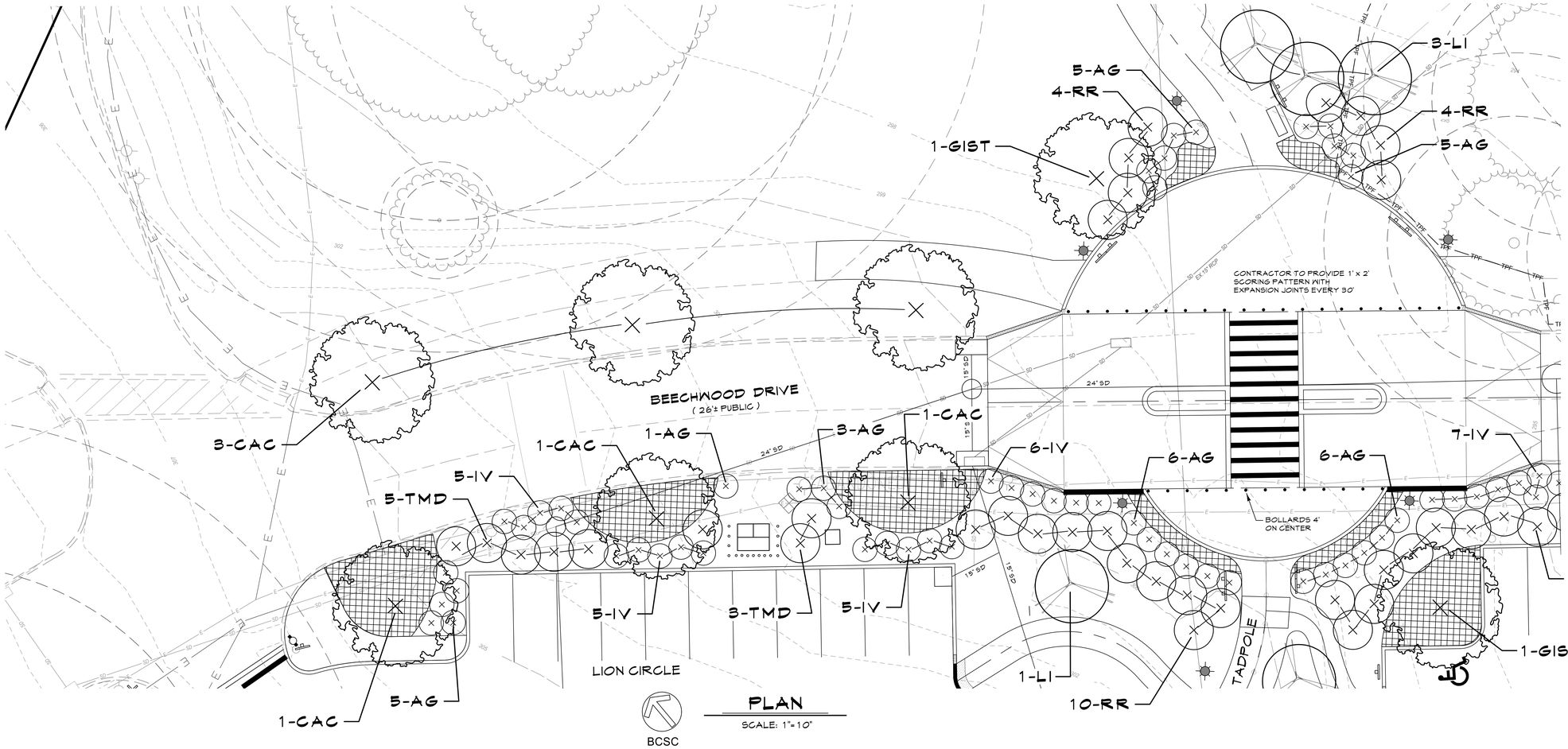
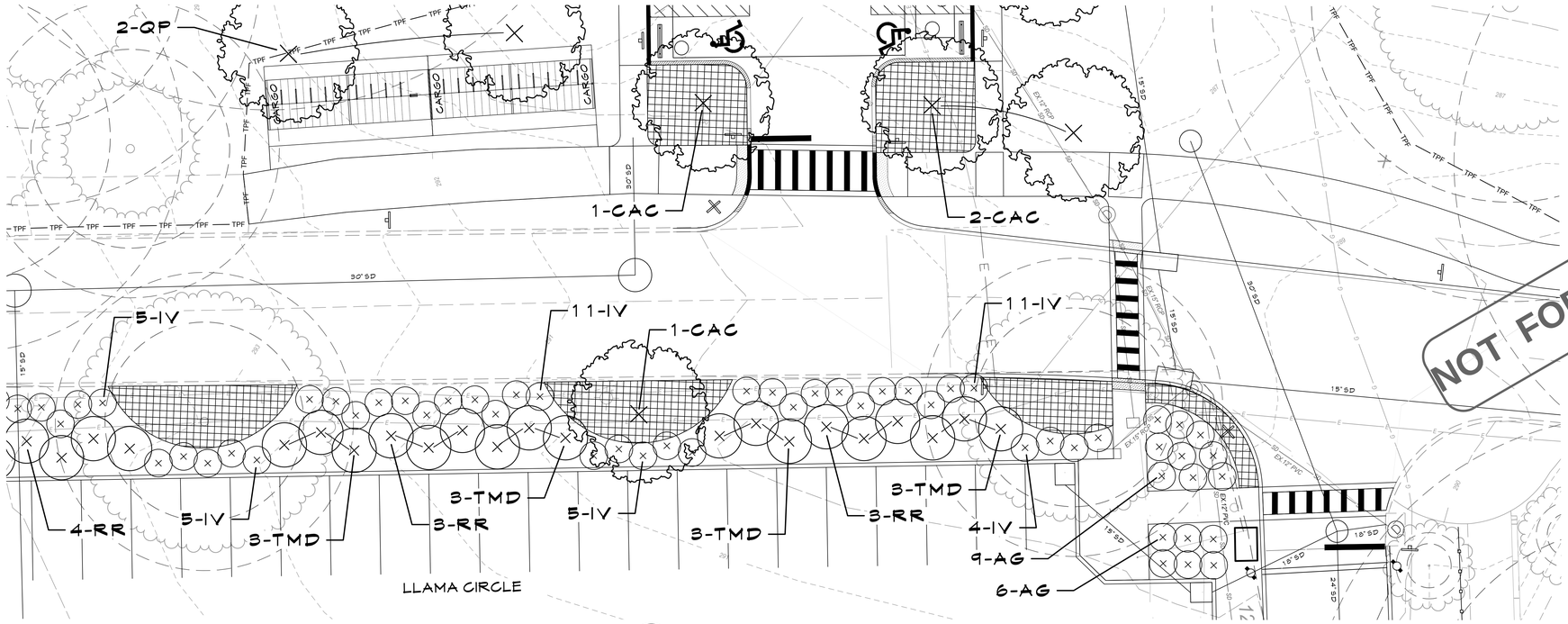


LEGEND

- Existing Minor Contour
- Existing Major Contour
- Existing Edge of Road
- Existing Storm Drain
- Existing Water
- Existing Sewer
- Existing Gas Line
- Existing Underground Electric Line
- Existing Curb and Gutter
- Existing Retaining Wall
- Existing Edge of Paving
- Existing Sidewalk
- Existing Tree Line
- Existing Building/Structure
- Water Edge or Stream Centerline
- Existing Fence
- Existing Pavement
- Existing Sign
- Existing Light
- Existing Bollard
- Proposed Major Contour
- Proposed Minor Contour
- Proposed Storm Drain Line
- Proposed Manhole
- Proposed Inlet
- Proposed Tee
- Proposed Curb and Gutter
- Proposed Retaining Wall
- Proposed Edge of Pavement
- Proposed Guardrail
- Proposed Concrete Sidewalk
- Proposed Fence
- Proposed Tree Line
- Tree Protection Fence
- Proposed ADA Parking Sign
- Proposed ADA Parking Space
- Proposed Bollards
- Proposed Guard Shack
- Proposed Pedestrian "Acorn" Type Light
- Proposed Parking Lot "Cobra" Type Light
- Proposed Shrubs
- Proposed Deciduous Tree
- Proposed Groundcover



NOT FOR CONSTRUCTION

SEE DRAWING C-073 FOR PLANTING DETAILS

0 10' 20'

DATA SOURCES

1. Existing topography and structures shown hereon outside of the limits of field run topography are from the Baltimore City Office of Technology - GIS Lab.
2. Existing topography from field run survey by Century Engineering Inc. dated Aug-Sept. 2020
3. Coordinates & elevations are referred to the Baltimore City Survey Control System and are tied to the following control stations:
   - 35800 N 7963.820 E 9323.550 Elev. 301.060
   - 35801 N 8240.190 E 9800.600 Elev. 324.640
4. Public utilities shown hereon are from public drawings, field location and other sources.

DATE	BY	REVISIONS

CENTURY ENGINEERING
A Kleinfelder Company
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 www.centuryeng.com

BEECHWOOD DR LANDSCAPE DETAILS

THE MARYLAND ZOO IN BALTIMORE PARKING LOT REHABILITATION

BALTIMORE, MARYLAND
WARD 13 SECTION 5 BLOCK 3499 LOT 001

OWNER:
Mayor & City Council of Baltimore
One Calvert Plaza
201E Baltimore Street
Baltimore MD 21202
(410)-675-3651

DEVELOPER:
The Maryland Zoo in Baltimore
1876 Mansion House Drive
Baltimore MD 21217
C/O Karl Kranz
(410)-396-7102

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 1005
EXPIRATION DATE: 5/20/2022

DRAWN BY: AA	REVIEW BY: AJD
DESIGN BY: DRS/KRB	REVIEW DATE: 7/15/2022
SCALE: 1"=10'	DRAWING: C-072
PROJECT No.: 201069.00	

ESD # 7969

T:\2020\Facilities\201069.00 MD Zoo Parking\CIVIL\CADD\Drawings\Construction\201069.00 (C-072) Landscape Beechwood Details.dwg Jul 18, 2022 1:29pm dshanahan

FOREST CONSERVATION WORKSHEET			
The Maryland Zoo in Baltimore			
Net Tract Area			Acres
A. Total Tract Area			6.77
B. Deductions			0.00
C. Net Tract Area			6.77
Land Use Category			
D. Afforestation Threshold		15%	1.02
E. Conservation Threshold		20%	1.35
Existing Forest Cover			
F. Existing Forest Cover w/in Net Tract Area			0.00
G. Area of Forest Above Conservation Threshold			0.00
Breakeven Point			
H. Breakeven Point			0.00
I. Forest Clearing Permitted Without Mitigation			0.00
Proposed Forest Clearing			
J. Total Area of Forest to be Cleared			0.00
K. Total Area of Forest to be Retained			0.00
Planting Requirements			
L. Reforestation for Clearing Above the Conservation Threshold			0.00
M. Reforestation for Clearing Below the Conservation Threshold			0.00
N. Credit for Retention Above the Conservation Threshold			0.00
P. Total Reforestation Required			0.00
Q. Total Afforestation Required			1.02
Ignor, formulas--for M	0	--for P	0.00
R. Total Planting Required			**1.02**

TREE INVENTORY CHART

Number	Tree Type/ Species	Size	Condition	Save	TBR
1	Pine	15" (double)		X	
2	Deciduous	36"		X	
3	Norway Spruce	12"		X	
4	Norway Spruce	12"		X	
5	Norway Spruce	24"		X	
6	Norway Spruce	24"		X	
7	Norway Spruce	24"		X	
8	Norway Spruce	24"		X	
9	Norway Spruce	8"		X	
10	Deciduous	18" (triple)		X	
11	Deciduous	40"		X	
12	Deciduous	26"		X	
13	Deciduous	14"		X	
14	Maple	26"		X	
15	Deciduous	10"		X	
16	Deciduous	10"	Fair	X	
17	Horse Chestnut	54"	Good	X	
18	Horse Chestnut	54"	Dying		X
19	Deciduous	8"	Good	X	
20	Deciduous	14"		X	
21	Deciduous	18"		X	
22	Deciduous	14"		X	
23	Deciduous	27"		X	
24	Deciduous	17"		X	
25	White Oak	39"	Good	X	
26	Deciduous	10"	Fair		X
27	White Oak	27"	Good	X	
28	White Oak	42"	Good	X	
29	Dogwood	4" (multi)	Good	X	
30	Evergreen	28"	Good	X	
31	Evergreen	26"	Good	X	
32	Evergreen	18"	Good	X	
33	Deciduous	20"		X	
34	Deciduous	20"		X	
35	Deciduous	4"		X	
36	Deciduous	16"			X
37	Deciduous	20"		X	
38	Tulip Poplar	36"		X	
39	Tulip Poplar	40"		X	
40	Deciduous	24"		X	
41	Deciduous	36"		X	
42	Deciduous	12"		X	
43	Deciduous	31"		X	
44	Deciduous	36"		X	
45	White Ash	60"	Good	X	
46	Locust	24"	Good	X	
47	Deciduous	6"	Fair	X	
48	Mulberry	39"	Good	X	
49	Maple	8"	Good	X	
50	Cedar	27"		X	
51	Deciduous	18"		X	
52	Deciduous	10"		X	
53	Maple	32"		X	
54	Ash	10" (multi)	Fair		X
55	Evergreen	30"	Poor		X
56	Evergreen	27"	Good		X
57	Evergreen	30"	Fair		X
58	Evergreen	24"	Poor		X
59	Norway Spruce	40"	Good		X
60	Evergreen	30"	Poor	X	
61	Black Gum	12"	Fair	X	
62	Evergreen	15"	Fair	X	
63	Evergreen	12"		X	
64	Cherry	15" (triple)		X	
65	Pine	24"		X	
66	Pine	24"		X	
67	Deciduous	10" (multi)		X	
68	Mulberry	24", 18" (double)		X	
69	Norway Spruce	32"		X	
70	Evergreen	12"		X	
71	Evergreen	16"		X	
72	Deciduous	16" (multi)		X	
73	Deciduous	12" (multi)		X	
74	Zelkova serrata	24"		X	
75	Deciduous	18"		X	
76	Deciduous	15" (multi)		X	
77	Deciduous	10"	Dead		X
78	Horse Chestnut	46"	Good	X	
79	Evergreen	34"	Good		X
80	Evergreen	34"	Good		X
81	Evergreen	30"	Fair		X
82	Evergreen	24"	Fair		X
83	Evergreen	24"	Poor		X
84	Deciduous	8" (multi)	Poor		X
85	Swamp White Oak	60"	Good	X	
86	Horse Chestnut	38"	Good	X	
87	Deciduous	18"	Fair	X	
88	Northern Red Oak	36"	Damaged		X
89	Mulberry	10" (multi)	Fair		X
90	Northern Red Oak	18"	Fair	X	
91	Northern Red Oak	18"	Fair	X	
92	Crape Myrtle	4" (multi)		X	
93	Crape Myrtle	4" (multi)		X	
94	Crape Myrtle	4" (multi)		X	
95	Tulip Poplar	40"		X	
96	Evergreen	24"	Fair		X
97	Horse Chestnut	40"	Fair		X
98	American Sycamore	64"	Good	X	
99	Sycamore	40"	Dying		X
100	Sycamore	40"	Fair		X
101	Deciduous	16" (double)	Fair		X
102	Deciduous	16" (multi)	Fair		X
103	Deciduous	22"		X	
104	Deciduous	56"		X	
105	Deciduous	36"		X	
106	Deciduous	7"		X	
107	Deciduous	32"		X	
108	Dawn Redwood	29"			X

Notes:
1. Shaded cells indicate trees 20" cal. or greater.
2. Only trees within study area were assigned a condition.

