

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: 1" = 50'  
DESIGN: QN  
DRAWN: QN  
CHECKED: JM

SHEET TITLE:

## OVERALL CONTEXTUAL PLAN

SHEET No.

# C100



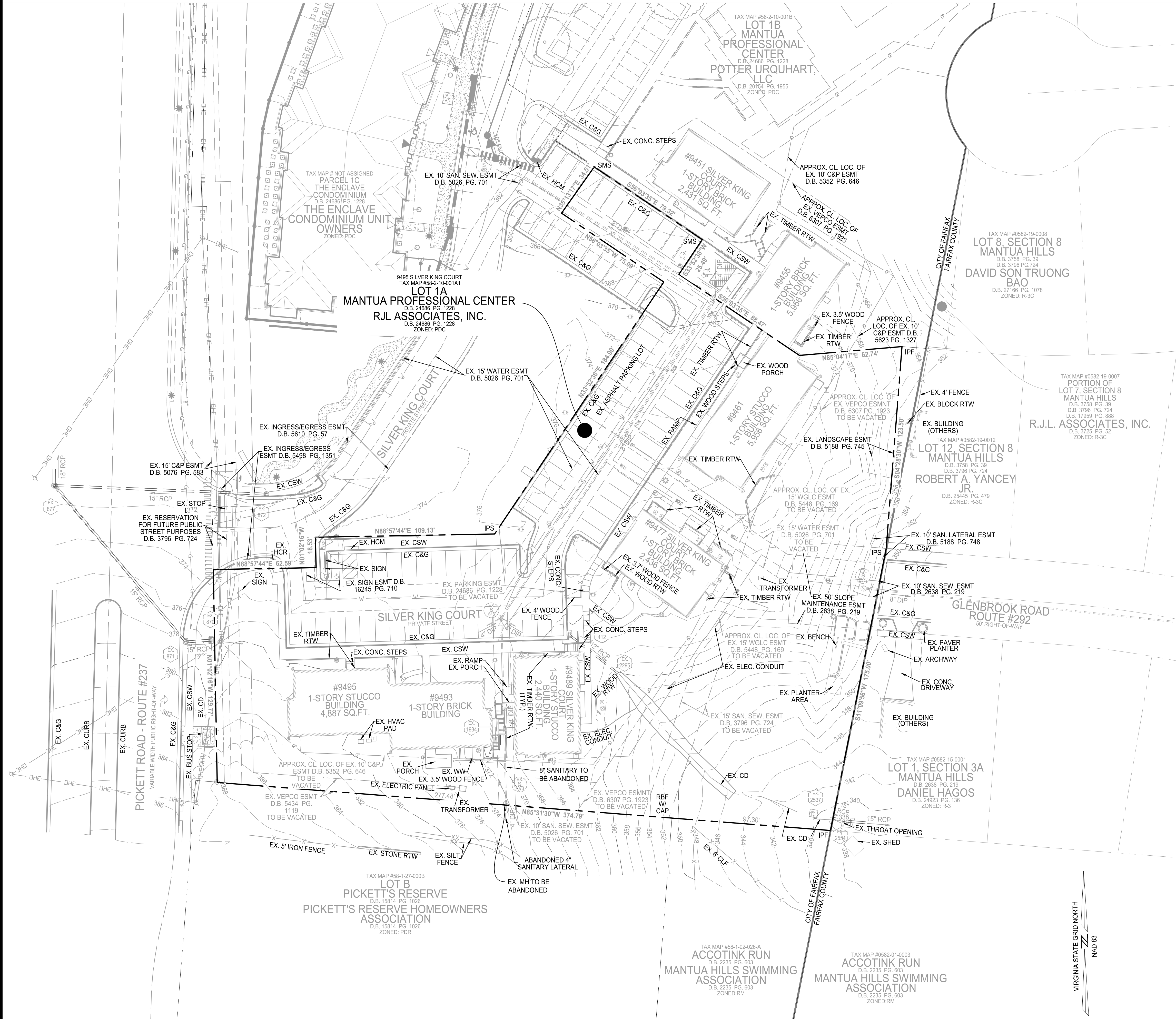
P:\Projects\23005060.00\112931\_GDPA\CD00 EXISTING CONDITIONS PLAN.dwg, 3/28/2024 10:40:43 AM, Jana Morgan.

D

C

B

A



### LEGEND

Utilities - Storm	STORM MANHOLE STORM CULVERT	Abbreviations	EX. CONC. C&G EP IPF IPS RBF PPF CMF NS	EXISTING CONCRETE CURB AND GUTTER EDGE OF PAVEMENT IRON PIPE FOUND IRON PIPE SET REBAR FOUND PINCH PIPE FOUND CONCRETE MONUMENT FOUND NOT SET
Utilities - Sanitary	SANITARY MANHOLE			
Utilities - Water	WATER VALVE WATER METER FIRE HYDRANT WATER MANHOLE			
Utilities - Electric	LIGHT POLE UTILITY POLE LAMP POST GUY WIRE	Linetypes		INDEX CONTOUR (5') INT. CONTOUR (1') FENCE OVERHEAD UTILITY WIRE VEGETATION LINE CABLE TV LINE ELECTRIC LINE FIBER OPTIC LINE TELECOMMUNICATIONS LINE WATER LINE
Utilities - Communication	TELEPHONE PEDESTAL/POST			
Misc. Structures	+150.0 SPOT SHOT SIGN TREE BUSH FLAG POLE UNIDENTIFIED			

### NOTE

NUMBER OF EXISTING PARKING SPACES TO BE REMOVED: 64

### EXISTING COVERAGE

EXISTING BUILDING COVERAGE (SF):	13,736
EXISTING IMPERVIOUS AREA (SF):	22,549
EXISTING OPEN SPACE (SF):	56,069

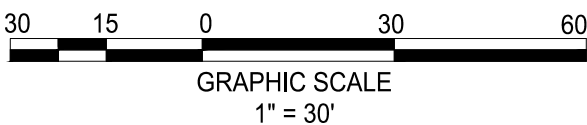
### SANITARY STRUCTURE DATA

EX. S 2532	RIM EL. = 353.01 INV OUT (8" DIP TO 2536) = 339.81	EX. S 645	RIM EL. = 372.33 INV IN (8" DIP FROM 2073) = 362.40 INV IN (4" DIP FROM SOUTHEAST) = 362.38 INV OUT (4" DIP FROM SOUTHWEST) = 362.18 INV OUT (8" DIP TO 413) = 362.18
EX. S 2536	RIM EL. = 327.57 INV IN (8" DIP FROM 2532) = 310.02 INV OUT (8" DIP TO SOUTHEAST) = 309.82	EX. S 413	RIM EL. = 368.13 INV IN (8" DIP FROM 645) = 360.12 INV IN (8" DIP FROM NORTH) = 359.99 INV OUT (8" DIP TO 493) = 359.73
EX. S 2073	RIM EL. = 372.15 INV IN (4" DIP FROM SOUTH) = 363.60 INV OUT (8" DIP TO 645) = 363.54	EX. S 493	RIM EL. = 360.61 INV IN (8" DIP FROM 413) = 360.61 INV OUT (10" DIP TO NORTHWEST) = 349.41

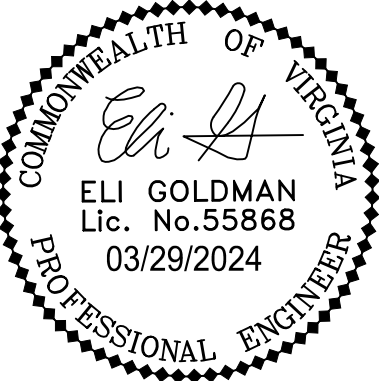
### STORM STRUCTURE DATA

EX. 870	RIM EL. = 376.79 INV OUT (15" RCP TO 871) = 373.42	EX. 2295	INV (12" RCP FROM 412) = 359.60
EX. 871	RIM EL. = 378.80 INV IN (15" RCP FROM 870) = 373.24 INV OUT (15" RCP TO 877) = 373.21	EX. 2537	RIM EL. = 337.77 INV IN (15" RCP FROM WEST) = 334.23 INV OUT (15" RCP TO EAST) = 333.58
EX. 872	RIM EL. = 372.19 INV OUT (15" RCP TO 877) = 368.55	EX. 2554	RIM EL. = 366.25 INACCESSIBLE - SEALED SHUT
EX. 877	RIM EL. = 370.92 INV IN (15" RCP FROM 871) = 360.52 INV IN (15" RCP FROM 872) = 360.30 INV OUT (18" RCP TO NORTH) = 360.12	EX. 1934	RIM EL. = 340.63 INACCESSIBLE - LID SEALED SHUT
EX. 412	RIM EL. = 369.49 INV OUT (12" RCP TO 2295) = 361.24		

NOTE: EXISTING ENCLAVE CONDOMINIUM SITE  
FROM SITE PLAN #15090051



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



## HIGHLANDS AT MANTUA GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: AS SHOWN  
DESIGN: QN  
DRAWN: QN  
CHECKED: JM

SHEET TITLE:

EXISTING  
CONDITIONS PLAN

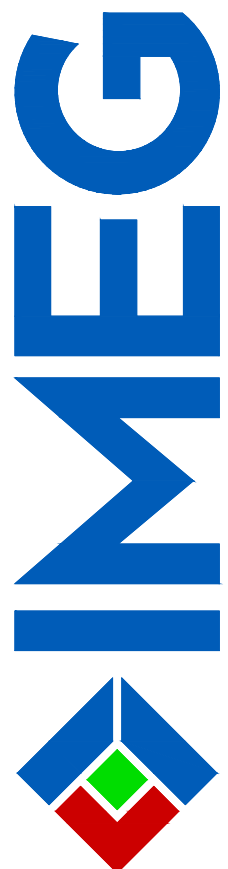
SHEET No.

C200

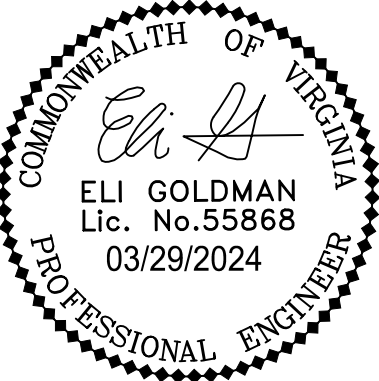


LEGEND:

- LOD : PROP. LIMITS OF CLEARING AND GRADING
- PROPERTY LINE
- RP : ROOT PRUNING
- TPF : TREE PROTECTION FENCING
- X : TREE TO REMOVE
- CRZ : CRITICAL ROOT ZONE AROUND TREE TO REMAIN



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



HIGHLANDS AT MANTUA  
GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: 1" = 25'  
DESIGN: AH  
DRAWN: AH  
CHECKED: JM

SHEET TITLE:

TREE  
PRESERVATION  
PLAN

SHEET No.

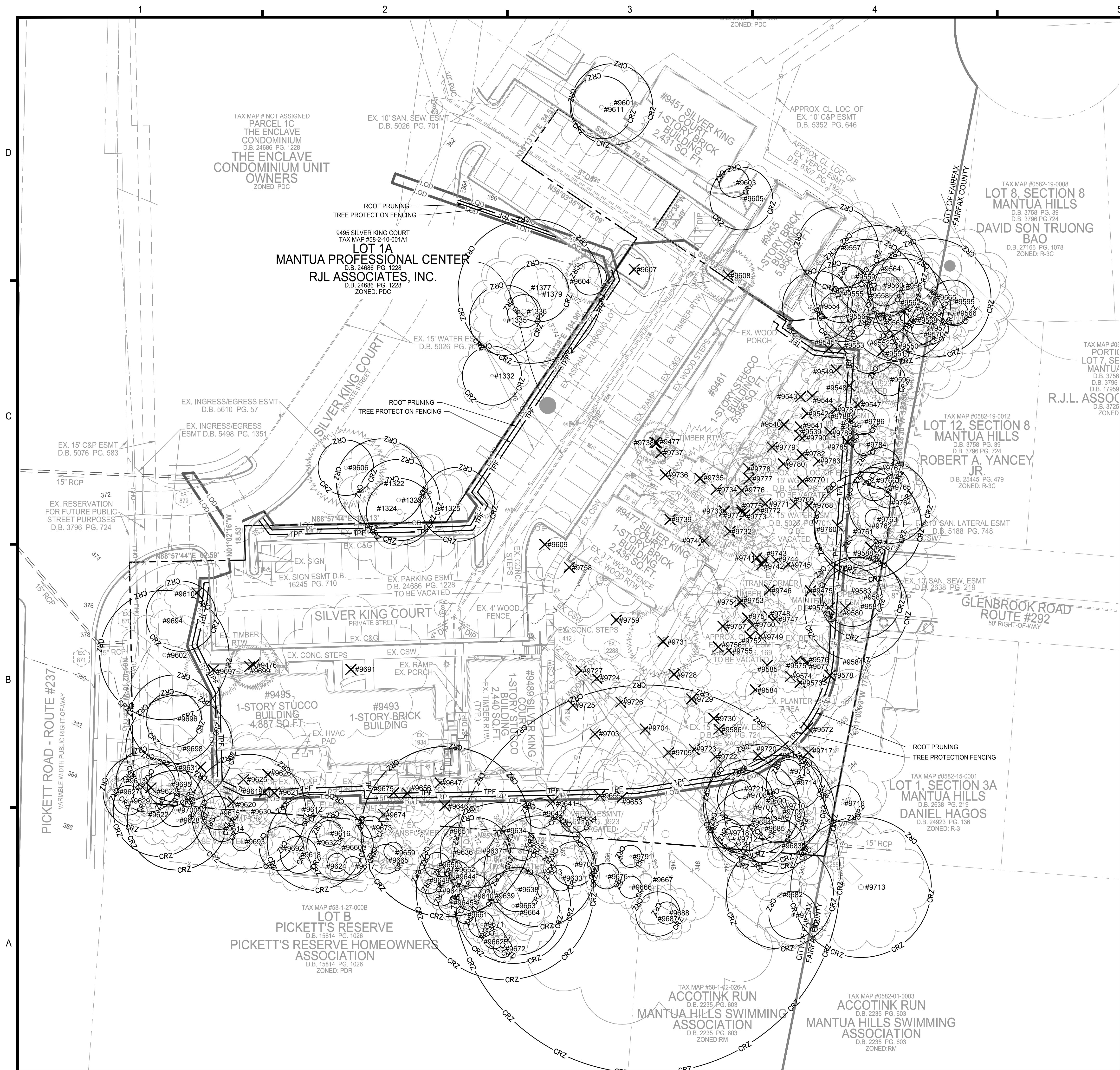
C201

ISA CERTIFIED ARBORIST APPROVAL:

