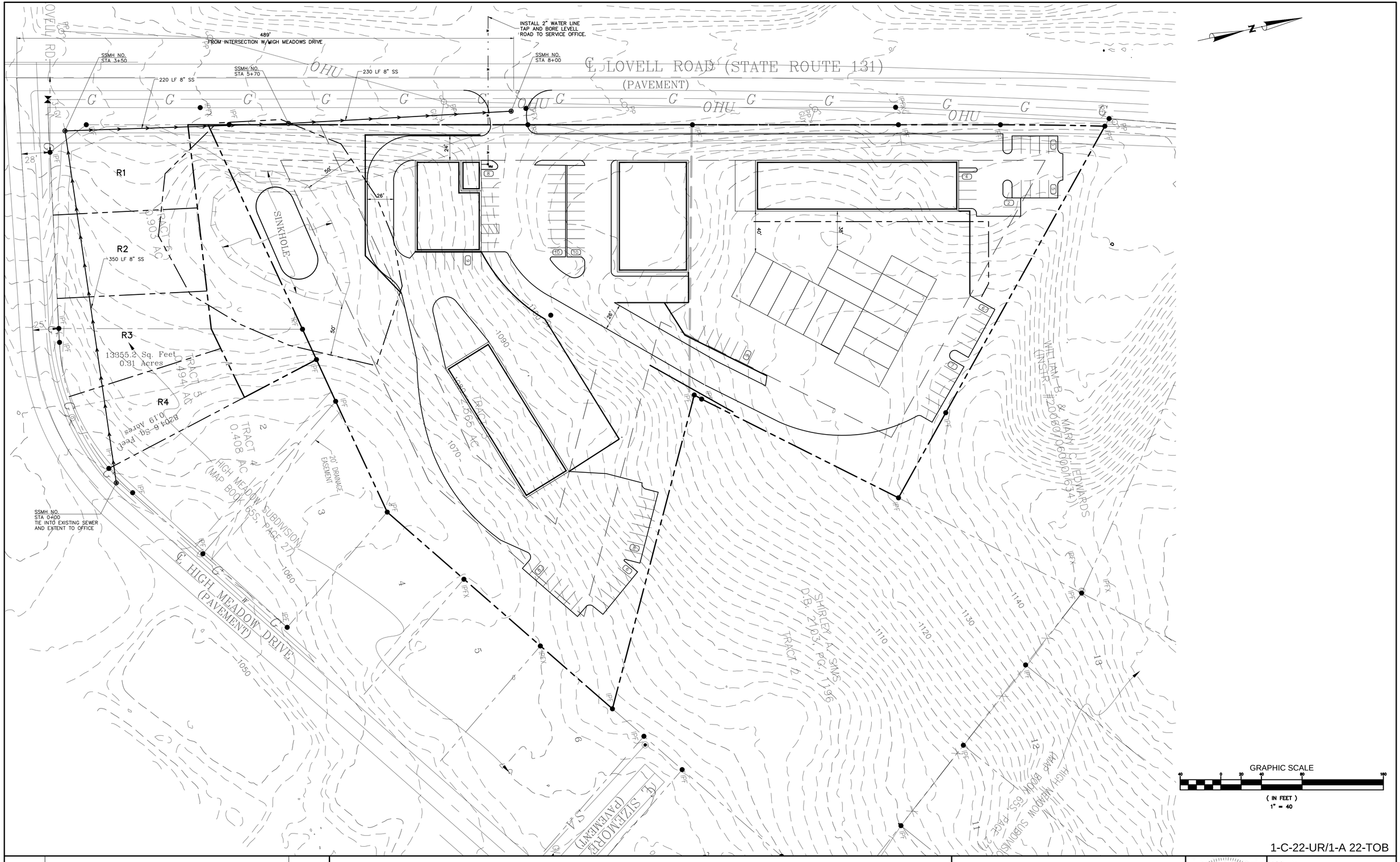
SITE GRADING PLAN

1-A 22-TOB-STORAGE LOVELL ROAD

KNOXVILLE, TENNESSEE

CHARLES R. COMER REGISTERED ENGINEER PRINCIPAL STATE OF TENNESSEE

SCALE:	1"=40'
DATE:	3/31/22
DRAWN BY:	SH
CHECKED BY:	RC
SHEET:	3 OF 4



1-C-22-UR/1-A 22-TOB

NUMBER:	DESCRIPTION OF REVISION:	DATE:
3	REVISED PER REVIEW COMMENTS	2-18-22
2	REVISED PER REVIEW COMMENTS	1-12-22
1	REVISED PER REVIEW COMMENTS	12-20-21
0	ORIGINAL DRAWING RELEASE	10-25-21

WELROC ENTERPRISES LLC
Consulting · Development · Engineering
376 LOCHMERE DRIVE
MORRISTOWN, TENNESSEE, 37814