FOREST CONSERVATION NOTES

FOREST CONSERVATION PLANTING REQUIREMENTS

1. AS SET FORTH IN CHAPTER 3 OF THE MARYLAND STATE FOREST CONSERVATION TECHNICAL MANUAL (SEE FOREST CONSERVATION WORKSHEET, THIS PAGE), 1.02 ACRES OF PLANTING IS REQUIRED*

   TO MEET THE SITE'S FOREST CONSERVATION REQUIREMENTS. THIS REQUIREMENT WILL BE MET BY COMBINATION OF ONSITE PLANTINGS, PLANTINGS IN A DESIGNATED OFF-SITE FOREST CONSERVATION AREA AND PAYMENT OF FEE-IN-LIEU.

2. IN ADDITION TO THE ABOVE, PER THE REQUIREMENTS SET FORTH IN BALTIMORE CITY SUPPLEMENT TO THE STATE FOREST CONSERVATION MANUAL, ONE HUNDRED AND TWO (102) 2" CALIPER TREES ARE REQUIRED* TO SATISFY THE LANDSCAPE REQUIREMENTS FOR SITES WITH NO FOREST.

   (6.77Ac.) x 43,560 = 294,901
   294,901 x (.15) = 44,235.15
   44,235.15 / 43,560 = 1.015
   1.015 x (100) = 101.5 (ROUNDED TO 102 - 2" CALIPER TREES REQUIRED)

TREE MITIGATION

- TOTAL TREE CALIPER TO BE REMOVED:..........656"
- SPECIMEN TREE CALIPER TO BE REMOVED ≥ 20" CAL. (FOR FOREST CONSERVATION):..........560"
- TREE CALIPER TO BE REMOVED 8" CAL. - 20" CAL. (BASED UPON PARK SETTING):..........96"
- TOTAL TREE MITIGATION REQUIRED BY CALIPER:..........476" (DOES NOT INCLUDE T:18 (54") & T:55 (30"), OR 8"-19.9" CALIPER TREES):..........180"

  (SEE TREE INVENTORY CHART, THIS SHEET.)

- CALIPER REPLACEMENT CALCULATION:
  476" CAL. OF SPECIMEN REMOVED: 476" CALIPER TO BE REPLACED
  TOTAL: 476" CALIPER TO BE REPLACED

TREE REPLACEMENT CONVERSION:
(476" CAL.) / (2" CAL. PER REPLACEMENT TREE) = 238-2" TREES REQUIRED**

** FINAL FOREST CONSERVATION / PLANTING PLAN WILL SATISFY MARYLAND STATE FOREST CONSERVATION TECHNICAL MANUAL REQUIREMENTS, THE BALTIMORE CITY SUPPLEMENT TO THE STATE FOREST CONSERVATION MANUAL REQUIREMENTS, AND SPECIMEN TREE MITIGATION REQUIREMENTS. TOTAL PUs REQUIRED FOR FOREST CONSERVATION & SPECIMEN TREE MITIGATION IS 340 PUs (238 TREES (SPECIMEN MITIGATION) + 102 TREES (FOREST CONSERVATION)); WHEREAS THE TOTAL REQUIRED PUs UNDER THE LANDSCAPE MANUAL IS ONLY 116.5 PUs. PLAN COMPLIANCE WILL BE ACHIEVED VIA A COMBINATION OF ONSITE PLANTINGS AND A FEE-IN-LIEU PAYMENT OF $68,640.00 (340 PU REQUIRED - 183.7 PU PROVIDED = 156.3 PU DEFICIT. 156.3 PU = 156-2" TREES. 156 x 2" = 312" OF MITIGATION @ $220/INCH = $68,640.00 FEE-IN-LIEU).

NOTES:
1. Required plantings total 340 PUs per Baltimore City Landscape Manual page 6, section "Applicability, Review, and Enforcement," subsection "Overlapping Regulations." The more stringent Forest Conservation requirement for 340 PUs overlaps the Landscape Manual requirement of 116.5 PUs.
2. Proposed plantings total 183.7 PUs per plant material shown on this plan.
3. 102.0 PU can be used to meet the the 1.02 acres of afforestation / forest conservation requirements.

LANDSCAPE MANUAL PLANTING REQUIREMENTS

KEY	LOCATION	CONDITION	DESCRIPTION	RATE	L.F./ AREA	CREDIT	PLANTING UNITS REQUIRED	PLANTING UNITS PROVIDED
A	Street Frontage	F	Street Frontage	1/30	502 LF	-2.0	16.7	
B	Parking Lot	G	Parking Perimeter-trees	1/35	416 LF	-2.0	11.9	
B	Parking Lot	G	Parking Perimeter-shrubs	1/20	416 LF	---	20.8	
C	Parking Lot	G	Interior Landscaping	1/200	14227 SF	---	71.1	
Sub-Total							120.5	
Existing Trees to Remain						-4.0	-0	0
Total							116.5	183.7

PLANT LIST

SYMBOL	KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
				SHADE TREES		
	CAC	21	Carpinus caroliniana	American Hornbeam	2 1/2" c.	B & B, specimen
	GIST	13	Gleditsia tria. var. in. 'Skycole Skyline'	Thornless Honeylocust	2 1/2" c.	B & B, specimen
	QP	18	Quercus phellos	Willow Oak	2 1/2" c.	B & B, specimen
	TC	9	Tilia cordata	Little Leaf Linden	2 1/2" c.	B & B, specimen
	UA	21	Ulmus americana	American Elm	2 1/2" c.	B & B, specimen
	Total =	82 (1 Tree / Planting Unit = 82.0 PU)				
				ORNAMENTAL TREES		
	AA	18	Amelanchier arborea	Serviceberry	1 1/2" c.	B&B, multi-stem, 3 cane min.
	CC	10	Cercis canadensis	Eastern Redbud	1 1/2" c.	B & B, specimen
	LI	11	Lagerstroemia x 'Yuma'	Crape Myrtle	6'-8' ht. (1" c. min)	B & B, multistem, 3 trunk min.
	MV	13	Magnolia virginiana	Sweetbay Magnolia	6'-8' ht. (1" c. min)	B & B, multistem, 3 trunk min.
	PC	10	Prunus cerasifera 'Thundercloud'	Thundercloud Plum	1 1/2" c.	B & B, fruitless
	Total =	62 (2 Trees / Planting Unit = 31.0 PU)				
				EVERGREEN TREES		
	INS	5	Ilex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	6-8' ht.	B & B,
	IO	13	Ilex opaca 'Jersey Knight'	Jersey Knight American Holly	6'-8' ht.	B & B, strong central leader
	TG	17	Thuja x 'Green Giant'	Arborvitae 'Green Giant'	6'-8' ht.	B & B
	Total =	35 (2 Trees / Planting Unit = 17.5 PU)				
				SHRUBS/ GROUNDCOVERS		
	AG	58	Abelia x grandiflora 'Edward Goucher'	Edward Goucher Glossy Abelia	24"-30" ht.	Heavy
	AI	37	Andropogon gerardii	Big Blue Stem	24"-30" ht.	B & B, heavy
	IG	47	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	24"-30" ht.	Heavy
	IV	85	Itea virginica	Virginia Sweetspire	24"-30" ht.	Heavy
	IVR	33	Ilex verticillata 'Red Sprite'*	Red Sprite Winterberry Holly	24"-30" ht.	Cont., heavy
	LB	26	Lindera benzoin 'Rubra'	Red Flowered Spicebush	30"-36" ht.	B & B, heavy
	TMD	37	Taxus media 'Densiformis'	Densiformis Yew	18"-24" ht.	Cont., heavy
	RR	46	Rosa x 'Radyod'	Blushing Knockout Rose	24"-30" ht.	B & B
	VD	30	Viburnum dentatum	Arrowwood Viburnum	30"-36" ht.	B & B
	Total =	399 (10 Shrubs / Planting Unit = 39.9 PU)* See Proposed Planting Summary Below				
				HERBACEOUS PERENNIAL		
▨	CP	86	Ceratostigma plumbaginoides	Plumbago	1 gal.	Cont., 30" o.c.
	Total =	86				

PROPOSED PLANTING SUMMARY

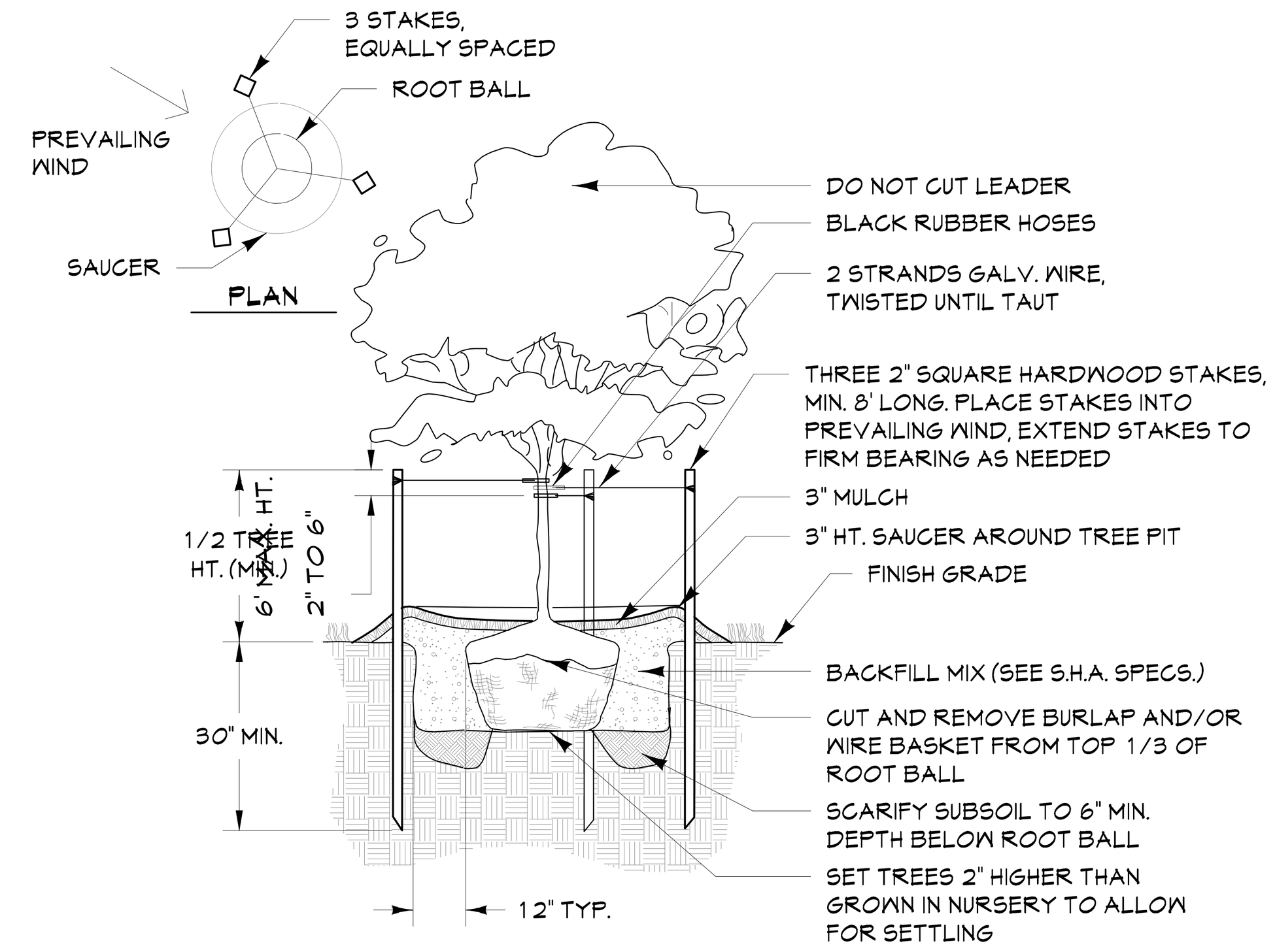
Plant Type	Total Trees Proposed	Trees Used For Forest Con. Reqs.	Trees Used For Landscape Manual Reqs.	Total Planting Units Provided (PU)
Shade Trees	82	82	-	82
Ornamental Trees	62	-	62	31
Evergreen Trees	35	-	35	17.5
Shrubs*	399	200 (20 PU)	199 (33.2PU)	53.2
Total PU Provided		102.0 PU	81.7 PU	183.7 PU