Quinn Nolan  
ISA Certified Arborist, NE-7474A  
4035 Ridge Top Road, Suite 601  
Fairfax, VA 22030  
914.482.3766  
quinn.c.nolan@inegcorp.com

02-27-2024  
Date:

25 12.5 0 25 50  
GRAPHIC SCALE  
1" = 25'





P:\Projects\23005060.00\112931\_GDPA\CD01\_TREE PRESERVATION PLAN.dwg, 3/28/2024 10:41:26 AM, Jana Morgan,

TREE PRESERVATION SCHEDULE

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK DIAMETER (INCHES) / CRITICAL ROOT ZONE RADIUS (FEET)	SURVEYED DRIPLINE RADIUS (FEET)	CONDITION RATING	LOCATION	PROCEDURE	COMMENTS
1322	URIODENDRON TULIPIFERA	TULIP POPLAR	24	24	66	OFFSITE	REMAIN	LARGE GIRDLING ROOT. SMALL AMOUNT OF DIEBACK AND TREES BEGINNING TO CHANGE COLOR.
1323	ACER RUBRUM	RED MAPLE	22	27	66	OFFSITE	REMAIN	SOME CROWN DIEBACK IN UPPER CANOPY. 2-3 SMALL DEAD BRANCHES.
1324	ACER RUBRUM	RED MAPLE	18	35	69	OFFSITE	REMAIN	UNEVEN CANOPY STRUCTURE. OLD WOUNDS EXPOSING DECAY. IMPROPERLY PRUNED SCAFFOLD BRANCHES. LARGE HOLE/CAVITY IN TRUNK.
1325	ACER RUBRUM	RED MAPLE	20	18	69	OFFSITE	REMAIN	UNEVEN CANOPY STRUCTURE.
1332	PRUNUS SEROTINA	BLACK CHERRY	16	19	53	OFFSITE	REMAIN	LEADER DEAD; SIDE BRANCH HAS TAKEN LEADER POSITION. ROT VISIBLE IN TRUNK. MULTIPLE DEAD AND BROKEN BRANCHES.
1335	URIODENDRON TULIPIFERA	TULIP POPLAR	19	17	66	OFFSITE	REMAIN	DUAL TRUNKS. SEVERE INCLUDED BARK. SURFACE DAMAGE TO BARK OF LARGER STEM.
1336	ROBINIA PSEUDOACACIA	BLACK LOCUST	9	30	63	OFFSITE	REMAIN	LEANING. VERY UNEVEN CANOPY. BARK AND TRUNK IS CRACKING WITH WEIGHT OF CANOPY.
1377	URIODENDRON TULIPIFERA	TULIP POPLAR	39	14	66	OFFSITE	REMAIN	DUAL TRUNKS. SEVERE INCLUDED BARK. ONE TRUNK GROWING UNEVENLY. ONE GIRDLING ROOT VISIBLE.
1379	ROBINIA PSEUDOACACIA	BLACK LOCUST	16	33	63	OFFSITE	REMAIN	UNEVEN CANOPY STRUCTURE. LEANING OVER PARKING LOT. 7+ SMALL DEAD BRANCHES. LARGE FUNGAL FRUITING BODY GROWING ON TRUNK.
9475	URIODENDRON TULIPIFERA	TULIP POPLAR	19	15	72	ONSITE	REMOVE	SIGNIFICANT ENGLISH IVY GROWTH ON TRUNK AND INTO CROWN.
9476	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	6	9	66	ONSITE	REMOVE	MANY HEALED CAVITIES IN TRUNK. SCAFFOLD BRANCH TEAR-OUT.
9477	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	6	11	69	ONSITE	REMOVE	
9539	FAGUS GRANDFOLIA	AMERICAN BEECH	8	15	75	ONSITE	REMOVE	
9540	QUERCUS MONTANA	CHESTNUT OAK	9	35	63	ONSITE	REMOVE	MULTI-TRUNK. ONE TRUNK DEAD.
9541	PINUS VIRGINIANA	VIRGINIA PINE	12	18	56	ONSITE	REMOVE	SMALL HEALED WOUND ON TRUNK. MULTIPLE EXTENSIVE WOUNDS ON UPPER TRUNK (ONE IS APPROXIMATELY 10 FEET LONG) WITH ROT. CANOPY APPEARS TO BE MOSTLY DEAD.
9542	FAGUS GRANDFOLIA	AMERICAN BEECH	6	8	72	ONSITE	REMOVE	SMALL WOUND IN TRUNK.
9543	FAGUS GRANDFOLIA	AMERICAN BEECH	14	20	72	ONSITE	REMOVE	WOUND IN TRUNK. WOUND IN ROOTS. PAINT ON TRUNK.
9544	FAGUS GRANDFOLIA	AMERICAN BEECH	11	25	69	ONSITE	REMOVE	
9545	FAGUS GRANDFOLIA	AMERICAN BEECH	17	33	72	ONSITE	REMOVE	SOIL AROUND ROOTS IS ERODED.
9546	ROBINIA PSEUDOACACIA	BLACK LOCUST	8	12	75	ONSITE	REMOVE	
9547	ROBINIA PSEUDOACACIA	BLACK LOCUST	14	25	66	ONSITE	REMOVE	CONKS ON SOME BRANCHES.
9548	URIODENDRON TULIPIFERA	TULIP POPLAR	24	17	75	ONSITE	REMOVE	
9549	FAGUS GRANDFOLIA	AMERICAN BEECH	13	19	72	ONSITE	REMOVE	
9550	FAGUS GRANDFOLIA	AMERICAN BEECH	8	35	66	ONSITE	REMAIN	TOP PREVIOUSLY BROKEN FROM STORM. REMAINING CANOPY GREW AT 90 DEGREES.
9551	UNIDENTIFIED	DEAD TREE	13	16	25	ONSITE	REMOVE	TREE IS DEAD.
9552	FAGUS GRANDFOLIA	AMERICAN BEECH	14	19	72	ONSITE	REMAIN	
9553	PRUNUS PENNSYLVANICA	PIN CHERRY	11	7	53	ONSITE	REMOVE	2/3 OF CANOPY IS DEAD. REMAINING FOIAGE IS ONLY AT TOP OF CROWN.
9554	FAGUS GRANDFOLIA	AMERICAN BEECH	19	22	66	OFFSITE	REMAIN	SOIL AROUND ROOTS IS HIGHLY ERODED. CO-DOMINANT CANOPY STRUCTURE.
9555	FAGUS GRANDFOLIA	AMERICAN BEECH	16	20	69	OFFSITE	REMAIN	TWO LARGE GIRDLING ROOTS. LARGE OLD WOUND EXPOSING DECAY WITHIN CROWN.
9556	FAGUS GRANDFOLIA	AMERICAN BEECH	14	12	75	OFFSITE	REMAIN	
9557	URIODENDRON TULIPIFERA	TULIP POPLAR	22	28	72	OFFSITE	REMAIN	
9558	URIODENDRON TULIPIFERA	TULIP POPLAR	28	37	72	OFFSITE	REMAIN	
9559	FAGUS GRANDFOLIA	AMERICAN BEECH	6	21	66	OFFSITE	REMAIN	LARGE OLD WOUND EXPOSING HEARTWOOD. LARGE DEAD SCAFFOLD BRANCHES.
9560	FAGUS GRANDFOLIA	AMERICAN BEECH	9	15	72	OFFSITE	REMAIN	OLD WOUNDS HEALING OVER ON ROOT FLARE AND TRUNK.
9561	URIODENDRON TULIPIFERA	TULIP POPLAR	19	33	69	OFFSITE	REMAIN	
9562	URIODENDRON TULIPIFERA	TULIP POPLAR	28	32	69	OFFSITE	REMAIN	
9563	FAGUS GRANDFOLIA	AMERICAN BEECH	5	9	75	ONSITE	REMAIN	
9564	URIODENDRON TULIPIFERA	TULIP POPLAR	25	26	69	OFFSITE	REMAIN	
9565	URIODENDRON TULIPIFERA	TULIP POPLAR	32	42	72	OFFSITE	REMAIN	SMALL BEECH TREE RUBBING ON LOWER TRUNK.
9566	FAGUS GRANDFOLIA	AMERICAN BEECH	7	14	69	OFFSITE	REMAIN	EXISTING FENCE RUBBING ROOT FLARE.
9567	ACER RUBRUM	RED MAPLE	16	48	69	OFFSITE	REMAIN	LEANING HEAVILY OVER NEIGHBORING HOUSE.
9568	FAGUS GRANDFOLIA	AMERICAN BEECH	9	12	75	OFFSITE	REMAIN	
9569	FAGUS GRANDFOLIA	AMERICAN BEECH	6	15	72	OFFSITE	REMAIN	
9570	FAGUS GRANDFOLIA	AMERICAN BEECH	8	23	69	OFFSITE	REMAIN	SOIL HIGHLY ERODED AROUND ROOT FLARE.
9571	FAGUS GRANDFOLIA	AMERICAN BEECH	9	17	72	OFFSITE	REMAIN	
9572	ROBINIA PSEUDOACACIA	BLACK LOCUST	15	12	59	ONSITE	REMOVE	MOST OF CROWN PREVIOUSLY BROKEN OUT DUE TO STORM DAMAGE. MAIN SCAFFOLD BRANCH COMPLETELY DEAD. DECAY IN BASE OF TRUNK THAT EXTENDS UP ENTIRE TRUNK.
9573	URIODENDRON TULIPIFERA	TULIP POPLAR	33	22	75	ONSITE	REMOVE	
9574	ILEX OPACA	AMERICAN HOLLY	5	9	72	ONSITE	REMOVE	
9575	ILEX OPACA	AMERICAN HOLLY	5	12	72	ONSITE	REMOVE	
9576	FAGUS GRANDFOLIA	AMERICAN BEECH	13	14	69	ONSITE	REMOVE	GROWING OUT OF SAME POINT AS TREE 9577. TREE 9577'S BRANCHES ARE RUBBING TRUNK OF TREE 9576.
9577	ILEX OPACA	AMERICAN HOLLY	7	9	66	ONSITE	REMOVE	GROWING OUT OF SAME POINT AS TREE 9576. TREE 9576'S BRANCHES ARE RUBBING TRUNK OF TREE 9577.
9578	ACER PALMATUM	JAPANESE MAPLE	5	18	75	ONSITE	REMOVE	
9579	URIODENDRON TULIPIFERA	TULIP POPLAR	17	7	66	ONSITE	REMOVE	SIGNIFICANT VINE GROWTH ON TRUNK AND IN CROWN. OLD CONCRETE CURB ON ROOT FLARE.
9580	URIODENDRON TULIPIFERA	TULIP POPLAR	18	9	75	OFFSITE	REMOVE	
9581	PRUNUS SEROTINA	BLACK CHERRY	28	39	69	OFFSITE	REMAIN	TIP DIEBACK ON LEADER OVERHANGING NEIGHBORING HOUSE.
9582	URIODENDRON TULIPIFERA	TULIP POPLAR	22	22	72	OFFSITE	REMAIN	
9583	URIODENDRON TULIPIFERA	TULIP POPLAR	16	19	72	OFFSITE	REMAIN	
9584	ILEX OPACA	AMERICAN HOLLY	9	11	69	ONSITE	REMOVE	
9585	ILEX OPACA	AMERICAN HOLLY	6	0	69	ONSITE	REMOVE	
9586	ILEX OPACA	AMERICAN HOLLY	5	12	72	ONSITE	REMOVE	MULTIPLE TRUNKS. SOME MINOR INCLUDED BARK.
9587	UNIDENTIFIED	DEAD TREE	9	4	25	ONSITE	REMOVE	
9588	URIODENDRON TULIPIFERA	TULIP POPLAR	9	5	63	ONSITE	REMAIN	SEVERE LEAN. CROWN HAS PREVIOUSLY BROKEN OR TWISTED IN STORM. SIGNIFICANT VINE GROWTH ON TRUNK.
9595	FAGUS GRANDFOLIA	AMERICAN BEECH	12	30	69	OFFSITE	REMAIN	
