

Surface

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LANDSCAPE PERMIT SET

RIVERLIGHTS RIVER ROAD LANDSCAPE PLAN

RIVER ROAD
WILMINGTON, NC

APR. 28, 2015



RIVERLIGHTS™

by
Newland COMMUNITIES

INDEX OF SHEETS

LANDSCAPE

L 160	OVERALL PLANTING PLAN
L 161	PLANTING PLAN
L 162	PLANTING PLAN
L 163	PLANTING PLAN - END PHASE 1, BEGIN PHASE 2
L 164	PLANTING PLAN - END PHASE 2, BEGIN PHASE 3
L 165	PLANTING PLAN - END PHASE 3, BEGIN PHASE 4
L 166	PLANTING PLAN - END PHASE 4, BEGIN PHASE 5
L 167	PLANTING PLAN - END PHASE 5
L 501	DETAILS
L 502	DETAILS
L 503	PLANT SPECIES LIST
L 504	PLANT SPECIES LIST



River Road Conceptual Planting Design



VICINITY MAP

SCALE: NTS



Newland MKRIM&CREED LSP Surface

CONSULTANTS



REGISTRATION



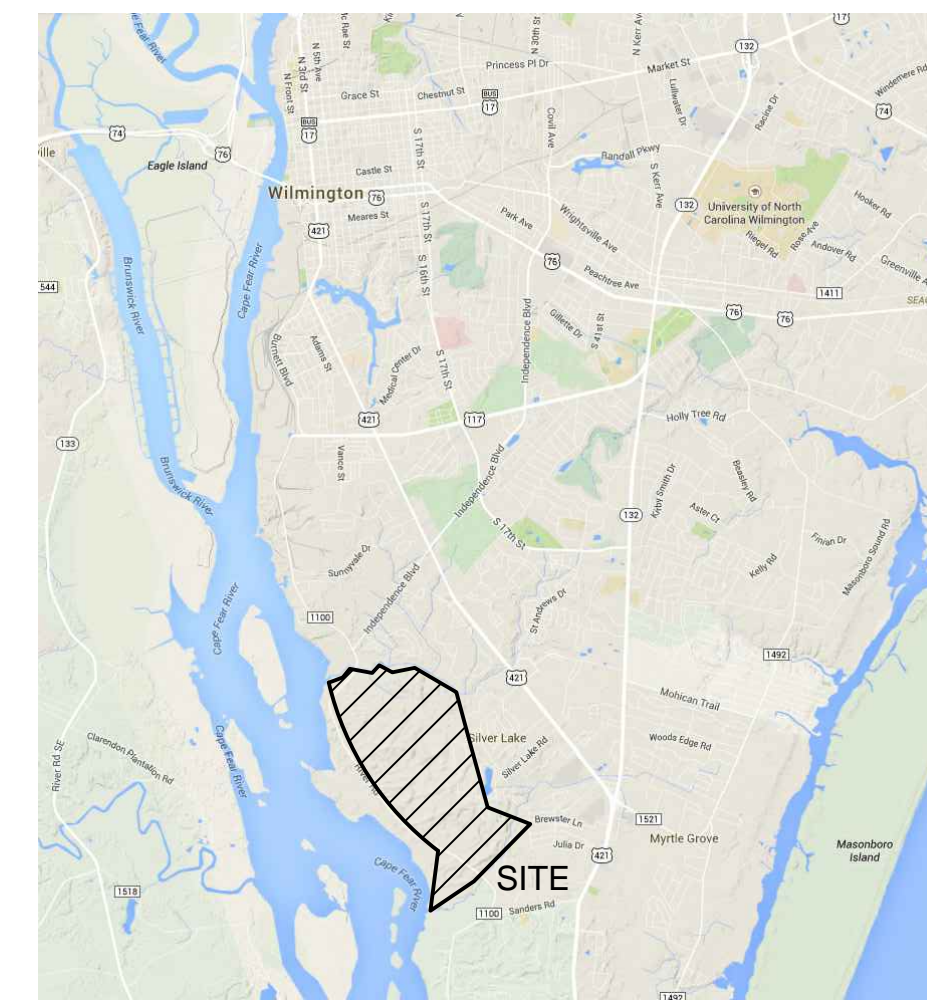
CLIENT



RIVERLIGHTS
by
Newland COMMUNITIES
2202 COOPERATIVE WAY
HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

CONTEXT MAP



CITY OF WILMINGTON NOTES

- NO PLANTINGS OVER THIRTY (30) INCHES IN HEIGHT ALLOWED IN VISION CLEARANCE.
- PROTECTION FROM VEHICULAR TRAFFIC PROVIDED AROUND ALL LANDSCAPING WITH A MINIMUM HEIGHT OF SIX (6) INCHES.
- OWNER IS RESPONSIBLE FOR MAINTENANCE TO ENSURE PLANT MATERIAL LIVES AND PROSPERS.
- PLANTING PLANS SHALL BE APPROVED BY LANDSCAPE DESIGNER PRIOR TO INSTALLATION.
- LANDSCAPING SHALL BE REQUIRED AT THE ENDS OF PARKING ROWS.
- A LIMIT OF WORK (LOW) BUFFER SHALL BE REQUIRED WHERE PARKING IS WITHIN FIFTY (50) FEET OF RIGHT-OF-WAY.
- LANDSCAPED ISLANDS SHALL BE A MINIMUM WIDTH OF TWELVE (12) FEET (BACK OF CURB TO BACK OF CURB) AND A MINIMUM OF TWO HUNDRED AND SIXTEEN (216) SQUARE FEET.
- A MINIMUM OF FIFTEEN (15) TREES 2 INCHES OR GREATER IN DIAMETER AS MEASURED 6 INCHES ABOVE GROUND PER DISTURBED ACRE.

DUKE ENERGY TRANSMISSION RIGHT-OF-WAY NOTES

- PLANTINGS NOT TO INTERFERE WITH ACCESS TO OR THE SAFE, RELIABLE OPERATION AND MAINTENANCE OF DUKE ENERGY FACILITIES.
- WRITTEN APPROVAL REQUIRED FOR SHRUBS AND GRASSES WITHIN "WIRE ZONE"
- TREE SPECIES NOT TO BE PLANTED WITHIN "WIRE ZONE." TREES APPROVED IN THE "BORDER ZONE" MAY NOT EXCEED, AT MATURITY, 15 FEET IN AREA A AND 12 FEET IN AREA B. SEE MAP IN "DUKE ENERGY ELECTRIC TRANSMISSION RIGHT-OF-WAY GUIDELINES/RESTRICTIONS VALID FOR NORTH CAROLINA AND SOUTH CAROLINA (REVISED: 11/20/2014)"
- VEGETATION THAT IS NOT IN COMPLIANCE IS SUBJECT TO REMOVAL WITHOUT NOTICE.
- DUKE ENERGY MAY EXERCISE THE RIGHT TO CUT "DANGER TREES" OUTSIDE THE RIGHT-OF-WAY LIMITS AS REQUIRED TO PROPERLY MAINTAIN AND OPERATE THE TRANSMISSION LINE.

GENERAL NOTES - APPLY TO ALL LANDSCAPE (L160) SHEETS

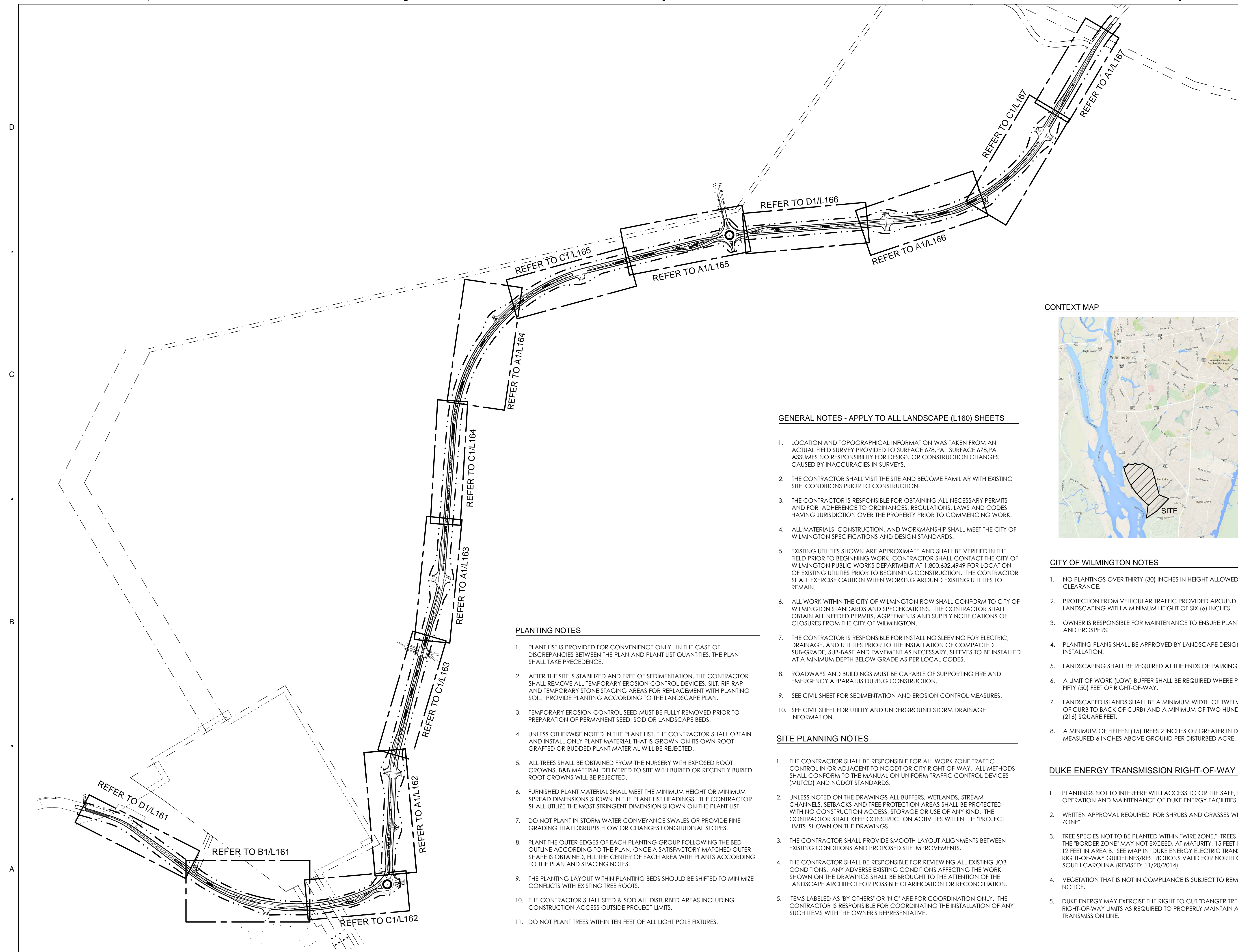
- LOCATION AND TOPOGRAPHICAL INFORMATION WAS TAKEN FROM AN ACTUAL FIELD SURVEY PROVIDED TO SURFACE 678.PA. SURFACE 678.PA ASSUMES NO RESPONSIBILITY FOR DESIGN OR CONSTRUCTION CHANGES CAUSED BY INACCURACIES IN SURVEYS.
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR ADHERENCE TO ORDINANCES, REGULATIONS, LAWS AND CODES HAVING JURISDICTION OVER THE PROPERTY PRIOR TO COMMENCING WORK.
- ALL MATERIALS, CONSTRUCTION, AND WORKMANSHIP SHALL MEET THE CITY OF WILMINGTON SPECIFICATIONS AND DESIGN STANDARDS.
- EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT THE CITY OF WILMINGTON PUBLIC WORKS DEPARTMENT AT 1.800.632.4949 FOR LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND EXISTING UTILITIES TO REMAIN.
- ALL WORK WITHIN THE CITY OF WILMINGTON ROW SHALL CONFORM TO CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN ALL NEEDED PERMITS, AGREEMENTS AND SUPPLY NOTIFICATIONS OF CLOSURES FROM THE CITY OF WILMINGTON.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING FOR ELECTRIC, DRAINAGE, AND UTILITIES PRIOR TO THE INSTALLATION OF COMPACTED SUB-GRADE, SUB-BASE AND PAVEMENT AS NECESSARY. SLEEVES TO BE INSTALLED AT A MINIMUM DEPTH BELOW GRADE AS PER LOCAL CODES.
- ROADWAYS AND BUILDINGS MUST BE CAPABLE OF SUPPORTING FIRE AND EMERGENCY APPARATUS DURING CONSTRUCTION.
- SEE CIVIL SHEET FOR SEDIMENTATION AND EROSION CONTROL MEASURES.
- SEE CIVIL SHEET FOR UTILITY AND UNDERGROUND STORM DRAINAGE INFORMATION.