FOREST CONSERVATION PLANTING REQUIREMENTS

TOTAL F.C. PLANTING REQUIRED (AC.)	PLANTING RATE (PU's/AC.)	TOTAL F.C. PLANTING REQUIRED (PU's)	TOTAL F.C. PLANTING PROVIDED (PU's)	TOTAL F.C. TREE PLANTING PROVIDED (PU's)	TOTAL F.C. SHRUB PLANTING PROVIDED (PU's)
1.02	100/1	102	102 PU	82 TREES = 82 PU (80%)	200 SHRUBS = 20 PU (20%)

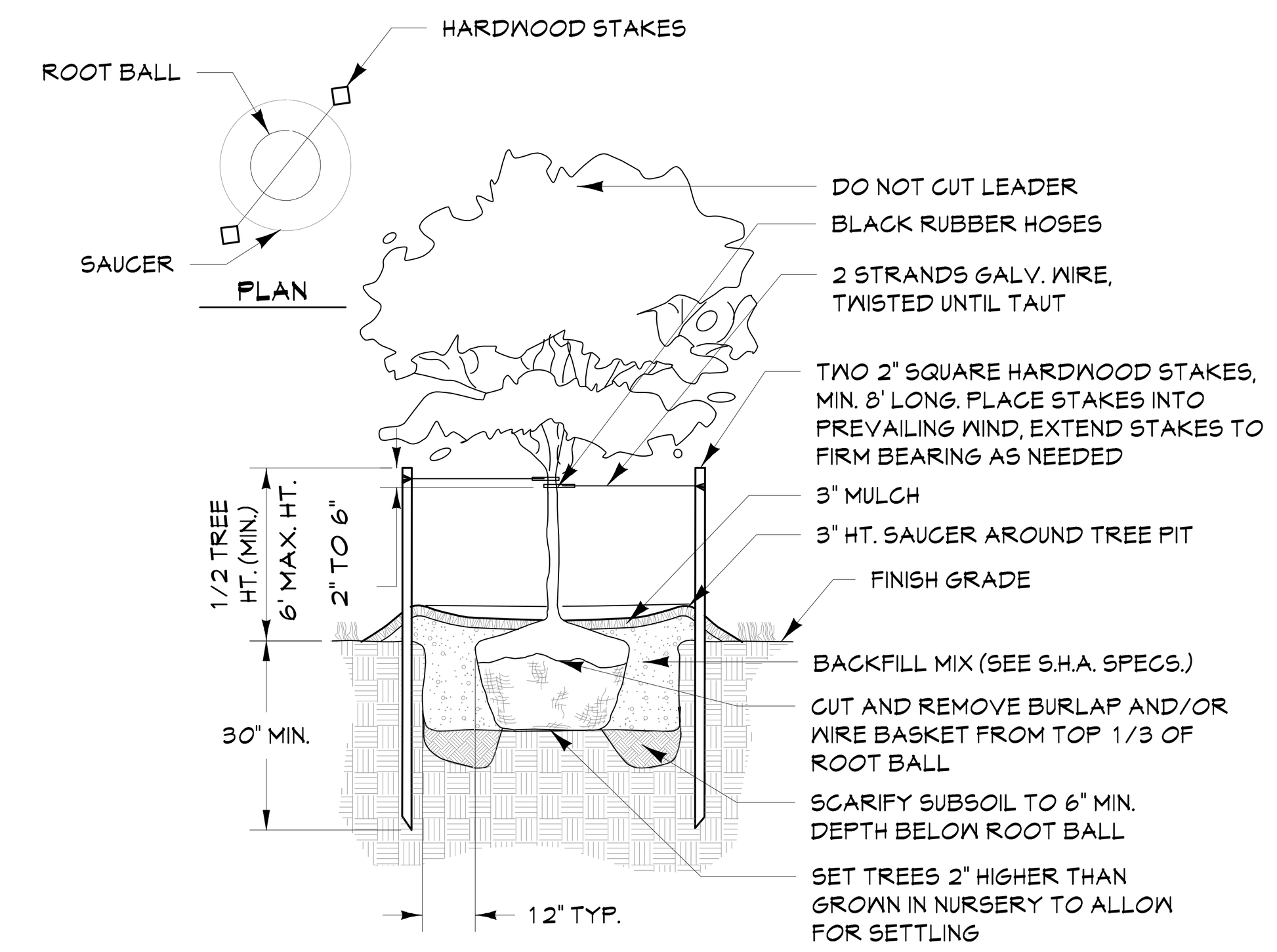
PARKING LOT INTERIOR LANDSCAPING REQUIREMENTS

CONDITION	PR. PARKING AREA	MIN. RATE	REQ. LANDSCAPING AREA	PROP. LANDSCAPING AREA	PROP. RATE
G	142,268.42 SF (3.27 AC.)	10%	14,226.84 SF (0.33 AC.)	41,051.17 SF (0.94 AC.)	28.86%



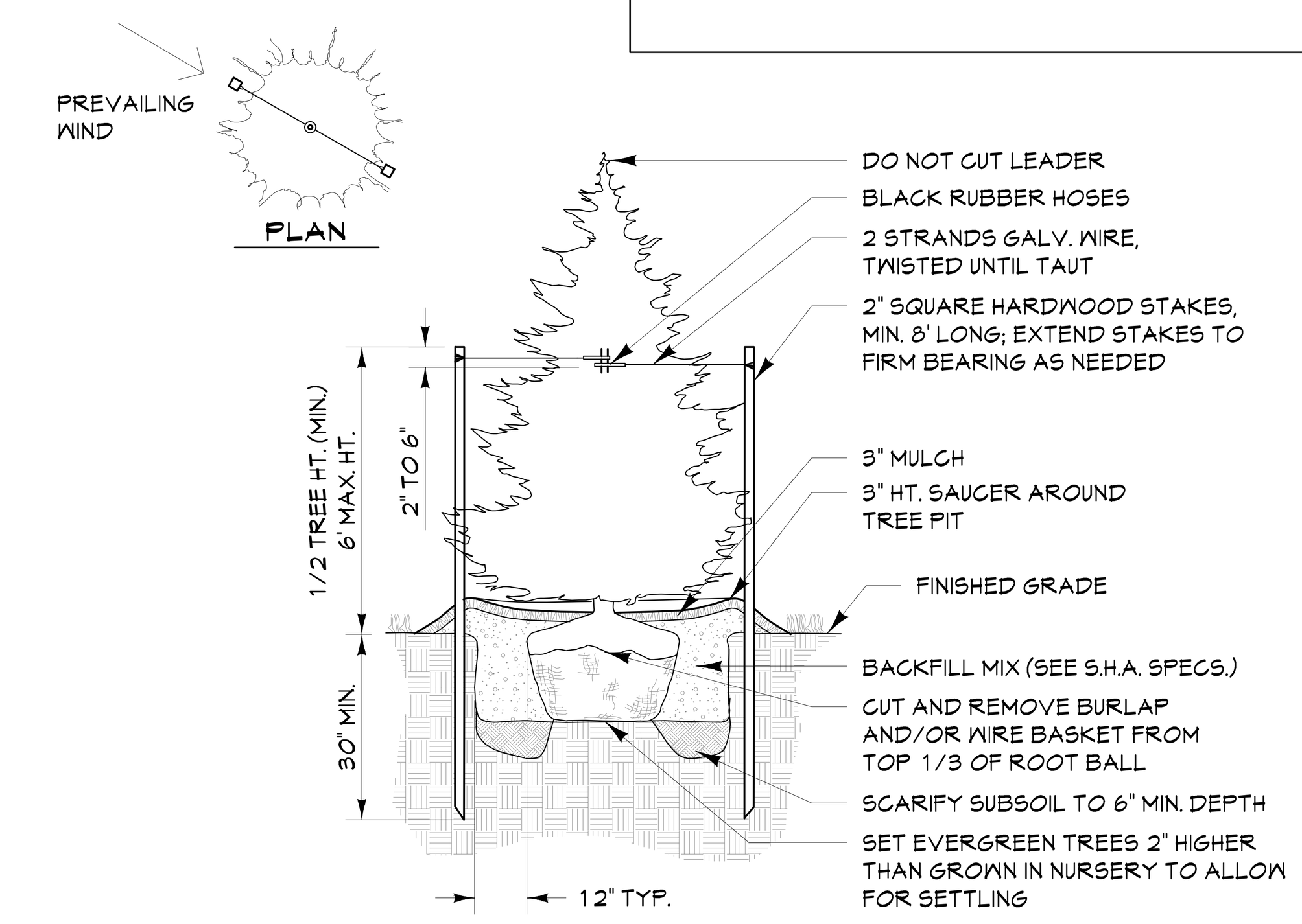
DECIDUOUS TREE PLANTING

Not To Scale



FLOWERING TREE PLANTING

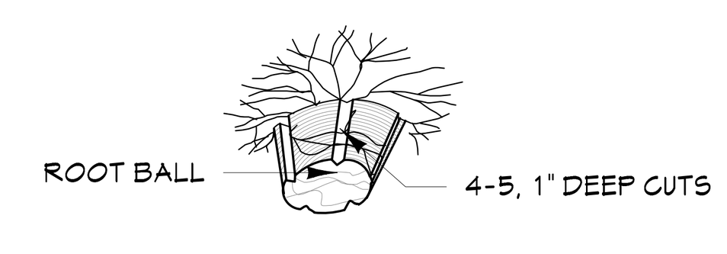
Not To Scale

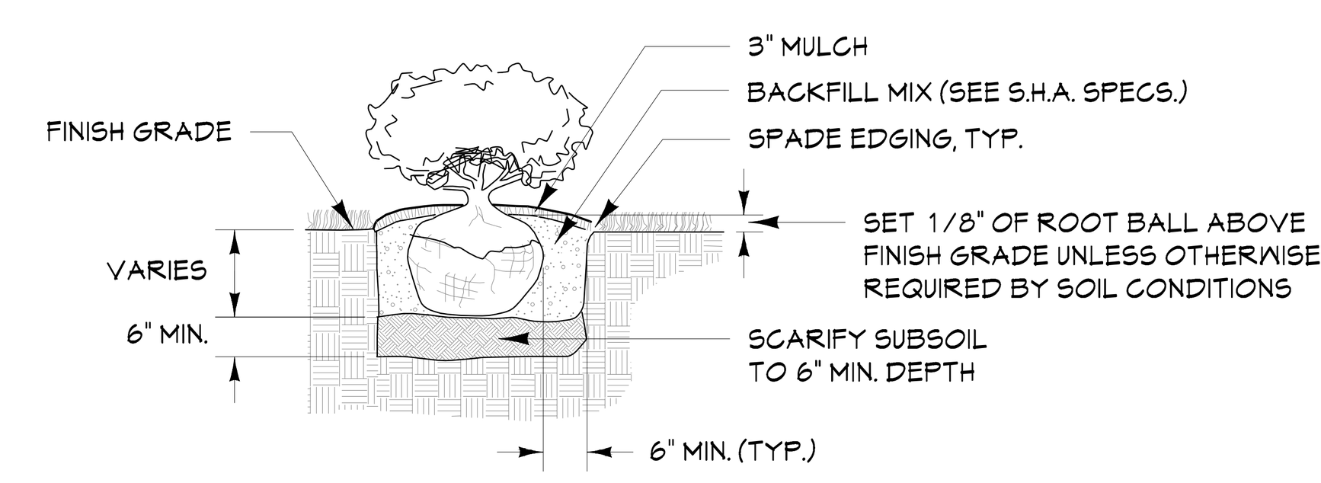


EVERGREEN TREE PLANTING

Not To Scale

NOTES:
1. FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOTBALL BY USING A SHARP BLADE AND MAKING 4 TO 5 ONE INCH CUTS THE LENGTH OF THE ROOTBALL.
2. FOR B&B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL.