9596	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	9	14	69	ONSITE	REMAIN	UNEVEN CANOPY.
9601	FAGUS GRANDFOLIA	AMERICAN BEECH	22	21	59	OFFSITE	REMAIN	SOIL AROUND ROOT FLARE HIGHLY ERODED. MANY SMALL GIRDLING ROOTS. 1/3 OF CANOPY DEAD/DYING. LEAVES ARE SCORCHED AND BEGINNING TO TURN BROWN.
9602	URIODENDRON TULIPIFERA	TULIP POPLAR	35	24	72	ONSITE	REMAIN	LEAVES BEGINNING TO CHANGE COLOR AND DROP.
9603	MALUS SPP.	CRABAPPLE	8	8	38	OFFSITE	REMAIN	ALMOST COMPLETELY DEAD. TRUNK IS TWISTED AND CRACKED AND IS MISSING SOME BARK. MAIN LEADER REMOVED AT UNION; SECONDARY LEADER DEAD. ROOTS DAMAGED BY LOCATION OF TRAIL AND PLANTER BOXES.
9604	PINUS NIGRA	AUSTRIAN PINE	9	14	63	OFFSITE	REMAIN	POOR PRUNING CUTS CAUSING DECAY. NEEDLE BUNCHES ARE DISCOLORING AND TURNING BROWN. FOUR SMALL DEAD STUBS.
9605	MALUS SPP.	CRABAPPLE	17	20	44	OFFSITE	REMAIN	ALMOST COMPLETELY DEAD. TRUNK IS TWISTED AND CRACKED AND HAS ALMOST NO BARK ON IT. TWO MAJOR BRANCHES DEAD. ROOTS DAMAGED BY LOCATION OF TRAIL AND PLANTER BOXES.
9606	TSUGA CANADENSIS	EASTERN HEMLOCK	15	22	66	OFFSITE	REMAIN	LEANING. UNEVEN CANOPY STRUCTURE. INTERIOR AND LOWER BRANCH ENDS DEAD. POOR PRUNING CUT HEALING OVER.
9607	PYRUS CALLERYANA	CALLERY PEAR	15	25	38	ONSITE	REMOVE	ONE LEADER HAS TORN OUT. MANY SAPSUCKER HOLES IN TRUNK. ALMOST COMPLETELY DEAD. GIRDLING ROOTS.
9608	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	14	15	59	ONSITE	REMOVE	DUAL LEADERS. MANY SAPSUCKER HOLES ON TRUNKS. MOSS ON TRUNKS. SOME DEAD MID-SIZE BRANCHES.
9609	MALUS SPP.	CRABAPPLE	29	20	63	ONSITE	REMOVE	MULTI-TRUNK. SAPSUCKER HOLES IN TRUNKS. MULTIPLE WOUNDS WITH ROT DUE TO BRANCH REMOVALS.
9610	ILEX OPACA	AMERICAN HOLLY	13	18	66	ONSITE	REMOVE	ROOT FLARE BURIED; SUCKERS BEGINNING TO GROW OUT OF ROOT FLARE. OLD PRUNING WOUND HEALING OVER WITH ROT PRESENT IN HEARTWOOD.
9611	URIODENDRON TULIPIFERA	TULIP POPLAR	17	27	69	OFFSITE	REMAIN	MANY LARGE GIRDLING ROOTS. SOIL AROUND ROOT FLARE IS HIGHLY ERODED. LARGE DEAD SCAFFOLD BRANCH PRESENT.
9612	ACER RUBRUM	RED MAPLE	8	20	66	ONSITE	REMAIN	SIGNIFICANT VINE GROWTH ON TRUNK AND IN CANOPY.
9613	ACER RUBRUM	RED MAPLE	17	20	69	ONSITE	REMAIN	SIGNIFICANT VINE GROWTH ON TRUNK AND IN CANOPY.
9614	PRUNUS SEROTINA	BLACK CHERRY	7	16	72	OFFSITE	REMAIN	
9615	ACER RUBRUM	RED MAPLE	9	15	72	OFFSITE	REMAIN	
9616	ACER RUBRUM	RED MAPLE	7	14	72	OFFSITE	REMAIN	MANY VINES IN CANOPY.
9617	ROBINIA PSEUDOACACIA	BLACK LOCUST	5	15	72	OFFSITE	REMAIN	SMALL SECONDARY TRUNK DEAD.
9618	ROBINIA PSEUDOACACIA	BLACK LOCUST	10	20	72	OFFSITE	REMAIN	UNEVEN CANOPY. DEAD BRANCHES IN CANOPY.
9619	URIODENDRON TULIPIFERA	TULIP POPLAR	29	18	69	ONSITE	REMOVE	SIGNIFICANT VINE GROWTH ON TRUNK. SOME DEAD SCAFFOLD BRANCHES.
9620	ACER RUBRUM	RED MAPLE	6	18	38	ONSITE	REMOVE	SMALL SECONDARY TRUNK DEAD.
9621	URIODENDRON TULIPIFERA	TULIP POPLAR	33	35	72	ONSITE	REMOVE	SIGNIFICANT VINE GROWTH ON TRUNK.
9622	URIODENDRON TULIPIFERA	TULIP POPLAR	25	19	69	OFFSITE	REMAIN	LEAVES BEGINNING TO CHANGE COLOR, TURN BROWN, AND DROP.
9623	UNIDENTIFIED	DEAD TREE	10	3	25	ONSITE	REMOVE	
9624	PYRUS CALLERYANA	CALLERY PEAR	5	8	69	OFFSITE	REMAIN	MOST BRANCHES DEAD ON ONE SIDE.
9625	URIODENDRON TULIPIFERA	TULIP POPLAR	27	25	69	ONSITE	REMOVE	SIGNIFICANT VINE GROWTH ON TRUNK. SECONDARY TREE GROWING OUT OF ROOT FLARE.
9626	URIODENDRON TULIPIFERA	TULIP POPLAR	23	30	72	ONSITE	REMOVE	SIGNIFICANT VINE GROWTH ON TRUNK.
9627	URIODENDRON TULIPIFERA	TULIP POPLAR	20	18	66	ONSITE	REMAIN	LEANING AND OVERHANGING ROAD. LEAVES BEGINNING TO CHANGE COLOR AND DROP.
9628	URIODENDRON TULIPIFERA	TULIP POPLAR	27	17	72	OFFSITE	REMAIN	ONE LARGE GIRDLING ROOT.
9629	ACER RUBRUM	RED MAPLE	8	2	72	OFFSITE	REMAIN	
9630	URIODENDRON TULIPIFERA	TULIP POPLAR	31	20	72	OFFSITE	REMAIN	SIGNIFICANT VINE GROWTH ON TRUNK.
9631	UNIDENTIFIED	DEAD TREE	10	7	25	ONSITE	REMOVE	
9632	URIODENDRON TULIPIFERA	TULIP POPLAR	26	15	69	OFFSITE	REMAIN	DUAL TRUNKS. INCLUDED BARK.
9633	FAGUS GRANDFOLIA	AMERICAN BEECH	7	13	69	OFFSITE	REMAIN	OLD WOUND AT BASE OF TRUNK. DECAY IN HEARTWOOD EXPOSED BY WOUND.
9634	URIODENDRON TULIPIFERA	TULIP POPLAR	27	34	72	ONSITE	REMAIN	UNEVEN CANOPY. MANY VINES.
9635	ACER RUBRUM	RED MAPLE	8	16	69	ONSITE	REMAIN	WOUND ON LOWER TRUNK. ONE DEAD BRANCH.
9636	UNIDENTIFIED	DEAD TREE	19	13	25	OFFSITE	REMAIN	DEAD TREE.
9637	ACER RUBRUM	RED MAPLE	7	14	75	OFFSITE	REMAIN	
9638	ACER RUBRUM	RED MAPLE	12	16	69	OFFSITE	REMAIN	CO-DOMINANT CROWN STRUCTURE. MAIN SCAFFOLD BRANCHES RUBBING AGAINST ONE ANOTHER AND CREATING WOUNDS.
9639	URIODENDRON TULIPIFERA	TULIP POPLAR	48	25	75	OFFSITE	REMAIN	
9640	ROBINIA PSEUDOACACIA	BLACK LOCUST	10	18	66	OFFSITE	REMAIN	SIGNIFICANT VINE GROWTH ON TRUNK AND IN CANOPY.
9641	UNIDENTIFIED	DEAD TREE	20	2	25	ONSITE	REMOVE	
9642	BETULA LENTA	BLACK BIRCH	8	23	69	ONSITE	REMOVE	GROWING AT AN ANGLE. CAVITY IN TRUNK (SMALL). TAGGED WITH TWO TAGS (9653/9702).
9643	BETULA LENTA	BLACK BIRCH	8	17	72	ONSITE	REMAIN	
9644	BETULA LENTA	BLACK BIRCH	7	12	75	ONSITE	REMOVE	
9645	URIODENDRON TULIPIFERA	TULIP POPLAR	26	17	72	ONSITE	REMOVE	OLD WOUND HEALING OVER AT BASE OF TRUNK.
9646	ROBINIA PSEUDOACACIA	BLACK LOCUST	5	10	72	OFFSITE	REMAIN	
9647	URIODENDRON TULIPIFERA	TULIP POPLAR	18	20	75	OFFSITE	REMAIN	
9648	ILEX OPACA	AMERICAN HOLLY	5	9	72	OFFSITE	REMAIN	OLD CABLE STUCK IN BRANCH UNION. TREE BEGINNING TO GROW AROUND OLD CABLE.
9649	ILEX OPACA	AMERICAN HOLLY	7	9	72	OFFSITE	REMAIN	
9650	ROBINIA PSEUDOACACIA	BLACK LOCUST	7	11	72	OFFSITE	REMAIN	
9651	URIODENDRON TULIPIFERA	TULIP POPLAR	46	32	72	OFFSITE	REMAIN	
9652	ROBINIA PSEUDOACACIA	BLACK LOCUST	5	12	75	OFFSITE	REMAIN	
9653	BETULA LENTA	BLACK BIRCH	8	23	69	ONSITE	REMOVE	GROWING AT AN ANGLE. CAVITY IN TRUNK (SMALL). TAGGED WITH TWO TAGS (9653/9702).
9654	BETULA LENTA	BLACK BIRCH	8	17	72	ONSITE	REMAIN	
9655	BETULA LENTA	BLACK BIRCH	7	12	75	ONSITE	REMOVE	
9656	URIODENDRON TULIPIFERA	TULIP POPLAR	26	17	72	ONSITE	REMOVE	OLD WOUND HEALING OVER AT BASE OF TRUNK.
9659	ROBINIA PSEUDOACACIA	BLACK LOCUST	5	10	72	OFFSITE	REMAIN	
9660	URIODENDRON TULIPIFERA	TULIP POPLAR	18	20	75	OFFSITE	REMAIN	
9661	ILEX OPACA	AMERICAN HOLLY	5	9	72	OFFSITE	REMAIN	OLD CABLE STUCK IN BRANCH UNION. TREE BEGINNING TO GROW AROUND OLD CABLE.
9662	ILEX OPACA	AMERICAN HOLLY	6	9	75	OFFSITE	REMAIN	
9663	URIODENDRON TULIPIFERA	TULIP POPLAR	31	20	72	OFFSITE	REMAIN	
9664	URIODENDRON TULIPIFERA	TULIP POPLAR	23	23	69	OFFSITE	REMAIN	
9665	ROBINIA PSEUDOACACIA	BLACK LOCUST	8	14	72	OFFSITE	REMAIN	
9666	FAGUS GRANDFOLIA	AMERICAN BEECH	6	12	69	OFFSITE	REMAIN	LEADER BROKEN OUT.
9667	URIODENDRON TULIPIFERA	TULIP POPLAR	105	80	69	OFFSITE	REMAIN	SOME GIRDLING ROOTS. DUAL TRUNKS; EACH TRUNK IS ABOUT 50-55 INCHES WITH UNION JUST ABOVE DBH. INCLUDED BARK IN UNION. TRUNKS DISPLAY