SITE PLANNING NOTES

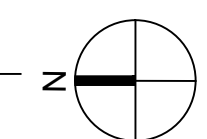
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR CITY RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
- UNLESS NOTED ON THE DRAWINGS ALL BUFFERS, WETLANDS, STREAM CHANNELS, SETBACKS AND TREE PROTECTION AREAS SHALL BE PROTECTED WITH NO CONSTRUCTION ACCESS, STORAGE OR USE OF ANY KIND. THE CONTRACTOR SHALL KEEP CONSTRUCTION ACTIVITIES WITHIN THE "PROJECT LIMITS" SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE SMOOTH LAYOUT ALIGNMENTS BETWEEN EXISTING CONDITIONS AND PROPOSED SITE IMPROVEMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING JOB CONDITIONS. ANY ADVERSE EXISTING CONDITIONS AFFECTING THE WORK SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR POSSIBLE CLARIFICATION OR RECONCILIATION.
- ITEMS LABELED AS "BY OTHERS" OR "NIC" ARE FOR COORDINATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ANY SUCH ITEMS WITH THE OWNER'S REPRESENTATIVE.

PLANTING NOTES

- PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND PLANT LIST QUANTITIES, THE PLAN SHALL TAKE PRECEDENCE.
- AFTER THE SITE IS STABILIZED AND FREE OF SEDIMENTATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES, SILT, RIP RAP AND TEMPORARY STONE STAGING AREAS FOR REPLACEMENT WITH PLANTING SOIL. PROVIDE PLANTING ACCORDING TO THE LANDSCAPE PLAN.
- TEMPORARY EROSION CONTROL SEED MUST BE FULLY REMOVED PRIOR TO PREPARATION OF PERMANENT SEED, SOD OR LANDSCAPE BEDS.
- UNLESS OTHERWISE NOTED IN THE PLANT LIST, THE CONTRACTOR SHALL OBTAIN AND INSTALL ONLY PLANT MATERIAL THAT IS GROWN ON ITS OWN ROOT - GRAFTED OR BUDDED PLANT MATERIAL WILL BE REJECTED.
- ALL TREES SHALL BE OBTAINED FROM THE NURSERY WITH EXPOSED ROOT CROWNS. B&B MATERIAL DELIVERED TO SITE WITH BURIED OR RECENTLY BURIED ROOT CROWNS WILL BE REJECTED.
- FURNISHED PLANT MATERIAL SHALL MEET THE MINIMUM HEIGHT OR MINIMUM SPREAD DIMENSIONS SHOWN IN THE PLANT LIST HEADINGS. THE CONTRACTOR SHALL UTILIZE THE MOST STRINGENT DIMENSION SHOWN ON THE PLANT LIST.
- DO NOT PLANT IN STORM WATER CONVEYANCE SWALES OR PROVIDE FINE GRADING THAT DISRUPTS FLOW OR CHANGES LONGITUDINAL SLOPES.
- PLANT THE OUTER EDGES OF EACH PLANTING GROUP FOLLOWING THE BED OUTLINE ACCORDING TO THE PLAN. ONCE A SATISFACTORY MATCHED OUTER SHAPE IS OBTAINED, FILL THE CENTER OF EACH AREA WITH PLANTS ACCORDING TO THE PLAN AND SPACING NOTES.
- THE PLANTING LAYOUT WITHIN PLANTING BEDS SHOULD BE SHIFTED TO MINIMIZE CONFLICTS WITH EXISTING TREE ROOTS.
- THE CONTRACTOR SHALL SEED & SOD ALL DISTURBED AREAS INCLUDING CONSTRUCTION ACCESS OUTSIDE PROJECT LIMITS.
- DO NOT PLANT TREES WITHIN TEN FEET OF ALL LIGHT POLE FIXTURES.



A1 KEY MAP
SCALE: NTS



SHEET TITLE:

OVERALL
PLANTING PLAN

L160

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REGISTRATION



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RIVERLIGHTSSM

by
Newland COMMUNITIES

2202 COOPERATIVE WAY
HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
1	SITE PLAN COMMENTS	04.28.15

ISSUE:
**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

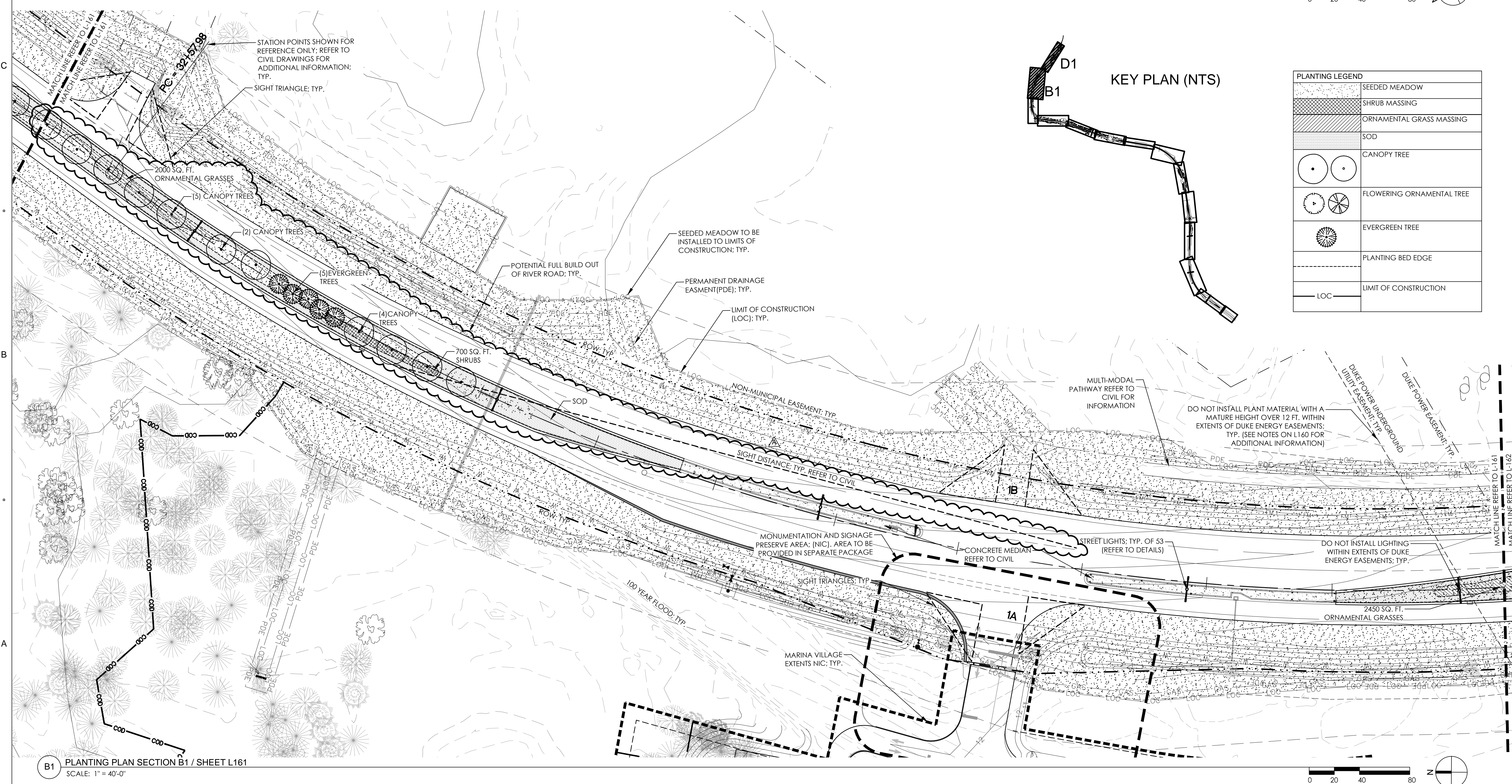
SHEET TITLE:

PLANTING PLAN

L161



D1 PLANTING PLAN SECTION D1 / SHEET L161
SCALE: 1" = 40'-0"



B1 PLANTING PLAN SECTION B1 / SHEET L161
SCALE: 1" = 40'-0"

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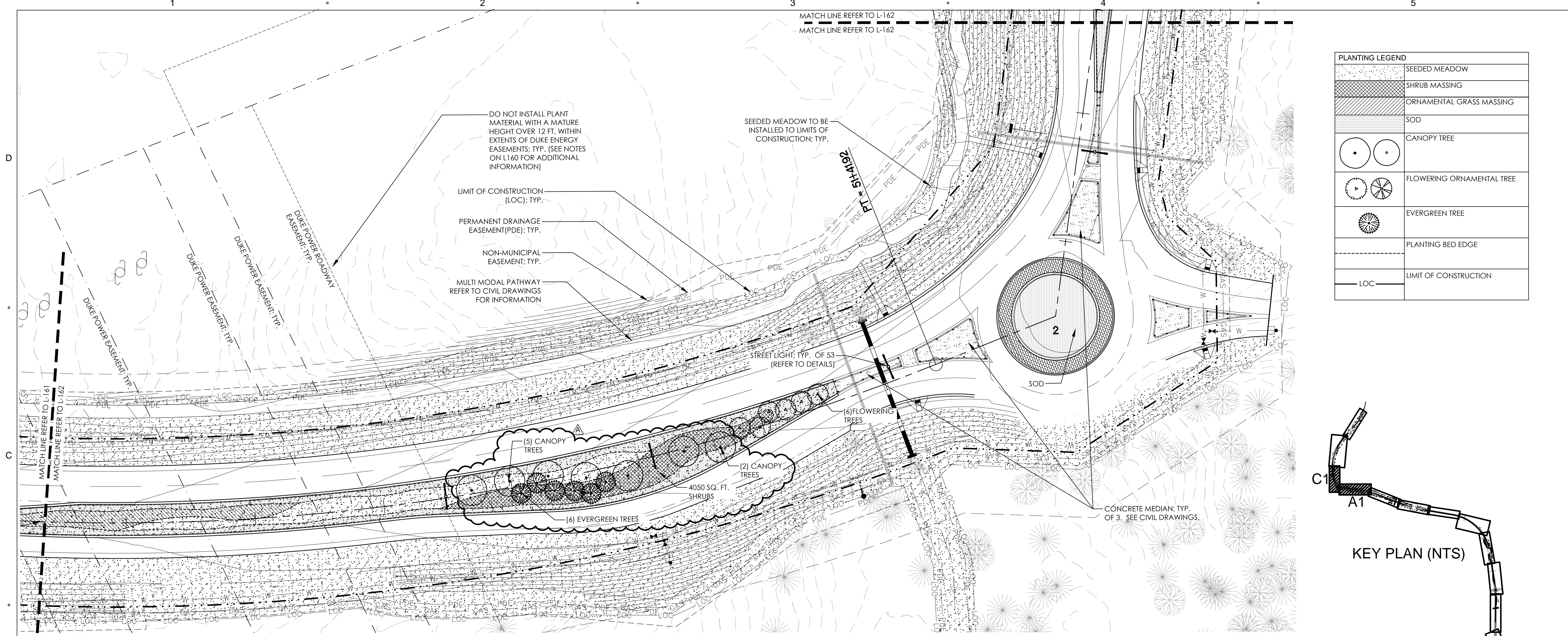
ISSUE:
**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