SHRUB PLANTING

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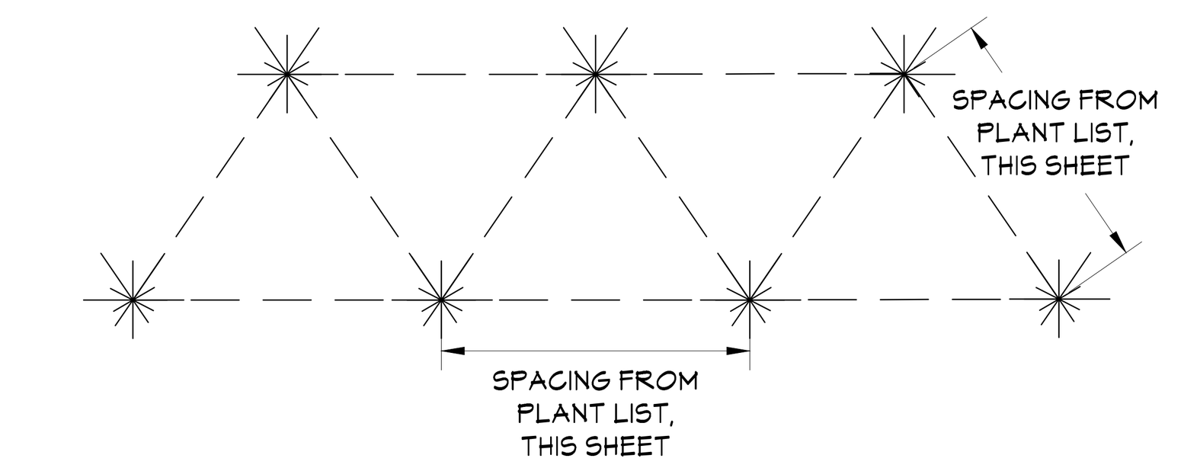
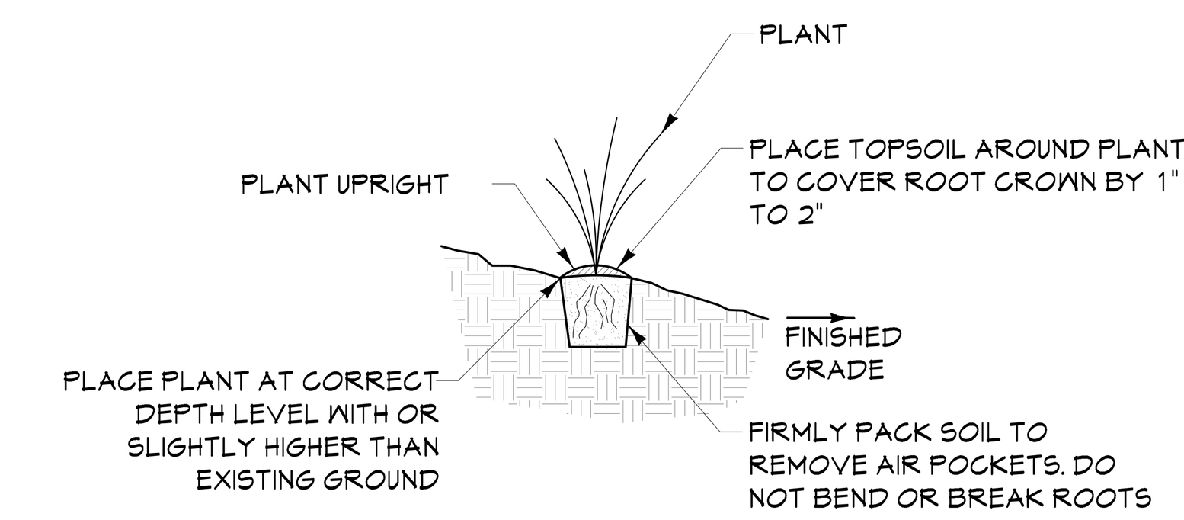




GROUNDCOVER PLANTING

Not To Scale

IRRIGATION METHODS

1. The use and maintenance of drip irrigation bags or rings around the trunks of newly-planted trees.
2. Hand watering, with water sources provided through either or both of the following methods:
   2.1. Exterior faucets on a building, located so that the farthest planting can be reached by a length of hose (100 feet recommended).
   2.2. A quick-coupling system, with connections located so that the farthest planting can be reached by a length of hose (100 feet recommended).
   2.3. A water tank or truck.
3. An automatic irrigation system with a moisture-sensing device and-or rain shut-off switch. If using an automatic irrigation system, the following requirements shall be met:
   3.1. All irrigation systems shall be designed to minimize vandalism.
   3.2. Sprinklers must not over-spray onto pavement. Sprinkler and spray heads are not permitted for planting areas less than eight (8) feet in width, to prevent overspray and run-off. Other irrigation methods shall be specified in such areas.
   3.3. Place lawn areas in a separate irrigation zone from shrub and groundcover beds so that each planting type can receive adequate irrigation without over-watering areas with lower irrigation needs.
   3.4. Drip irrigation is recommended for shrub and groundcover beds. Drip irrigation shall be used in areas smaller than five (5) feet in any direction.
4. The use of rainwater harvesting techniques combined with the use of harvested rainwater for landscape irrigation is encouraged.
5. For the first two years, the contractor shall water all plant material during times of low rainfall (less than 1" of rain per 14 day period) twice per six day period at four hours per event.
6. The contractor shall water the entire critical root zone of all trees and shrubs with the prescription.

NON-INVASIVE NOTE

1. Non-invasive vegetation that is native or regionally appropriate for local growing conditions is selected to promote biodiversity.

STANDARDS AND SPECIFICATIONS FOR PLANTING

TIMETABLE FOR PLANTING

ALL B&B AND CONTAINER PLANTING SHALL BE DONE BETWEEN MARCH 25 AND APRIL 30, FOR SPRING PLANTING, AND BETWEEN OCTOBER 15 AND DECEMBER 1 FOR FALL PLANTING.

PLANT MATERIAL

SEE PLANT LIST FOR EACH PLANTING AREA.

PLANTING SITE PREPARATION

CONTRACTOR SHALL ERADICATE ALL INVASIVE PLANT MATERIAL WITHIN PLANTING AREAS PRIOR TO PLANTING. ONCE THE PLANTING AREA IS CLEAR OF INVASIVES, PREPARE A PLANTING PIT FOR EACH TREE AND SHRUB. THE AREA DISTURBED FOR THE PIT IS TO BE MULCHED WITH A SHREDDED HARDWOOD PRODUCT. SOIL TESTING IS RECOMMENDED FOR MACRONUTRIENT DEFICIENCIES AND pH LEVELS. PROPER SOIL AMENDMENTS SHOULD BE MADE IF DEEMED NECESSARY.

PLANT MATERIAL STORAGE

IT IS RECOMMENDED THAT PLANTING OCCUR WITHIN 24 HOURS OF DELIVERY TO THE SITE. PLANT MATERIALS LEFT UNPLANTED FOR MORE THAN 24 HOURS SHALL BE PROTECTED FROM DIRECT SUN AND WEATHER AND KEPT MOIST. PLANT MATERIAL SHOULD NOT BE LEFT UNPLANTED FOR MORE THAN TWO WEEKS.

PLANTING METHOD

SEE PLANTING DETAILS FOR EACH TYPE OF PLANT MATERIAL USED .
ALL TREES SHALL BE INSTALLED WITH TREE SHELTERS.

MINIMUM LANDSCAPE MAINTENANCE REQUIREMENTS

1. A two year plant replacement warranty and two years of maintenance are required by the City.
2. Lawn areas shall be mowed to a height of 2 to 3 inches and not allowed to reach a height of 4 inches before mowing.
3. All curbs and walks shall be edged as needed.
4. All lawn areas adjacent to building faces or structures shall be trimmed.
5. A slow release nitrogen balanced fertilizer with a 2-1-1 ratio shall be applied at a rate of 2 pounds of nitrogen per 1000 square feet in September, October, and February.
6. Lime shall be applied at the rate determined by a soils report.
7. It is recommended that lawn areas be treated in mid-March to early April with pre-emergent herbicide (Betasan) or equal applied at the manufacturer's rate.
8. A post-emergent herbicide (Trimec) or equal is recommended to be sprayed on lawn areas in the late spring or early fall. Follow manufacturer's rates and recommendations.
9. Insecticides and fungicides are recommended for insect and disease control.
10. Reseed bare areas of lawn as necessary. Yearly aeration is recommended.
11. All trash, litter, and debris shall be removed from lawn areas, parking lots, and shrub beds as needed.
12. Mulch all shrub and groundcover beds yearly with 3 inches of shredded hardwood bark.
13. Permit shrubs and trees to grow and enlarge to their design size. Consult project Landscape Architect for details.
14. Prune trees in accordance with Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas.
15. Maintenance of landscape areas includes, but is not limited to weeding, mulching, mowing, trimming, pruning, edging, cultivation, seeding, fertilization, watering, pest control, and any other maintenance necessary to ensure healthy, vigorous plant growth and well-kept property condition.
16. Landscaping elements such as walls and fences shall be constructed in a sound workmanlike manner with adequate support or footings and must be repaired or replaced as needed to preserve an attractive appearance and to function as intended.
17. Any dead plants or plants which fail to show healthy growth must be removed and replaced within 60 days of identification of deteriorated health or notification by the City. Replacement may be delayed until the next growing season only if the 60 day period occurs during a time of year not suitable for planting.
18. All replacement plants must meet the size and other characteristics of newly planted material as required in the manual.
19. Trees and large shrubs must be adequately supported, when necessary to insure proper growth. Tree staking must be removed prior to final inspection, with the exception of plants replaced during the warranty period and not yet established.
20. It is desirable to avoid excessive use of fertilizers and pesticides to minimize impacts on water quality. It is recommended that fertilizer application be need based rather than as an automatic component of maintenance schedules and when appropriate, slow-release or natural fertilizers be selected over highly-soluble chemical fertilizers.
21. The implementation of an Integrated Pest Management (IMP) program is recommended to prevent and treat pest problems.
22. Contractor shall eradicate all invasive plant material within all planting areas prior to planting. Invasive plant material shall be monitored and removed as they appear.
23. The contractor shall promptly remove all dead, dying or otherwise unacceptable plants. Tree replacements shall be made as originally specified during the planting season. Trees removed between planting seasons will be replaced during the next proper season. Acceptable trees must also be in place at the time of final acceptance.

NOTES

1. IN ADDITION TO MEETING THE REQUIREMENTS OF THE CITY OF BALTIMORE LANDSCAPE MANUAL ADOPTED 2017, ALL TREE PROTECTION, LANDSCAPE INSTALLATION, AND LANDSCAPE MAINTENANCE WILL CONFORM TO ANSI A300 STANDARDS.
2. IN ADDITION TO MEETING THE REQUIREMENTS OF THE CITY OF BALTIMORE LANDSCAPE MANUAL ADOPTED 2017, ALL PLANTINGS ON CITY PROPERTY WILL MEET THE STANDARDS SET IN THE CITY OF BALTIMORE STANDARD SPECIFICATIONS 2006, AKA THE GREEN BOOK.
3. PROJECT SITE IS WITHIN THE DRUID HILL PARK HISTORIC DISTRICT AND DIRECTLY ADJACENT TO COUNCIL GROVE PAVILION, A CONTRIBUTING RESOURCE TO THE DISTRICT.
4. PRIOR TO PLANTING IN PARKING LOT C, CONTRACTOR TO REMOVE EXISTING SOIL IN PARKING LOT ISLANDS WHERE TREES ARE PROPOSED AND REPLACE WITH PLANTING MIX TO 6" DEPTH SO PROPOSED TREES MAY ESTABLISH.
5. CONTRACTOR TO TEST PIT PRIOR TO PLACEMENT OF LIGHT POLES AND PLANTINGS WITHIN CRZS OF TREES TO REMAIN. IF SLIGHT ADJUSTMENTS TO LIGHT OR PLANT LOCATIONS ARE NECESSARY TO AVOID LARGE EXISTING ROOTS, CONTRACTOR TO CONSULT WITH OWNER OR PROJECT LANDSCAPE ARCHITECT PRIOR TO FINAL PLANTING.
6. IF CONFLICT EXISTS BETWEEN PROPOSED LIGHTING AND PROPOSED TREE PLANTINGS, CONTRACTOR TO CONSULT WITH OWNER OR PROJECT LANDSCAPE ARCHITECT FOR ADJUSTMENT PRIOR TO INSTALLATION.

PLANTING NOTES

1. Plant material substitutions will not be accepted without approval of the Landscape Architect.
2. All Shrubs and groundcover areas shall be planted in continuous prepared planting beds.
3. All shrub beds shall be mulched with hardwood mulch as detailed and specified except where noted on plans.
4. Maintain positive drainage out of planting beds at a minimum of two percent slope.
5. Plant quantities are provided for the convenience of the contractor. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
6. All areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting and construction.
7. The contractor shall notify Miss Utility, (800-257-7777) a minimum of three working days prior to planting and construction.
8. All plant material shall be nursery grown and shall conform to American Nurserymen Association Standards.
9. All planting procedures shall conform to Landscape Contractors Association Specification Guidelines for Baltimore/Washington Metropolitan Area (latest edition) and Century Engineering, Inc. specifications.
10. Contractor shall test pit prior to plant installation.
11. Blaze orange safety fence shall be installed at the limit of disturbance (LOD) where the LOD is 50 feet or less from any forest buffer, forest retention area, or forest conservation easement. The accuracy of this fence location shall be approved by City of Baltimore Department of Environmental Protection and Sustainability at the time of the pre-construction meeting.

OWNER:
Mayor & City Council of Baltimore
One Calvert Plaza
201E Baltimore Street
Baltimore MD 21202
(410)-675-3651

DEVELOPER:
The Maryland Zoo in Baltimore
1876 Mansion House Drive
Baltimore MD 21217
C/O Karl Kranz
(410)-396-7102

DATE	BY	REVISIONS

CENTURY ENGINEERING
A Kleinfelder Company
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 www.centuryeng.com

LANDSCAPE DETAILS

THE MARYLAND ZOO IN BALTIMORE
PARKING LOT REHABILITATION

BALTIMORE, MARYLAND
WARD 13 SECTION 5 BLOCK 3499 LOT 001

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 1008
EXPIRATION DATE: 5/20/2022