P:\Projects\23005060\00\112931\_GDPA\CD1 TREE PRESERVATION PLAN.dwg, 3/28/2024 10:41:32 AM, Jana Morgan,

1

2

3

4

5

6

TREE PRESERVATION SCHEDULE

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK DIAMETER (INCHES) / CRITICAL ROOT ZONE RADIUS (FEET)	SURVEYED DRIPLINE RADIUS (FEET)	CONDITION RATING	LOCATION	PROCEDURE	COMMENTS	
9729	UNIDENTIFIED	DEAD TREE		14	4	25	ONSITE	REMOVE	DEAD TREE.
9730	LIRIODENDRON TULIPIFERA	TULIP POPLAR		14	15	75	ONSITE	REMOVE	
9731	PINUS STROBUS	WHITE PINE		24	20	75	ONSITE	REMOVE	
9732	PINUS STROBUS	WHITE PINE		11	14	72	ONSITE	REMOVE	
9733	PINUS STROBUS	WHITE PINE		21	20	69	ONSITE	REMOVE	
9734	PINUS STROBUS	WHITE PINE		22	27	69	ONSITE	REMOVE	
9735	PINUS STROBUS	WHITE PINE		25	30	72	ONSITE	REMOVE	
9736	CORNUS FLORIDA	FLOWERING DOGWOOD		7	15	59	ONSITE	REMOVE	DECAY IN BOTH TRUNKS. BARK IS SLOUGHING OFF, EXPOSING HEARTWOOD. APPROXIMATELY 1/3 OF CANOPY IS DEAD.
9737	CORNUS FLORIDA	FLOWERING DOGWOOD		9	13	66	ONSITE	REMOVE	LEAVES INDICATE THAT TREE IS SUFFERING FROM FUNGAL DISEASE.
9738	UNIDENTIFIED	DEAD TREE		7	8	25	ONSITE	REMOVE	TREE IS DEAD.
9739	CORNUS KOUSA	KOUSA DOGWOOD		7	16	72	ONSITE	REMOVE	
9740	CORNUS KOUSA	KOUSA DOGWOOD		5	11	69	ONSITE	REMOVE	
9741	ACER SACCHARINUM	SILVER MAPLE		13	40	69	ONSITE	REMOVE	SEVERE LEAN OVER EXISTING BUILDING.
9742	ACER SACCHARINUM	SILVER MAPLE		12	12	69	ONSITE	REMOVE	FUNGAL FRUITING BODIES GROWING ON ROOT FLARE. DECAY PRESENT IN ROOT FLARE.
9743	ACER SACCHARINUM	SILVER MAPLE		15	35	75	ONSITE	REMOVE	
9744	ACER SACCHARINUM	SILVER MAPLE		11	12	69	ONSITE	REMOVE	SIGNIFICANT EPICORMIC GROWTH ON TRUNK.
9745	ACER SACCHARINUM	SILVER MAPLE		9	17	66	ONSITE	REMOVE	SIGNIFICANT POISON IVY GROWTH ON TRUNK AND INTO CANOPY. HEAVY LEAN.
9746	LIRIODENDRON TULIPIFERA	TULIP POPLAR		19	15	75	ONSITE	REMOVE	
9747	LIRIODENDRON TULIPIFERA	TULIP POPLAR		27	28	66	ONSITE	REMOVE	ROOTS ARE HIGHLY ERODED. OLD WOUND EXPOSING DECAY. OLD WOUND HAS CREATED WEEPING CANKER.
9748	ACER RUBRUM	RED MAPLE		8	9	75	ONSITE	REMOVE	
9749	FAGUS GRANDFOLIA	AMERICAN BEECH		9	20	69	ONSITE	REMOVE	OLD TRUNK ON TOP OF ROOT FLARE.
9750	FAGUS GRANDFOLIA	AMERICAN BEECH		8	17	75	ONSITE	REMOVE	
9751	ILEX OPACA	AMERICAN HOLLY		7	8	75	ONSITE	REMOVE	
9752	FAGUS GRANDFOLIA	AMERICAN BEECH		8	12	75	ONSITE	REMOVE	
9753	FAGUS GRANDFOLIA	AMERICAN BEECH		8	14	75	ONSITE	REMOVE	
9754	ACER RUBRUM	RED MAPLE		22	34	72	ONSITE	REMOVE	
9755	LIRIODENDRON TULIPIFERA	TULIP POPLAR		30	27	72	ONSITE	REMOVE	DEAD SCAFFOLD BRANCHES. SIGNIFICANT ENGLISH IVY ON TRUNK.
9756	LIRIODENDRON TULIPIFERA	TULIP POPLAR		34	36	69	ONSITE	REMOVE	SIGNIFICANT ENGLISH IVY ON TRUNK. CURVE IN TRUNK BASE.
9757	LIRIODENDRON TULIPIFERA	TULIP POPLAR		11	21	69	ONSITE	REMOVE	
9758	CORNUS FLORIDA	FLOWERING DOGWOOD		8	18	66	ONSITE	REMOVE	DOUBLE TRUNK. THIRD TRUNK REMOVED. ROT POCKET IN TRUNK DUE TO REMOVED BRANCH. ROT POCKET IN SECOND TRUNK DUE TO TEAR OUT. FEW WOUNDS IN TRUNK.
9759	MALUS SPP.	CRABAPPLE		12	22	63	ONSITE	REMOVE	SIGNIFICANT SAPSUCKER HOLES ON TRUNK AND ALL BRANCHES. MECHANICAL DAMAGE TO ROOT.
9760	PRUNUS SEROTINA	BLACK CHERRY		10	12	63	ONSITE	REMOVE	ROT IN TRUNK FROM DEAD SECONDARY TRUNK REMOVAL. OTHER WOUNDS IN TRUNK. SIGNIFICANT ENGLISH IVY ON TRUNK. MANY SMALL BRANCHES, NOT MANY LARGE SCAFFOLD BRANCHES.
9761	LIRIODENDRON TULIPIFERA	TULIP POPLAR		24	18	72	ONSITE	REMAIN	SIGNIFICANT ENGLISH IVY ON TRUNK.
9762	LIRIODENDRON TULIPIFERA	TULIP POPLAR		29	38	72	ONSITE	REMAIN	SIGNIFICANT ENGLISH IVY ON TRUNK.
9763	LIRIODENDRON TULIPIFERA	TULIP POPLAR		5	12	72	ONSITE	REMAIN	
9764	ACER SACCHARUM	SUGAR MAPLE		22	21	66	ONSITE	REMAIN	DEAD TRUNK ATTACHED.
9765	LIRIODENDRON TULIPIFERA	TULIP POPLAR		11	16	72	ONSITE	REMAIN	CAVITY IN TRUNK.
9766	ACER RUBRUM	RED MAPLE		9	25	69	ONSITE	REMAIN	
9767	LIRIODENDRON TULIPIFERA	TULIP POPLAR		11	22	69	ONSITE	REMAIN	
9768	LIRIODENDRON TULIPIFERA	TULIP POPLAR		21	47	63	ONSITE	REMOVE	WOUNDS IN TRUNK. LARGE TORN-OFF BRANCH ON TRUNK. TRUNK IS TWISTY AND UNEVEN.
9769	LIRIODENDRON TULIPIFERA	TULIP POPLAR		19	21	69	ONSITE	REMOVE	TWISTY TRUNK.
9770	UNIDENTIFIED	DEAD TREE		7	2	25	ONSITE	REMOVE	DEAD TREE.
9771	ROBINIA PSEUDOACACIA	BLACK LOCUST		7	24	69	ONSITE	REMOVE	
9772	ROBINIA PSEUDOACACIA	BLACK LOCUST		8	16	72	ONSITE	REMOVE	
9773	ROBINIA PSEUDOACACIA	BLACK LOCUST		12	18	72	ONSITE	REMOVE	
9774	ROBINIA PSEUDOACACIA	BLACK LOCUST		12	14	69	ONSITE	REMOVE	TRUNK SEVERELY RUBBING TREE 9774.
9775	ROBINIA PSEUDOACACIA	BLACK LOCUST		9	28	66	ONSITE	REMOVE	TRUNK SEVERELY RUBBING TREE 9774. HAS HEAVY LEAN TOWARDS ADJACENT BACKYARD.
9776	SASSAFRAS ALBIDUM	SASSAFRAS		13	23	75	ONSITE	REMOVE	
9777	FAGUS GRANDFOLIA	AMERICAN BEECH		24	28	75	ONSITE	REMOVE	
9778	FAGUS GRANDFOLIA	AMERICAN BEECH		7	15	72	ONSITE	REMOVE	SMALL WOUND ON TRUNK. ROOTS EXPOSED.
9779	LIRIODENDRON TULIPIFERA	TULIP POPLAR		15	30	72	ONSITE	REMOVE	SOME EXPOSED ROOTS.
9780	FAGUS GRANDFOLIA	AMERICAN BEECH		5	12	75	ONSITE	REMOVE	SMALL WOUND ON TRUNK.
9782	FAGUS GRANDFOLIA	AMERICAN BEECH		12	19	66	ONSITE	REMOVE	GROWING DIRECTLY INTO ADJACENT DEAD TREE TRUNK.
9783	SASSAFRAS ALBIDUM	SASSAFRAS		6	16	44	ONSITE	REMOVE	ALMOST ENTIRELY DEAD. WEEPING WOUND IN TRUNK. ROT IN TRUNK.
9784	FAGUS GRANDFOLIA	AMERICAN BEECH		6	12	72	ONSITE	REMAIN	MULTIPLE WOUNDS ON MULTIPLE BRANCHES. CANOPY OF TREE 9785 LAYING IN CANOPY OF TREE 9784.
9785	PRUNUS SEROTINA	BLACK CHERRY		8	17	66	ONSITE	REMOVE	LEAN IN TRUNK. EXTREMELY UNEVEN CANOPY.
9786	PRUNUS SEROTINA	BLACK CHERRY		7	19	63	ONSITE	REMAIN	EXTREME LEAN. ROT IN TRUNK.
9787	CARYA GLABRA	PIGNOLE HICKORY		6	11	72	ONSITE	REMOVE	INCLUDED BARK AT TOP OF TREE.
9788	LIRIODENDRON TULIPIFERA	TULIP POPLAR		28	32	72	ONSITE	REMOVE	ROT IN ROOT FLARE.
9789	FAGUS GRANDFOLIA	AMERICAN BEECH		6	14	75	ONSITE	REMOVE	
9790	FAGUS GRANDFOLIA	AMERICAN BEECH		7	12	75	ONSITE	REMOVE	
9791	ILEX OPACA	AMERICAN HOLLY		6	12	66	OFFSITE	REMAIN	DUAL TRUNKS. INCLUDED BARK AND SMALL CAVITY IN UNION. SOME SCAFFOLD BRANCHES GROWING TOGETHER WITH INCLUDED BARK.

TREE PRUNING DETAIL

STANDARD TREE PROTECTION DETAIL

STANDARD TREE PROTECTION DETAIL

TREE PRESERVATION NOTES:

1. PROJECT NOTES

1.1. ALL TREE WORK SHALL BE PROHIBITED UNTIL TREE PRESERVATION PLAN HAS BEEN APPROVED BY URBAN FOREST MANAGEMENT DIVISION (UFMD). THIS INCLUDES ALL TREE REMOVAL, REGARDLESS OF WHETHER THE TREE STUMP IS LEFT INTACT AND/OR NO GROUND DISTURBANCE OCCURS.

1.2. ALL WORK PERFORMED SHALL MEET OR EXCEED THE MOST RECENT INDUSTRY STANDARDS, AS PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA). IN THE EVENT CULTURAL TREATMENTS PRESCRIBED ARE NOT COVERED BY AN EXISTING STANDARD, ALL WORK PERFORMED SHALL MEET OR EXCEED STANDARDS APPROVED BY THE URBAN FOREST MANAGEMENT DIVISION (UFMD).

1.3. THE REQUIREMENTS OF THE CITY OF FAIRFAX PUBLIC FACILITIES MANUAL SHALL BE FOLLOWED.

1.4. ALL TREE PRESERVATION ACTIVITIES SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN ISA CERTIFIED ARBORIST.

2. PRE-CONSTRUCTION

2.1. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL HAVE THE LIMITS OF CLEARING AND GRADING CLEARLY MARKED IN THE FIELD WITH FLAGGING. THESE LIMITS SHALL NOT EXCEED THOSE SHOWN ON THE APPROVED PLANS.

2.2. AFTER LIMITS HAVE BEEN STAKED, THE CONTRACTOR SHALL REQUEST A PRE-CONSTRUCTION MEETING WITH SODD AND UFMD REPRESENTATIVES (AND PROJECT ARBORIST SHOULD ONE BE REQUIRED BY UFMD).

2.3. DURING THE PRE-CONSTRUCTION MEETING, THE LIMITS MAY BE ADJUSTED TO BETTER PRESERVE OR REMOVE TREES IMPACTED BY CONSTRUCTION ACTIVITIES.

3. INSTALLATION OF TREE PROTECTION MEASURES

3.1. ROOT PRUNING: PRIOR TO CONSTRUCTION, ROOT PRUNING SHALL BE COMPLETED AT THE LIMITS. ROOT PRUNING SHALL BE TO THE DEPTH OF EIGHTEEN (18) TO TWENTY-FOUR (24) INCHES AND SHALL BE ACCOMPLISHED BY USING A TRENCHER, VIBRATING PLOW OR BY HAND. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH REMOVED SOIL. WHEN EXCAVATING ALL TREE ROOTS GREATER THAN 1 INCH IN DIAMETER THAT ARE EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY, AND COVERED WITH ORGANIC MULCH, TOPSOIL, OR OTHER SUITABLE MATERIAL TO PREVENT THE EXPOSED ROOTS FROM DRYING OUT.

3.2. TREE PROTECTION FENCING: IMMEDIATELY FOLLOWING ROOT PRUNING, TREE PROTECTION FENCING SHALL BE COMPLETED AT THE LIMITS. TREE PROTECTION FENCING TYPE SHALL BE INSTALLED PER TREE PRESERVATION PLAN AND SHALL CONSIST OF EITHER OF THE FOLLOWING MATERIALS:

3.2.1. FOURTEEN (14) GAUGE WELDED WIRE MESH THAT IS A MINIMUM OF FOUR (4) FOOT TALL. THE MESH SHALL BE ATTACHED TO SIX (6) FOOT TALL, TWO-INCH (2") STEEL U-CHANNEL ANCHOR POSTS DRIVEN EIGHTEEN (18) INCHES INTO THE GROUND. THE POSTS SHALL BE PLACED NO FURTHER THAN TEN (10) FEET APART.

3.2.2. SUPER SILT FENCE TO THE EXTENT THAT REQUIRED TRENCING FOR SUPER SILT FENCE DOES NOT SEVER OR WOUND COMPRESSION ROOTS OF TREES TO BE PRESERVED. THIS CAN LEAD TO STRUCTURAL FAILURE AND/OR UPROOTING OF TREES.

3.3. TREE PROTECTION SIGNAGE: BILINGUAL SIGNS STATING, "TREE PRESERVATION AREA - KEEP OUT" SHALL BE AFFIXED TO THE TREE PRESERVATION FENCE AT LEAST EVERY 50 FEET IMMEDIATELY FOLLOWING TREE PROTECTION FENCING INSTALLATION.

3.4. UFMD SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO INSPECT THE SITE TO ASSURE THAT ALL TREE PROTECTION DEVICES HAVE BEEN CORRECTLY INSTALLED. IF IT IS DETERMINED THAT THE FENCING HAS NOT BEEN INSTALLED CORRECTLY, NO CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE FENCING IS INSTALLED CORRECTLY, AS DETERMINED BY UFMD.

3.5. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR PULLED INTO TREE PRESERVATION AREAS. EQUIPMENT OPERATORS SHALL NOT CLEAN ANY PART OF THEIR EQUIPMENT BY SLAMMING AGAINST THE TRUNKS OF TREES TO BE RETAINED.

3.6. TREES ON THE EDGE OF THE LIMITS OF CLEARING AND GRADING SHALL BE CUT DOWN BY HAND WITH A CHAIN SAW. REMAINING STUMPS SHALL EITHER BE LEFT IN PLACE OR GROUND DOWN WITH A STUMP GRINDER.

3.7. TREES INDICATED WILL BE MULCHED WITH WOOD CHIPS GENERATED FROM ON SITE CLEARING OR TREE REMOVAL AND PRUNING OPERATIONS WHEN POSSIBLE. SHREDDED HARDWOOD MULCH FROM OFFSITE MAYBE UTILIZED IF APPROVED BY PROJECT ARBORIST. MULCH SHALL BE SPREAD IN A UNIFORM DEPTH OF THREE (3") INCHES BY HAND. MULCH SHALL BE PLACED IN AREAS AS INDICATED ON APPROVED PLANS.

4. CONSTRUCTION

4.1. DURING CLEARING AND GRADING OPERATIONS AND THROUGHOUT CONSTRUCTION, NO ACTIVITY SHALL BE PERMITTED IN TREE SAVE AREAS WITHOUT AUTHORIZATION FROM OWNER, ARBORIST/FORESTER, AND UFMD. PRECLUDED ACTIVITIES INCLUDE:

4.1.1. FELLING OF TREES INTO PRESERVATION AREAS OR OPERATION OF HEAVY MACHINERY IN SAVE AREAS TO FELL TREES ON THE PERIMETER OF PRESERVATION AREAS.

4.1.2. OPERATION OF HEAVY EQUIPMENT OR MACHINERY OF ANY KIND IN PRESERVATION AREAS FOR ANY PURPOSE-INCLUDING REMOVAL OF TREES ADJACENT TO SAVE AREAS.

4.1.3. PLACEMENT OF EXCESS SOIL, FILL, OR MATERIALS OF ANY KIND IN PRESERVATION AREAS.

4.1.4. PLACEMENT OF ANY CONSTRUCTION MATERIALS OF ANY KIND IN PRESERVATION AREAS.

4.1.5. PARKING OR STORING EQUIPMENT OR VEHICLES IN PRESERVATION AREAS.

4.1.6. DUMPING CHEMICALS OR CONCRETE WASHOUT IN PRESERVATION AREAS.

4.1.7. BURNING OF ANY MATERIAL OR DEBRIS IN PRESERVATION AREAS OR WITHIN 200 FEET OF PRESERVATION AREAS.

4.1.8. TRENCING, GRADING, EXCAVATING FOR ANY PURPOSE IN PRESERVATION AREAS.

4.1.9. INSTALLATION OF LANDSCAPING, IRRIGATION, TURF, DRAINAGE SYSTEMS, ETC.

4.2. ALL EXISTING TRASH AND/OR DEBRIS ON SITE SHALL BE REMOVED AT THE TIME OF DISTURBANCE. INDIVIDUAL TREES AND FORESTED AREAS DESIGNATED TO BE PRESERVED SHALL BE PROTECTED AND MANAGED THAT ENSURES TREE SURVIVAL DURING ALL PHASES OF DEMOLITION, CLEARING AND GRADING, AND CONSTRUCTION. IN ADDITION TO PROTECTING TREES, ALL UNDERSTORY PLANTS, LEAF LITTER AND SOIL CONDITIONS FOUND IN FORESTED AREAS DESIGNATED TO BE LEFT PRESERVED SHALL BE PROTECTED.