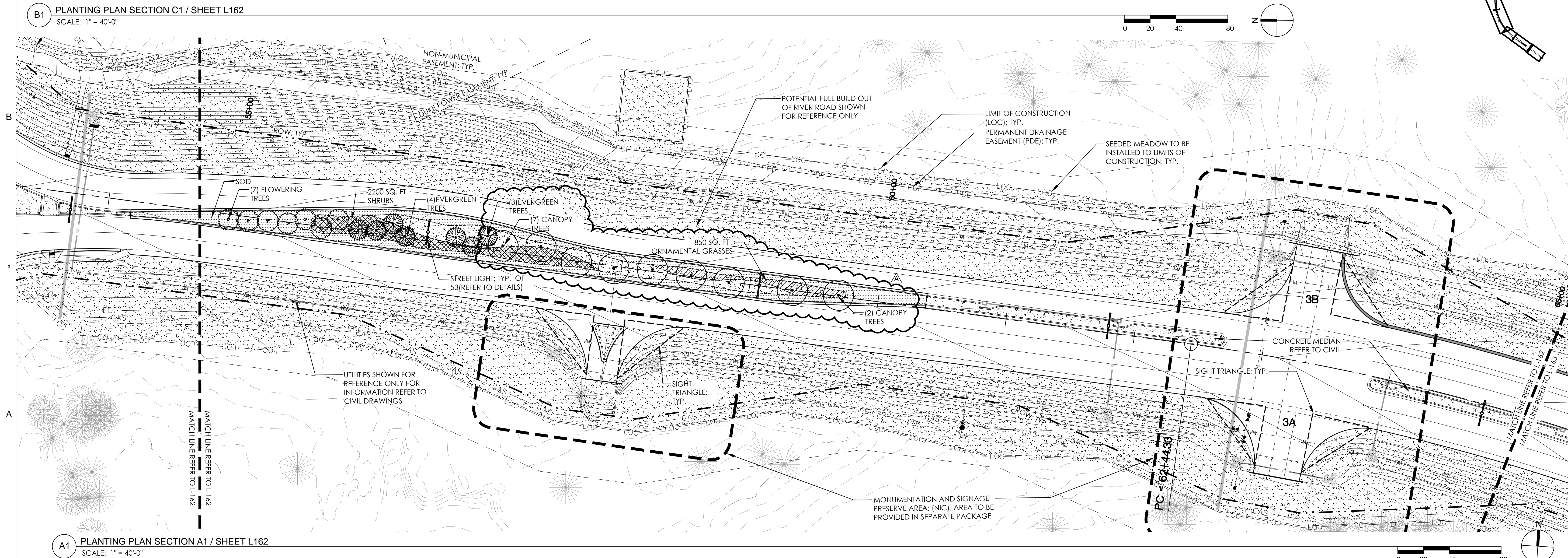
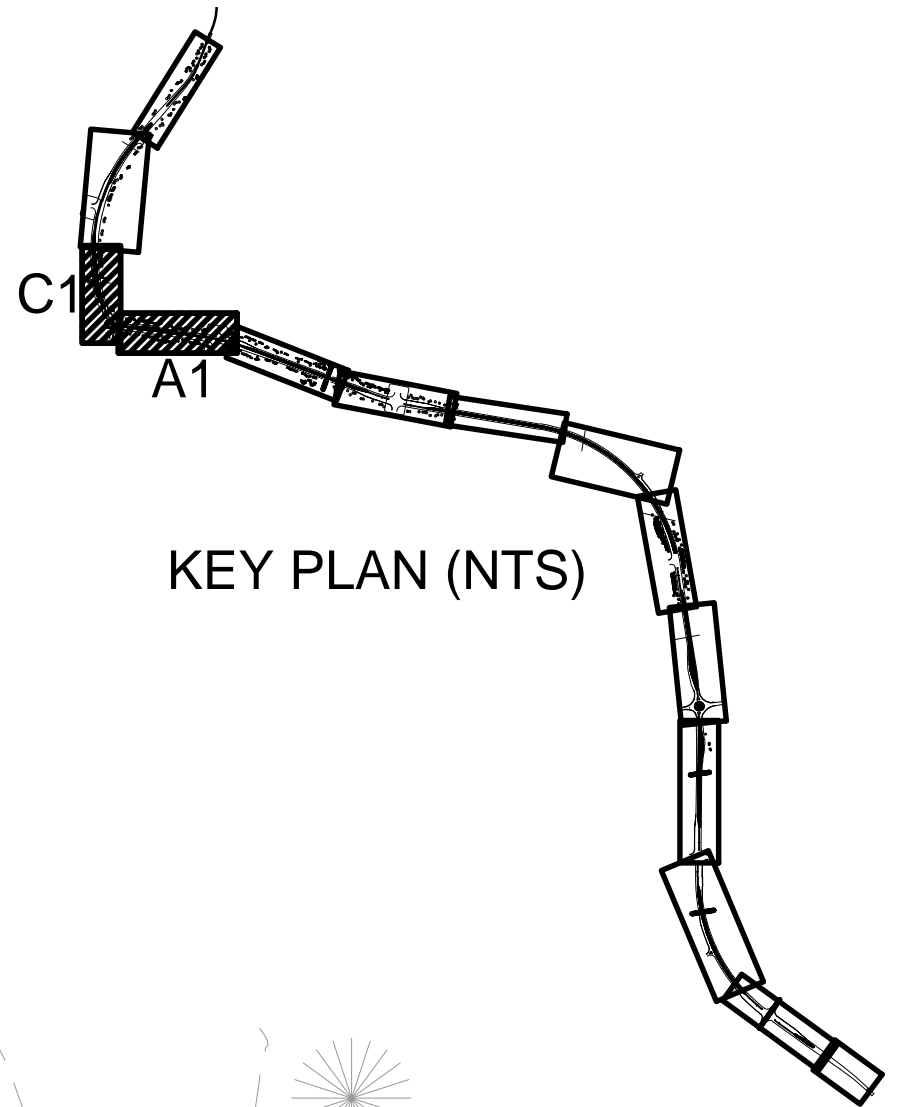
SHEET TITLE:

PLANTING PLAN

L162



PLANTING LEGEND	
	SEEDED MEADOW
	SHRUB MASSING
	ORNAMENTAL GRASS MASSING
	SOD
	CANOPY TREE
	FLOWERING ORNAMENTAL TREE
	EVERGREEN TREE
	PLANTING BED EDGE
	LIMIT OF CONSTRUCTION



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RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
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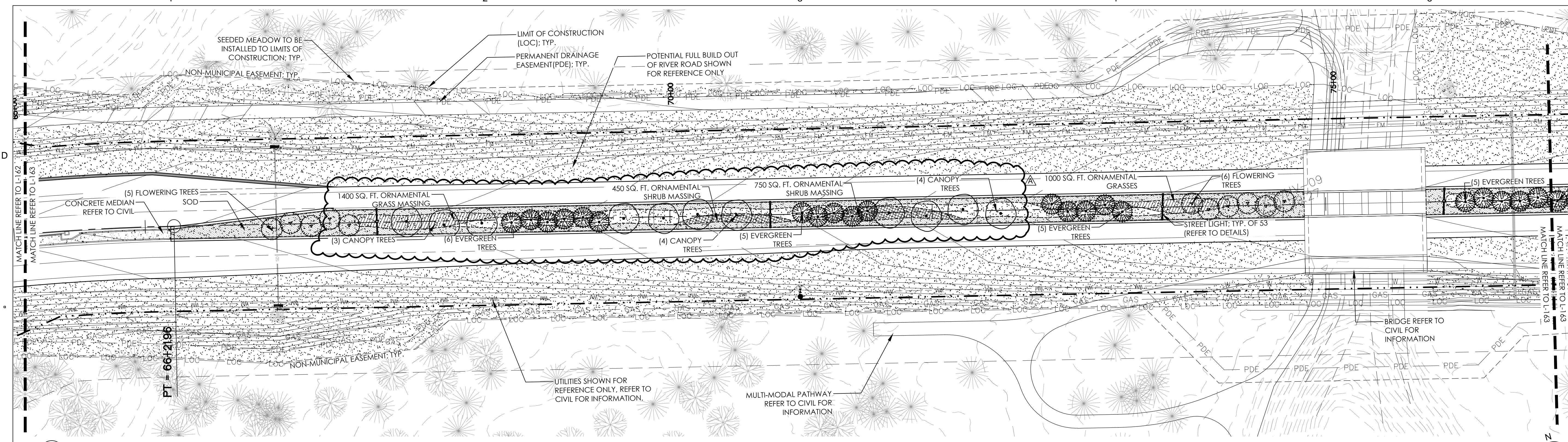
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**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
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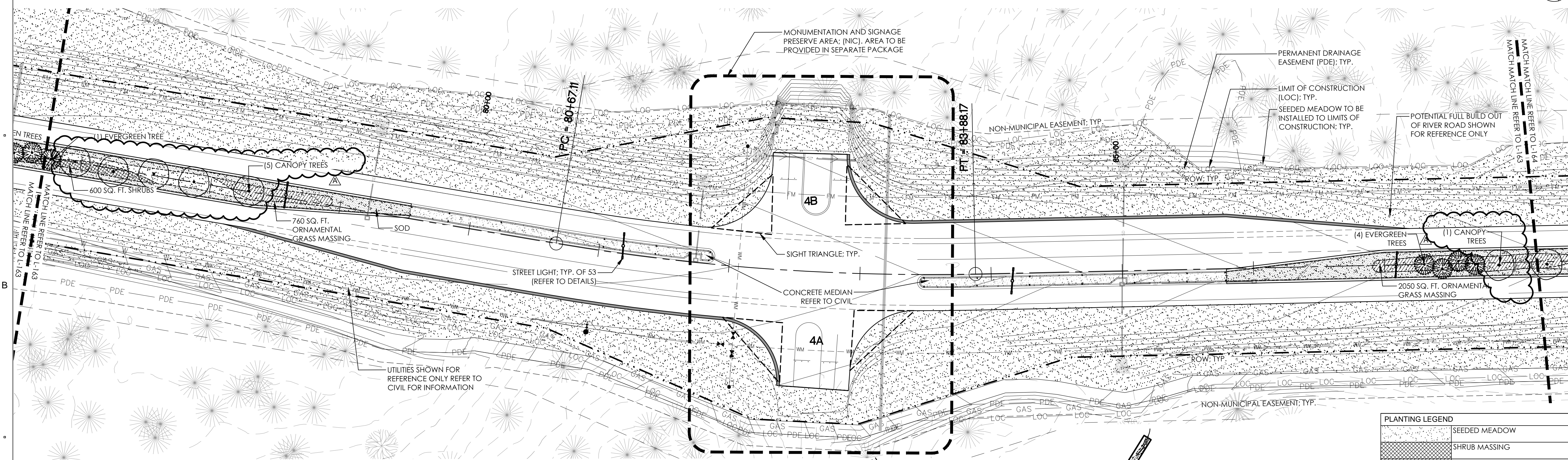
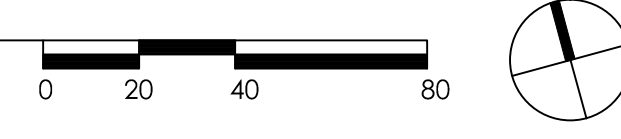
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**PLANTING PLAN: END
PH. 1, BEGIN PH. 2**

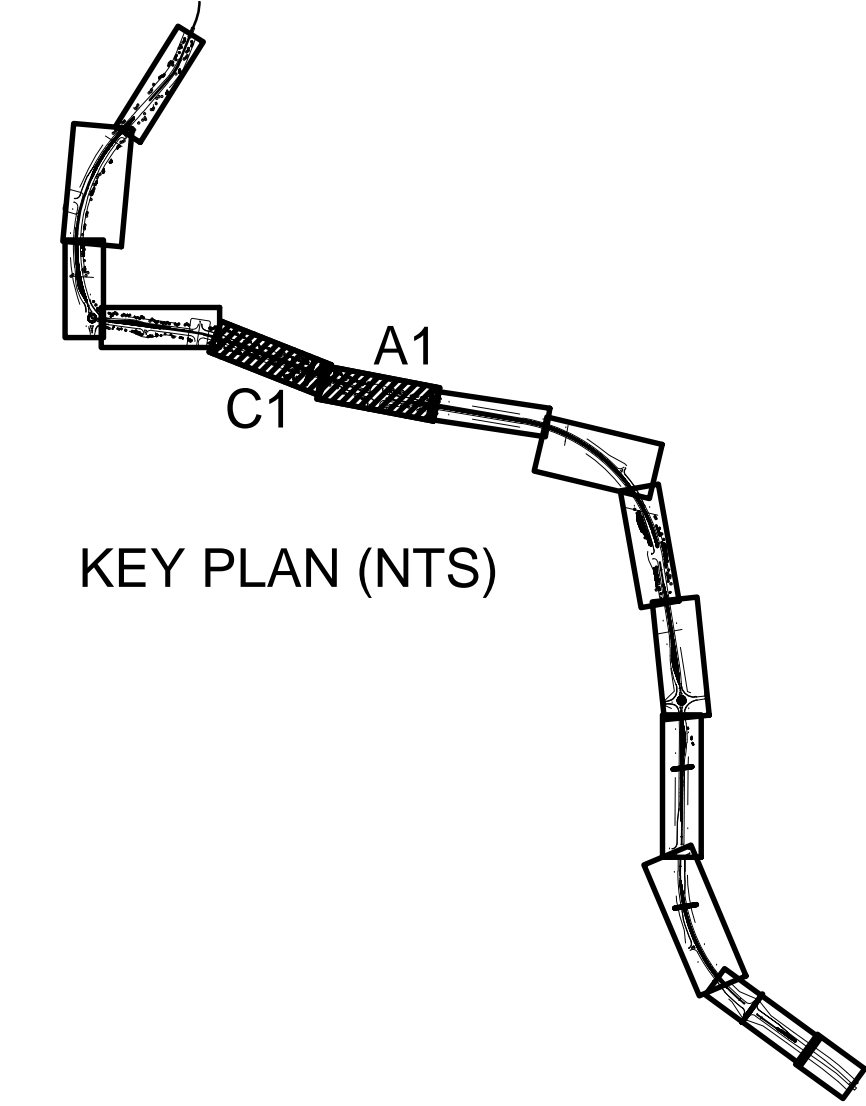
L163



C1 PLANTING PLAN SECTION C1 / SHEET L163
SCALE: 1" = 40'-0"