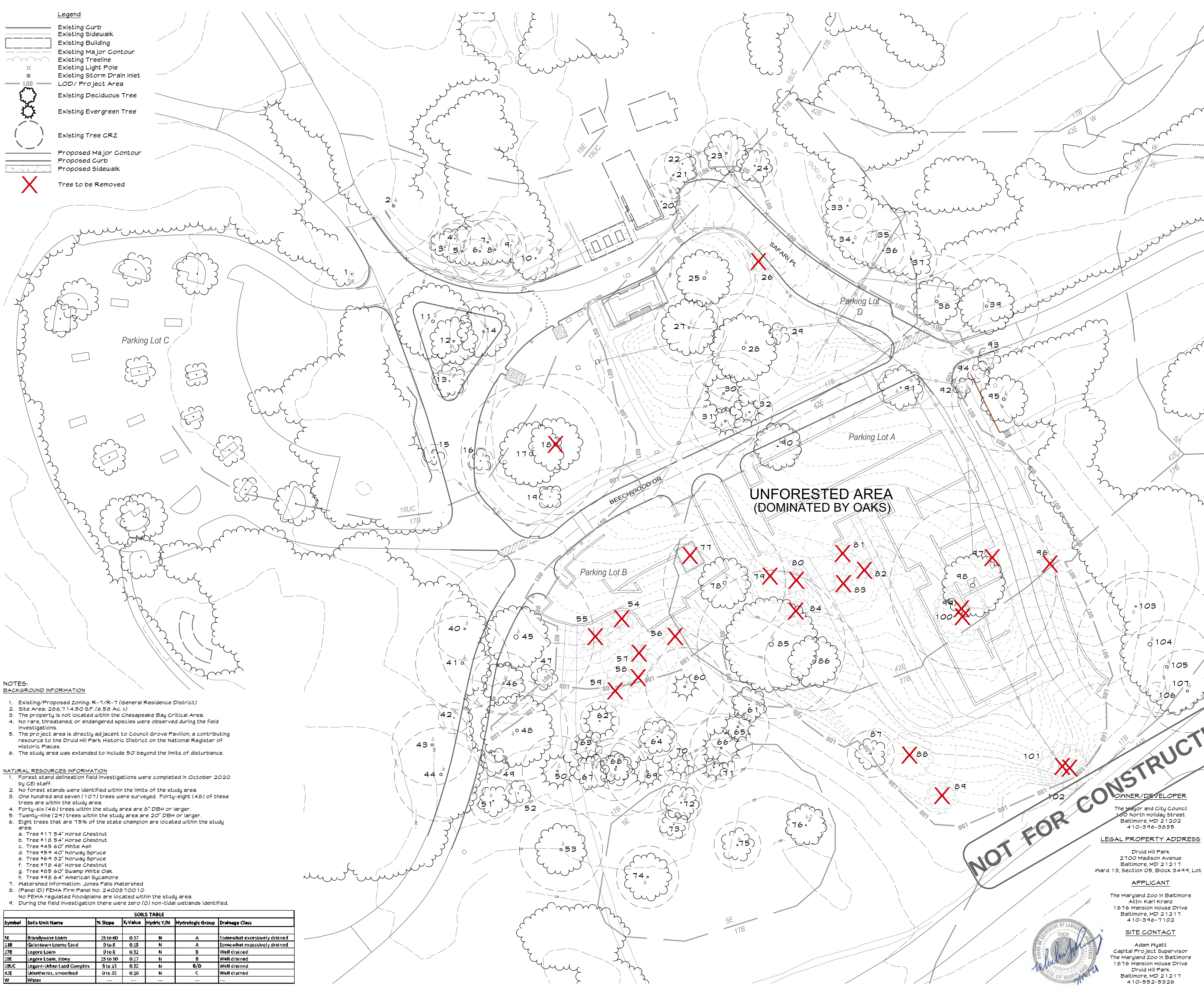
[illegible]

DRAWN BY:	AA	REVIEW BY:	AJD
DESIGN BY:	DRS/KRB	REVIEW DATE:	7/15/2022
SCALE:	NTS	DRAWING:	C-073
PROJECT No.:	201069.00		

ESD # 7969

Legend

- Existing Curb
- Existing Sidewalk
- Existing Building
- Existing Major Contour
- Existing Treeline
- Existing Light Pole
- Existing Storm Drain Inlet
- LOD/ Project Area (LOD)
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Tree CRZ
- Proposed Major Contour
- Proposed Curb
- Proposed Sidewalk
- Tree to be Removed



NOTES:
BACKGROUND INFORMATION

1. Existing/Proposed Zoning: R-7/R-7 (General Residence District)
2. Site Area: 286,714.50 S.F. (6.58 Ac. ±)
3. The property is not located within the Chesapeake Bay Critical Area.
4. No rare, threatened, or endangered species were observed during the field investigations.
5. The project area is directly adjacent to Council Grove Pavilion, a contributing resource to the Druid Hill Park Historic District on the National Register of Historic Places.
6. The study area was extended to include 50' beyond the limits of disturbance.

NATURAL RESOURCES INFORMATION

1. Forest stand delineation field investigations were completed in October 2020 by CEI staff.
2. No forest stands were identified within the limits of the study area.
3. One hundred and seven (107) trees were surveyed. Forty-eight (48) of these trees are within the study area.
4. Forty-six (46) trees within the study area are 8" DBH or larger.
5. Twenty-nine (29) trees within the study area are 20" DBH or larger.
6. Eight trees that are 75% of the state champion are located within the study area:
   a. Tree #17 54" Horse Chestnut
   b. Tree #18 54" Horse Chestnut
   c. Tree #45 60" White Ash
   d. Tree #59 40" Norway Spruce
   e. Tree #69 32" Norway Spruce
   f. Tree #78 46" Horse Chestnut
   g. Tree #85 60" Swamp White Oak
   h. Tree #98 64" American Sycamore
7. Watershed information: Jones Falls Watershed
8. (Panel ID) FEMA Firm Panel No. 2400870010
   No FEMA regulated floodplains are located within the study area.
9. During the field investigation there were zero (0) non-tidal wetlands identified.

SOILS TABLE

Symbol	Soils Unit Name	% Slope	K-Value	Hydric Y/N	Hydrologic Group	Drainage Class
5E	Brandywine Loam	15 to 60	0.37	N	A	Somewhat excessively drained
11B	Galestown Loamy Sand	0 to 8	0.15	N	A	Somewhat excessively drained
17B	Legore Loam	0 to 8	0.32	N	B	Well drained
18E	Legore Loam, stony	15 to 50	0.17	N	B	Well drained
18UC	Legore-Urban Land Complex	8 to 15	0.32	N	B/D	Well drained
42E	Udorthents, smoothed	0 to 35	0.10	N	C	Well drained
W	Water	---	---	---	---	---

TREE INVENTORY CHART

Number	Tree Type/ Species	Size	Condition	Save	TBR
1	Pine	15" (double)		X	
2	Deciduous	36"		X	
3	Norway Spruce	12"		X	
4	Norway Spruce	12"		X	
5	Norway Spruce	24"		X	
6	Norway Spruce	24"		X	
7	Norway Spruce	24"		X	
8	Norway Spruce	24"		X	
9	Norway Spruce	8"		X	
10	Deciduous	18" (triple)		X	
11	Deciduous	40"		X	
12	Deciduous	26"		X	
13	Deciduous	14"		X	
14	Maple	26"		X	
15	Deciduous	10"		X	
16	Deciduous	10"	Fair	X	
17	Horse Chestnut	54"	Good	X	
18	Horse Chestnut	54"	Dying		X
19	Deciduous	8"	Good	X	
20	Deciduous	14"		X	
21	Deciduous	18"		X	
22	Deciduous	14"		X	
23	Deciduous	27"		X	
24	Deciduous	17"		X	
25	White Oak	39"	Good	X	
26	Deciduous	10"	Fair		X
27	White Oak	27"	Good	X	
28	White Oak	42"	Good	X	
29	Dogwood	4" (multi)	Good	X	
30	Evergreen	28"	Good	X	
31	Evergreen	26"	Good	X	
32	Evergreen	18"	Good	X	
33	Deciduous	20"		X	
34	Deciduous	20"		X	
35	Deciduous	4"		X	
36	Deciduous	16"		X	
37	Deciduous	20"		X	
38	Tulip Poplar	36"		X	
39	Tulip Poplar	40"		X	
40	Deciduous	24"		X	
41	Deciduous	36"		X	
42	Deciduous	12"		X	
43	Deciduous	31"		X	
44	Deciduous	36"		X	
45	White Ash	60"	Good	X	
46	Locust	24"	Good	X	
47	Deciduous	6"	Fair	X	
48	Mulberry	39"	Good	X	
49	Maple	8"	Good	X	
50	Cedar	27"		X	
51	Deciduous	18"		X	
52	Deciduous	10"		X	
53	Maple	32"		X	
54	Ash	10" (multi)	Fair		X
55	Evergreen	30"	Poor		X
56	Evergreen	27"	Good		X
57	Evergreen	30"	Fair		X
58	Evergreen	24"	Poor		X
59	Norway Spruce	40"	Good		X
60	Evergreen	30"	Poor	X	
61	Black Gum	12"	Fair	X	
62	Evergreen	15"	Fair	X	
63	Evergreen	12"		X	
64	Cherry	15" (triple)		X	
65	Pine	24"		X	
66	Pine	24"		X	
67	Deciduous	10" (multi)		X	
68	Mulberry	24", 18" (double)		X	
69	Norway Spruce	32"		X	
70	Evergreen	12"		X	
71	Evergreen	16"		X	
72	Deciduous	16" (multi)		X	
73	Deciduous	12" (multi)		X	
74	Zelkova serrata	24"		X	
75	Deciduous	18"		X	
76	Deciduous	15" (multi)		X	
77	Deciduous	10"	Dead		X
78	Horse Chestnut	46"	Good	X	
79	Evergreen	34"	Good		X
80	Evergreen	34"	Good		X
81	Evergreen	30"	Fair		X
82	Evergreen	24"	Fair		X
83	Evergreen	24"	Poor		X
84	Deciduous	8" (multi)	Poor		X
85	Swamp White Oak	60"	Good	X	
86	Horse Chestnut	38"	Good	X	
87	Deciduous	18"	Fair	X	
88	Northern Red Oak	36"	Damaged		X
89	Mulberry	10" (multi)	Fair		X
90	Northern Red Oak	18"	Fair	X	
91	Northern Red Oak	18"	Fair	X	
92	Crape Myrtle	4" (multi)		X	
93	Crape Myrtle	4" (multi)		X	
94	Crape Myrtle	4" (multi)		X	
95	Tulip Poplar	40"		X	
96	Evergreen	24"	Fair		X
97	Horse Chestnut	40"	Fair		X
98	American Sycamore	64"	Good	X	
99	Sycamore	40"	Dying		X
100	Sycamore	40"	Fair		X
101	Deciduous	16" (double)	Fair		X
102	Deciduous	16" (multi)	Fair		X
103	Deciduous	22"		X	
[illegible]	Deciduous	56"		X	
105	Deciduous	36"		X	
[illegible]	Deciduous	7"		X	
107	Deciduous	32"		X	

Notes:
1. Shaded cells indicate trees 20" cal. or greater.
2. Only trees within study area were assigned a condition.

OWNER/DEVELOPER

The Mayor and City Council
100 North Holiday Street
Baltimore, MD 21202
410-396-3835

LEGAL PROPERTY ADDRESS

Druid Hill Park
2700 Madison Avenue
Baltimore, MD 21217
Ward 13, Section 05, Block 3499, Lot 1

APPLICANT

The Maryland Zoo in Baltimore
Attn: Karl Kranz
1876 Mansion House Drive
Baltimore, MD 21217
410-396-7102

SITE CONTACT

Adam Wyatt
Capital Project Supervisor
The Maryland Zoo in Baltimore
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PARKING RENOVATION AND RECONSTRUCTION
THE MARYLAND ZOO IN BALTIMORE

SIMPLIFIED FOREST STAND DELINEATION

DRAWN BY:	DRS/KRB	REVIEW BY:	AJD
DESIGN BY:	DRS/KRB	REVIEW DATE:	12/7/20
SCALE:	1"=40'	DRAWING:	C-074
PROJECT No.:			

TREE INVENTORY CHART								
CEI #	CLR #	Tree Type/ Species	Size	Condition	Save	TBR	In Project Area	Notes
1		Pine	15"		X		No	Double
2		Deciduous	36"		X		No	
3		Norway Spruce	12"		X		No	
4		Norway Spruce	12"		X		No	
5		Norway Spruce	24"		X		No	
6		Norway Spruce	24"		X		No	
7		Norway Spruce	24"		X		No	
8		Norway Spruce	24"		X		No	
9		Norway Spruce	8"		X		No	
10		Deciduous	18"		X		No	Triple
11		Deciduous	40"	Good	X		No	
12		Deciduous	26"	Fair	X		No	
13		Deciduous	14"	Good	X		No	
14		Maple	26"	Fair	X		No	
15		Deciduous	10"		X		No	
16	27	Deciduous	10"		X		Yes	
17	29	Horse Chestnut	54"		X		Yes	
18	30	Horse Chestnut	54"	Dying		X	Yes	
19	28	Deciduous	8"		X		Yes	
20		Deciduous	14"		X		No	
21		Deciduous	18"		X		No	
22		Deciduous	14"		X		No	
23		Deciduous	22"		X		No	
24		Deciduous	17"			X	No	
25	37	White Oak	39"	Good	X		Yes	
26	39	Deciduous	10"	Dying	X		Yes	
27	36	White Oak	27"	Good		X	Yes	
28	35	White Oak	42"	Good	X		Yes	
29	40	Dogwood	4"	Good	X		Yes	Multistem
30	34	Evergreen	28"	Good	X		Yes	
31	32	Evergreen	26"	Good	X		Yes	
32	33	Evergreen	18"	Good	X		Yes	
33		Deciduous	20"		X		No	
34		Deciduous	20"		X		No	
35		Deciduous	4"		X		No	
36		Deciduous	16"		X		No	
37		Deciduous	20"		X		No	
38	112	Tulip Poplar	36"	Fair	X		No	
39	113	Tulip Poplar	40"	Good	X		No	
40		Deciduous	24"		X		No	
41		Deciduous	36"		X		No	
42		Deciduous	12"		X		No	
43		Deciduous	31"		X		No	
44		Deciduous	36"		X		No	
45	26	Ash	60"		X		Yes	
46	24	Locust	24"		X		Yes	
47	25	Deciduous	6"		X		Yes	
48	5	Mulberry	39"		X		Yes	
49	4	Maple	8"		X		Yes	
50	11	Cedar	27"		X		No	
51	2	Deciduous	18"		X		No	
52	3	Deciduous	10"		X		No	
53	9	Maple	32"		X		No	
54	58	Ash	10"			X	Yes	Multistem
55	57	Evergreen	10"			X	Yes	Multistem
56	77	Evergreen	27"			X	Yes	
57	56	Evergreen	30"			X	Yes	
58	55	Evergreen	24"			X	Yes	
59	54	Evergreen	40"			X	Yes	
60	75	Evergreen	30"		X		Yes	
61	74	Black Gum	12"		X		Yes	
62	53	Evergreen	15"		X		Yes	
63	52	Evergreen	12"		X		No	
64	73	Cherry	15"		X		No	Triple
65	71	Pine	24"		X		No	
66	70	Pine	24"		X		No	
67	51	Deciduous	10"		X		No	Multistem
68	50	Mulberry	24", 18"		X		No	Double
69	99	Evergreen	32"		X		No	
70	72	Evergreen	12"		X		No	
71	69	Evergreen	16"		X		No	
72	91	Deciduous	16"		X		No	Multistem
73	48	Deciduous	12"		X		No	Multistem
74	47	Zelkova serrata	24"		X		No	
75	66	Deciduous	18"		X		No	
76	68	Deciduous	15"		X		No	Multistem
77	107	Deciduous	10"	Dead	X		Yes	
78	88	Horse Chestnut	46"		X		Yes	
79	90	Evergreen	34"			X	Yes	
80	89	Evergreen	34"			X	Yes	
81	100	Evergreen	30"			X	Yes	
82	101	Evergreen	24"			X	Yes	
83	99	Evergreen	24"			X	Yes	
84	87	Deciduous	8"			X	Yes	Multistem
85	86	White Oak	60"		X		Yes	
86	85	Horse Chestnut	35"		X		Yes	
87	84	Deciduous	18"		X		Yes	
88	94	Northern Red Oak	36"	Damaged		X	Yes	Split by lightning
89	93	Mulberry	10"			X	Yes	Multistem
90	108	Northern Red Oak	18"		X		Yes	
91	109	Northern Red Oak	18"		X		Yes	
92	115	Crape Myrtle	4"		X		No	Multistem
93	111	Crape Myrtle	4"		X		No	Multistem
94	114	Crape Myrtle	4"		X		No	Multistem
95	110	Tulip Poplar	40"		X		No	
96	106	Evergreen	24"			X	Yes	
97	105	Horse Chestnut	40"			X	Yes	
98	104	Sycamore	64"		X		Yes	
99	103	Sycamore	40"			X	Yes	
100	102	Sycamore	40"			X	Yes	
101	97	Deciduous	16"			X	Yes	Double
102	98	Deciduous	16"			X	Yes	Multistem
103		Deciduous	22"		X		No	
104		Deciduous	56"		X		No	
105		Deciduous	36"		X		No	
106		Deciduous	8"		X		No	
107		Deciduous	12"		X		No	