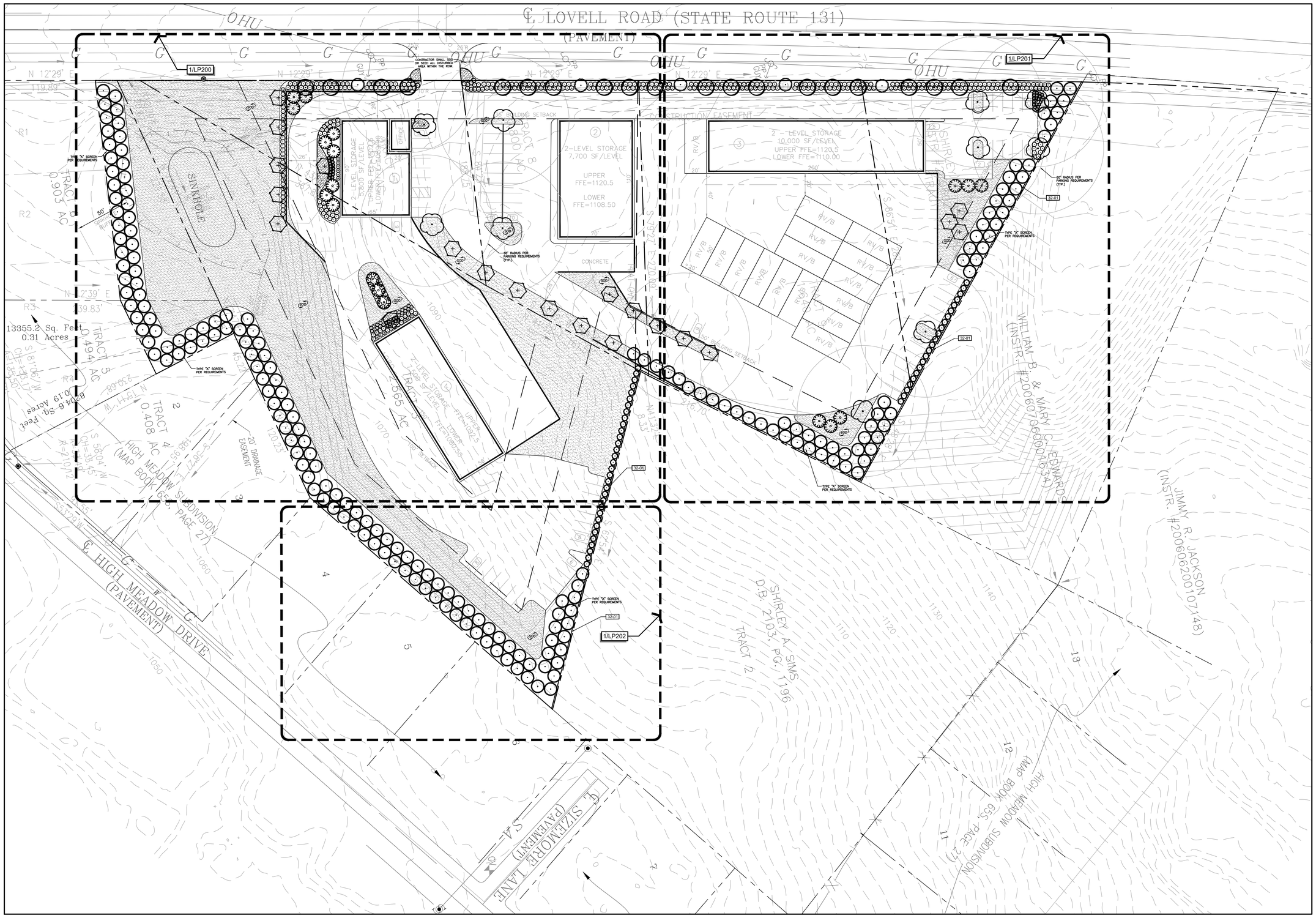
SITE UTILITY PLAN

1-A 22-TOB-STORAGE LOVELL ROAD

KNOXVILLE, TENNESSEE

CHARLES R. COMER
REGISTERED ENGINEER
POWELL, TN
STATE OF TENNESSEE

SCALE:	1"=40'
DATE:	3/31/22
DRAWN BY:	SH
CHECKED BY:	RC
SHEET:	4 OF 4



1 OVERALL PLANTING PLAN
Scale: 1" = 40'

0 40' 80'

WAS DESIGN
landscape architects

NOT
FOR CONSTRUCTION
THESE PLANS HAVE NOT BEEN APPROVED AND ARE SUBJECT TO CHANGE.

A Landscape Development Plan for
Lovell Road Self Storage
Hardin Valley, Tennessee

Revisions

No.	Date	Revisions / Submissions
	01.21.22	REVISED PER CITY COMMENTS
	02.10.22	REVISED PER CITY COMMENTS
	03.03.22	REVISED PER CITY COMMENTS
	03.31.22	REVISED: SITE DATA CALCS.; FENCE

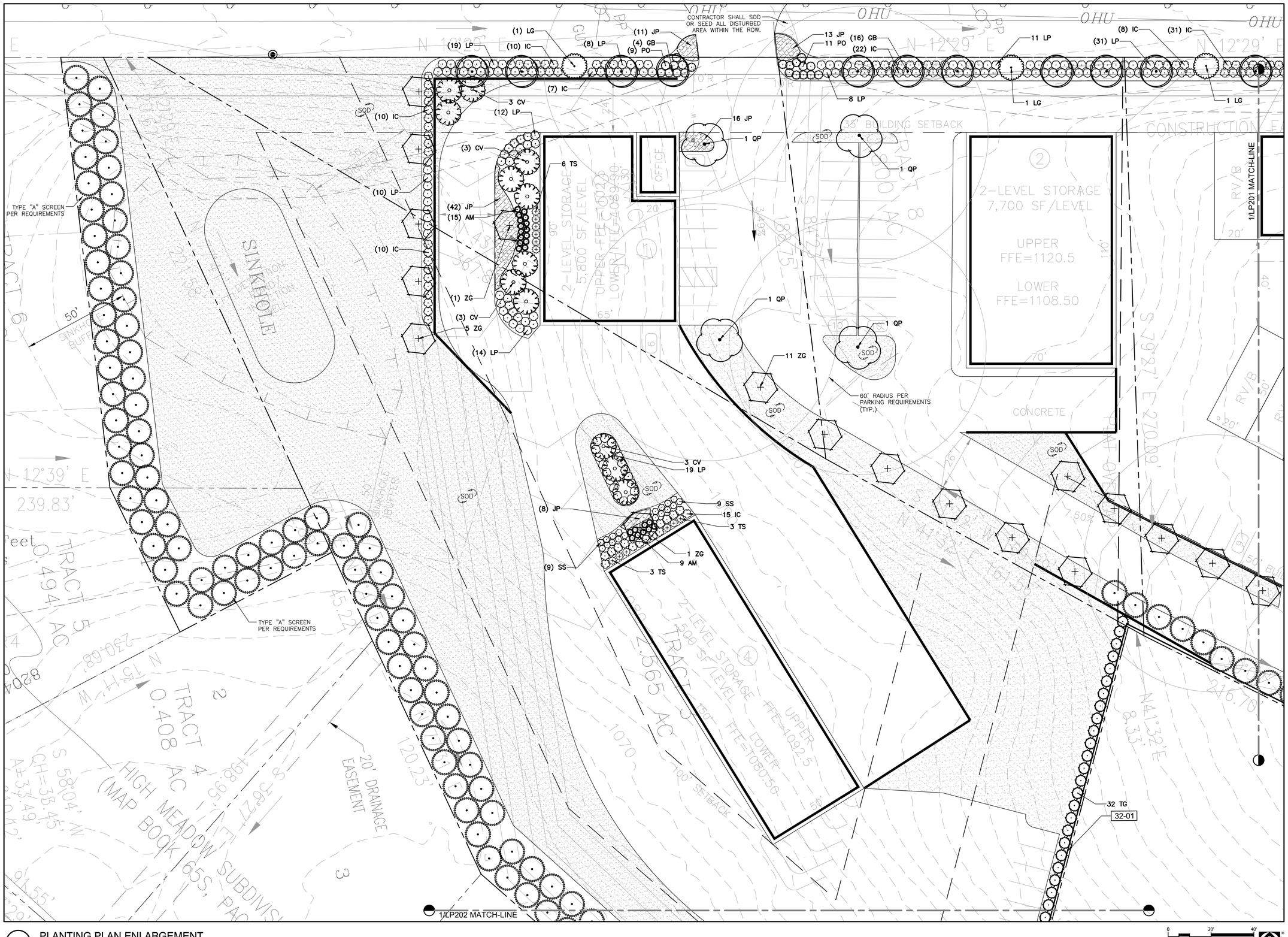
JS
Drawn
JS
Project Manager
LCW
Principal
212031-009
Project No.
12.10.21
Date

Registration
JARED L. ACY
REGISTERED
TENNESSEE No. 115
LANDSCAPE ARCHITECT

Sheet Title

OVERALL
LANDSCAPE PLAN

Sheet No.
LP100



1 PLANTING PLAN ENLARGEMENT
Scale: 1" = 20'

0 20' 40'