A1 PLANTING PLAN SECTION A1 / SHEET L163
SCALE: 1" = 40'-0"



PLANTING LEGEND	
	SEEDING MEADOW
	SHRUB MASSING
	ORNAMENTAL GRASS MASSING
	SOD
	CANOPY TREE
	FLOWERING ORNAMENTAL TREE
	EVERGREEN TREE
	PLANTING BED EDGE
	LIMIT OF CONSTRUCTION

RIVER ROAD PLANTING PLAN

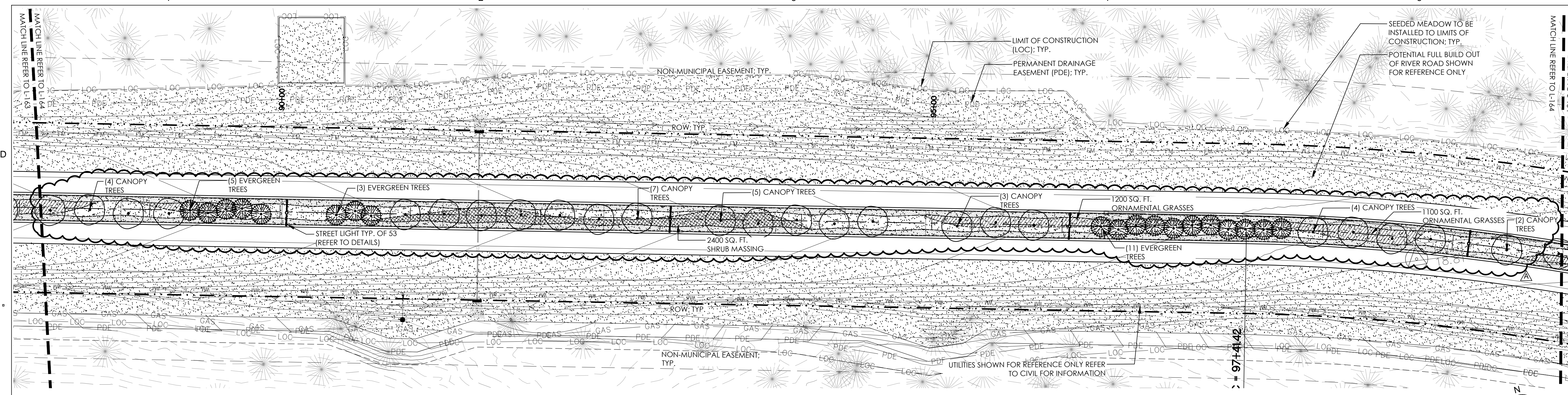
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1	SITE PLAN COMMENTS	04.28.15

ISSUE:
LANDSCAPE PERMIT SET

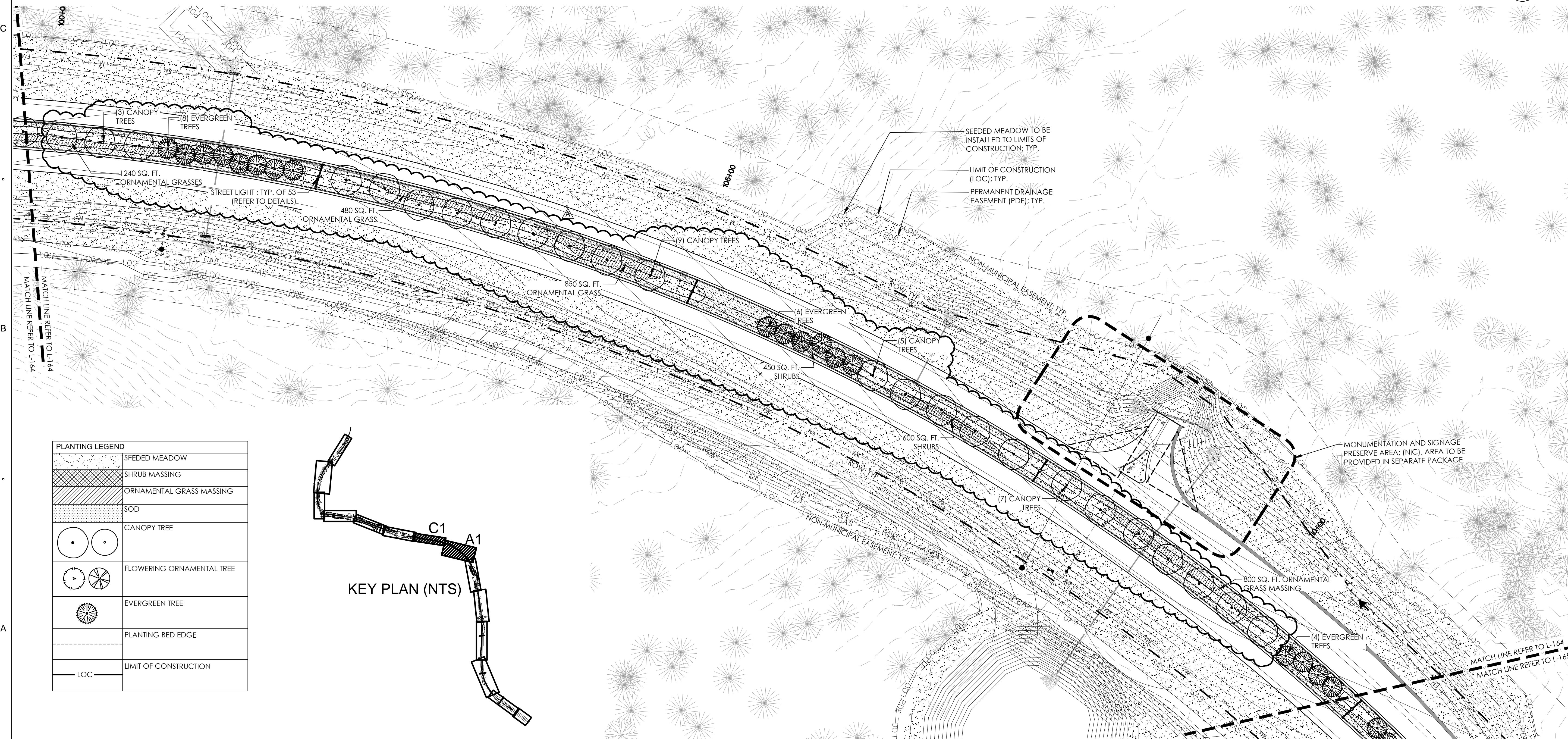
PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

SHEET TITLE:
PLANTING PLAN: END PH. 2, BEGIN PH. 3

L164



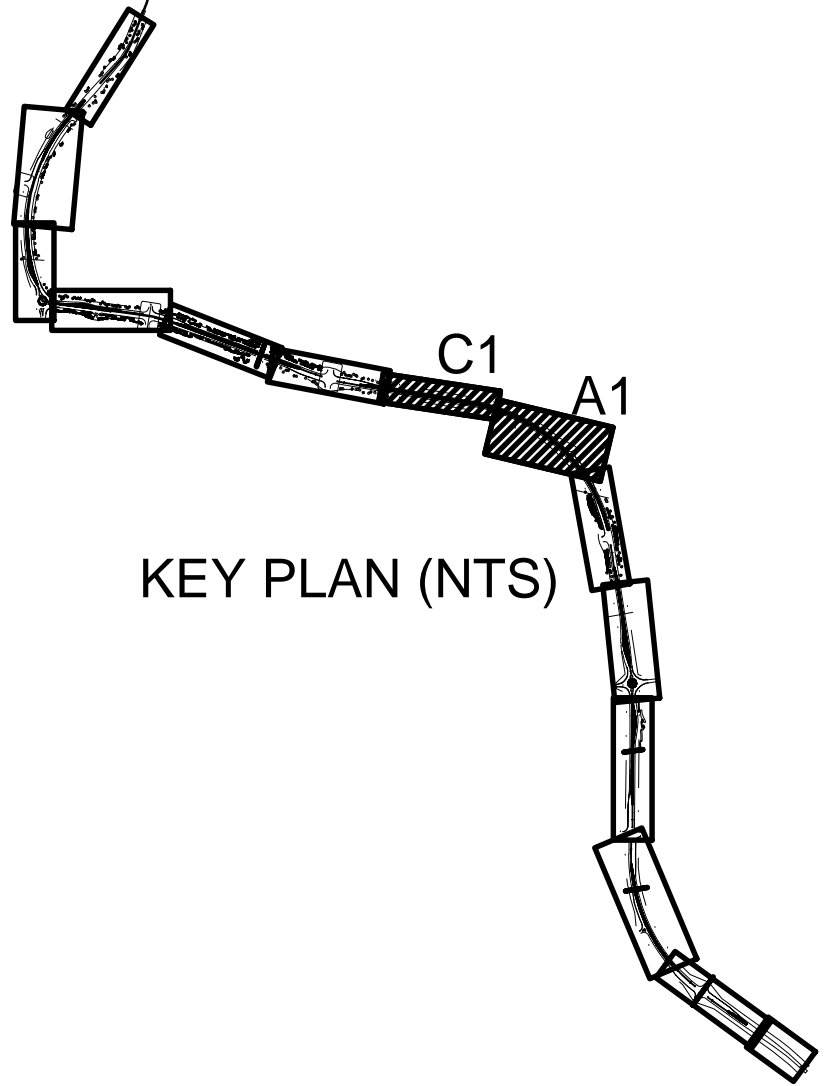
C1 PLANTING PLAN SECTION C1 / SHEET L164
SCALE: 1" = 40'-0"



A1 PLANTING PLAN SECTION A1 / SHEET L164
SCALE: 1" = 40'-0"

PLANTING LEGEND

	SEEDING MEADOW
	SHRUB MASSING
	ORNAMENTAL GRASS MASSING
	SOD
	CANOPY TREE
	FLOWERING ORNAMENTAL TREE
	EVERGREEN TREE
	PLANTING BED EDGE
	LIMIT OF CONSTRUCTION



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HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

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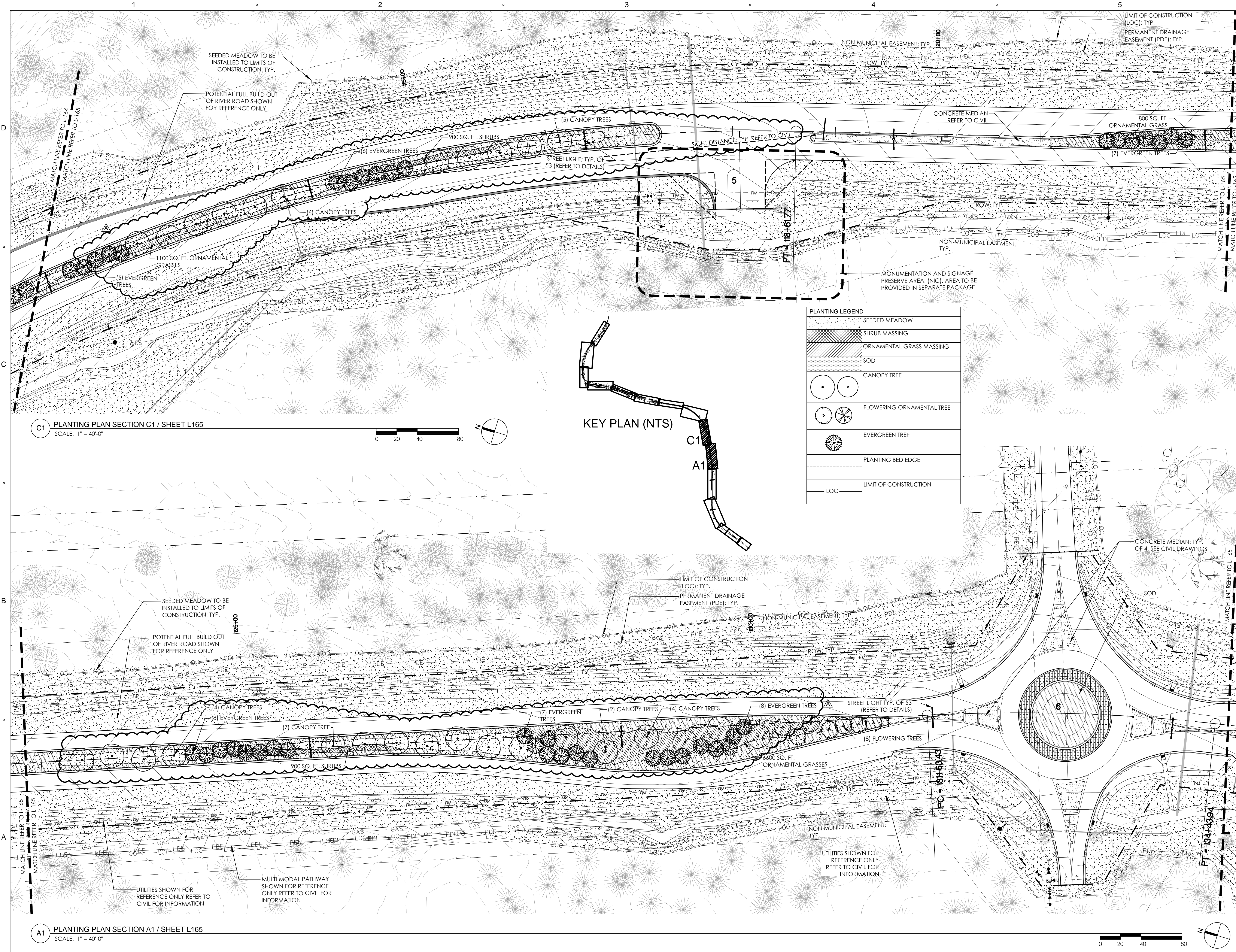
ISSUE:
**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