4.3. TREES TO REMAIN LOCATED ALONG THE LIMITS OF CLEARING AND GRADING SHALL BE PRUNED DURING CLEARING OPERATIONS TO AVOID MECHANICAL DAMAGE. THIS SHALL BE ADMINISTRATED UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.

4.4. ANY DAMAGE INFLECTED TO THE ABOVE OR BELOW-GROUND PORTIONS OF THE TREES SHOWED TO BE PRESERVED SHALL BE REPAIRED IMMEDIATELY.

4.5. ALL PRUNING SHALL CONFORM TO THE LATEST EDITION OF ANSI A300 (PART 1) PRUNING STANDARDS. DISEASED LIMBS SHALL BE REMOVED OR TREATED AT THE DISCRETION OF THE ARBORIST. WHILE PRUNING, THE ARBORIST SHALL MAKE NOTE OF ANY CONDITIONS WHICH AFFECT THE HEALTH OR CONDITION OF THE TREE AND RECOMMEND CORRECTIVE TREATMENT FOR THESE CONDITIONS. VINE REMOVAL SHALL BE INCLUDED IN ALL PRUNING ACTIVITIES. UNDER NO CIRCUMSTANCES SHALL THE INTERIOR OF TREES BE STRIPPED OF FOLIAGE, SUCKERS, EPICORMIC BRANCHING, OR OTHER LIVE GROWTH. INTERIOR GROWTH MAY BE THINNED AS NECESSARY TO REMOVE BRANCHES DAMAGED DURING OPERATIONS. DEBRIS FROM PRUNING SHALL BE CHIPPED AND DEPOSITED INTO THE TREE SAVE AREA AND SPREAD BY HAND TO A UNIFORM THICKNESS OR BE REMOVED FROM SITE.

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING ANY WORK.

2. ALL CONSTRUCTION ACTIVITY BEYOND THE LIMITS OF CLEARING AND GRADING SHOWN WITHIN THIS PLAN SET SHALL BE PROHIBITED UNLESS PREVIOUSLY APPROVED BY THE CITY OF FAIRFAX.

ISA CERTIFIED ARBORIST APPROVAL:

Quinn Nolan  
ISA Certified Arborist, NE-7474A  
4035 Ridge Top Road, Suite 601  
Fairfax, VA 22030  
914.482.3766  
quinn.c.nolan@imegcorp.com

02-27-2023  
Date:

HIGHLANDS AT MANTUA  
GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

DESCRIPTION

MARK

DATE

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: NOT TO SCALE  
DESIGN: AH, QN  
DRAWN: AH, QN  
CHECKED: JM

SHEET TITLE:  
TREE PRESERVATION PLAN NOTES AND DETAILS

SHEET No.  
C203

IMEG

4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning

COMMONWEALTH OF VIRGINIA  
ELI GOLDMAN  
Lic. No.55868  
03/29/2024  
PROFESSIONAL ENGINEER

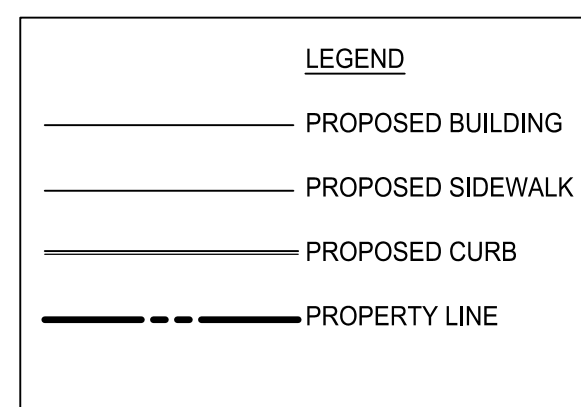




PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: SEE DWGS.  
DESIGN: QN  
DRAWN: QN  
CHECKED: JM

SHEET No.

C300



PROPOSED DEVELOPMENT TABULATION:  
PDR- RESIDENTIAL PLANNED DEVELOPMENT

EXISTING ZONING: PD-C (PLANNED DEVELOPMENT COMMERCIAL)  
PROPOSED ZONING: PDR (RESIDENTIAL PLANNED DEVELOPMENT)

LOT SIZE REQUIREMENTS:  
MINIMUM DISTRICT SIZE: 2 ACRES  
APPLICATION AREA: ±92,354 SF (±2.12 AC)

HEIGHT:  
REQUIRED: NO REQUIREMENT  
PROVIDED: +47 FEET

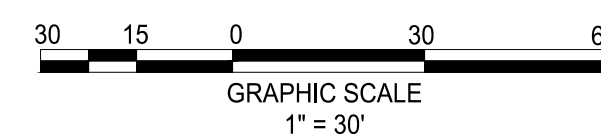
**PARKING REQUIREMENTS:**  
**REQUIRED:** 28 (2 SPACES PER UNIT)  
**PROVIDED:** 81 (2 SPACES PER UNIT IN GARAGE, 2 SPACES PER UNIT ON DRIVEWAY, AND 25 SURFACE PARKING SPACES)

LOADING REQUIREMENTS:  
REQUIRED: NONE  
PROVIDED: NONE

LOT YARDS :  
REQUIRED:  
FRONT: NONE  
SIDE: NONE  
REAR: NONE  
PROVIDED:  
FRONT: 18 FEET  
SIDE: 15 FEET  
REAR: 5 FEET

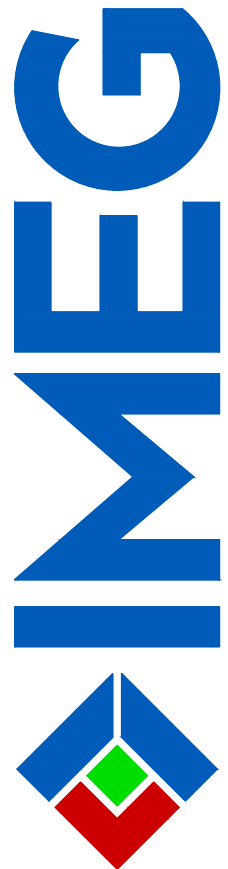
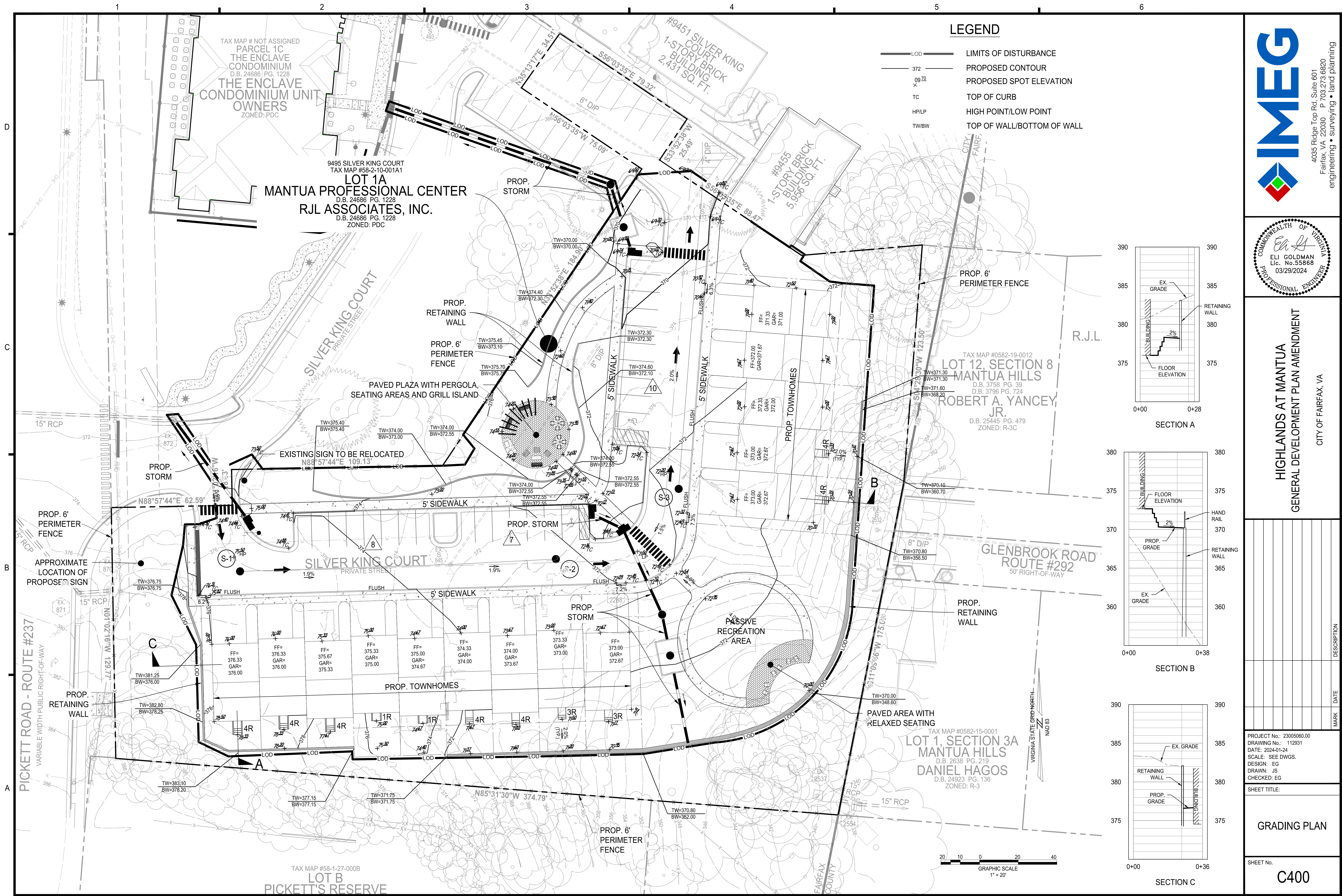
DENSITY:  
REQUIRED: NO REQUIREMENT  
PROVIDED: 6.6 UNITS / ACRE

**NOTE:**  
ENCLAVE WILL MAINTAIN ALL FEATURES AS SHOWN ON THE APPROVED PLAN SUCH AS  
OPEN SPACE AND PARKING REQUIREMENTS.

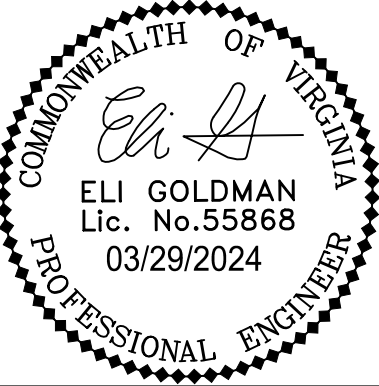




P:\Projects\23005060\00112931\_GDPA\C400 GRADING PLAN.dwg, 3/28/2024, 10:42:14 AM, Jana Morgan.



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



HIGHLANDS AT MANTUA  
GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: SEE DWGS.  
DESIGN: EG  
DRAWN: JS  
CHECKED: EG

SHEET TITLE:

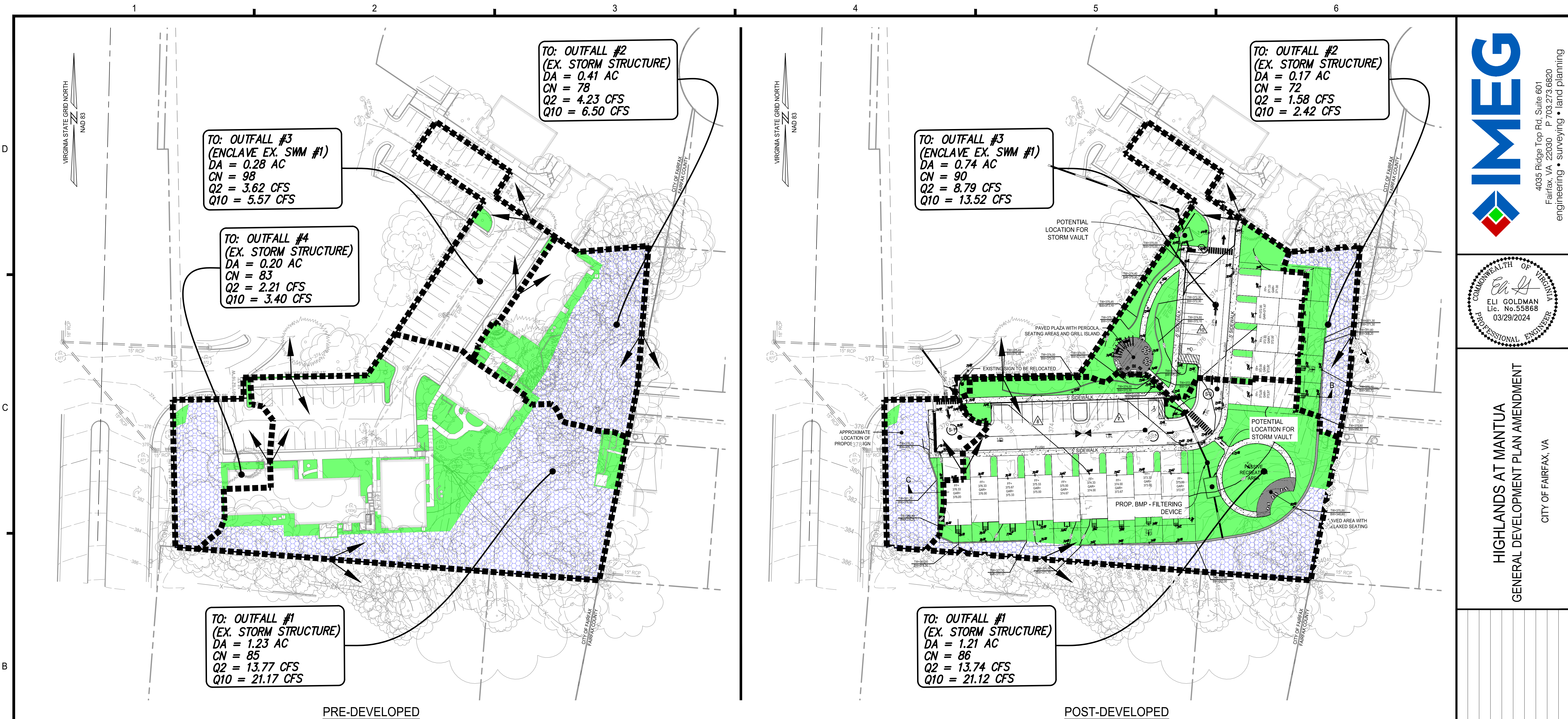
GRADING PLAN

SHEET No.