WAS DESIGN landscape architects

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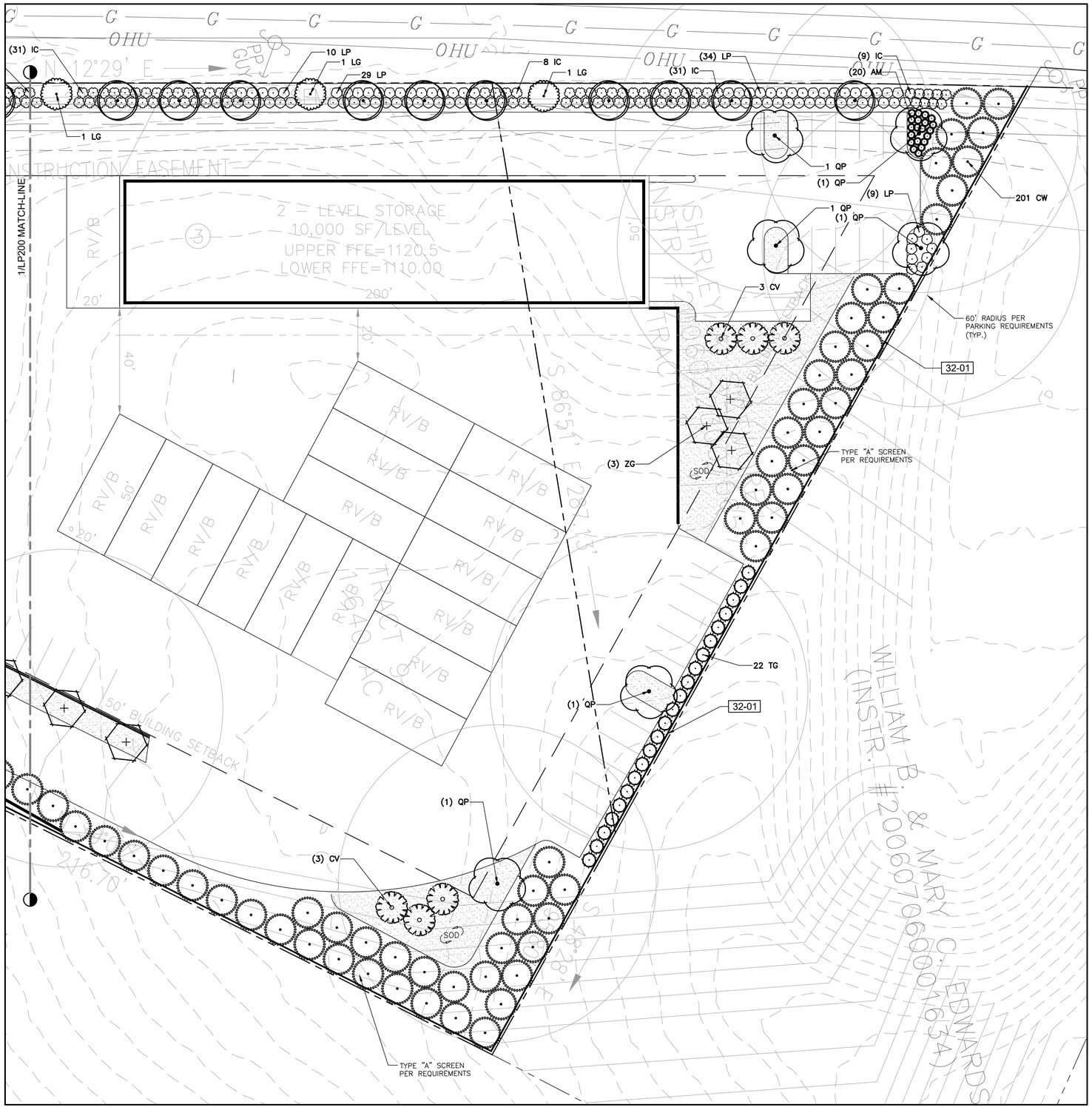
Drawn	JS
Project Manager	LCW
Principal	212031-009
Project No.	12.10.21
Date	

Registration
JARED L. ACY REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 373 COMMISSION EXPIRES

Sheet Title
PLANTING PLAN ENLARGEMENT

Sheet No.
LP200



1 PLANTING PLAN ENLARGEMENT
Scale: 1" = 20'

0 20' 40' NORTH

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	03.31.22	REVISED: SITE DATA CALCS.; FENCE

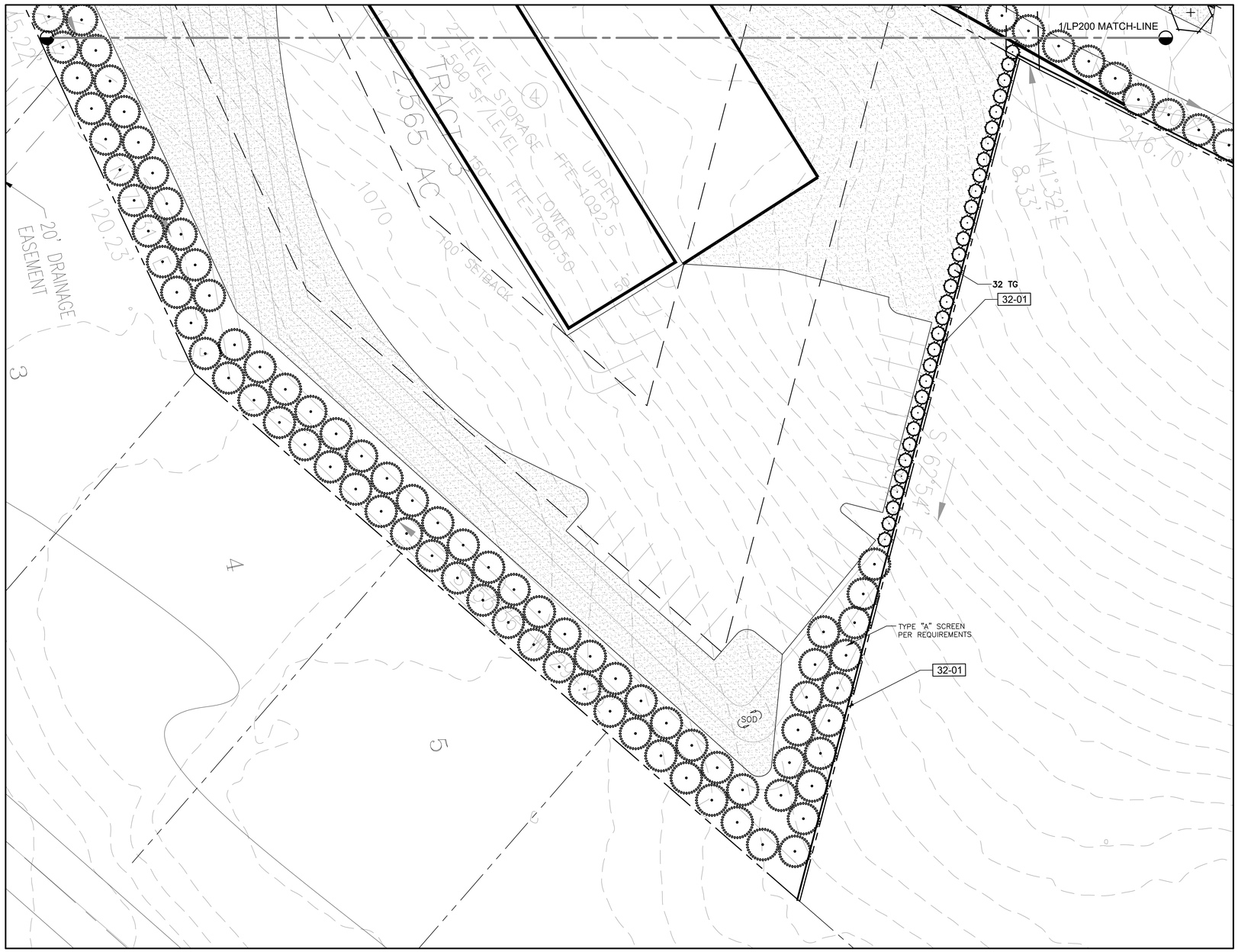
JS Drawn
EDW Project Manager
21-003 Project No.
02.10.22 Date

Registration
JARED L. ACY REGISTERED TENNESSEE No. 373 LANDSCAPE ARCHITECT

Sheet Title

PLANTING PLAN ENLARGEMENT

Sheet No.
LP201



1 PLANTING PLAN ENLARGEMENT
Scale: 1" = 20'

0 20' 40'
NORTH

WAS DESIGN
landscape architects

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FOR CONSTRUCTION
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	03.31.22	REVISED: SITE DATA CALCS.; FENCE

JB Drawn
RCM Project Manager
21-031-009 Project No.
02.10.22 Date

Registration
JARED L. ACY REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 373