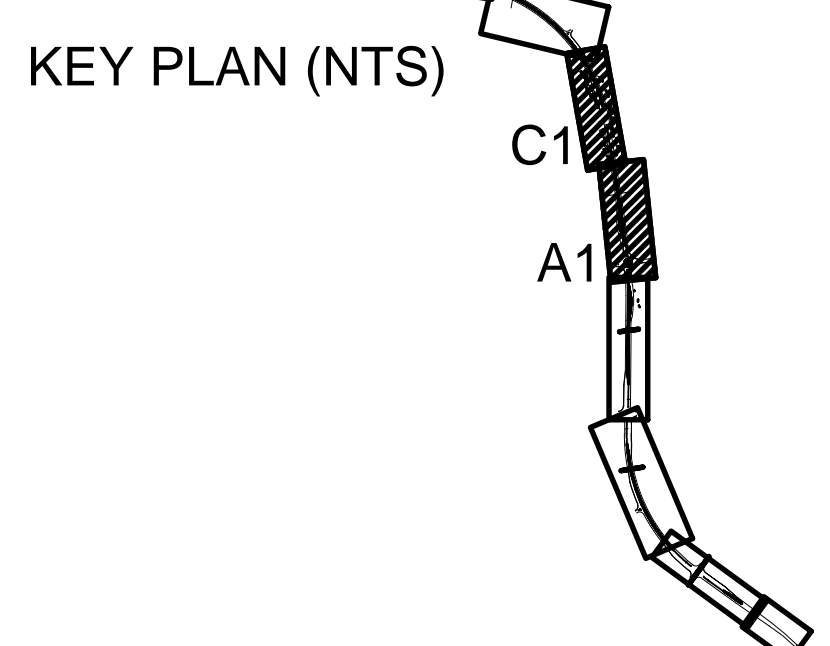
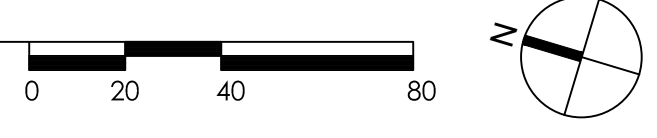
SHEET TITLE:

**PLANTING PLAN: END
PH. 3, BEGIN PH. 4**

L165



C1 PLANTING PLAN SECTION C1 / SHEET L165
SCALE: 1" = 40'-0"



PLANTING LEGEND	
[Stippled pattern]	SEEDED MEADOW
[Cross-hatched pattern]	SHRUB MASSING
[Diagonal lines]	ORNAMENTAL GRASS MASSING
[Horizontal lines]	SOD
[Circle with dot]	CANOPY TREE
[Circle with cross-hatch]	FLOWERING ORNAMENTAL TREE
[Circle with vertical lines]	EVERGREEN TREE
[Dashed line]	PLANTING BED EDGE
[Solid line]	LIMIT OF CONSTRUCTION

A1 PLANTING PLAN SECTION A1 / SHEET L165
SCALE: 1" = 40'-0"



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REGISTRATION



CLIENT



RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
1	SITE PLAN COMMENTS	04.28.15

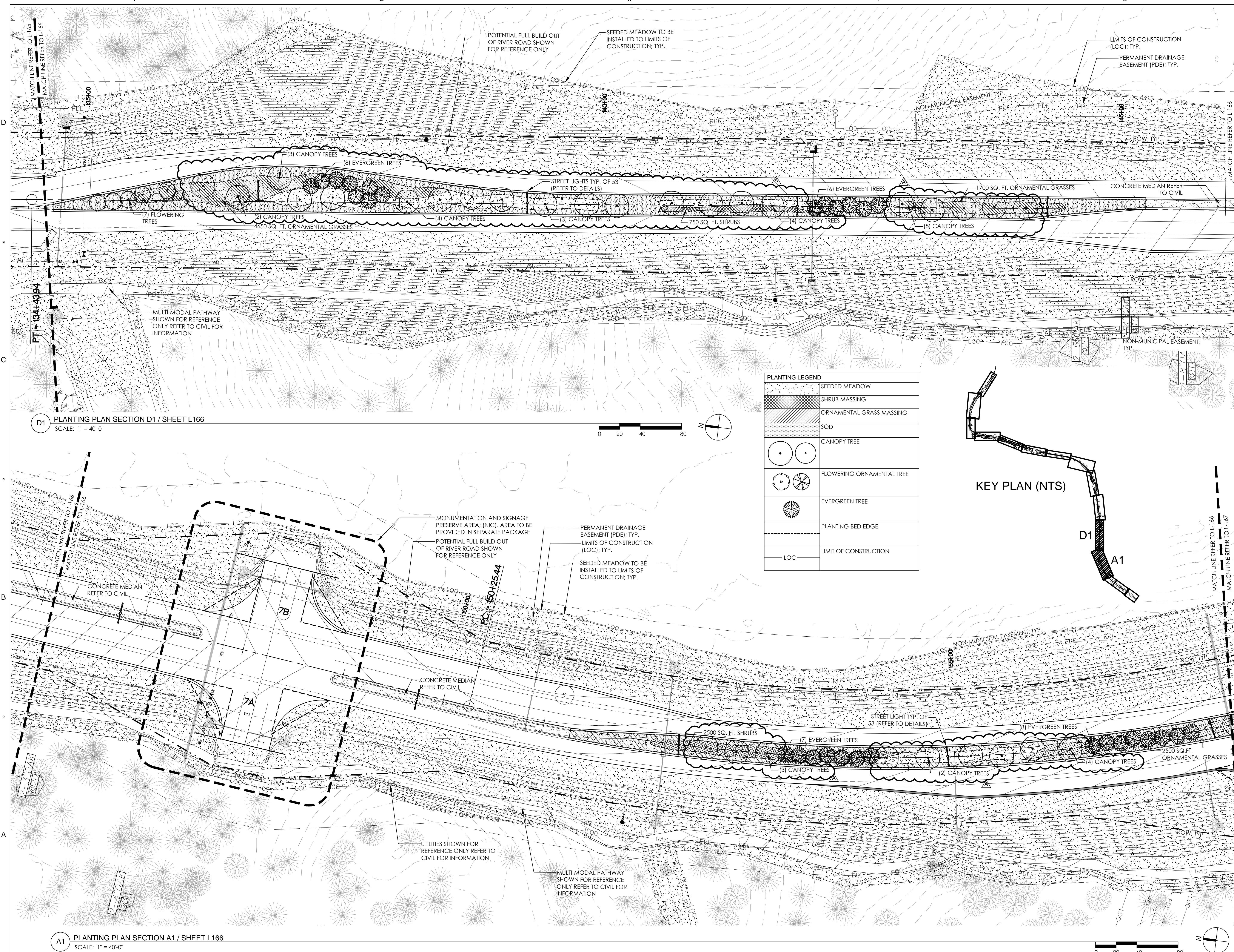
ISSUE:
LANDSCAPE PERMIT SET

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

SHEET TITLE:

PLANTING PLAN: END
PH. 4, BEGIN PH. 5

L166



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by
Newland COMMUNITIES

2202 COOPERATIVE WAY
HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
1	SITE PLAN COMMENTS	04.28.15

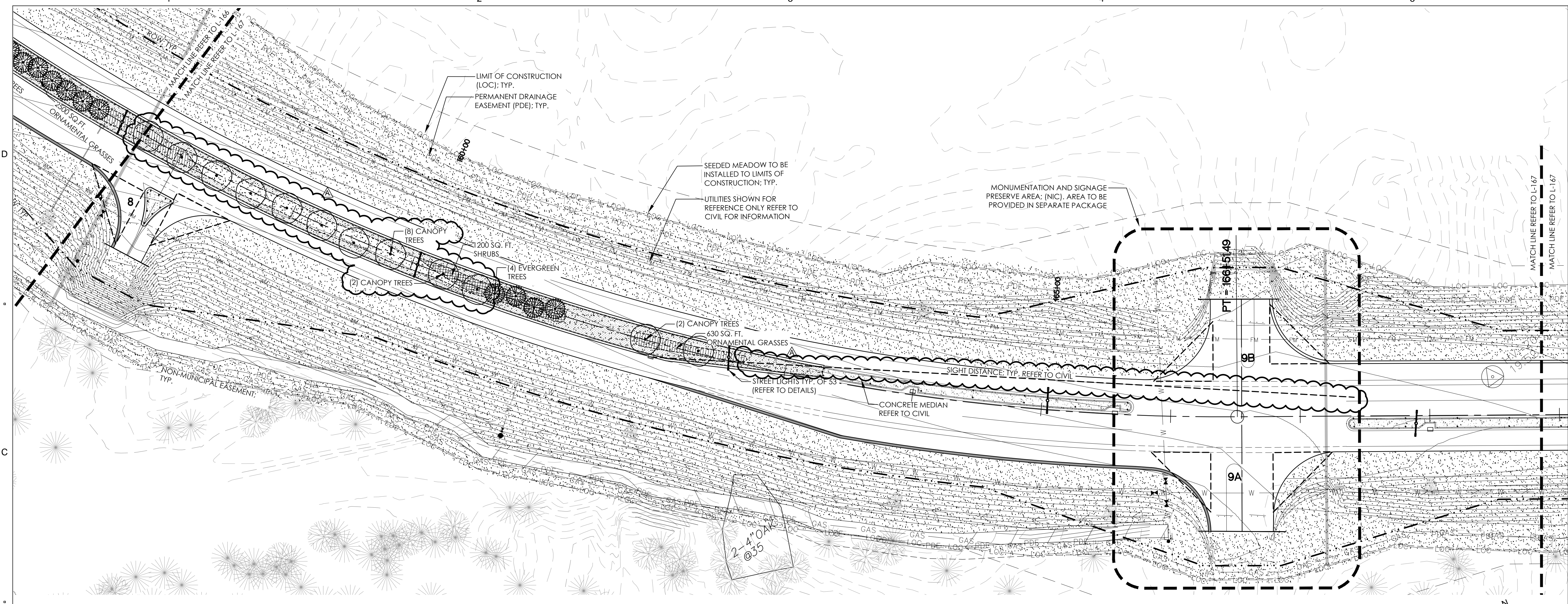
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**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