NOT FOR CONSTRUCTION

CENTURY ENGINEERING
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PARKING RENOVATION AND RECONSTRUCTION

THE MARYLAND ZOO IN BALTIMORE

SUPPLEMENT TO TREE EVALUATION PLAN

DRAWN BY:	DRS/KRB	REVIEW BY:	AJD
DESIGN BY:	DRS/KRB	REVIEW DATE:	10/23/20
SCALE:	1" = 30'	DRAWING:	C-075
PROJECT No.:			

T:\2020\Facilities\20106400 MD Zoo Parking\CIVIL\CADD\Drawings\Exhibits\Supplement Tree Evaluation Exhibit.dwg Oct 23, 2020 9:48am kmartin

LIGHTING CONTROL SEQUENCE OF OPERATIONS

POLE LIGHTS SL1, SL2, SL3, SL4, SL6

- LIGHTS SHALL COME ON ONCE DARKNESS THRESHOLD IS OBTAINED VIA THE TWIST-LOCK PHOTOCELL.
- LIGHTS SHALL DIM TO 50% OUTPUT DURING PERIODS OF INACTIVITY AS SENSED VIA THE ONBOARD MOTION SENSOR.
- LIGHTS SHALL TURN FULL OFF ONCE DAYLIGHT THRESHOLD IS OBTAINED VIA THE TWIST-LOCK PHOTOCELL.

POLE LIGHTS SL5

- LIGHTS SHALL COME ON ONCE DARKNESS THRESHOLD IS OBTAINED VIA THE INTEGRAL PHOTOCELL.
- LIGHTS SHALL TURN FULL OFF ONCE DAYLIGHT THRESHOLD IS OBTAINED VIA THE INTEGRAL PHOTOCELL.

LIGHTING SYMBOLS

$	SINGLE POLE TOGGLE SWITCH
$WP	WEATHERPROOF LIGHTING CONTROL SWITCH, TYPE AS NOTED
C	LIGHTING CONTACTOR, AS NOTED OR SCHEDULED
TC	TIME CLOCK
	POLE ARM MOUNTED SITE LIGHTING SINGLE FIXTURE
	POLE ARM MOUNTED SITE LIGHTING DOUBLE FIXTURE
	POST TOP MOUNTED SITE LIGHTING FIXTURE
PC	PHOTOCELL, WALL MOUNTED

POWER SYMBOLS

WP	WEATHER RESISTANT GFCI DUPLEX RECEPTACLE AS ABOVE, WITH WEATHERPROOF COVER
MH	IN-GRADE MANHOLE, TYPE AS NOTED
HH	IN-GRADE HANDHOLE, TYPE AS NOTED
— E —	UNDERGROUND FEEDERS

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
ADA	AMERICAN DISABILITY ACT
AWG	AMERICAN WIRE GAUGE
A	AMPERE(S)
AIC	AMPERE INTERRUPTING CAPACITY
AFCI	ARC FAULT CIRCUIT INTERRUPTER
ATS	AUTOMATIC TRANSFER SWITCH
BATT	BATTERY
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BPS	BOLTED PRESSURE SWITCH
BLDG	BUILDING
CATV	CABLE TELEVISION
C	CONDUIT
CLG	CEILING
CKT	CIRCUIT
C/B	CIRCUIT BREAKER
CONT	CONTINUATION
CU	COPPER
CT	CURRENT TRANSFORMER
Δ	DELTA CONNECTED
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
DC	DIRECT CURRENT
DISC	DISCONNECT
DAS	DISTRIBUTED ANTENNA SYSTEM
2P	DOUBLE POLE
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DT	DOUBLE THROW
DWG	DRAWING
DE/TD	DUAL ELEMENT / TIME DELAY
EMT	ELECTRICAL METALLIC TUBING
E	EMERGENCY
EC	EMPTY CONDUIT
ECB	ENCLOSED CIRCUIT BREAKER
EMS	ENERGY MANAGEMENT SYSTEM
EV	ELECTRIC VEHICLE
EF	EXHAUST FAN
EX	EXISTING
ER	EXISTING RELOCATED
ETR	EXISTING TO REMAIN
FT	FEET
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAEP	FIRE ALARM EXTENDER PANEL
4P	FOUR POLE
FLA	FULL LOAD AMPERES
F	FUSED OR FUSIBLE
FSS	FUSED SAFETY SWITCH
FS	FUSED SWITCH
G/GRD	GROUND
GB	GROUND BAR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HOA	HAND-OFF-AUTOMATIC
HZ	HERTZ
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HP	HORSEPOWER
IG	ISOLATED GROUND
IT	INFORMATION TECHNOLOGY
ITGB	INFORMATION TECHNOLOGY GROUND BAR
J/JB	JUNCTION BOX
KV	KILOVOLTS
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
LTG	LIGHTING
LED	LIGHT EMITTING DIODE
LRA	LOCKED ROTOR AMPS
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MGB	MAIN GROUND BAR
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
MISC	MISCELLANEOUS
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
MH	MOUNTING HEIGHT
NEC	NATIONAL ELECTRICAL CODE
NL	NIGHT LIGHT (UNSWITCHED)
NFSS	NON-FUSED SAFETY SWITCH
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OE	OVERHEAD ELECTRIC
OT	OVERHEAD TELECOMMUNICATIONS
PNL	PANELBOARD
Ø / PH	PHASE
P	POLE
PVC	POLYVINYL CHLORIDE
PT	POTENTIAL TRANSFORMER
PWR	POWER
PF	POWER FACTOR
PRI	PRIMARY
REC	RECEPTACLE
RL	REMOVE AND RETAIN FOR RELOCATION
RM	ROOM
RMS	ROOT MEAN SQUARE
RX	REMOVE EXISTING
SS	SAFETY DISCONNECT SWITCH
SEC	SECONDARY
SD	SERVICE DISCONNECT
Isc	SHORT CIRCUIT CURRENT (RMS SYMMETRICAL AMPERES)
SCCR	SHORT CIRCUIT CURRENT RATING
1P	SINGLE POLE
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW
S/N	SOLID NEUTRAL
SPD	SURGE PROTECTION DEVICE
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
TGB	TELECOMMUNICATIONS GROUND BAR
TMGB	TELECOMMUNICATIONS MAIN GROUND BAR
TELE	TELEPHONE
TTB	TELEPHONE TERMINAL BOARD
TMS	THERMAL MANUAL SWITCH
KCM	THOUSAND CIRCULAR MILS
3P	THREE POLE
XFMR	TRANSFORMER
TYP	TYPICAL
UE	UNDERGROUND ELECTRIC
UT	UNDERGROUND TELECOMMUNICATIONS
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT-AMPERE
WH	WATER HEATER
W	WATTS, WIRE
WP	WEATHERPROOF
W/	WITH
WCR	WITHSTAND AND CLOSE-ON RATING
Y	WYE CONNECTED

GENERAL NOTES - DIVISION 26

1. PROVIDE LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM AS SPECIFIED HEREIN AND SHOWN ON THE CONTRACT DRAWINGS. OUTLINE DESCRIPTION AND DIAGRAMMATIC REPRESENTATION OF SYSTEM OPERATION AND EQUIPMENT DOES NOT LIMIT CONTRACTOR LIABILITY FOR FURNISHING AND INSTALLING COMPLETE AND OPERABLE SYSTEMS.
2. "DRAWING NOTES" APPLY TO WORK ON THAT INDIVIDUAL DRAWING, "SPECIFIC NOTES" APPLY ONLY WHERE INDICATED WITH THE "SPECIFIC NOTE" SYMBOL.
3. WIRE AND CONDUIT SIZES ARE BASED ON COPPER CONDUCTORS UNLESS SPECIFICALLY NOTED OTHERWISE.
4. VOLTAGE DROP CALCULATIONS ARE BASED ON CIRCUIT LOADING AND DISTANCES GENERALLY AS CIRCUITED ON PLAN. IF ALTERNATE CONDUIT ROUTING, CIRCUIT LOADING, OR CONDUCTOR MATERIAL IS PROVIDED, VERIFY VOLTAGE DROP, AND SUBMIT VOLTAGE DROP CALCULATIONS PER SPECIFICATION.
5. UNLESS OTHERWISE NOTED, CIRCUITS HAVE NOT BEEN DERATED FOR CONDUCTOR BUNDLING, NOR HAVE CONDUITS BEEN SIZED FOR MULTIPLE CIRCUITS. IF MULTIPLE CIRCUITS ARE INSTALLED IN A SINGLE RACEWAY, DERATE CONDUCTOR AMPACITY PER NEC, AND PROVIDE APPROPRIATE SIZE CONDUIT. WHERE CONDUIT SIZE INCREASES, COORDINATE WITH ADJACENT UTILITIES AND BUILDING FEATURES.
6. INCLUDE IN THE BID PRICE THE PAYMENT OF NECESSARY PERMITS. FURNISH THE OWNER PRIOR TO THE FINAL PAYMENT A CERTIFICATE FROM THE ELECTRICAL INSPECTION DEPARTMENT HAVING JURISDICTION CERTIFYING THAT THE ELECTRICAL WORK MEETS THE REQUIREMENTS OF THE LOCAL INSPECTION AUTHORITIES AND/OR THE NATIONAL BOARD OF FIRE UNDERWRITERS.
7. COORDINATE WITH OWNER'S REPRESENTATIVE FOR SCHEDULING OF WORK.
8. WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
9. KEEP THE WORK SITE AND SURROUNDING AREA FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH GENERATED BY WORK FROM THIS CONTRACT. PROPERLY AND LEGALLY DISPOSE OF MATERIALS.
10. JOB SITE SAFETY SHALL BE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
11. DRAWINGS SHALL NOT BE SCALED. REFER TO THE CIVIL DRAWINGS FOR EXACT LIGHT FIXTURE LOCATIONS. LOCATIONS OF ELECTRICAL EQUIPMENT AND CONDUIT ARE SHOWN DIAGRAMMATICALLY. DETERMINE EXACT LOCATIONS IN FIELD.
12. THE ENTIRE ELECTRICAL INSTALLATION, MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION, UNLESS A LONGER WARRANTY PERIOD IS REQUIRED ELSEWHERE IN CONTRACT DOCUMENTS.
13. COORDINATE WORK WITH OTHER TRADES. CIVIL DRAWINGS AND SPECIFICATIONS SHALL BE CONSULTED AND COORDINATED WITH PRIOR TO ROUGH-IN.
14. WHEREVER POSSIBLE, OBTAIN ACTUAL ROUGH-IN DRAWINGS FOR EQUIPMENT TO BE INSTALLED. FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT, WHETHER FURNISHED UNDER THIS DIVISION, ANOTHER DIVISION, OR BY OTHERS, SHALL BE MADE UNDER THIS DIVISION. FINAL CONNECTIONS TO EQUIPMENT SHALL CONSIST OF SAME SIZE PHASE CONDUCTORS, NEUTRAL CONDUCTORS (AS APPLICABLE), GROUND CONDUCTORS, CONTROL CONDUCTORS (AS APPLICABLE), AND CONDUIT SIZES AS INDICATED ELSEWHERE.
15. PROVIDE TYPED CIRCUIT DIRECTORIES FOR NEW AND EXISTING PANELBOARDS TO INDICATE TYPE OF LOAD SERVED AND AREA SERVED (E.G. RECEPTACLES-OFFICE 201).
16. PROVIDE SEPARATE UNSHARED NEUTRAL CONDUCTOR(S) FOR EACH CIRCUIT UTILIZING A NEUTRAL, UNLESS SPECIFICALLY INDICATED OTHERWISE, MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED.
17. MAINTAIN PROPER MECHANICAL WORKING CLEARANCES FOR SERVICING OF EQUIPMENT.
18. IF APPLICABLE, FURNISH PANELBOARD WITH NUMBER OF POLES INDICATED. EACH SPACE SHALL BE A FULLY PREPARED SPACE (I.E. COMPLETE WITH PROVISIONS AND HARDWARE REQUIRED TO MOUNT A FUTURE CIRCUIT BREAKER, INCLUDING BUS CONNECTIONS, CIRCUIT BREAKER MOUNTING BRACKET, CIRCUIT BREAKER COVER AND COVER KNOCKOUTS, ETC.).
19. VERIFY ELECTRICAL SYSTEM PHASING AND ROTATION WITH UTILITY COMPANY.
20. IF APPLICABLE, PROVIDE TRENCHING AND BACKFILL FOR BURIED ELECTRICAL SERVICES, UNLESS NOTED OTHERWISE. COORDINATE UNDERGROUND CIRCUIT INSTALLATION WITH OTHER EXISTING AND PROPOSED UNDERGROUND UTILITIES. ENGAGE THE SERVICES OF A UTILITY LOCATING FIRM PRIOR TO EXCAVATION.
21. ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE UL LISTED AND SHALL CONFORM TO FACTORY MUTUAL STANDARDS AS APPLICABLE.