Sheet Title
PLANTING PLAN ENLARGEMENT

Sheet No.
LP202

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	HT
	CV	18	CHIONANTHUS VIRGINICUS FULL FORM AND SPECIMAN QUALITY	WHITE FRINGETREE	B&B OR CONT		6`
	CW	201	MAGNOLIA GRANDIFLORA `CLAUDIA WANNAMAKER` FULL TO GROUND	CLAUDIA W. MAGNOLIA	B&B OR CONT		8'
	LG	5	MAGNOLIA GRANDIFLORA `LITTLE GEM` FULL TO GROUND, AND SPECIMAN QUALITY	LITTLE GEM SOUTHERN MAGNOLIA	B&B OR CONT		8`-10`
	GB	20	MALE GINKGO BILOBA SINGLE STRAIGHT TRUNK AND SPECIMAN QUALITY.	MAIDENHAIR TREE	B&B OR CONT	2"CAL	10`-12` HT
	QP	10	QUERCUS PHELLOS SPECIMEN QUALITY	WILLOW OAK	B&B OR CONT	2"CAL	10`-12` HT
	TG	54	THUJA STANDISHII X PLICATA `GREEN GIANT`	GREEN GIANT ARBORVITAE	15 GAL		8'
	ZG	21	ZELKOVA SERRATA 'GREEN VASE' SINGLE STRAIGHT TRUNK, SPECIMAN QUALITY AND FULL FORM	GREEN VASE SAWLEAF ZELKOVA	B&B OR CONT	2"CAL	10-12` HT

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	HT	W	SPACING
	IC	161	ILEX CORNUTA 'CARISSA' FULL FORM	CARISSA CHINESE HOLLY	3 GAL			48" o.c.
	SS	18	ITEA VIRGINICA `HENRY`S GARNET` FULL FORM	HENRY`S GARNET SWEETSPIRE	3 GAL			36" o.c.
	LP	214	LOROPETALUM CHINENSE `PURPLE DIAMOND` FULL FORM	PURPLE DIAMOND LOROPETALUM	3 GAL			48" o.c.
	AM	44	MISCANTHUS SINENSIS `ADAGIO` FULL FORM	ADAGIO MISCANTHUS	3 GAL			36" o.c.
	PO	20	PRUNUS LAUROCERASUS `OTTO LUYKEN` FULL FORM	LUYKENS LAUREL	3 GAL			48" o.c.
	TS	12	THUJA OCCIDENTALIS 'SMARAGD' FULL FORM AND SPECIMAN QUALITY	EMERALD GREEN ARBORVITAE	7 GAL			48" o.c.

SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	HT	W	SPACING
	JP	90	JUNIPERUS CHINENSIS `PARSONII` FULL FORM	PARSONI JUNIPER	3 GAL			36" o.c.

SOD/SEED	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	HT
	SOD	70,901 SF	CYNODON DACTYLON `TIFWAY 419`	TIFWAY 419 BERMUDA GRASS	SOD	

QUANTITY TAKEOFF DISCLAIMER:
QUANTITIES NOTED ON PLANS ARE OFFERED AS A CONVENIENCE TO THE CONTRACTOR FOR BID PURPOSES ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.

REFERENCE NOTES SCHEDULE

SYMBOL	32 EXTERIOR IMPROVEMENTS DESCRIPTION	QTY	DETAIL
32-01	8' WOODEN FENCE	963 LF	7/LP500

Knox County Landscape Requirements

SITE INFORMATION:

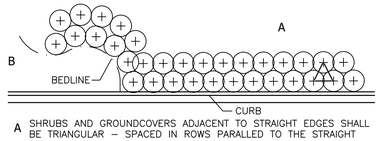
TOTAL SITE AREA:
289,763 SF or 6.65 AC
Parking Spaces: 58 Spaces

Site Requirements:

10 Large Trees	per	1 AC of yard space		
Total Yard Space:		125,064 SF	or	2.87 AC
Large Trees Required:		29 Trees		
Large Trees Proposed:		**29 Trees**		

Parking Requirements

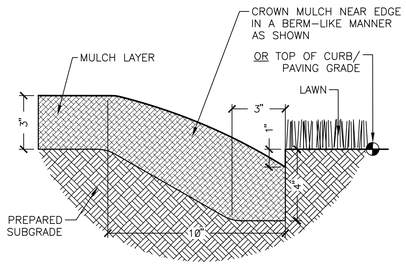
5% of parking area shall be plant beds				
Total Parking Area:		47,432 SF		
Required Plant Bed Area:		2372 SF		
Proposed Plant Bed Area:		**7,583 SF**		
1 Large Tree	per	10 Spaces		
Parking Lot Trees Req.:		6 Trees		
Proposed Parking Lot Trees:		**9 Trees**		
25% of new trees shall be evergreen				
Total Trees:		322 Trees		
Total Evergreens:		254 Trees	or	**79%**
Shall be approximately equal numbers of Large, Small and Medium Trees				
Total Large Trees:		29 Trees		
Total Med. Trees:		21 Trees		
Total Small Trees:		18 Trees		



A SHRUBS AND GROUNDCOVERS ADJACENT TO STRAIGHT EDGES SHALL BE TRIANGULAR – SPACED IN ROWS PARALLED TO THE STRAIGHT EDGE.

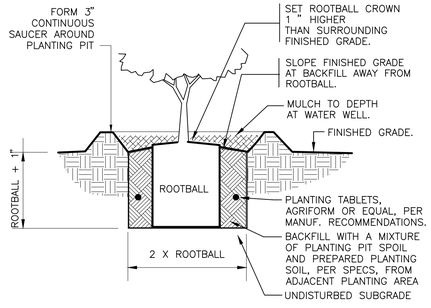
B SHRUBS AND GROUNDCOVERS ADJACENT TO CURVED EDGES SHALL BE PLANTED IN ROWS PARALLEL TO THE CURVED EDGES. CURVED EDGES TO BE VERY SMOOTH RADII.

1 TYPICAL PLANT SPACING
NOT TO SCALE — 32 9399-04

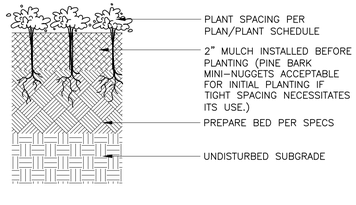


NOTE: TRENCH EDGE TO BE LOCATED BETWEEN ALL PLANTING BED AREAS AND ADJACENT TURF AREAS, UNLESS NOTED OTHERWISE.

2 TRENCH EDGE
3" = 1'-0" — PLNT-ED-TRE-03

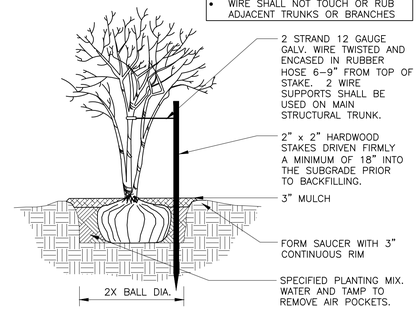


3 SHRUB PLANTING
1" = 1'-0" — 32 9333.13-01

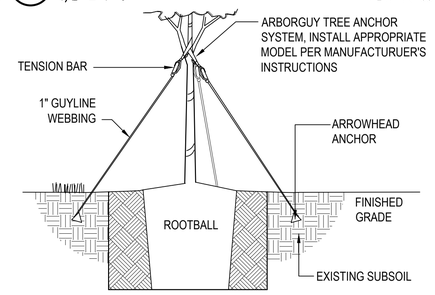


4 GROUNDCOVER PLANTING
3" = 1'-0" — PLNT-GR-03

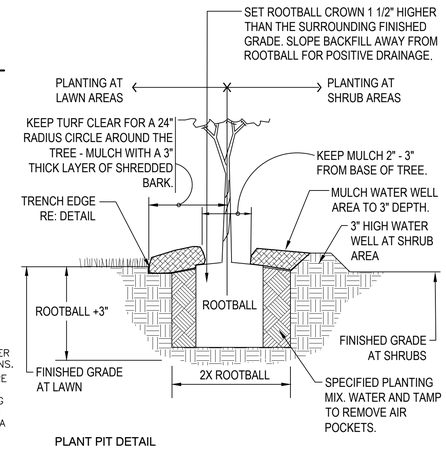
NOTE:
- STAKE TO FIRST BRANCHES AS NECESSARY FOR FIRM SUPPORT
- WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES