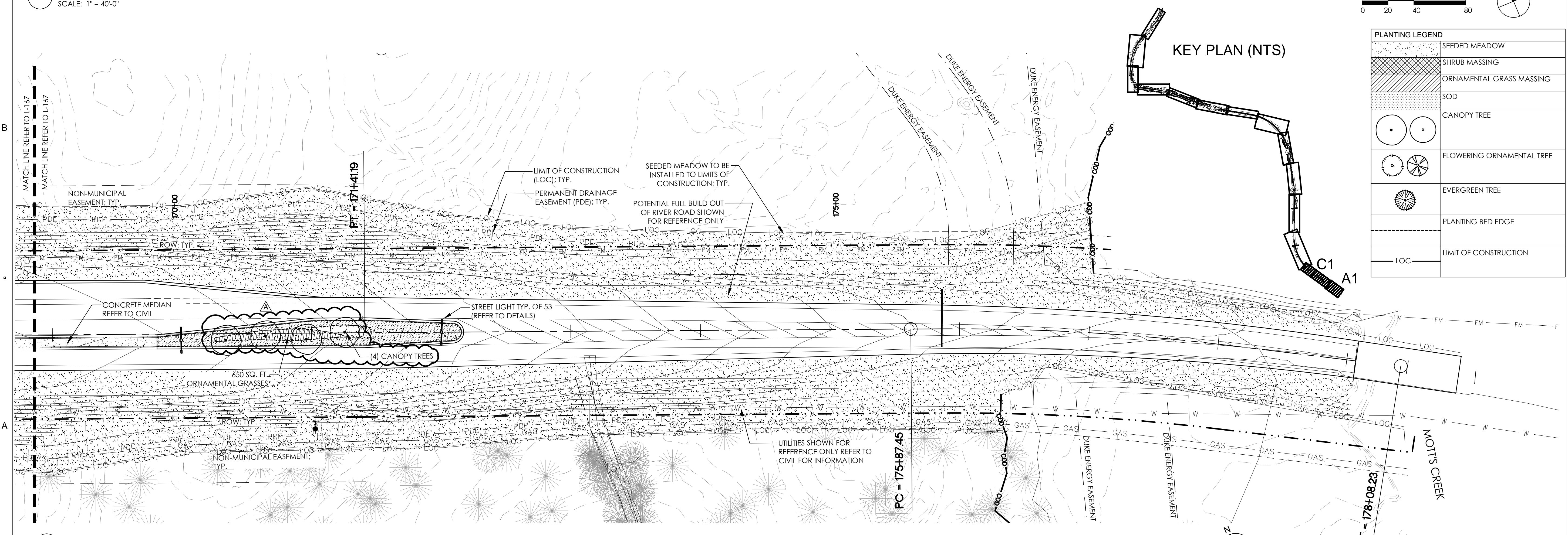
SHEET TITLE:

**PLANTING PLAN:
END PH. 5**

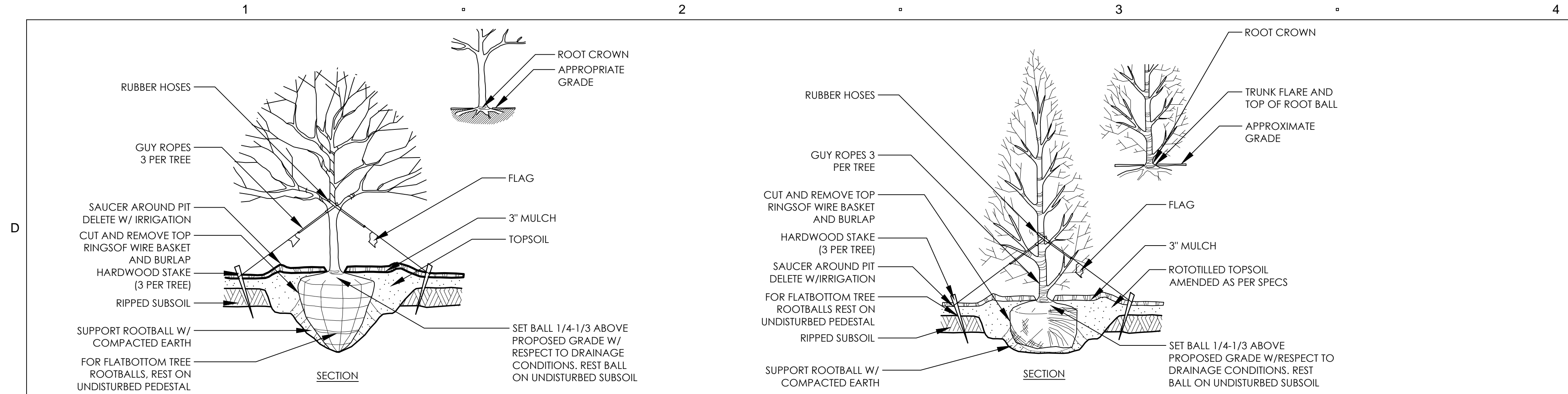
L167



C1 PLANTING PLAN SECTION C1 / L167
SCALE: 1" = 40'-0"

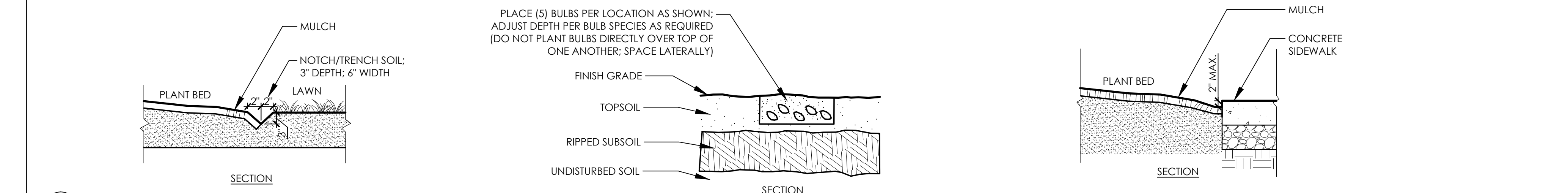


A1 PLANTING PLAN SECTION A1 / SHEET L167
SCALE: 1" = 40'-0"



D1 RAISED TREE PLANTING
SCALE: NTS

D2 EVERGREEN TREE PLANTING
SCALE: NTS



C1 LAWN / PLANT BED EDGE
SCALE: NTS

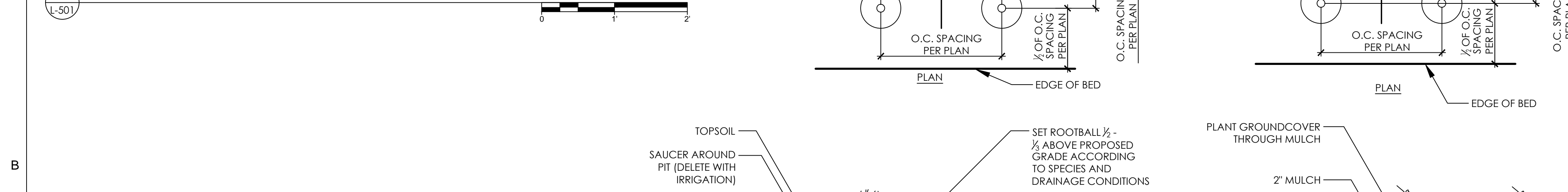
C2 BULB PLANTING
SCALE: NTS

C3 CONCRETE / PLANT BED EDGE
SCALE: NTS

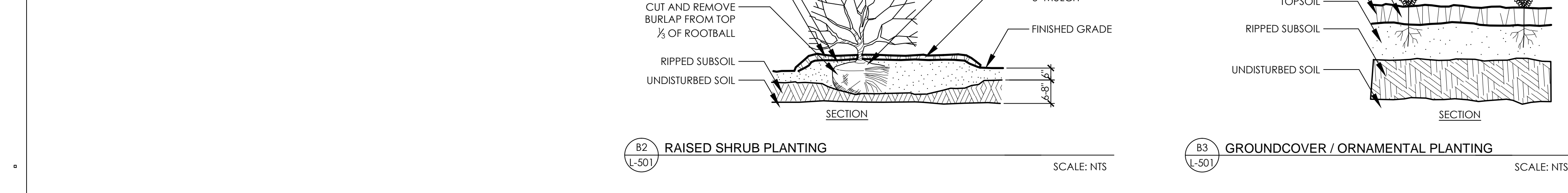


B1 LAWN MOW STRIP AT MEADOW / HARDSCAPE INTERSECTION
SCALE: NTS

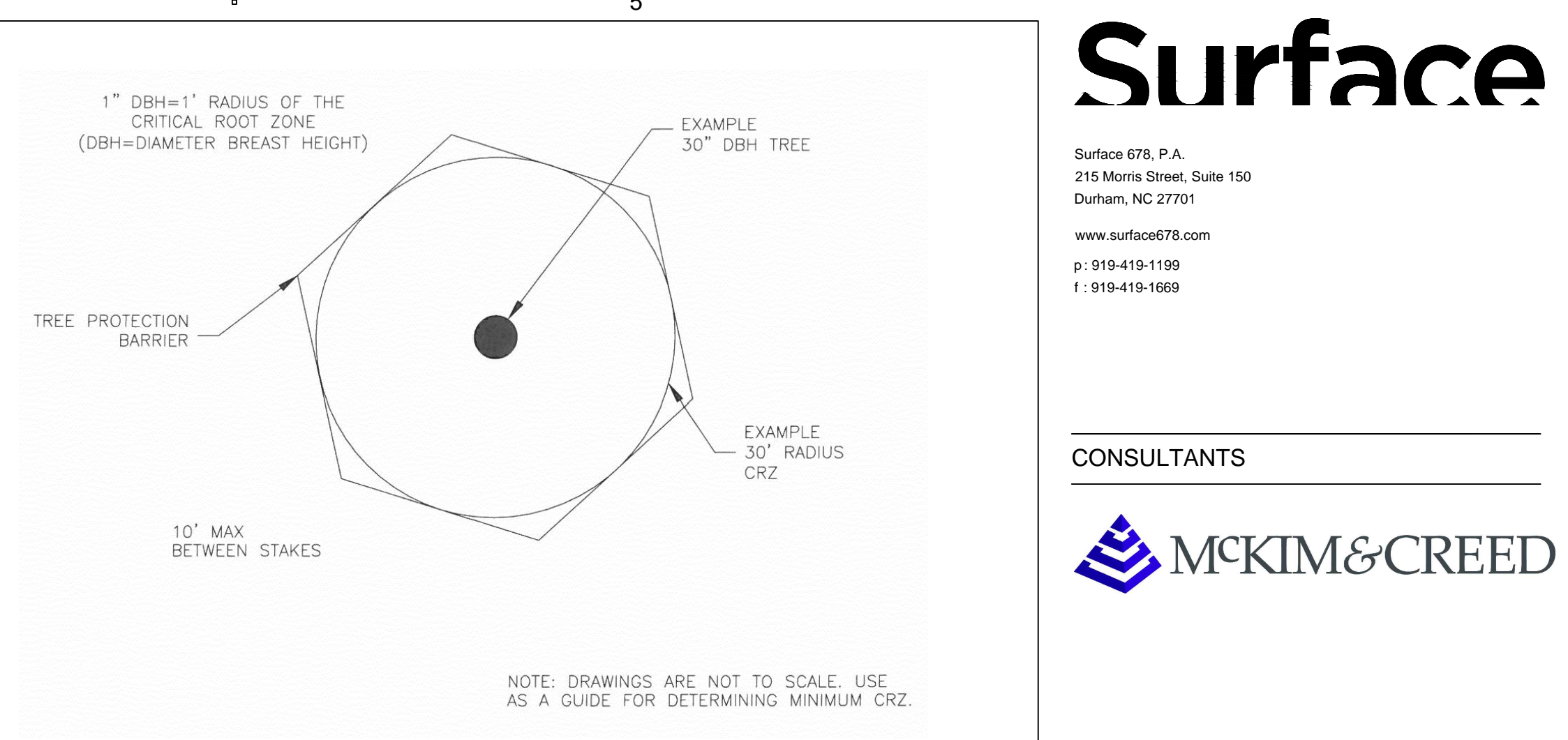
B2 RAISED SHRUB PLANTING
SCALE: NTS



B3 GROUNDCOVER / ORNAMENTAL PLANTING
SCALE: NTS



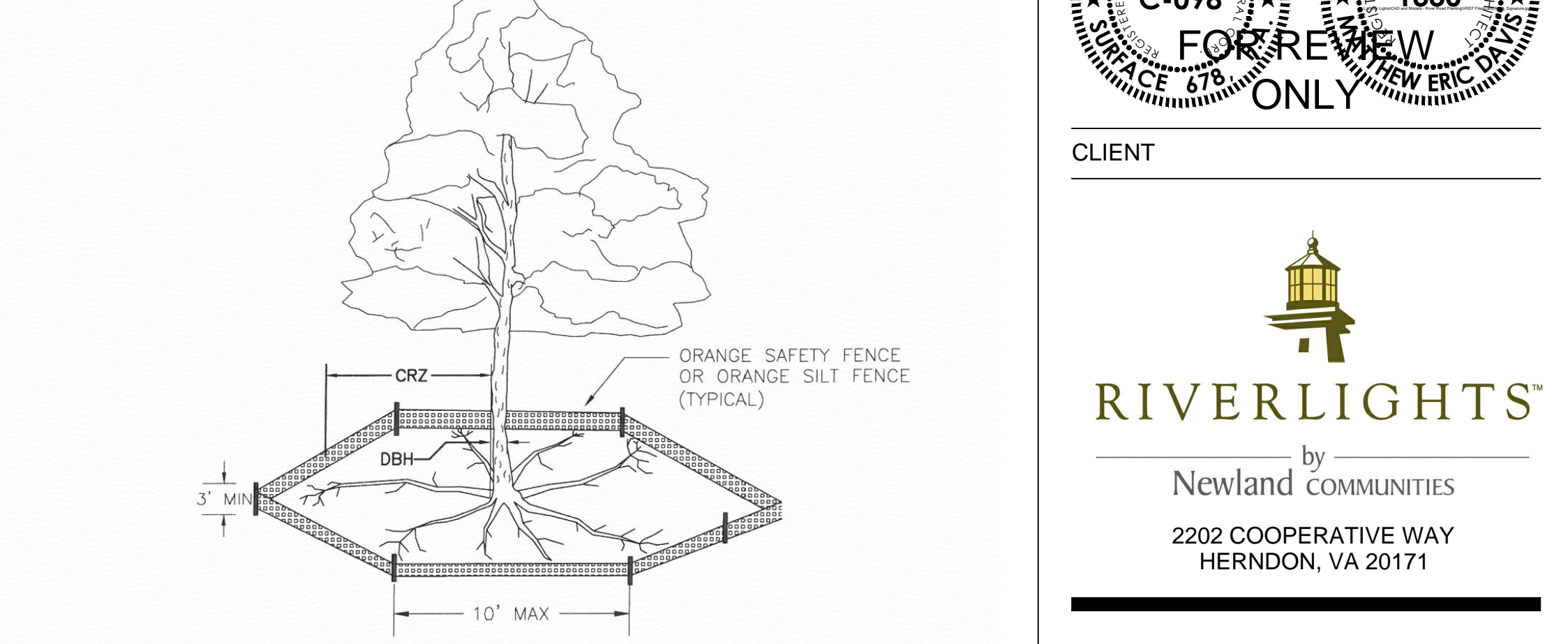
A1 TREE PROTECTION FENCE DETAILS
SCALE: NTS



NOTE: DRAWINGS ARE NOT TO SCALE. USE AS A GUIDE FOR DETERMINING MINIMUM CRZ.

NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
4. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
5. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES MAY RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

RIVER ROAD MEDIAN PLANT QUANTITIES: REFER TO PLANT LIST ON L503 AND L504 FOR SPECIES

	QTY/SF	MIN HT	SPREAD	CAL/RT	REMARKS
CANOPY TREES					
▲	168	14'-16'	6'-7'	3"	STRAIGHT STRONG CENTRAL LEADER, EVENLY BRANCHED
EVERGREEN TREES					
▲	157	8'-10'	4'-6'	BB	FULL TO GROUND, EVENLY BRANCHED
FLOWERING TREES					
▲	46	8'-10'	5'	2"	EVENLY BRANCHED
SHRUBS					
▲	1920	24"	24"	CONT	FULL DENSE, 36" O.C.
ORNAMENTAL GRASSES					
	5570	18"	15"	1 GAL	SPACING 30" O.C.
SOD					
▲	97,300 SF				BERMUDA TIFWAY 419
SEEDED MEADOW					
	43,500 SF				MEADOW TO BE PLANTED IN LARGE MONOCULTURE MASSINGS ALONG ROADWAY IN AREAS DENOTED AS SEEDED MEADOW. REFER TO ORNAMENTAL GRASSES LISTED WITH **** IN THE PLANT SPECIES LIST: SHEET L504

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CONSULTANTS

MCKIM & CREED

REGISTRATION

NOT FOR CONSTRUCTION
C-098
1330
FOR REVIEW ONLY

CLIENT

RIVERLIGHTS
by
Newland COMMUNITIES
2202 COOPERATIVE WAY
HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
▲	SITE PLAN COMMENTS	04.29.15

ISSUE:
LANDSCAPE PERMIT SET

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

SHEET TITLE:

DETAILS
L501

PROGRESS ENERGY OUTDOOR LIGHTING

LED Roadway

This energy-efficient luminaire is a green solution and great fit for streets, roads, long narrow areas and parking lots. The LED Roadway delivers the light where it is needed while increasing visibility and reducing spill light to adjoining properties. Choose low to medium light output on wood or fiberglass poles (or mount on an existing pole). Available with one to four fixtures per pole, depending on the fixture/pole combination selected.

LED	75	105	215	Watts
	5,050	7,445	13,990	Delivered Lumens*

Mounting Heights 25', 30' or 35'

Color Gray

Poles Fiberglass, Wood, Metal (special conditions)

*Delivered Lumens - amount of light delivered out of the luminaire (fixture), which is different from non-LED luminaires that utilize lamp lumens (amount of light emitted from a light source).



Note: These fixtures are not stocked by Progress Energy. They must be special-ordered and require up to eight weeks lead time for arrival.



For additional information, visit us at progress-energy.com, e-mail us at lightinginfo@pgnmail.com or call us toll free at 1.877.887.6287.



LED Roadway

PROGRESS ENERGY OUTDOOR LIGHTING

LED Roadway

Light Source: LED (white)
Wattage: 75 105 215
*Delivered Lumens: 5,050 7,445 13,990
**Replacement for: 100w HPS 150w HPS 250w HPS

Light Pattern: LED 75 IES Type II (Long Oval)
LED 105 IES Type II (Long Oval)
LED 215 IES Type III (Medium Oval)

IES Backlight-Uplight-Glare (BUG) rating:
LED 75 B1-U1-G1 (zero light at and above 90°)
LED 105 B2-U2-G2 (zero light at and above 90°)
LED 215 B3-U3-G3 (zero light at and above 90°)

Note: IES cutoff classifications have been replaced with the IES Luminaire Classification System and associated BUG ratings for backlight, uplight and glare.

Color Temperature: 4,300K
(Color Temperature is rated in Kelvin degrees and describes how warm or cool a light source is. The higher the number, the cooler the light source.)

Warm-up and Restrike Time: Instant on (no warm-up or restrike time)

*Delivered Lumens - amount of light delivered out of the luminaire (fixture), which is different from non-LED luminaires that utilize lamp lumens (amount of light emitted from a light source).

**This is an approximate cutoff enclosed replacement; actual conditions could be different.

Poles Available

Name	Mounting Heights	Color
Fiberglass	25', 30' or 35'	Gray
Fiberglass ¹	25', 30' or 35'	Black (additional costs)
Wood	25', 30' or 35'	Green
Metal (special conditions) ¹	25', 30' or 35'	Gray

¹These poles are not stocked by Progress Energy. They must be special-ordered and require up to eight weeks lead time for arrival.

²raised foundation available when required.

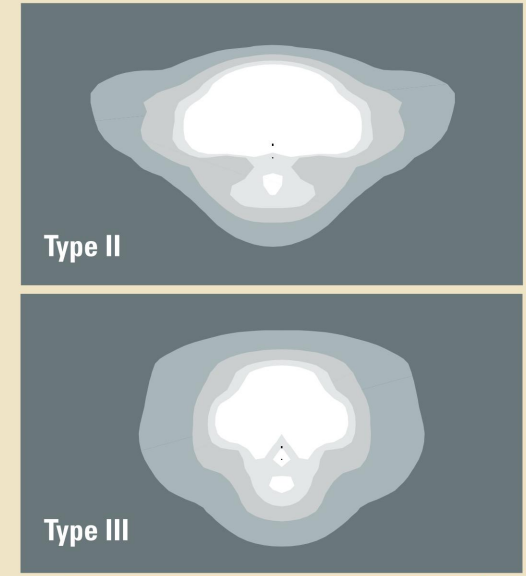
Features

Features	Benefits
No installation cost ¹	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free convenient installation and service
Backed by over 40 years of experience	A name you can trust today...and tomorrow

¹Based on normal installation conditions.



PROGRESS ENERGY OUTDOOR LIGHTING



Light Distribution Pattern

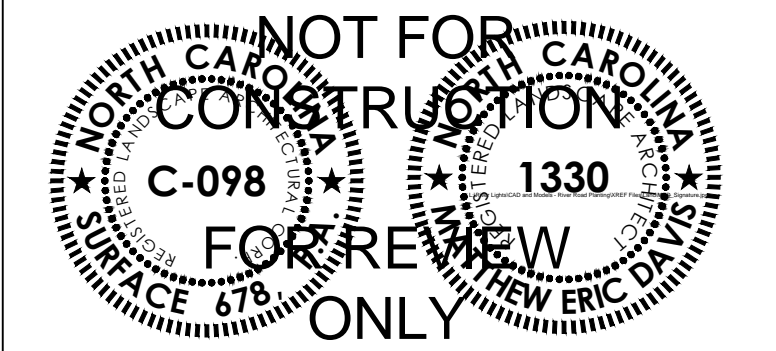
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CONSULTANTS



REGISTRATION



CLIENT



RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
△	SITE PLAN COMMENTS	04.29.15

ISSUE: LANDSCAPE PERMIT SET

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

SHEET TITLE:

DETAILS
L502

B1 STREET LIGHT

NTS
NOTES:

1. LIGHT FIXTURE TO BE INSTALLED ALONG ROADWAY WILL BE SIMILAR TO FIXTURE SHOWN ABOVE. FIXTURES ON RIVER ROAD MEDIANS WILL HAVE (2) FIXTURES PER POLE / TWIN HEADS. FIXTURE INFORMATION IS PROVIDED FOR REFERENCE ONLY.

NOTE: PLANT SPECIES LIST IS INTENDED TO PROVIDE A LIST OF PLANT SPECIES THAT MAY BE INSTALLED WITHIN THE PROJECT LIMITS.

PLANT LIST

SYM	BOTANICAL NAME	COMMON NAME	CAL/RT	MIN. HT.	MIN. SPR.	REMARKS
CANOPY / SHADE / STREET TREES						
ACB	ACER BUERGERIANUM	TRIDENT MAPLE	2-2 1/2'	-	-	-
ACS	ACER SACCHARUM X BARBATUM 'SANDERVILLE'	HARVEST MOON SOUTHERN SUGAR MAPLE	2-2 1/2'	-	-	-
ACT	ACER TATARICUM 'MAIN STREET'	MAIN STREET TATARICUM MAPLE	2-2 1/2'	-	-	-
BEN	BETULA NIGRA 'DURA HEAT' HERITAGE	RIVER BIRCH	2-2 1/2'	-	-	-
CAAQ	CARYA AQUATICA	WATER HICKORY	2-2 1/2'	-	-	-
CLL	CLADRASTIS LUTEA	AMERICAN YELLOWWOOD	2-2 1/2'	-	-	-
FAG	FAGUS GRANDIFOLIA	AMERICAN BEECH	2-2 1/2'	-	-	-
FRA	FRAXINUS AMERICANA	WHITE ASH	2-2 1/2'	-	-	-
LIT	LIRIODENDRUM TULIPIFERA	TULIP TREE	2-2 1/2'	-	-	-
MAA	MAGNOLIA ACUMINATA	CUCUMBER-TREE	2-2 1/2'	-	-	-
NYS	NYSSA SYLVATICA	BLACK GUM	2-2 1/2'	-	-	-
FLO	PLATANUS X OCCIDENTALIS	AMERICAN PLANE TREE	2-2 1/2'	-	-	-
QUA	QUERCUS ALBA	WHITE OAK	2-2 1/2'	-	-	-
QUAC	QUERCUS ACUTISSIMA	SAWTOOTH OAK	2-2 1/2'	-	-	-
QUB	QUERCUS BICOLOR	SWAMP WHITE OAK	2-2 1/2'	-	-	-
QUC	QUERCUS COCCINEA	SCARLET OAK	2-2 1/2'	-	-	-
QUF	QUERCUS FALCATA	SOUTHERN RED OAK	2-2 1/2'	-	-	-
QUH	QUERCUS HEMISPHERICA 'DARLINGTON'	LAUREL OAK	2-2 1/2'	-	-	-
QUL	QUERCUS LYRATA	OVERCUP OAK	2-2 1/2'	-	-	-
QUN	QUERCUS NIGRA	WATER OAK	2-2 1/2'	-	-	-
QUNU	QUERCUS NUTTALLI	NUTTAL OAK	2-2 1/2'	-	-	-
QUP	QUERCUS PALUSTRIS	PIN OAK	2-2 1/2'	-	-	-
QUP	QUERCUS PHELLOS	WILLOW OAK	2-2 1/2'	-	-	-
QUS	QUERCUS SHUMARDII	SHUMARD OAK	2-2 1/2'	-	-	-
TAD	TAXODIUM DISTICHUM	BALD CYPRESS	2-2 1/2'	-	-	-
ULP	ULMUS PARVIFOLIA	CHINESE ELM	2-2 1/2'	-	-	-
ZES	ZELKOVA SERRATA	JAPANESE ZELKOVA	2-2 1/2'	-	-	-
EVERGREEN TREES						
CHI	CHAMAECYPARIS THYOIDES	ATLANTIC WHITE CEDAR	BB	6'	-	-
CRJY	CRYPTOMERIA JAPONICA 'YOSHINO'	YOSHINO JAPANESE CEDAR	BB	6'	-	-
CRJR	CRYPTOMERIA JAPONICA 'RADICANS'	RADICANS JAPANESE CEDAR	BB	6'	-	-
CUL	CUNNINGHAMA LANCEOLATA	CHINA FIR	BB	6'	-	-
ILD	ILEX OPACA 'TINGA'	TINGA AMERICAN HOLLY	BB	6'	-	-
ILOG	ILEX OPACA 'GREENLEAF'	GREENLEAF AMERICAN HOLLY	BB	6'	-	-
ILV	ILEX VOMITORIA	YAUPON HOLLY	BB	6'	-	-
JUV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	BB	6'	-	-
MAGA	MAGNOLIA GRANDIFLORA 'ALTA'	ALTA SOUTHERN MAGNOLIA	BB	8'	-	-
MAGH	MAGNOLIA GRANDIFLORA 'HESSE'	HESSE SOUTHERN MAGNOLIA	BB	8'	-	-
MAGD	MAGNOLIA GRANDIFLORA 'D.D.'	D.D. SOUTHERN MAGNOLIA	BB	8'	-	-
MAV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	BB	6'	-	-
PIP	PINUS PALUSTRIS	LONGLEAF PINE	BB	6'	-	-
PIT	PINUS TAEDA	LOBLOLLY PINE	BB	6'	-	-
PITH	PINUS THUMBURGIANA	JAPANESE BLACK PINE	BB	6'	-	-
PRC	PRUNUS CAROLINIANA	CAROLINA CHERRY LAUREL	BB	5'	-	-
QUV	QUERCUS VIGINIANA	LIVE OAK	2-2 1/2'	-	-	-