C400



P:\Projects\23005060.00\112931\_GDPA\C500 PRELIMINARY BMP AND SWM PLAN.dwg, 3/28/2024, 10:42:56 AM, Jana Morgan.



**STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICE (BMP) NARRATIVE:**

**SWM**  
WATER QUANTITY FOR THIS PROJECT WILL BE PROVIDED IN ACCORDANCE WITH STATE CODE 9VAC25-870-66-WATER QUANTITY AND THE CITY OF FAIRFAX STORMWATER ORDINANCE. THERE ARE FOUR OUTFALLS FOR THE SITE AND EACH OUTFALL WILL COMPLY WITH THE CHANNEL PROTECTION AND FLOOD PROTECTION REQUIREMENTS.

**OUTFALL #1**  
CHANNEL PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-B-3 BY USING THE ENERGY BALANCE EQUATION.  
FLOOD PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-C BY HAVING THE 10-YR POST-DEVELOPED FLOW LESS THAN THE 10-YR PRE-DEVELOPED FLOW.  
EXTENT OF REVIEW: THE LIMITS OF ANALYSIS FOR THIS OUTFALL WILL BE TO A POINT WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN OR EQUAL TO 1% OF THE TOTAL WATERSHED DRAINING TO THAT POINT.

**NOTE:** A DETENTION FACILITY WILL BE NEEDED TO MEET THIS REQUIREMENT.

**OUTFALL #2**  
CHANNEL PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-B-1-A BY DRAINING TO A MANMADE CONVEYANCE SYSTEM AND WITHOUT CAUSING EROSION.  
FLOOD PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-C BY HAVING THE 10-YR POST-DEVELOPED FLOW LESS THAN THE 10-YR PRE-DEVELOPED FLOW.  
EXTENT OF REVIEW: THE LIMITS OF ANALYSIS FOR THIS OUTFALL WILL BE TO A POINT WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN OR EQUAL TO 1% OF THE TOTAL WATERSHED DRAINING TO THAT POINT.

**OUTFALL #3**  
THIS OUTFALL DRAINS TO AN EXISTING SWM FACILITY LOCATED TO THE NORTH THAT WAS INSTALLED WITH THE ENCLAVE. THE RUNOFF FROM THIS DEVELOPMENT WILL BE DESIGNED TO LEAVE THE SITE AT OR BELOW THE RUNOFF RATE FROM THE PRE-DEVELOPED CONDITION.

**NOTE:** A DETENTION FACILITY WILL BE NEEDED TO MEET THIS REQUIREMENT.

**OUTFALL #4**  
CHANNEL PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-B-1-A BY DRAINING TO A MANMADE CONVEYANCE SYSTEM AND WITHOUT CAUSING EROSION.  
FLOOD PROTECTION: THIS OUTFALL WILL MEET THE REQUIREMENTS OF SECTION 9VAC25-870-66-C BY HAVING THE 10-YR POST-DEVELOPED FLOW LESS THAN THE 10-YR PRE-DEVELOPED FLOW.  
EXTENT OF REVIEW: THE LIMITS OF ANALYSIS FOR THIS OUTFALL WILL BE TO A POINT WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN OR EQUAL TO 1% OF THE TOTAL WATERSHED DRAINING TO THAT POINT.

**BMP**  
THE PROJECT WILL USE THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) REDEVELOPMENT SPREADSHEET TO MEET THE STATE, PART IIB CRITERIA (9VAC25-870-65) AND CITY WATER QUALITY DESIGN CRITERIA. THE PROJECT SITE AREA FOR WATER QUALITY CALCULATIONS WILL INCLUDE ALL AREAS WITHIN THE LIMITS OF CLEARING AND GRADING. TO MEET THE WATER QUALITY REQUIREMENT, A HYDRODYNAMIC SEPARATOR WILL BE INSTALLED IN THE SE CORNER TO TREAT OUTFALL #3. OUTFALL #1 DRAINS TO AN EXISTING BMP THAT IS PART OF THE ENCLAVE DEVELOPMENT TO THE NORTH.

**NOTE:**  
THE LOCATIONS AND SIZES OF THE BMP/SWM FACILITIES SHOWN ARE BASED ON PRELIMINARY CALCULATIONS. THE FINAL LOCATION, TYPE AND SIZE OF THE FACILITIES MAY CHANGE WITH THE FINAL SITE PLAN WHILE STILL MEETING ALL ABOVE NOTED BMP AND SWM REQUIREMENTS FOR THE STATE AND CITY.

**IMEG**  
4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning

COMMONWEALTH OF VIRGINIA  
ELI GOLDMAN  
Lic. No. 55868  
03/29/2024  
PROFESSIONAL ENGINEER

**HIGHLANDS AT MANTUA  
GENERAL DEVELOPMENT PLAN AMENDMENT**  
CITY OF FAIRFAX, VA

MARK	DATE	DESCRIPTION

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: SEE DWGS.  
DESIGN: EG  
DRAWN: JS  
CHECKED: EG

SHEET TITLE:

**PRELIMINARY BMP  
AND SWM PLAN**

SHEET No.  
**C500**



SANITARY COMPUTATIONS

FROM	TO	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Percent Full	Assumptions	Inc (MGD)	Peak Flow Factor	Design Inc (MGD)	Cummulative Combined Flow (MGD)
S-1	Ex. S645	362.90	362.18	109.00	0.66	8	PVC	0.013	0.98	0.63	0.01	0.009	1.0	0.01	5 Proposed TH - SOUTHWEST (0.0014 MGD)	0.0014	6.5	0.0091	0.009
S-2	Ex. S645	362.46	362.18	54.59	0.51	8	PVC	0.013	0.87	0.56	0.03	0.016	1.0	0.03	4 Proposed TH - SOUTHEAST (0.0011 MGD)	0.0011	6.5	0.0073	0.016
S-3	Ex. S413	361.12	360.12	156.59	0.64	8	PVC	0.013	0.97	0.62	0.04	0.025	1.2	0.04	5 Proposed TH - NORTHEAST (0.0014 MGD)	0.0014	6.5	0.0091	0.025
Ex. 645	Ex. 413	360.12	359.73	234.79	0.17	8	DIP	0.013	0.49	0.32	0.04	0.025	0.8	0.08					0.025
Ex. 413	Ex. 493	360.61	349.41	158.38	7.07	8	DIP	0.013	3.21	2.08	0.05	0.032	3.2	0.02	Existing Buildings to Remain (9455 Silver King Ct (0.0005 MGD) + 9451 Silver King Ct (0.0005 MGD))	0.0010	6.5	0.0063	0.032
Ex. 493	Ex. S12	348.09	347.82	14.91	1.82	8	PVC	0.010	2.12	1.37	0.05	0.032	2.4	0.02					0.032
Ex. S12	Ex. S11	347.72	335.53	150.04	8.12	8	PVC	0.010	4.48	2.89	0.17	0.110	5.8	0.04	Flow from SP#15090051 (The Enclave)	0.0120	6.5	0.0780	0.110
Ex. S11	Ex. S1356	335.11	329.12	139.27	4.30	8	PVC	0.010	3.26	2.11	0.29	0.188	5.7	0.09	Flow from SP#15090051 (The Enclave)	0.0120	6.5	0.0780	0.188
Ex. S1356	Ex. S1387	329.09	327.50	27.66	5.75	8	PVC	0.010	3.77	2.43	0.32	0.209	6.2	0.09	Flow from SP#15090051 (The Enclave)	0.0033	6.5	0.0211	0.209
Ex. S1387	Ex. S1913	327.46	310.01	162.74	10.72	8	PVC	0.010	5.14	3.32	0.32	0.209	7.9	0.06					0.209

Notes:  
1. See contributing sewage flow estimate (this sheet) per 9VAC25-790-460 Standards.  
2. All velocities shown are calculated per a partial flow analysis.

SANITARY SEWER ANALYSIS

THE PURPOSE OF THIS ANALYSIS IS TO DEMONSTRATE THE CAPACITY AND HYDRAULIC ADEQUACY OF THE DOWN STREAM SANITARY SEWER MAIN.

EXISTING CONDITIONS:

CURRENTLY, THE EXISTING SITE CONSISTS OF SIX (6) OFFICE BUILDINGS WITH SEWER LATERALS THAT TIE INTO EXISTING MANHOLE S645 AND EXISTING MANHOLE S413. THE SITE FLOWS TO THE NORTH.

NOTE: EXISTING MANHOLE S2073 MAY RECEIVE FLOW FROM A LATERAL SOUTH OF THE SITE. THIS LATERAL IS TO BE FIELD VERIFIED TO CONFIRM IF ABANDONED.

PROPOSED CONDITIONS:

THE EXISTING SANITARY SEWER PIPE CONNECTING EXISTING MANHOLE S2073 TO EX MANHOLE S645 WILL BE DEMOLISHED AS THEY CANNOT BE USED TO SERVICE THE PROPOSED DEVELOPMENT. THE SANITARY SEWER IS REROUTED AROUND THE PROPOSED DEVELOPMENT AND CONNECTS TO EXISTING MANHOLE S645 WHICH THEN FLOWS INTO EXISTING MANHOLE S413. THE PROPOSED MANHOLE S-5 CONNECTS TO EXISTING MANHOLE S645.

CAPACITY AND HYDRAULIC ANALYSIS:

THE SANITARY SEWER WAS ANALYZED FROM THE EXISTING MANHOLE S2073 TO EXISTING MANHOLE 1913. AT MANHOLE S614, THE PROPOSED FLOW FROM THIS PROJECT IS COMBINED WITH THE FLOW FROM THE ENCLAVE PROJECT.

CONCLUSION:

IT IS OUR CONCLUSION THAT THE PROPOSED ON-SITE 8-INCH SEWER AND EXISTING DOWNSTREAM 8-INCH SEWER HAS CAPACITY AND HYDRAULIC ADEQUACY WITH THE ADDED REDEVELOPMENT FLOWS.

SANITARY DESIGN FLOWS

EXISTING: 18,150 SF OFFICE SPACE

PROPOSED: 14 TOWNHOMES

CITY OF FAIRFAX AVERAGE DESIGN FLOWS:

280 GPD/UNIT (FOR SINGLE FAMILY ATTACHED)  
200 GPD/1,000 SF (FOR OFFICE/RETAIL)

EXISTING FLOW:

18,100 SF X (200 GPD/1,000 SF) = 0.00362 GPD

PEAK FACTOR: 6.5  
DESIGN FLOW = 0.00362 GPD X 6.5 = 0.0235 GPD

PROPOSED FLOW:

280 GPD/UNIT X 14 UNITS = 3,920 GPD (0.004 MGD)

PEAK FACTOR: 6.5  
DESIGN FLOW = 3,920 GPD X 6.5 = 25,480 GPD

NET INCREASE IN FLOW = 25,480 GPD - 0.0235 GPD = 25,479.98 GPD

PROPOSED SANITARY STRUCTURE DATA

FROM	INV. OUT
S-1	362.90
S-2	362.46
S-3	361.12

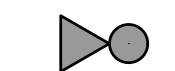




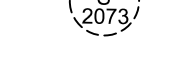
PROPOSED PIPE SCHEDULE

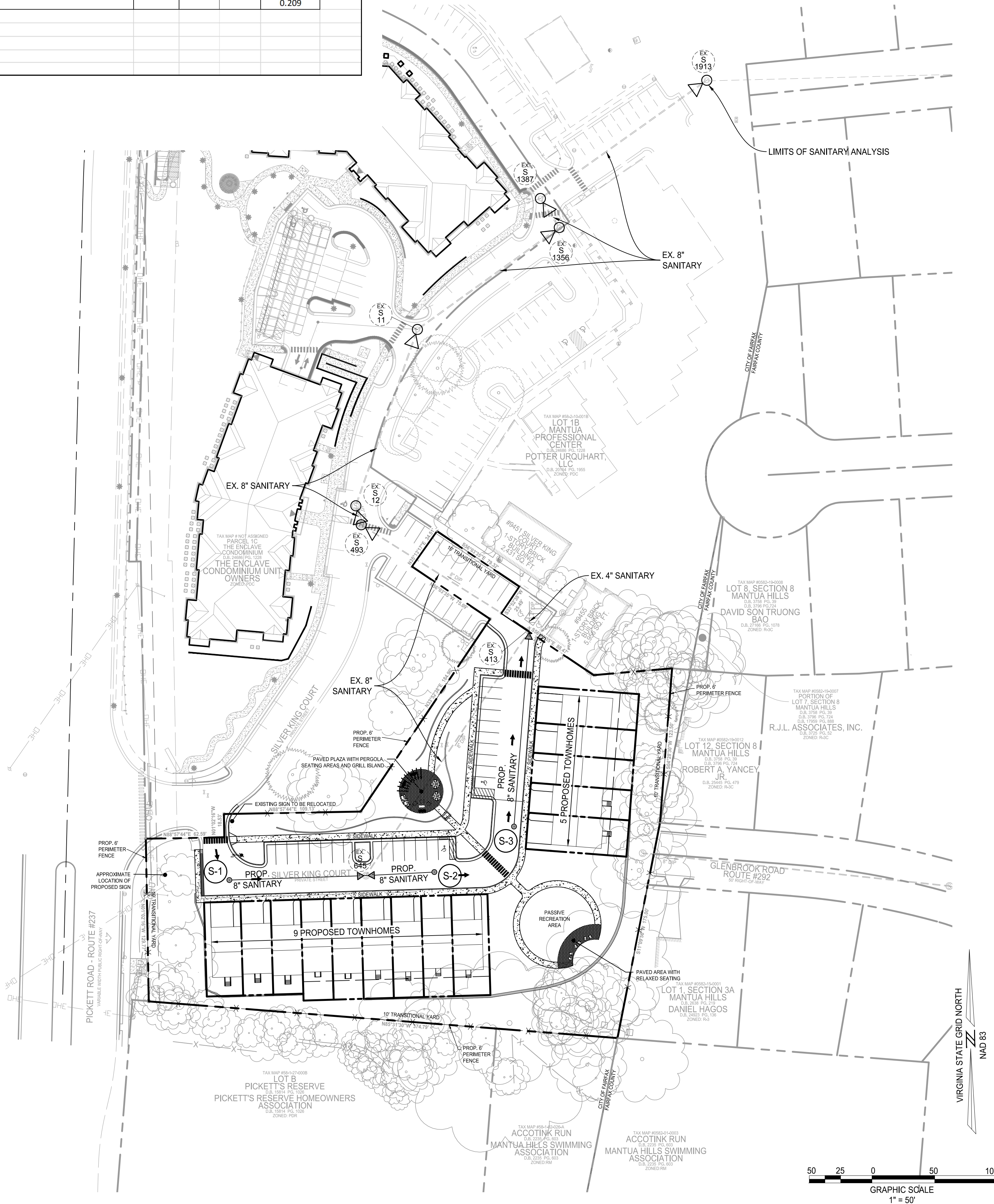
FROM	TO	LENGTH (FT)	MATERIAL
S-1	Ex. S645	109.00	PVC
S-2	Ex. S645	54.59	PVC
S-3	Ex. S413	156.59	PVC

EXISTING BUILDING TO REMAIN FLOWS

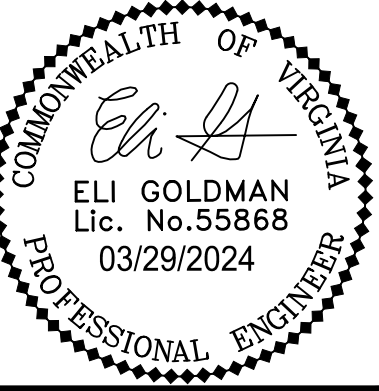
Building	SF	Flow (GPD)	Flow (MGD)
9455 Silver King Ct	2,387	477	0.0005
9451 Silver King Ct	2,431	486	0.0005

LEGEND

-  : PROPOSED SANITARY MANHOLE AND FLOW DIRECTION
-  : PROPOSED SANITARY SEWER
-  : PROPOSED SANITARY STRUCTURE NUMBER
-  : EXISTING SANITARY MANHOLE AND FLOW DIRECTION
-  : EXISTING SANITARY SEWER
-  : EXISTING SANITARY STRUCTURE NUMBER



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



HIGHLANDS AT MANTUA  
GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

MARK	DATE	DESCRIPTION

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: 1" = 50'  
DESIGN: NL  
DRAWN: NL  
CHECKED: EG

SHEET TITLE:

SANITARY SEWER  
ANALYSIS

SHEET No.