5 MULTI-TRUNK TREE STAKING
1/2" = 1'-0" — PLNT-TR-03

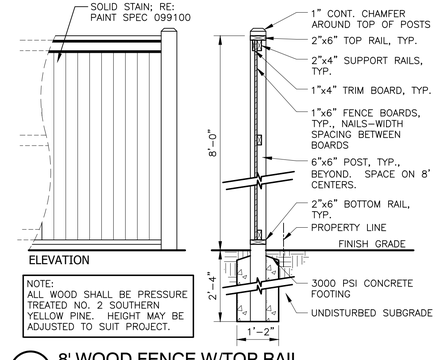


STAKING DETAIL



PLANT PIT DETAIL

6 TREE PLANTING - GUY STRAP
1" = 1'-0" — PLNT-03



ELEVATION

NOTE:
ALL WOOD SHALL BE PRESSURE TREATED NO. 2 SOUTHERN YELLOW PINE. HEIGHT MAY BE ADJUSTED TO SUIT PROJECT.

7 8' WOOD FENCE W/TOP RAIL
1/2" = 1'-0" — S-FENC-WOO-06

WAS DESIGN landscape architects

NOT FOR CONSTRUCTION
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	03.03.22	REVISED PER CITY COMMENTS
	03.31.22	REVISED: SITE DATA CALCS.; FENCE

JG — Drawn
[illegible] — Project Manager
21-2031-009
[illegible]
Date

Registration
JARED L. ACY — REGISTERED — LANDSCAPE ARCHITECT — TENNESSEE No. 373

Sheet Title
LANDSCAPE PLANTING DETAILS

Sheet No.
LP500

SECTION 329200 - TURF AND GRASSES

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
1. Sodding.
B. Related Requirements:
1. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.

1.3 DEFINITIONS
A. Finish Grade: Elevation of finished surface of planting soil.
B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" and drawing designations for planting soils.

1.4 PREINSTALLATION MEETINGS
A. Preinstallation Conference: Conduct conference at Project site.

1.5 INFORMATIONAL SUBMITTALS
A. Product Certificates: For fertilizers, from manufacturer.

1.6 CLOSEOUT SUBMITTALS
A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.

1.7 DELIVERY, STORAGE, AND HANDLING
A. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.
B. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Accompany each delivery of bulk materials with appropriate certificates.

1.8 FIELD CONDITIONS
A. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

1.9 TURFGRASS SOD
A. Turfgrass Sod: Certified, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.
B. Turfgrass Species: Tifton 419 Bermudagrass (Cynodon dactylon 'Tifton 419').

1.10 FERTILIZERS
A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

1.11 PESTICIDES
A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

1.12 EXAMINATION
A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
B. Proceed with installation only after unsatisfactory conditions have been corrected.
C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

1.13 PREPARATION
A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
1. Protect grade stakes set by others until directed to remove them.

1.14 TURF AREA PREPARATION
A. General: Till and rake planting area free and clear of debris to allow for a smooth planting surface. Adjust elevation of planting soil to accept thickness of sod to achieve a smooth plane for optimal mowing equipment.
B. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
C. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

1.15 SODDING
A. Lay sod within 24 hours of harvesting unless a suitable preservation method is accepted by Architect prior to delivery time. Do not lay sod if dormant or if ground is frozen or muddy.
B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to soil or sod during installation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
1. Lay sod across slopes exceeding 1:3.
2. Anchor sod on slopes exceeding 1:6 with wood pegs spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.
C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod.

1.16 TURF MAINTENANCE
A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
2. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches .
1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
2. Water turf with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.
C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow Tifton 419 bermudagrass to a height of 1/2 to 1 inch .
D. Turf Postfertilization: Apply commercial fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that provides actual nitrogen of at least 1 lb/1000 sq. ft. to turf area.

1.17 SATISFACTORY TURF
A. Turf installations shall meet the following criteria as determined by Architect:
1. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

1.18 PESTICIDE APPLICATION
A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

1.19 CLEANUP AND PROTECTION
A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

1.20 MAINTENANCE SERVICE
A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
1. Sodded Turf: 30 days from date of Substantial Completion.

SECTION 329300 - PLANTS

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
1. Plants.
2. Planting soils.
B. Related Sections:
1. Section 311000 "Site Clearing" for protection of existing trees and plantings, topsoil stripping and stockpiling, and site clearing.
2. Section 329200 "Turf and Grasses" for turf (lawn) and meadow planting, hydroseeding, and erosion-control materials.

1.3 UNIT PRICES
A. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."
1. Unit prices apply to authorized work covered by quantity allowances.
2. Unit prices apply to additions to and deletions from Work as authorized by Change Orders.

1.4 DEFINITIONS
A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
B. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.
C. Balled and Potted Stock: Plants dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container. Ball size is not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required.
D. Bare-Root Stock: Plants with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed, and with not less than minimum root spread according to ANSI Z60.1 for type and size of plant required.
E. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.
F. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
G. Finish Grade: Elevation of finished surface of planting soil.
H. Pests: Living organisms that occur where they are not desired, or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
I. Planting Area: Area to be planted.
J. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
K. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.
L. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
M. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.
N. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
O. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
P. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.5 ACTION SUBMITTALS
A. Product Data: For each type of product indicated, including soils.
1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Plant Photographs: Include color photographs in digital format of each required species and size of plant material as it will be furnished to the Project. Take photographs from an angle depicting true size and condition of the typical plant to be furnished. Include a scale rod or other measuring device in each photograph. For species where more than 20 plants are required, include a minimum of three photographs showing the average plant, the best quality plant, and the worst quality plant to be furnished. Identify each photograph with the full scientific name of the plant, plant size, and name of the growing nursery.
B. Samples for Verification: For each of the following:
1. Organic Mulch: 1-pint volume of each organic mulch required; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of color, texture, and organic makeup.

1.6 INFORMATIONAL SUBMITTALS
A. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before start of required maintenance periods.
B. Warranty: Sample of special warranty.

1.7 QUALITY ASSURANCE
A. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.
B. Measurements: Measure according to ANSI Z60.1, typical, or Florida Grades & Standards, if referenced. Do not prune to obtain required sizes.
1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches above the root flare for trees up to 4-inch caliper size, and 12 inches above the root flare for larger sizes.
2. Other Plants: Measure with stems, petioles, and foliage in their normal position.
C. Plant Material Observation: Architect may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
1. Notify Architect of sources of planting materials seven days in advance of delivery to site.
D. Preinstallation Conference: Conduct conference at Project site.