PLANT LIST

SYM	BOTANICAL NAME	COMMON NAME	CAL/RT	MIN. HT.	MIN. SPR.	REMARKS
FLOWERING / UNDERSTORY TREES						
AEP	AESCLUS PARVIFOLIA	BOTTLEBRUSH BUCKEYE	-	8-10'	-	-
AMA	AMELANCHER ARBOREA	DOWNY SERVICEBERRY	-	8-10'	-	-
AMC	AMELANCHER CANADENSIS	SHADBLow SERVICEBERRY	-	8-10'	-	-
CAC	CARPINUS CAROLINIANA	IRONWOOD	-	8-10'	-	-
CEC	CERCIS CANADENSIS	EASTERN REDBUD	-	8-10'	-	-
CHR	CHIONANTHUS RETUSUS	CHINESE FRINGE TREE	-	8'-10'	-	-
CHV	CHIONANTHUS VIRGINICUS	WHITE FRINGE TREE	-	8-10'	-	-
COK	CORNUS KOUSA	KOUSA DOGWOOD	-	8-10'	-	-
CORC	CORNUS FLORIDA	FLOWERING DOGWOOD	-	8-10'	-	-
CORCH	CORNUS FLORIDA 'CHEROKEE PRINCESS'	CHEROKEE PRINCESS FLOWERING DOGWOOD	-	8-10'	-	-
DIV	DIOSPYROS VIRGINIANA	AMERICAN PERSIMMON	-	8'-10'	-	-
HAC	HALESIA CAROLINA	CAROLINA SILVERBELL	-	8-10'	-	-
HAV	HAMAMELIS VIRGINIANA	WITCHHAZEL	-	8-10'	-	-
LAI	LAGERSTROEMIA INDICA	CRAPPE MYRTLE	-	8-10'	-	-
MAS	MAGNOLIA X SOULANGIANA	SAUCER MAGNOLIA	-	8-10'	-	-
PIC	PISTACHIA CHINENSIS	CHINESE PISTACHIO	-	8-10'	-	-
PRM	PRUNUS MUME	FLOWERING APRICOT	-	8-10'	-	-
PRI	PRUNUS X INCAM 'OKAME'	OKAME CHERRY	-	8-10'	-	-
PRS	PRUNUS SERRULATA 'KWANZAN'	KWANZAN FLOWERING CHERRY	-	8-10'	-	-
PRY	PRUNUS YEDOENSIS	YOSHINO CHERRY	-	8-10'	-	-
SUC	SUMAC COPALLINUM	WINGED SUMAC	-	8-10'	-	-
VIA	VITEX AGNUS-CASTUS	CHASTE TREE	-	8-10'	-	-
EVERGREEN SHRUBS / EVERGREEN PALMS						
CHA	CHAMAECYPARIS OBTUSA 'NANA GRACILIS'	DWARF HINOKI CYPRESS	CONT	12"	12"	FULL DENSE
CYR	CYCAS REVOLUTA	KING SAGO	CONT	12"	12"	FULL DENSE
CYT	CYCAS TAITUNGENSIS	EMPEROR SAGO	CONT	12"	12"	FULL DENSE
FAT	FATSIA JAPONICA	FATSIA	CONT	12"	12"	FULL DENSE
FEJ	FEJOA SELLOWIANA	PINEAPPLE GUAVA	CONT	12"	12"	FULL DENSE
GAK	GARDENIA JASMINOIDES 'KLEIM'S HARDY'	GARDENIA	CONT	12"	12"	FULL DENSE
IGS	ILEX GLABRA 'SHAMROCK'	INKBERRY HOLLY	CONT	12"	12"	FULL DENSE
IVN	ILEX VOMITORIA 'NANA'	DWARF YAUPON HOLLY	CONT	12"	12"	FULL DENSE
ILL	ILICIAM ANISATUM	JAPANESE ANISE TREE	CONT	12"	12"	FULL DENSE
JUC	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	CONT	12"	12"	FULL DENSE
JUH	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	CONT	12"	12"	FULL DENSE
MIC	MICHALIA FIGO	BANANA SHRUB	CONT	12"	12"	FULL DENSE
MYC	MYRICA CERIFERA	WAX MYRTLE	CONT	12"	12"	FULL DENSE
OSF	OSMANTHUS FORTUNEI	TEA OLIVE	CONT	12"	12"	FULL DENSE
OSA	OSMANTHUS AMERICANUS	DEVILWOOD	CONT	12"	12"	FULL DENSE
PIT	PITOSPORUM TOBIRA	PITOSPORUM	CONT	12"	12"	FULL DENSE
POM	PODOCARPUS MACROPHYLLUS	CHINESE PODOCARPUS	CONT	12"	12"	FULL DENSE
SR	SERENOA REPENS	SAW PALMETTO	CONT	12"	12"	FULL DENSE
VIA	VIBURNUM AWABUKI 'CHINDO'	CHINDO VIBURNUM	CONT	12"	12"	FULL DENSE
VIB	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	CONT	12"	12"	FULL DENSE

PLANT LIST

SYM	BOTANICAL NAME	COMMON NAME	CAL/RT	MIN. HT.	MIN. SPR.	REMARKS
DECIDUOUS SHRUBS						
BUD	BUDDLEIA DAVIDII CV.	DWARF BUTTERFLY BUSH	CONT	12"	12"	FULL DENSE
CAA	CALLICARPA AMERICANA	AMERICAN BEAUTYBERRY	CONT	12"	12"	FULL DENSE
CAD	CALLICARPA DICHOTOMA 'ISSAI'	PURPLE BEAUTYBERRY	CONT	12"	12"	FULL DENSE
CAF	CALYCANTHUS FLORIDUS	SWEET SHRUB	CONT	12"	12"	FULL DENSE
CAC	CARYOPTERIS X CLANDONENSIS	BLUEBEARD	CONT	12"	12"	FULL DENSE
CAN	CLETHRA ANIFOLIA	SWEET PEPPERBUSH	CONT	12"	12"	FULL DENSE
COC	COTINUS COGGYGRIA	SMOKEBUSH	CONT	12"	12"	FULL DENSE
FOI	FORSYTHIA X INTERMEDIA	FORSYTHIA	CONT	12"	12"	FULL DENSE
IDS	ILEX DECIDUA 'SUNDANCE'	SUNDANCE POSSUM HAW	CONT	12"	12"	FULL DENSE
IVJ	ILEX VERTICILLATA 'JIM DANDY'	WINTERBERRY	CONT	12"	12"	FULL DENSE
IVR	ILEX VERTICILLATA 'RED SPRITE'	WINTERBERRY	CONT	12"	12"	FULL DENSE
ITV	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	CONT	12"	12"	FULL DENSE
JAN	JASMINUM NUDIFLORUM	WINTER JASMINE	CONT	12"	12"	FULL DENSE
LAC	LAGERSTROEMIA INDICA 'CENTENNIAL'	CENTENNIAL DWARF CRAPE MYRTLE	CONT	12"	12"	FULL DENSE
LAD	LAGERSTROEMIA INDICA 'CADDO'	CADDO DWARF CRAPE MYRTLE	CONT	12"	12"	FULL DENSE
LAG	LAGERSTROEMIA INDICA 'GAMAD I'	CHERRY DAZZLE DWARF CRAPE MYRTLE	CONT	12"	12"	FULL DENSE
LEF	LEUCOTHOE FONTANESIANA	FETTERBUSH	CONT	12"	12"	FULL DENSE
ROR	ROSA RUGOSA	HARDY ROSE	CONT	12"	12"	FULL DENSE
ROK	ROSA 'RADRAZZ'	KNOCKOUT ROSE	CONT	12"	12"	FULL DENSE

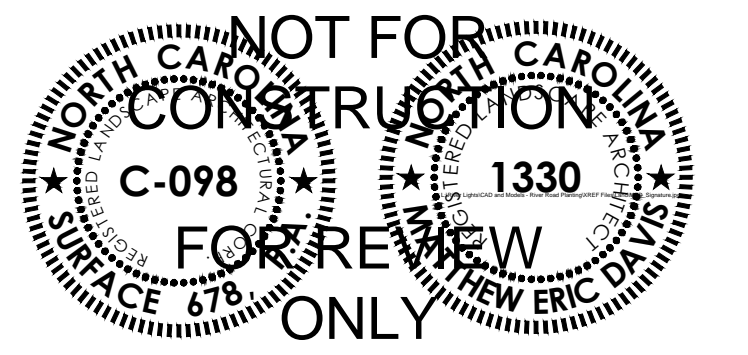
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REGISTRATION



CLIENT



RIVERLIGHTS™

by
Newland COMMUNITIES

2202 COOPERATIVE WAY
HERNDON, VA 20171

RIVER ROAD PLANTING PLAN

NO.	REVISION	DATE
1	SITE PLAN COMMENTS	04.29.15

ISSUE:
**LANDSCAPE
PERMIT SET**

PROJECT NO: RIVERLIGHTS
DATE: FEB 24, 2015
DRAWN: JI, DP
CHECKED: ED, RP

SHEET TITLE:

PLANT SPECIES LIST

L503

NOTE: PLANT SPECIES LIST IS INTENDED TO PROVIDE A LIST OF PLANT SPECIES THAT MAY BE INSTALLED WITHIN THE PROJECT LIMITS.

PLANT LIST

Table with columns: SYM, BOTANICAL NAME, COMMON NAME, CAL/RT, MIN. HT., MIN. SPR., REMARKS. Includes sections for PERENNIALS and GROUNDCOVERS.

PLANT LIST

Table with columns: SYM, BOTANICAL NAME, COMMON NAME, CAL/RT, MIN. HT., MIN. SPR., REMARKS. Includes sections for ORNAMENTAL GRASSES and VINES.

1. ORNAMENTAL GRASS SPECIES SHOWN WITH **** SYMBOL ARE TO BE INSTALLED AS MONOCULTURE MASSINGS WITHIN AREAS INDICATED AS 'SEEDING MEADOW'. SEE SHEET L-501 FOR MEADOW AREA QUANTITIES PROPOSED.

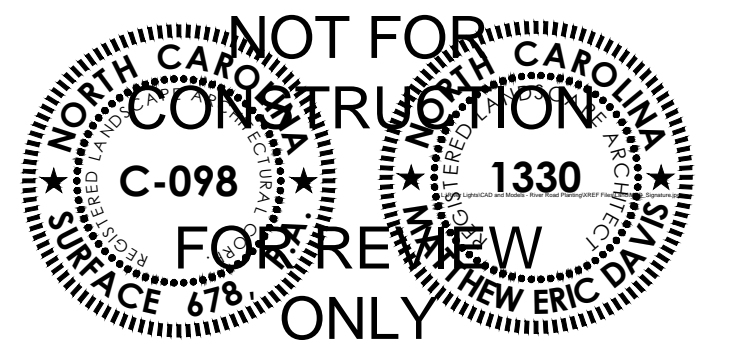
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RIVER ROAD PLANTING PLAN

Table with columns: NO., REVISION, DATE. Includes a revision entry for SITE PLAN COMMENTS dated 04.29.15.

ISSUE: LANDSCAPE PERMIT SET

PROJECT NO: RIVERLIGHTS DATE: FEB 24, 2015 DRAWN: JI, DP CHECKED: ED, RP

SHEET TITLE:

PLANT SPECIES LIST

L504