C600

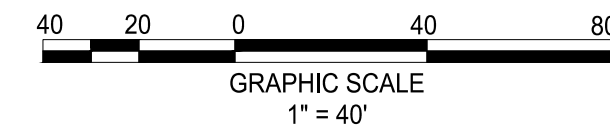
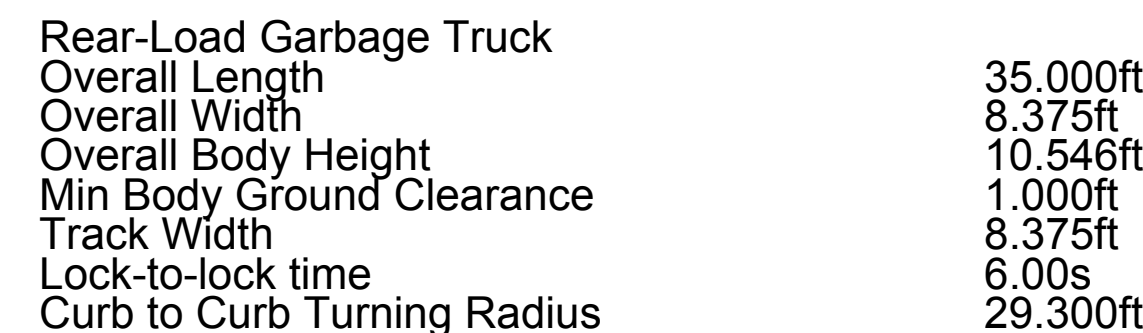
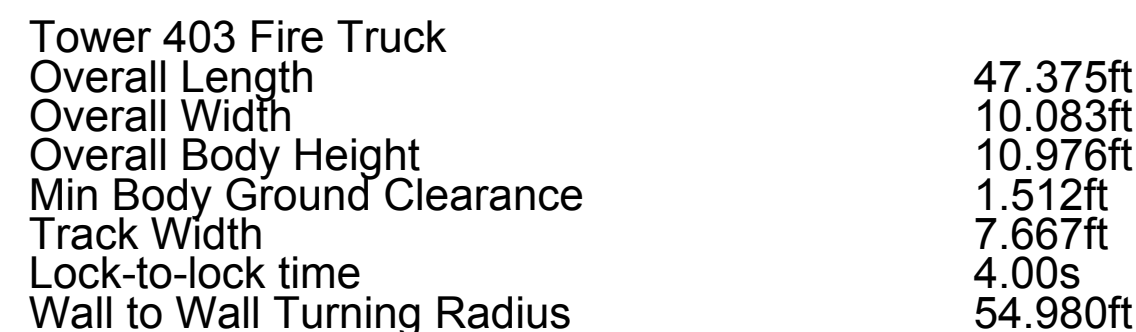


PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: SEE DWGS.  
DESIGN: NL  
DRAWN: NL  
CHECKED: EG

SHEET TITLE:

TURNING  
MOVEMENT PLAN

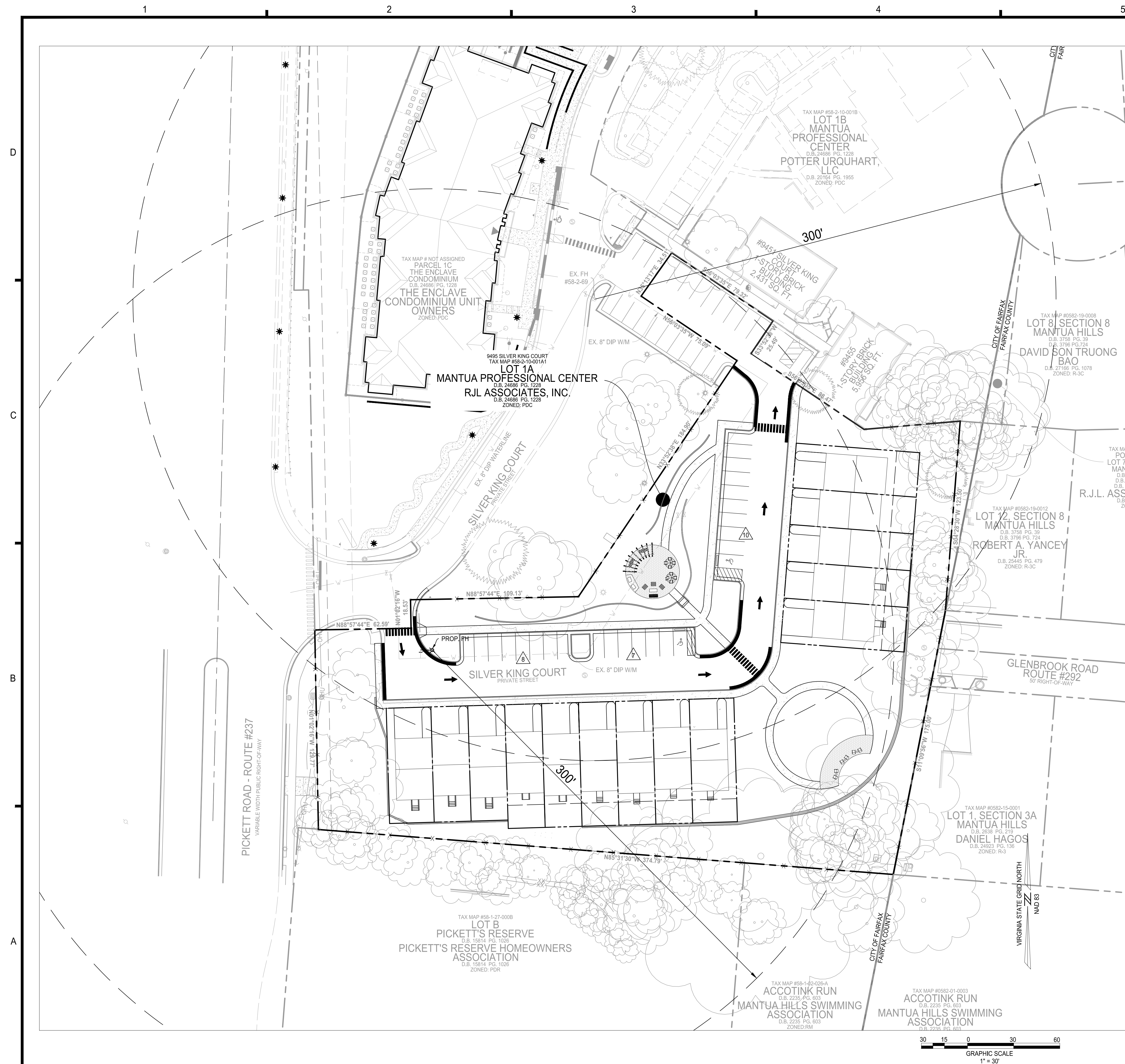
SHEET No. C700













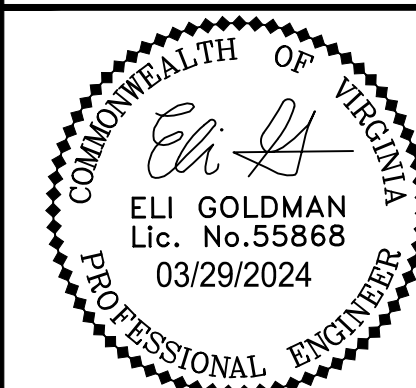


## LEGEND

- |   |                     |
|---|---------------------|
|  | EX. FIRE HYDRANT    |
|  | PROP. FIRE HYDRANT  |
|  | PROP. PROPERTY LINE |
|  | PROP. FIRE LANE     |



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



# HIGHLANDS AT MANTUA GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

[illegible]

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: SEE DWGS.  
DESIGN: NL  
DRAWN: NL  
CHECKED: EG

SHEET TITLE:

## FIRE SAFETY PLAN

SHEET No.

C720





PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: 1" = 30'  
DESIGN: QN  
DRAWN: QN  
CHECKED: JM

---

SHEET TITLE:

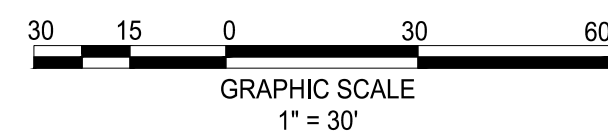
---

OPEN SPACE PLAN  
AND DETAILS

---

SHEET No.

C800





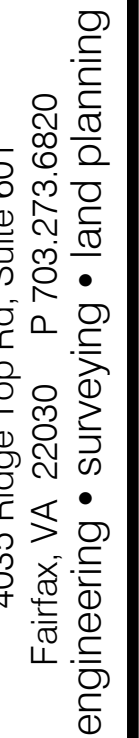
## D



## A



**Clint Good**  
ARCHITECTS, P.C.



## CITY OF FAIRFAX, VA

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: NOT TO SCALE  
DESIGN: QN  
DRAWN: QN  
CHECKED: JM

SHEET TITLE:

## TOWNHOME ELEVATIONS AND DETAILS

SHEET No. \_\_\_\_\_

C900







P:\Projects\23005060\00\112931\_GBP\L101 LANDSCAPE DETAILS & SPECIFICATIONS.dwg, 3/28/2024 10:47:12 AM, Jana Morgan,

D

IMEG CORP. GENERAL LANDSCAPE SPECIFICATION SUMMARY - SHORT FORM (REV. 7/20)  
**SPECIFICATION:** THIS IS A SUMMARY OF CHRISTOPHER CONSULTANTS, LTD. GENERAL LANDSCAPE SPECIFICATION. ALL WORK SHALL FOLLOW THE PROCEDURES OUTLINED IN THE SPECIFICATIONS AND DETAILS CONTAINED HEREIN, WHICH ARE DESIGNED TO EXCEED CURRENT INDUSTRY STANDARDS. SHOULD THERE EXIST A DISCREPANCY BETWEEN THIS SPECIFICATION AND THE INCLUDED CONSTRUCTION DETAILS, THE WRITTEN SPECIFICATION SHALL TAKE PRECEDENCE.

**REFERENCES:** IN LIEU OF PROVIDING COMPREHENSIVE PROPRIETARY SPECIFICATIONS, THE FOLLOWING ARE REFERENCED TO BE GENERAL DEFAULT SPECIFICATIONS WITH THE FOLLOWING MODIFICATIONS. THESE MODIFICATIONS AND THE CONSTRUCTION DETAILS SHOWN IN THIS PLAN SET SHALL TAKE PRECEDENCE OVER THE GENERAL REFERENCED SPECIFICATIONS.

- "LANDSCAPE SPECIFICATION GUIDELINES" LANDSCAPE CONTRACTORS ASSOCIATION OF MD, DC, VA - MOST CURRENT EDITION.
- "AMERICAN STANDARD FOR NURSERY STOCK - ANSI Z60.1" BY AMERICANHORT - MOST CURRENT EDITION
- "TT-77 RECOMMENDED TURFGRASS CULTIVARS FOR CERTIFIED SOD PRODUCTION IN MARYLAND" - MARYLAND TURFGRASS COUNCIL.
- "LANDSCAPE ARCHITECTURE/DESIGN SPECIFICATIONS FOR COMPOST USE" - US COMPOSTING COUNCIL

IF THERE ARE DISCREPANCIES OR CONTRADICTIONS IN SPECIFICATION SECTIONS OR DETAILS, THE STRICTER SPECIFICATION SHALL TAKE PRECEDENCE. A REQUEST FOR INFORMATION (RFI) CAN ALSO BE SUBMITTED FOR CLARIFICATION.

**LIST OF PLANT MATERIAL:** THE CONTRACTOR WILL VERIFY PLANT QUANTITIES PRIOR TO BIDDING AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANT MATERIALS REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS. QUANTITIES IN THE PLANTING SCHEDULE SHALL TAKE PRECEDENCE OVER QUANTITIES GRAPHICALLY SHOWN ON THE PLAN. SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.

**PLANT IDENTIFICATION:** ALL TREES SHALL BE TRUE TO NAME AS ON PLANT SCHEDULE OR SHOWN ON PLANTING PLANS AND SHALL BE CORRECTLY LABELED INDIVIDUALLY OR IN GROUPS BY GENUS, SPECIES, VARIETY AND CULTIVAR. LABELS ARE TO REMAIN INTACT UNTIL SITE IS APPROVED THROUGH AGENCY INSPECTION, SUBSTANTIAL COMPLETION APPROVAL, OR PER OWNER'S REPRESENTATIVE'S INSTRUCTION.