1.8 DELIVERY, STORAGE, AND HANDLING
A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.
B. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.
C. Deliver bare-root stock plants freshly dug. Immediately after digging up bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
D. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
E. Handle planting stock by root ball.
F. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F until planting.
G. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.
1. Heel-in bare-root stock. Soak roots that are in dry condition in water for two hours. Reject dried-out plants.
2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
3. Do not remove container-grown stock from containers before time of planting.
4. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

1.9 PROJECT CONDITIONS
A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.
B. Interruption of Existing Services or Utilities: Do not interrupt services or utilities to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to requirements indicated:
1. Notify Architect no fewer than two days in advance of proposed interruption of each service or utility.
2. Do not proceed with interruption of services or utilities without Architect's written permission.
C. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
D. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.
E. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.
1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.10 WARRANTY
A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
1. Failures include, but are not limited to, the following:
a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that are beyond Contractor's control.
b. Structural failures including plantings falling or blowing over.
c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
2. Warranty Periods from Date of Substantial Completion:
a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.
c. Annuals: Three months.
3. Include the following remedial actions as a minimum:
a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

1.11 MAINTENANCE SERVICE
A. Initial Maintenance Proposal: From Installer to Owner and/or Bid Administrator, in the form of a standard yearly (or other period) maintenance agreement as an addendum to Bid Proposal or Bid Form if not requested otherwise in bidding documents, starting on date that maintenance begins as defined in this Section. State services, obligations, conditions, and terms for agreement period and for future renewal options.
B. Initial Maintenance Service for Trees and Shrubs: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.
1. Maintenance Period: 12 months from date of Substantial Completion.
C. Initial Maintenance Service for Ground Cover and Other Plants: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.
1. Maintenance Period: Six months from date of Substantial Completion.
D. Continuing Maintenance Proposal: From Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

1.12 PLANT MATERIAL
A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on Drawings and complying with ANSI Z60.1 for and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem girdling roots will be rejected.
2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.
B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.
C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.
D. Labeling: Label at least one plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant as shown on Drawings.
E. If formal arrangements or consecutive order of plants is shown on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.
F. Annuals: Provide healthy, disease-free plants of species and variety shown or listed, with well-established root systems reaching to sides of the container to maintain a firm ball, but not with excessive root growth encircling the container. Provide only plants that are acclimated to outdoor conditions before delivery.

1.13 ORGANIC SOIL AMENDMENTS
A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1/2-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.
2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
B. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
1. In lieu of decomposed wood derivatives, mix partially decomposed wood derivatives with ammonium nitrate at a minimum rate of 0.15 lb/cu. ft. of loose sawdust or ground bark, or with ammonium sulfate at a minimum rate of 0.25 lb/cu. ft. of loose sawdust or ground bark.
2. Some regional trade names include "Topsoil Conditioner" or "IP Mulch".

1.14 FERTILIZERS
A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
C. Planting Tablets: Tightly compressed chip type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
1. Size: 21-gram tablets.
2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

1.15 PLANTING SOILS
A. Planting Soil, typical: Existing, native surface topsoil formed under natural conditions with the duff layer retained during excavation process. Verify suitability of native surface topsoil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
1. Mix existing, native surface topsoil with either of the following soil amendments and fertilizers in the following quantities to produce planting soil:
a. Ratio of Loose Compost to Topsoil by Volume: 1:3.
b. Ratio of Loose Wood Derivatives to Topsoil by Volume: 1:3.
c. Weight of Commercial Fertilizer per 1000 Sq. Ft. : 1 lb..
d. Weight of Slow-Release Fertilizer per 1000 Sq. Ft. : 1 lb..

1.16 MULCHES
A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
1. Type: Longleaf pine needles.
2. Color: Natural.

1.17 EXAMINATION
A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.
1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
B. Proceed with installation only after unsatisfactory conditions have been corrected.
C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

1.18 PREPARATION
A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before excavating or planting. Make minor adjustments as required.
D. Lay out plants at locations directed by Architect. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

1.19 PLANTING AREA ESTABLISHMENT
A. Loosen subgrade of planting areas to a minimum depth of 4 inches . Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
1. Apply each fertilizer directly to subgrade before loosening.
2. Till and rake planting area to receive amendments. Spread amendments to achieve ratios at 4" depth. Till and incorporate fully into required depth.
B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
C. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

1.20 EXCAVATION FOR TREES AND SHRUBS
A. Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
1. Excavate approximately three times as wide as ball diameter for balled and burlapped stock.
2. Excavate at least 12 inches wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
3. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
4. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
5. Maintain required angles of repose of adjacent materials as shown on the Drawings. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
6. Maintain supervision of excavations during working hours.
7. Keep excavations covered or otherwise protected after working hours.
B. Subsoil and topsoil removed from excavations may be used as planting soil.
C. Obstructions: Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
1. Hardpan Layer: Drill 6-inch-diameter holes, 24 inches apart, into free-draining strata or to a depth of 10 feet , whichever is less, and backfill with free-draining material.
D. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.
E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

1.21 TREE, SHRUB, AND VINE PLANTING
A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
B. Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
C. Set balled and burlapped stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
1. Use planting soil, typical, for backfill.
2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
5. Continue backfilling process. Water again after placing and tamping final layer of soil.
D. Set container-grown stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
1. Use planting soil, typical, for backfill.
2. Carefully remove root ball from container without damaging root ball or plant.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
5. Continue backfilling process. Water again after placing and tamping final layer of soil.
E. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

1.22 TREE, SHRUB, AND VINE PRUNING
A. Prune, thin, and shape trees, shrubs, and vines as directed by Architect.
B. Do not apply pruning paint to wounds.

1.23 GROUND COVER AND PLANT PLANTING
A. Set out and space ground cover and plants other than trees, shrubs, and vines as indicated in even rows with triangular spacing.
B. Use planting soil, typical, for backfill.
C. Dig holes large enough to allow spreading of roots.
D. For rooted cutting plants supplied in flats, plant each in a manner that will minimally disturb the root system but to a depth not less than two nodes.
E. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.
F. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.
G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

1.24 PLANTING AREA MULCHING
A. Mulch backfilled surfaces of planting areas and other areas indicated.
1. Trees and Tree-like Shrubs in Turf Areas: Apply organic mulch ring of 3-inch average thickness, with 36-inch radius around trunks or stems. Do not place mulch within 3 inches of trunks or stems.
2. Organic Mulch in Planting Areas: Apply 3-inch average settled thickness of organic mulch over whole surface of planting area, and finish level with adjacent finish grades. Do not place mulch within 2 inches of trunks or stems.

1.25 PLANT MAINTENANCE
A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
B. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.

1.26 CLEANUP AND PROTECTION
A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.
B. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
C. After installation and before Substantial Completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

1.27 DISPOSAL
A. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

WAS DESIGN landscape architects

NOT FOR CONSTRUCTION
THESE PLANS HAVE NOT BEEN APPROVED AND ARE SUBJECT TO CHANGE.

A Landscape Development Plan for Lovell Road Self Storage
Hardin Valley, Tennessee

Revisions

No.	Date	Revisions / Submissions
	01.21.22	REVISED PER CITY COMMENTS
	02.10.22	REVISED PER CITY COMMENTS
	03.03.22	REVISED PER CITY COMMENTS
	03.31.22	REVISED: SITE DATA CALCS.; FENCE

Drawn: JB

Project Manager: DM

Project No.: 21-009

Date: 03.31.22

Registration
JARED L. ACY REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 373 COMMONWEALTH OF TENNESSEE

Sheet Title
LANDSCAPE PLANTING SPECIFICATIONS

Sheet No.
LP501

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	NOTE 3	QUANTITY	DEFAULT ELEVATION
P1	⊶	(1)	LSO-M-T3-5L-3K-PTD-CLS	ELECTRONIC	POLE	Visionaire Lighting LLC	120V 1P 2W	Visionaire Lighting Photometric Laboratory, 08/28/2020, 06/17/20, 5058, 120 VAC, 52W, B1-U3-G2	24	20'
P2	◎	(1)	LSO-M-T5-10L-3K-PTD	ELECTRONIC	POLE	Visionaire Lighting LLC	120V 1P 2W	Visionaire Lighting Photometric Laboratory, 10/28/2020, 06/25/20, 8821, 120 VAC, 67.28W, B3-U0-G3	13	20'