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLTS	PHASE	LAMP TYPE	WATTS	LUMENS	COLOR TEMP (K.)	CRI	MOUNTING	MANUFACTURER	MODEL SERIES
SL1	SINGLE HEAD AREA LIGHT, 1050mA - 48 LED ENGINE, R3 DISTRIBUTION, BLACK FINISH, PROVIDE ROUND STEEL POLE SUCH THAT FIXTURE IS 25' AFG (ACCOUNTING FOR FOUNDATION HEIGHT), PROVIDE MOUNTING HARDWARE AS REQUIRED, MATCH FIXTURE FINISH TO POLE. PROVIDE TWIST-LOCK RECEPTACLE W/ PHOTOCELL. PROVIDE BI-LEVEL FUNCTIONALITY. PROVIDE INTEGRAL #7 MOTION SENSING LENS.	UNV	1	LED	159 W	19,958LM	4000K	80	POLE MOUNT 25' AFG	GARDCO (SIGNIFY)	ECO FORM SMALL
SL2	DUAL HEAD AREA LIGHT, 1050mA - 48 LED ENGINE, TYPE 5 DISTRIBUTION, BLACK FINISH, PROVIDE ROUND STEEL POLE SUCH THAT FIXTURE IS 25' AFG (ACCOUNTING FOR FOUNDATION HEIGHT), PROVIDE MOUNTING HARDWARE AS REQUIRED, MATCH FIXTURE FINISH TO POLE. PROVIDE TWIST-LOCK RECEPTACLE W/ PHOTOCELL. PROVIDE BI-LEVEL FUNCTIONALITY. PROVIDE INTEGRAL #7 MOTION SENSING LENS.	UNV	1	LED	318W	39,916 LM	4000K	80	POLE MOUNT 25' AFG	GARDCO (SIGNIFY)	ECO FORM SMALL
SL3	SINGLE HEAD AREA LIGHT, 1050mA - 64 LED ENGINE, TYPE 5 DISTRIBUTION, BLACK FINISH, PROVIDE ROUND STEEL POLE SUCH THAT FIXTURE IS 25' AFG (ACCOUNTING FOR FOUNDATION HEIGHT), PROVIDE MOUNTING HARDWARE AS REQUIRED, MATCH FIXTURE FINISH TO POLE. PROVIDE TWIST-LOCK RECEPTACLE W/ PHOTOCELL. PROVIDE BI-LEVEL FUNCTIONALITY. PROVIDE INTEGRAL #7 MOTION SENSING LENS.	UNV	1	LED	206W	27,526LM	4000K	80	POLE MOUNT 25' AFG	GARDCO (SIGNIFY)	ECO FORM SMALL
SL4	SINGLE HEAD AREA LIGHT, 1050mA - 64 LED ENGINE, TYPE 4 DISTRIBUTION, BLACK FINISH, PROVIDE ROUND STEEL POLE SUCH THAT FIXTURE IS 25' AFG (ACCOUNTING FOR FOUNDATION HEIGHT), PROVIDE MOUNTING HARDWARE AS REQUIRED, MATCH FIXTURE FINISH TO POLE. PROVIDE TWIST-LOCK RECEPTACLE W/ PHOTOCELL. PROVIDE BI-LEVEL FUNCTIONALITY. PROVIDE INTEGRAL #7 MOTION SENSING LENS.	UNV	1	LED	206W	27,495LM	4000K	80	POLE MOUNT 25' AFG	GARDCO (SIGNIFY)	ECO FORM SMALL
SL5	DECORATIVE POST TOP VICTORIAN LIGHT, S5776, CLEAR PRISMATIC ACRYLIC ACORN GLOBE, INTEGRAL TWISTLOCK PHOTOCELL, FIELD ADJUSTABLE WATTAGE DRIVER, TYPE 5 LUMILOCK W/ SHORT OPTICS, PROVIDE 10'-0" HADCO POLE SP4564D-106A, 4" ROUND STRAIGHT FLAT FLUTED ALUMINUM W/ 3" O.D. TENON	UNV	1	LED	104W	12,174LM	4000K	80	POLE MOUNT 10'6" AFG	HADCO	VICTORIAN
SL6	SINGLE HEAD AREA LIGHT, 1050mA - 48 LED ENGINE, TYPE 5 DISTRIBUTION, BLACK FINISH, PROVIDE ROUND STEEL POLE SUCH THAT FIXTURE IS 25' AFG (ACCOUNTING FOR FOUNDATION HEIGHT), PROVIDE MOUNTING HARDWARE AS REQUIRED, MATCH FIXTURE FINISH TO POLE. PROVIDE TWIST-LOCK RECEPTACLE W/ PHOTOCELL. PROVIDE BI-LEVEL FUNCTIONALITY. PROVIDE INTEGRAL #7 MOTION SENSING LENS.	UNV	1	LED	159W	19,958 LM	4000K	80	POLE MOUNT 25' AFG	GARDCO (SIGNIFY)	ECO FORM SMALL

PANEL A

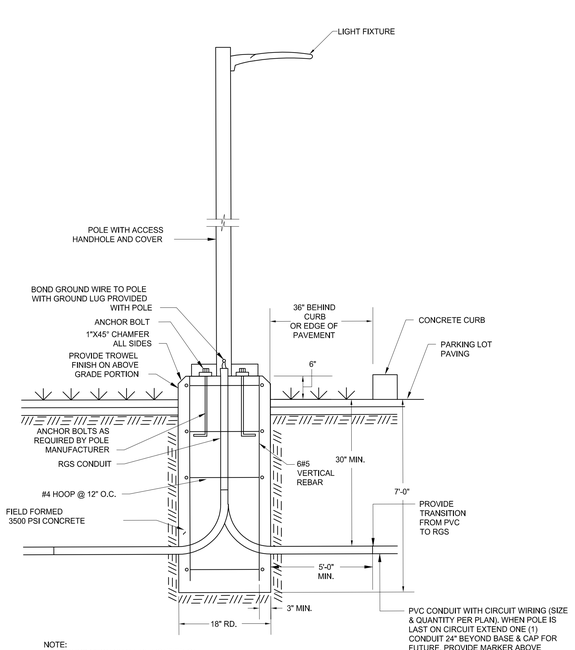
V: 120/240 | Bus: 400A | NEMA Enclosure Type: NEMA 3R
Ph: 1 | Main: 400A MCB | Thru-feed/Sub-feed Lugs: NO
W: 3 | Mtg: SURFACE | 200% Neutral: NO
AIC: 42kA (NOTE 2) | Poles: 42 | Isolated Ground Bus: NO

Conn.	KVA	Amps
Sum/Avg	51.1	142
A	25.4	212
B	25.7	214
C		

DEM. KVA: 53.8
DEM. AMPS: 224
SPARE%: 10
MCA: 246.4

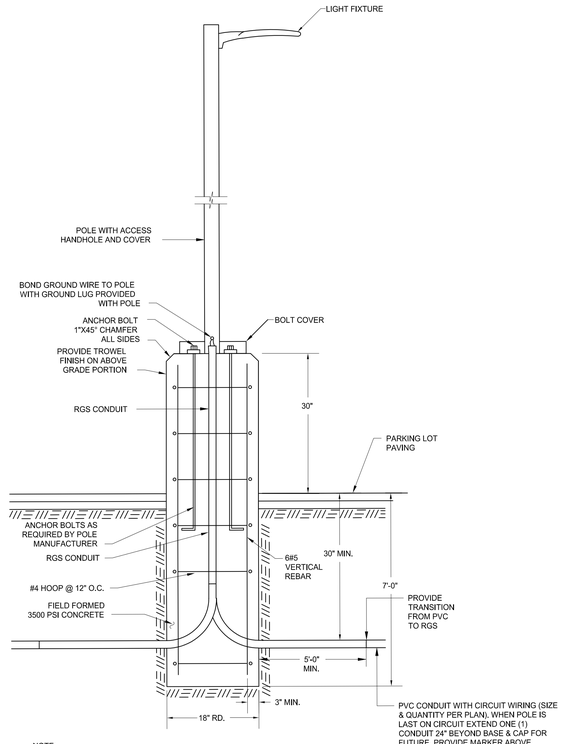
CKT	FOR	Notes	CIRCUITING PH	N	G	C.	CB P	A	LOAD KVA	CKT	FOR	Notes	CIRCUITING PH	N	G	C.	CB P	A	LOAD KVA	%%D
1	GUARD BOOTH	(1)	2#3	1#3	1#8	2"	2	70	4.8	2	GUARD BOOTH	(1)	2#2	1#2	1#6	2"	2	70	4.8	a
3	--		--	--	--	--			4.8	4	--		--	--	--	--			4.8	b
5	GUARD BOOTH	(1)	2#3	1#3	1#8	2"	2	70	4.8	6	GUARD BOOTH	(1)	2#1	1#1	1#4	2"	2	70	4.8	a
7	--		--	--	--	--			4.8	8	--		--	--	--	--			4.8	b
9	SMART SWIM		1#10	1#10	1#10	1"	1	20	0.2	10	BIKE CHARGE REC.		1#10	1#10	1#10	1"	1	20	0.5	a
11	MAIN SIGN	(1)	1#10	1#10	1#10	1"	1	20	0.5	12	BIKE CHARGE REC.		1#10	1#10	1#10	1"	1	20	0.5	b
13	SITE LIGHTING - 1		2#8	--	1#8	1"	2	20	1.4	14	SITE LIGHTING - 2		2#10	--	1#10	1"	2	20	1.4	a
15	--		--	--	--	--			1.4	16	--		--	--	--	--			1.4	b
17	SITE LIGHTING - 3		2#8	--	1#8	1"	2	20	1.0	18	SITE LIGHTING - 4		2#4	--	1#4	1"	2	20	1.8	a
19	--		--	--	--	--			1.0	20	--		--	--	--	--			1.8	b
21	SPARE		--	--	--	--	1	20		22	SPARE		--	--	--	--	1	20		a
23	SPARE		--	--	--	--	1	20		24	SPARE		--	--	--	--	1	20		b
25	SPARE		--	--	--	--	1	20		26	SPARE		--	--	--	--	1	20		a
27	SPARE		--	--	--	--	1	20		28	SPARE		--	--	--	--	1	20		b
29	SPARE		--	--	--	--	1	20		30	SPARE		--	--	--	--	1	20		a
31	SPARE		--	--	--	--	1	20		32	SPARE		--	--	--	--	1	20		b
33	SPARE		--	--	--	--	1	20		34	SPARE		--	--	--	--	1	20		a
35	SPARE		--	--	--	--	1	20		36	SPARE		--	--	--	--	1	20		b
37	SPARE		--	--	--	--	1	20		38	SPARE		--	--	--	--	1	20		a
39	SPARE		--	--	--	--	1	20		40	SPARE		--	--	--	--	1	20		b
41	SPARE		--	--	--	--	1	20		42	SPARE		--	--	--	--	1	20		a

NOTES: (1) CIRCUIT SIZE SHOWN IS FOR BID PURPOSES ONLY. COORDINATE FINAL BRANCH CIRCUIT REQUIREMENTS WITH EQUIPMENT BEING INSTALLED.
(2) CONFIRM FINAL EQUIPMENT AIC RATING WITH UTILITY SECONDARY FAULT CURRENT PRIOR TO PURCHASE.



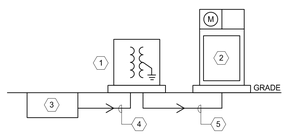
NOTE:
1. FOUNDATION SHALL BE POURED ON UNDISTURBED SOIL. CONCRETE SHALL NOT BE POURED BELOW 40°F ON A FALLING TEMPERATURE
2. COORDINATE ALL LIGHT POLE BASES WITH FIXTURES AND POLES BEING INSTALLED. ENSURE PROPER MOUNTING BOLTS ARE PROVIDED FOR EACH TYPE OF POLE

1 LIGHT POLE FOUNDATION DETAIL - SL5
NO SCALE



NOTE:
1. FOUNDATION SHALL BE POURED ON UNDISTURBED SOIL. CONCRETE SHALL NOT BE POURED BELOW 40°F ON A FALLING TEMPERATURE
2. COORDINATE ALL LIGHT POLE BASES WITH FIXTURES AND POLES BEING INSTALLED. ENSURE PROPER MOUNTING BOLTS ARE PROVIDED FOR EACH TYPE OF POLE

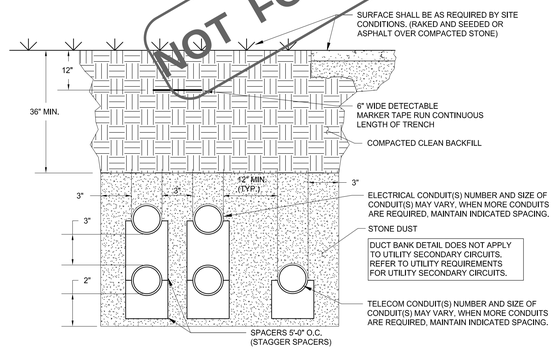
2 LIGHT POLE FOUNDATION DETAIL - SL1, SL2, SL3, SL4
NO SCALE



RISER NOTES

1. 240/120V SINGLE PHASE UTILITY TRANSFORMER. PROVIDE TRANSFORMER PAD AND GROUNDING PER UTILITY REQUIREMENTS.
2. PROVIDE COMBINATION METER-MAIN/PANELBOARD PEDESTAL. MILBANK OR EQUAL. 240/120V, 1PH, 400A, 42 BRANCH CIRCUIT. SEE PANEL SCHEDULE FOR BRANCH CIRCUIT REQUIREMENTS. PROVIDE METER TYPE, PEDESTAL PAD, AND GROUNDING PER UTILITY REQUIREMENTS.
3. EXISTING BGE ELECTRIC HANDHOLE FOR 13.2KV PRIMARY.
4. PROVIDE PRIMARY DUCTBANK FROM EXISTING UNDERGROUND ELECTRIC HANDHOLE TO NEW TRANSFORMER FOR UTILITY PRIMARY CONNECTION, PER UTILITY STANDARDS.
5. PROVIDE (2) 4" CONDUITS WITH PULL STRINGS IN SECONDARY DUCTBANK FROM UTILITY TRANSFORMER TO SERVICE PEDESTAL.