STRUCTURAL ENGINEERING NOTE

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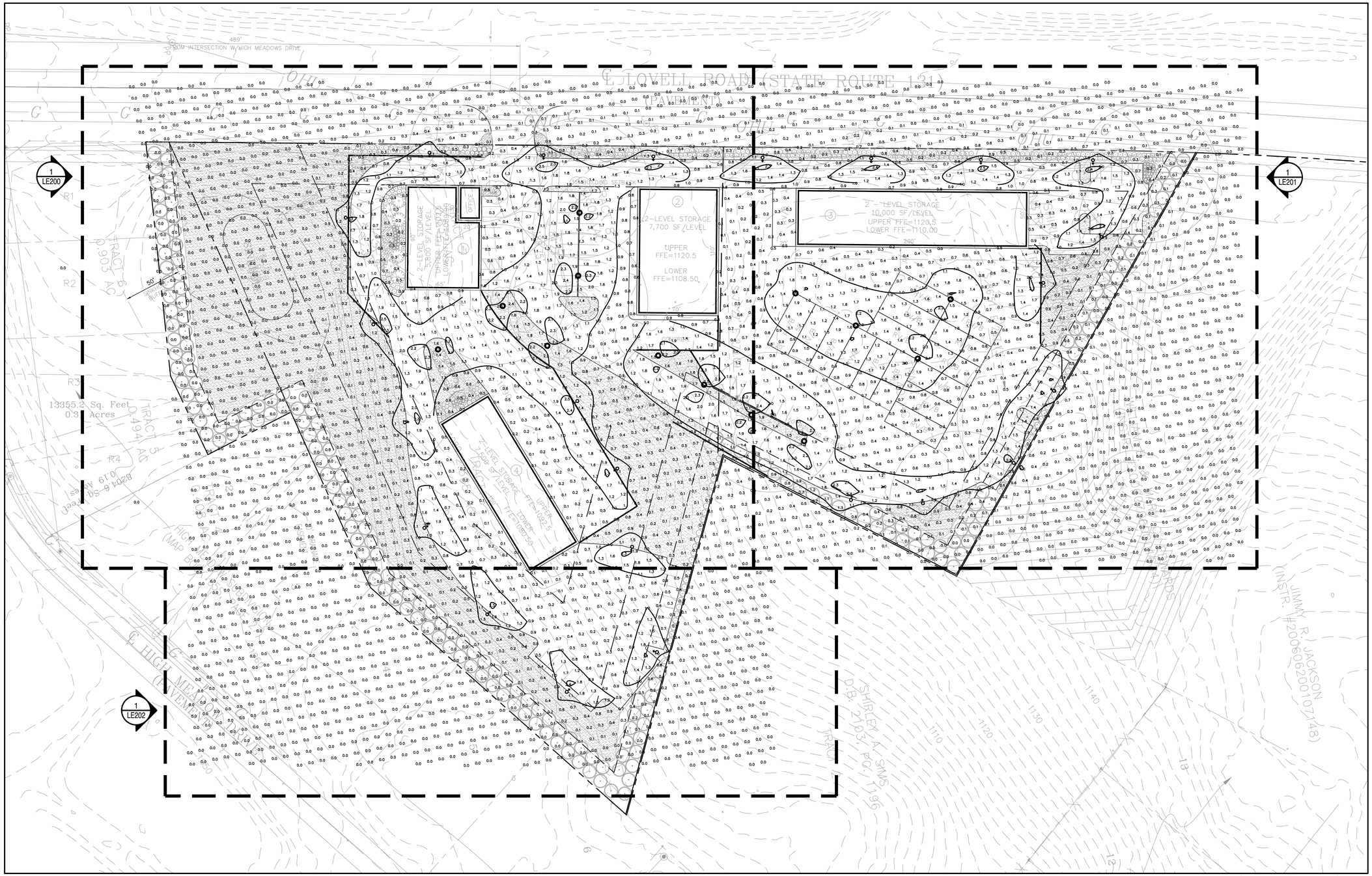
LIGHTING NOTE:

ALL LIGHT FIXTURES NEAR PROPERTY LINE TO HAVE CUTOFF LOUVER SHIELD TO MINIMIZE LIGHT SPILLAGE ONTO ADJACENT PROPERTIES.



1 SITE LIGHTING PLAN
Scale: 1" = 40'

0 40' 80' NORTH

WAS DESIGN landscape architects

NOT FOR CONSTRUCTION
THESE PLANS HAVE NOT BEEN APPROVED AND ARE SUBJECT TO CHANGE.

A Landscape Development Plan for
Lovell Road Self Storage
Hardin Valley, Tennessee

Revisions

No.	Date	Revisions / Submissions
	01.21.22	REVISED PER CITY COMMENTS
	02.10.22	REVISED PER CITY COMMENTS
	03.03.22	REVISED PER CITY COMMENTS
	03.31.22	REVISED: SITE DATA CALCS.; FENCE

BH — Drawn
DCT — Project Manager
JA — Principal
212031-009 — Project No.
12.10.21 — Date

Registration

JARED L. ACY — REGISTERED — TENNESSEE No. 111 — LANDSCAPE ARCHITECT

Sheet Title

SITE LIGHTING PLAN

Sheet No.

LE100

1 SITE LIGHTING PLAN ENLARGEMENT

Scale: 1" = 20'

0 20' 40'

NORTH

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Drawn

DCT
Project Manager

JA
Principal

212031-009
Project No.

12.10.21
Date

Registration

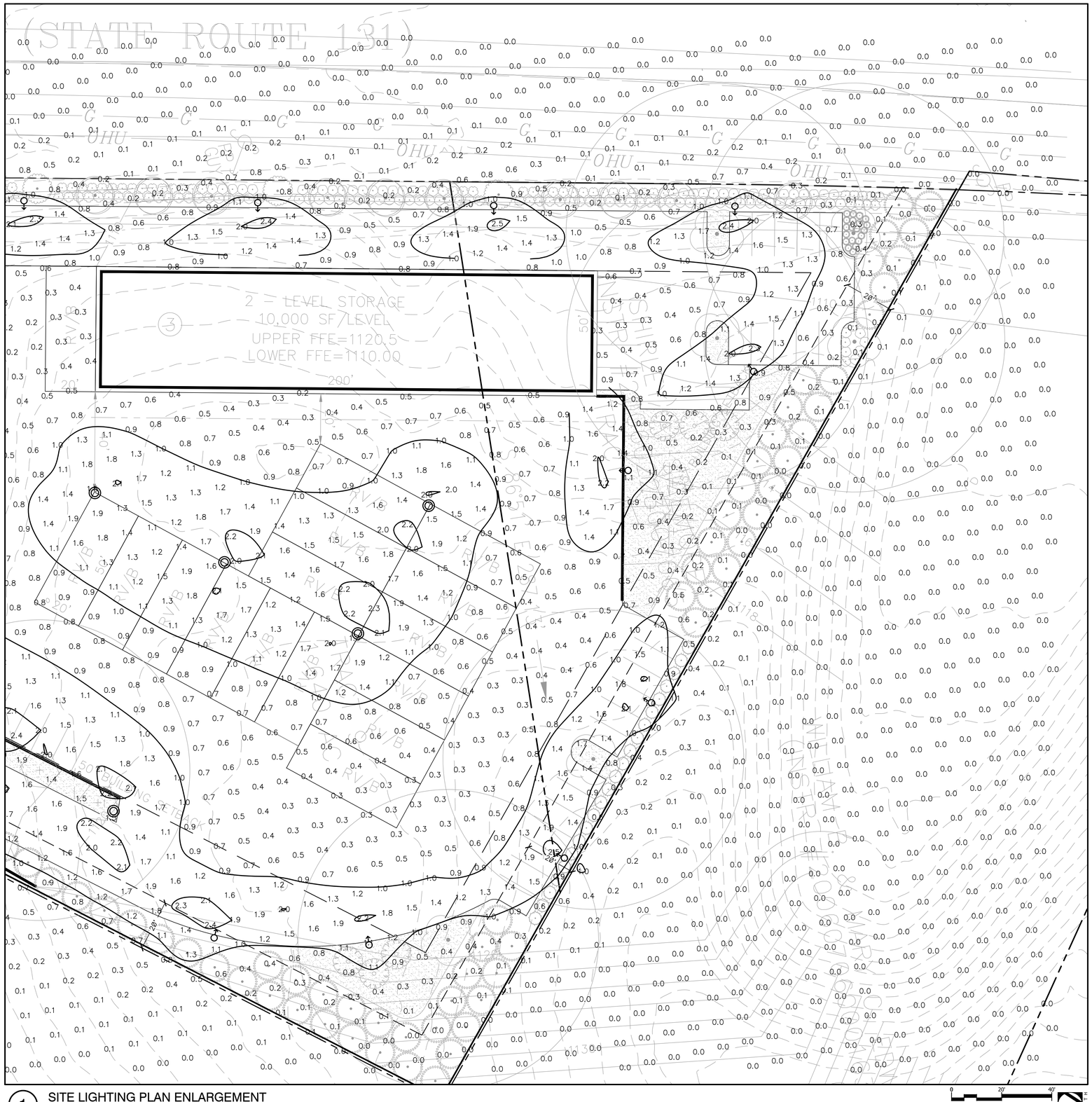
JARED L. ACY
REGISTERED
TENNESSEE No. 1173
LANDSCAPE ARCHITECT