4 ELECTRICAL RISER DIAGRAM
NO SCALE



3 UNDERGROUND DUCT BANK DETAIL
NO SCALE

NOT FOR CONSTRUCTION

DATE	BY	REVISIONS

CENTURY ENGINEERING
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

ELECTRICAL COVERSHEET

THE MARYLAND ZOO IN BALTIMORE

NOT FOR CONSTRUCTION

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 45534
EXPIRATION DATE: 06/03/2022

DRAWN BY: DRW
DESIGN BY: DRW / MCS
REVIEW BY: MCS
REVIEW DATE: 09/15/2021
SCALE: 1"=30'
PROJECT No.: 201069.00
DRAWING: E-001

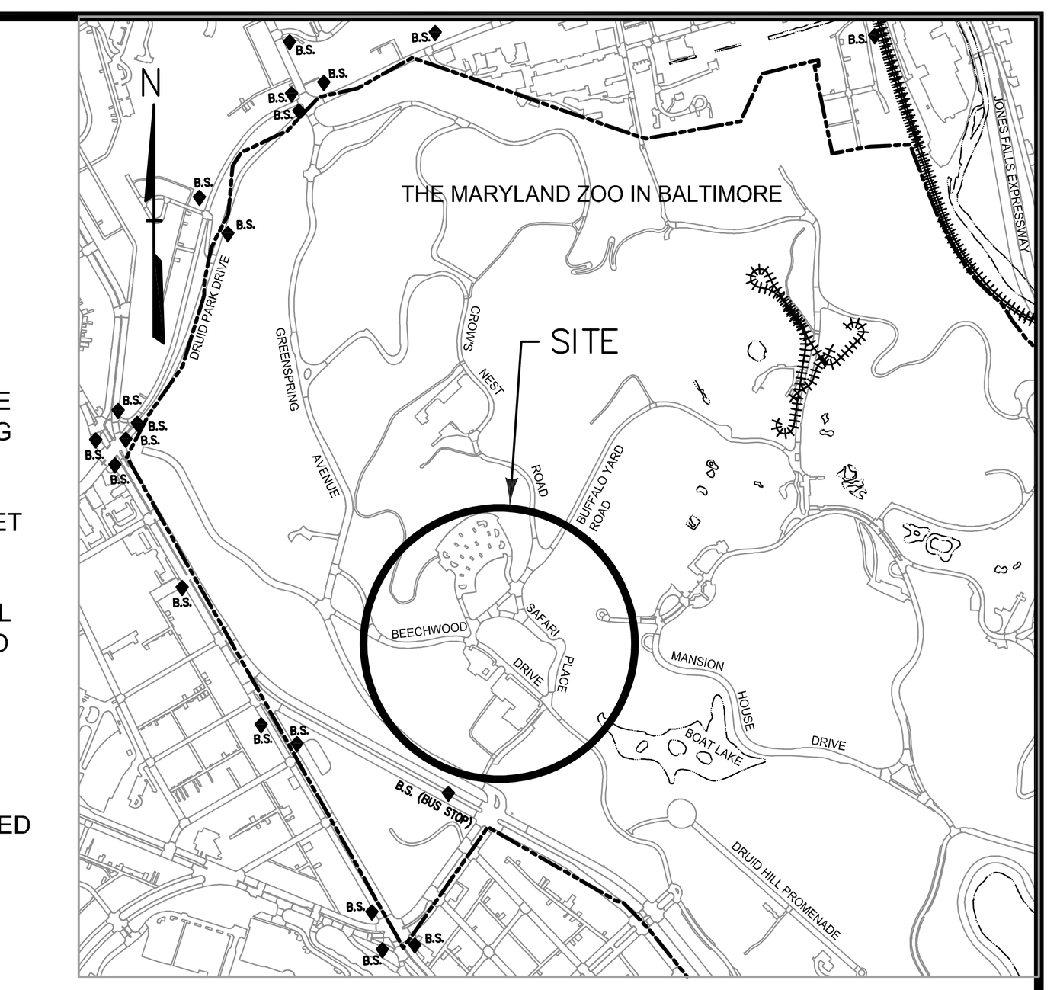
MATCHLINE – SEE SHEET E-101

PLAN

SCALE: 1"=30'

SPECIFIC NOTES

1. 240/120V SINGLE PHASE UTILITY TRANSFORMER. REFER TO RISER DIAGRAM FOR REQUIREMENTS AND MORE INFORMATION.
2. COMBINATION METER-MAIN/PANELBOARD PEDESTAL, MILBANK OR EQUAL. SEE RISER DIAGRAM FOR REQUIREMENTS. SEE PANEL SCHEDULE FOR BRANCH CIRCUIT REQUIREMENTS.
3. PROVIDE SURFACE MOUNTED, DUPLEX RECEPTACLE IN WEATHERPROOF WHILE-IN-USE COVER FOR BICYCLE CHARGING CANOPY. COORDINATE FINAL RECEPTACLE MOUNTING LOCATION WITH CANOPY INSTALLER PRIOR TO INSTALLATION.
4. PROVIDE 120V POWER TO SMART-SWM CONTROL CABINET. COORDINATE FINAL CABINET LOCATION WITH CABINET INSTALLER PRIOR TO INSTALLATION.
5. PROVIDE POWER AND DISCONNECT SWITCH TO ILLUMINATED SIGN. COORDINATE FINAL CONNECTION LOCATION AND CIRCUIT REQUIREMENTS WITH SIGN INSTALLER PRIOR TO INSTALLATION. FOR BID PURPOSES PROVIDE BRANCH CIRCUIT AS SPECIFIED IN PANEL SCHEDULE, AND 30A-2P NFSS IN NEMA 3R ENCLOSURE.
6. PROVIDE POWER TO LOAD CENTER WITHIN GUARD SHACK. COORDINATE FINAL CONNECTION LOCATION AND CIRCUIT REQUIREMENTS WITH ACTUAL EQUIPMENT PROVIDED PRIOR TO INSTALLATION. FOR BID PURPOSES PROVIDE CIRCUIT AS SPECIFIED IN PANEL SCHEDULE.
7. PROVIDE PRIMARY DUCTBANK, SEE RISER DIAGRAM FOR MORE INFORMATION.
8. PROVIDE SECONDARY DUCTBANK, SEE RISER DIAGRAM FOR MORE INFORMATION.
9. PROVIDE 2#10, 1#10 G - 1"C FOR REMAINING DOWNSTREAM BRANCH CIRCUITING. ON THIS CIRCUIT.
10. PROVIDE 2#8, 1#8 G - 1"C.



VICINITY MAP

SCALE: 1"=1000'

NOT FOR CONSTRUCTION

GRAPHIC SCALE

N 0 15 30 FEET 60

SCALE: 1" = 30'-0"

DATE	BY	REVISIONS

CENTURY ENGINEERING

10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

ELECTRICAL PLAN 1

THE MARYLAND ZOO IN BALTIMORE

NOT FOR CONSTRUCTION

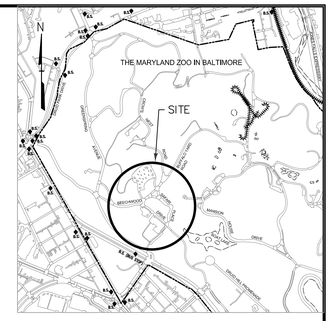
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 45534
EXPIRATION DATE: 06/03/2022

DRAWN BY:	DRW	REVIEW BY:	MCS
DESIGN BY:	DRW / MCS	REVIEW DATE:	09/15/2021
SCALE:	1"=30'	DRAWING:	E-100
PROJECT No.:	201069.00		

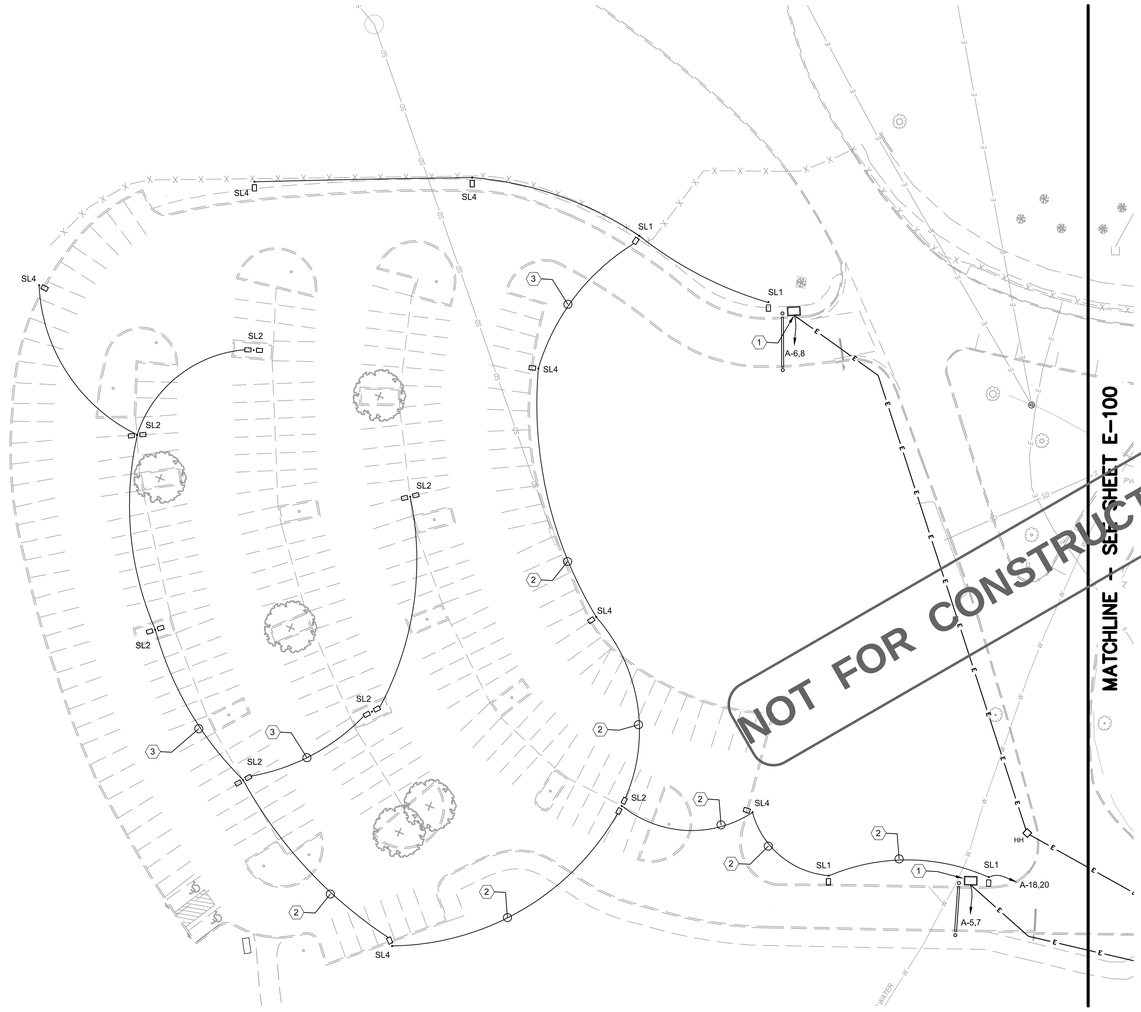
SPECIFIC NOTES

1. PROVIDE POWER TO LOAD CENTER WITHIN GUARD SHACK. COORDINATE FINAL CONNECTION LOCATION AND CIRCUIT REQUIREMENTS WITH ACTUAL EQUIPMENT PROVIDED PRIOR TO INSTALLATION. FOR BID PURPOSES PROVIDE CIRCUIT AS SPECIFIED IN PANEL SCHEDULE.
2. PROVIDE 2#4, 1#4 G - 1"C.
3. PROVIDE 2#10, 1#10 G - 1"C FOR REMAINING DOWNSTREAM BRANCH CIRCUITING. ON THIS CIRCUIT.



VICINITY MAP

SCALE: 1"=1000'



PLAN

SCALE: 1"=30'

GRAPHIC SCALE

N 0 15 30 FEET 60

SCALE: 1" = 30'-0"

DATE	BY	REVISIONS

CENTURY ENGINEERING

10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

ELECTRICAL PLAN 2

THE MARYLAND ZOO IN BALTIMORE

NOT FOR CONSTRUCTION

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 45534
EXPIRATION DATE: 06/03/2022

DRAWN BY: DRW	REVIEW BY: MCS
DESIGN BY: DRW / MCS	REVIEW DATE: 09/15/2021
SCALE: 1"=30'	DRAWING: E-101
PROJECT No.: 201069.00	