Sheet Title

SITE LIGHTING PLAN ENLARGEMENT

Sheet No.

LE200



1 SITE LIGHTING PLAN ENLARGEMENT
Scale: 1" = 20'

0 20' 40'

NORTH

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JARED L. ACY REGISTERED LANDSCAPE ARCHITECT TENNESSEE No. 372

Sheet Title

SITE LIGHTING PLAN ENLARGEMENT

Sheet No.

LE201

LUSSO ARRAY M-PT LED Specifications

M-PTS
Medium
Post Top
Single Arm

M-PTD
Medium
Post Top
Double Arm

Project Name:

Catalog Number:

Type:

Contemporary design meets the new generation of LED green technology in this stunning lumenaire, the **Lusso Array**. The Lusso Array series provides over fifty percent energy savings over traditional HID light sources; and offers excellent beam control and LED life beyond 100,000 hours for 1400 milliamp systems. The Lusso Array is offered in ten optical distributions.

The Lusso Array's fully-sealed housing features an exceptionally well-designed thermal management system that provides superior heat dissipation.

The Lusso Array fixture is built with cast aluminum.

The **Lusso Array** is the perfect compliment to any university campus, business park, or walkway project where contemporary, architectural design is desired.

Ordering Information

MODEL	OPTICS	LUMENS	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
LSO-M	T3	5L	3K	UNV	PTD	BK		CLS

LSO-M

OPTICS
- **T1** Type 1
- **T2** Type 2
- **T3** Type 3
- **T3L** Type 3 Long
- **T4** Type 4
- **T4A** Type 4 Automotive
- **T4L** Type 4 Long
- **T5LR** Type 5 Long Round
- **T5LS** Type 5 Long Square
- **T5SR** Type 5 Short Round

LUMENS
- **5L**
- **10L**
- **15L**
- **20L**
- **25L**

KELVIN
- **3K** 3000K
- **4K** 4000K
- **5K** 5000K

P1

VOLTAGE
- **UNV** 120-277V
- **8** 347V
- **5** 480V

MOUNTING
- **PTS** Post Top Single Arm
- **PTD** Post Top Double Arm

The Lusso Medium Post Top will slip over a 3" O.D. X 4"Tall tenon

FINISH
- **BK** Black
- **SBK** Smooth Black
- **BZ** Bronze
- **GP** Graphite
- **GY** Grey
- **SL** Silver Metallic
- **WH** White
- **SWH** Smooth White
- **FG** Forest Green
- **VD** Verdigris Green
- **CC** Custom Color

OPTIONS
- **PCR-120**
- **PCR-208**
- **PCR-240**
- **PCR-277**
- **PCR-347**
- **PCR-480** Photocell & Receptacle
- **PER** 5PINPER
- **7PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap *Requires Dimming Driver
- **DIM** 0-10v Dimming Driver
- **VWC** Visionaire Wireless Controls *Consult Factory

OPTIONS
- **WSC-8** Motion Sensor 8' Mounting Height
- **WSC-20** Motion Sensor 9-20' Mounting Height
- **WSC-40** Motion Sensor 21-40' Mounting Height
  *The WSC option will require (1) FSIR 100 remote for programing
- **CLS** Cutoff Louver Shield
- **ROT-R** Rotated Optics Right Side
- **ROT-L** Rotated Optics Left Side

VISIONAIRE LIGHTING

A

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- **10L**
- **15L**
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KELVIN
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P2

VOLTAGE
- **UNV** 120-277V
- **8** 347V
- **5** 480V

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VISIONAIRE LIGHTING

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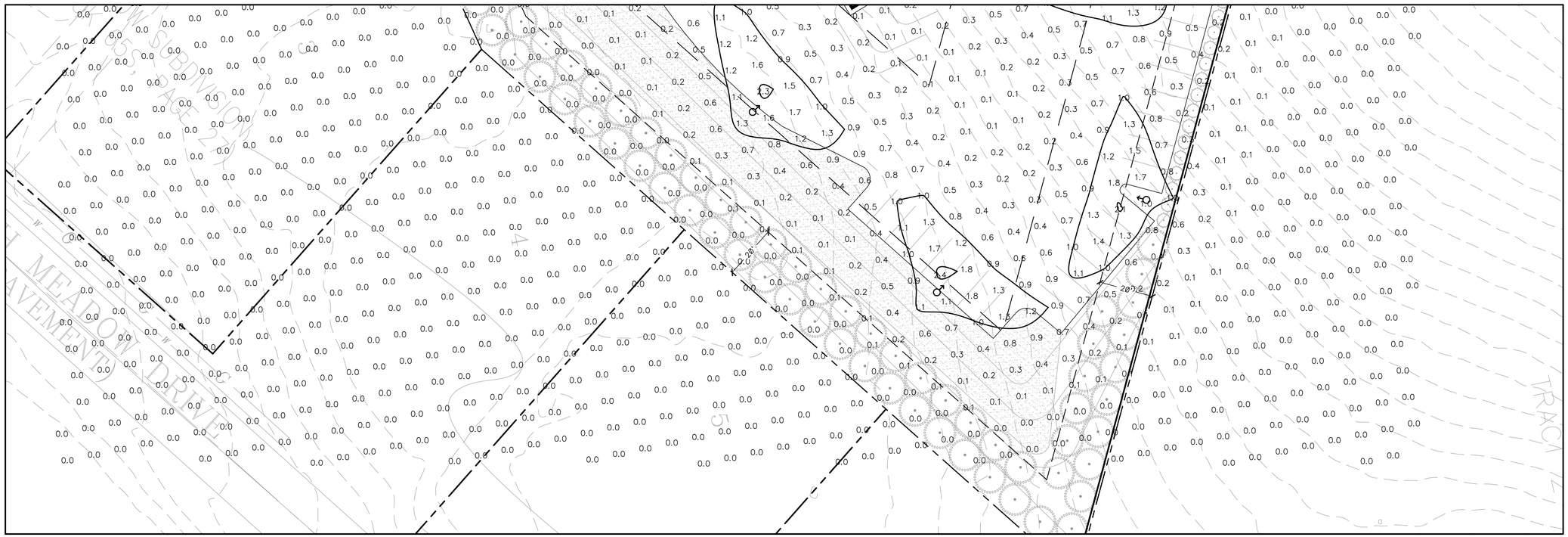

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SITE LIGHTING PLAN ENLARGEMENT

Sheet No.

LE202