**PLANT QUALITY:** ALL PLANT MATERIALS SHALL CONFORM TO THE SIZE AND FORM STANDARDS SET FORTH IN THE LATEST EDITION OF AMERICANHORT'S "AMERICAN STANDARD FOR NURSERY STOCK - ANSI Z60.1". ABOVE GROUND: TREES SHALL BE HEALTHY WITH THE COLOR, SHAPE, SIZE, AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES TYPICAL OF THE PLANT SPECIFIED. ANY SIGNS OF STRESS, IMPROPER HANDLING (WOUNDS OR BROKEN BRANCHES), INSECT OR DISEASE DAMAGE, OR DEAD/DISTORTED BRANCHES SHOULD NOT BE PRESENT. TREES SHALL HAVE ONE CENTRAL LEADER (UNLESS OTHERWISE SPECIFIED) AND GRAFTS SHOULD BE FULLY CLOSED AND VISIBLE ABOVE THE SOIL LINE. BELOW GROUND: A MINIMUM OF 3 STRUCTURAL ROOTS SHOULD BE REASONABLY DISTRIBUTED AROUND THE TRUNK (REJECT A TREE WITH STRUCTURAL ROOTS ONLY ON ONE SIDE). THE ROOT CROWN SHOULD NOT BE MORE THAN 2 INCHES BELOW THE SOIL LINE. THE TOP 2 STRUCTURAL ROOTS SHOULD NOT BE MORE THAN 3 INCHES BELOW THE SOIL LINE WHEN MEASURED 4 INCHES AWAY FROM THE TRUNK. THE TOP OF THE OTHER STRUCTURAL ROOT SHOULD NOT BE MORE THAN 5 INCHES BELOW THE SURFACE. THE ROOT SYSTEM SHOULD BE FREE OF POTENTIALLY STEM-GIRDLING OR KINKED ROOTS ABOVE THE ROOT COLLAR AND MAIN STRUCTURAL ROOTS.

**INSPECTION:** PLANTS ARE TO BE INSPECTED UPON DELIVERY TO CONTRACTOR BY A CONTRACTOR'S REPRESENTATIVE AND/OR OWNER'S REPRESENTATIVE. TREES NOT PRESENTING PROPER FORM, INCORRECT VARIETY, SIGNS OF POOR HEALTH OR OVER-STRESS, AND GIRDLING ROOTS ARE TO BE REJECTED.

**STORAGE & TRANSPORT:** PLANT MATERIALS SHOULD BE PROTECTED FROM DESSICATION DURING TRANSPORT VIA BREATHABLE FABRIC COVERING THE CANOPY AND BY WATERING ROOTBALL/POT THOROUGHLY IMMEDIATELY PRIOR TO TRANSPORT. PLANT MATERIALS SHOULD BE INSTALLED ON DAY OF DELIVERY TO SITE. IF THAT IS NOT POSSIBLE, A TEMPORARY STORAGE AREA CAN BE CONSTRUCTED ON-SITE. PLANTS ARE NOT TO BE STORED ON BARE ASPHALT. IF STORAGE AREA IS ASPHALT, COVER BARE ASPHALT WITH A LAYER OF WOODCHIPS. STORAGE SHOULD BE IN SHADE, AND PLANTS BE REGULARLY WATERED AT ROOT-BALL LEVEL, AND SPACED SO FOLIAGE FROM ONE PLANT DOES NOT INTERFERE WITH FOLIAGE OF ANOTHER. TALL PLANT MATERIALS ARE TO REMAIN UPRIGHT DURING STORAGE. LONGER TERM STORAGE PLANTS ARE TO BE HEELED-IN OR STORED IN MULCH TO THE TOP OF THE CONTAINER/ROOT BALL. PLANT MATERIALS SHALL NOT BE STORED ON-SITE FOR MORE THAN TWO WEEKS. PLANTS STORED IMPROPERLY OR FOR TOO LONG MAY BE SUBJECT TO REJECTION AND REPLACEMENT DEPENDENT ON ULTIMATE PLANTING CONDITION.

**PLANTING:** PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS ON THIS SHEET. DETAILS AND SPECIFICATIONS FOR OTHER SPECIFIC LANDSCAPE ITEMS, SUCH AS TREE PRESERVATION OR EROSION CONTROL MAY BE FOUND ELSEWHERE IN THIS DRAWING SET ON THEIR OWN RESPECTIVE SHEET. FOR ITEMS NOT SPECIFICALLY ADDRESSED BY THIS PLAN SET, REFER TO THE LATEST EDITION OF THE "LANDSCAPE SPECIFICATION GUIDELINES" DEVELOPED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MD, DC, AND VA. SHOULD THERE BE ANY AMBIGUITIES OR QUESTIONS, PLEASE UTILIZE THE FORMAL RFI/SUBMITTAL PROCESS.

**TREES:** THE PLANTING HOLE DIAMETER IS TO BE AT A MINIMUM THREE TIMES THE DIAMETER OF THE ROOT BALL. THE DEPTH OF THE PLANTING HOLE SHALL BE DUG SO THAT THE SHOULDER OF THE ROOT BALL IS LEVEL WITH THE EXISTING GRADE LEAVING THE ROOT FLARE SLIGHTLY HIGHER. WHEN PLANTING ON A SLOPE, THE DEPTH OF THE HOLE SHALL BE DUG SO THAT THE BOTTOM OF THE ROOT FLARE IS AT THE LEVEL OF THE EXISTING GRADE AT THE SIDES OF THE HOLE. IF THE PLANTING HOLE IS MECHANICALLY DUG, THE HOLE IS TO BE SCARIFIED BY SLIGHTLY ENLARGING HOLE BY HAND DIGGING THE SIDES AND BOTTOM TO PREVENT GLAZING. THE SIDES OF THE HOLE SHOULD BE VERTICAL OR SLOPING OUTWARDS. HOLES ARE NOT TO BE DUG WHEN SOIL IS SATURATED. FOR BALLED AND BURLAPPED TREES, THE WIRE ROOT BALL CAGE IS TO BE REMOVED AND BURLAP IS TO BE CUT AND COMPLETELY REMOVED FROM THE TOP AND A MINIMUM OF 8" TO 12" DOWN THE SIDE OF THE ROOT BALL. DO NOT FOLD BURLAP DOWN INTO HOLE. IT MUST BE REMOVED. ANY SYNTHETIC MATERIALS ARE TO BE COMPLETELY REMOVED FROM THE TRUNK AND ROOT BALL. BACKFILL IN LIFTS USING THE SAME SOIL DUG TO CREATE THE HOLE, BEING CAREFUL NOT TO OVER-COMPACT THE SOIL. INOCULATE BACKFILL SOIL OR ROOTBALL WITH AN APPROVED BALANCED (ENDO/ECTO) COMMERCIAL MYCORRHIZAE APPLICATION. DO NOT AMEND OR ADD FERTILIZER UNLESS EXPRESSLY SPECIFIED TO DO SO OR IS PART OF THE APPROVED MYCORRHIZAE INNOCULANT PRODUCT. DO NOT PLACE ANY SOIL ON TOP OF ROOT BALL. TREES ARE TO BE MULCHED TO FULL DEPTH SPECIFIED IMMEDIATELY AFTER PLANTING. A ½" LAYER OF APPROVED COMPOST IS TO BE PLACED UNDER THE MULCH LAYER. DO NOT PLACE MULCH AGAINST TREE TRUNK.

**STAKING:** STAKING (IF ANY) IS TO BE INSTALLED PER THE ACCOMPANYING DETAILS, UTILIZING TREE WEBBING STRAPS WITH GROMMETS TO PREVENT WIRE FROM COMING IN CONTACT WITH THE TREE. WHILE NOT PREFERRED, FULL TREE WEBBING SYSTEMS ARE ALSO PERMISSIBLE IF APPROVED THROUGH SUBMITTAL, AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS. WIRE IS TO BE TENSIONED TO ALLOW FOR 1/2 INCH OF DEFLECTION UP OR DOWN, AND TENSION SHALL BE RECHECKED AND ADJUSTED ON A REGULAR BASIS. STAKING IS TO BE REMOVED AS SOON AS POSSIBLE AFTER ONE YEAR. GARDEN HOSE IS NOT TO BE UTILIZED FOR STAKING.

**IRRIGATION:** FOR PERMANENT SYSTEMS, IRRIGATION SHOULD BE LARGELY INSTALLED PRIOR TO PLANT INSTALLATION TO AVOID HAVING TO DISTURB PLANTING BEDS OR MOVE PLANTS TO ACCOMMODATE THE INSTALLATION OF THE IRRIGATION SYSTEM. FOR SITES WITH NO PERMANENT IRRIGATION SYSTEM, TREES ARE TO BE IRRIGATED UNTIL ESTABLISHED BY THE USE OF TEMPORARY WATER BAGS THROUGH ONE GROWING YEAR OR UNTIL ESTABLISHED. SHRUBS, PERENNIAL BEDS, AND LAWNS ARE TO BE THOROUGHLY HAND-WATERED OR BY MOVABLE TEMPORARY IRRIGATION (SPRINKLERS OR DRIP HOSE) AS NECESSARY TO REFLECT LOCAL WEATHER CONDITIONS. WATERING IS TO BE DEEP INTO THE SOIL AND INFREQUENT, AS OPPOSED TO LIGHT SURFICIAL WATERING PERFORMED OFTEN.

**SHRUBS:** FOR CONTAINER SHRUBS, THE PLANTING HOLE IS TO BE DUG 3 TIMES THE WIDTH OF THE INTACT CONTAINER. THE CONTAINER IS TO BE COMPLETELY REMOVED AND THE SIDES OF THE SOIL/ROOT CLUMP SCARIFIED WITH A STERILE SHARP KNIFE. THEY SHALL BE PLANTED SO THAT THE TOP OF THE SOIL LEVEL OF THE CONTAINER IS NO MORE THAN 1.5" ABOVE THE ORIGINAL GRADE. FOR BALLED AND BURLAPPED SHRUBS, REMOVE AS MUCH BURLAP AS POSSIBLE FROM THE TOP AND SIDES OF THE ROOTBALL. DO NOT FOLD BURLAP INTO HOLE. PLANT WITH THE ROOT FLARE SLIGHTLY HIGHER THAN THE SURROUNDING GRADE. BACKFILL WITH SOIL DUG TO CREATE THE HOLE. DO NOT COVER TOP OF ROOT BALL/CLUMP.

**GROUND COVERS/PERENNIALS:** BEDS ARE TO BE PREPARED BY TILLING WELL TO A MINIMUM DEPTH OF 6", AND SOILS SHALL BE AMENDED BY INCORPORATING 1" OF COMPOST MEETING THE US COMPOSTING COUNCIL REFERENCE SPECIFICATION, 1" OF WORM CASTINGS AND/OR WELL DECOMPOSED COMMERCIALLY PRODUCED COMPOST, OR A CLASS A BIOSOLID ALSO MEETING THE REFERENCED US COMPOSTING COUNCIL SPECIFICATION PRIOR TO PLANTING. APPLY 3" OF SHREDDED NON-DYED HARDWOOD MULCH IMMEDIATELY AFTER PLANTING.

**COMPACTED OR POORLY DRAINED SOILS:** FOR SITES WITH HEAVILY COMPACTED OR POORLY DRAINING SOILS, ALTERNATE PLANTING METHODS WILL NEED TO BE EMPLOYED. CONTACT PROJECT LANDSCAPE ARCHITECT FOR ADDITIONAL PLANTING DETAILS AND SPECIFICATIONS SHOULD EITHER UNFORESEEN CONDITION BE ENCOUNTERED.

**CONFLICTS WITH EXISTING ROOTS:** PROPOSED LANDSCAPE MAY BE SHOWN TO BE PLANTED IN THE CRITICAL ROOT ZONES OF EXISTING LARGE TREES. SHOULD, IN THE COURSE OF PLANTING, LARGE WOODY ROOTS BE DISCOVERED BELONGING TO ADJACENT LARGE TREES THAT ARE TO BE PRESERVED, SHIFT THE PLANTING LOCATION OF THE TREE TO BE PLANTED TO AVOID CUTTING THE WOODY ROOT. SHOULD A SUITABLE PLANTING LOCATION NOT BE FOUND WITHIN THE PROXIMITY OF WHERE A PROPOSED TREE IS TO BE PLANTED, CONTACT THE PROJECT LANDSCAPE ARCHITECT FOR ALTERNATE PLANTING LOCATION AND RECORDING OF THE DISCREPANCY FOR LANDSCAPE INSPECTION/APPROVAL PURPOSES.

**IRRIGATION:** NEW PLANT MATERIALS ARE TO BE WATERED AS NECESSARY TO MAINTAIN HEALTH. IF NO PERMANENT IRRIGATION SYSTEM IS INSTALLED, TREES ARE TO BE WATERED UNTIL ESTABLISHED THROUGH THE USE OF TEMPORARY WATER BAGS. SHRUBS, PERENNIALS, AND GROUND COVERS SHALL BE HAND-WATERED. INFREQUENT DEEP WATERING IS PREFERRED TO MORE FREQUENT QUICK/SALLOW WATERING.

#### LAWN AREAS:

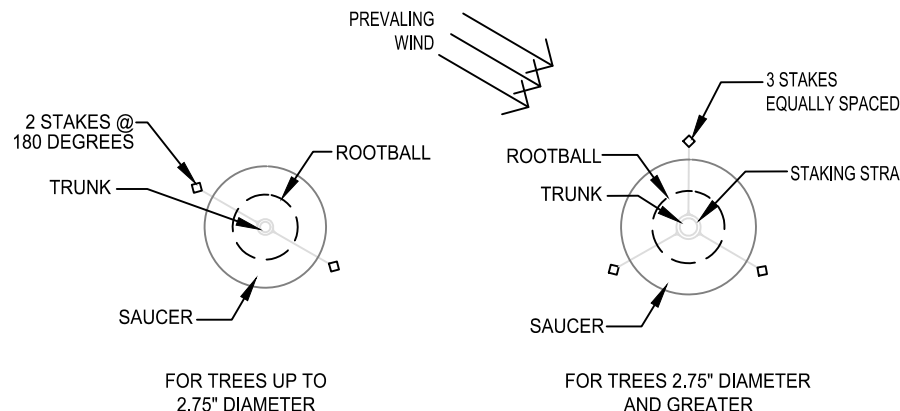
**SEEDED LAWN AREA:** AREAS TO BE SEEDED SHALL HAVE PLANTING SOIL TILLED TO A DEPTH OF 6" AND FREE OF STONES GREATER THAN 1" DIAMETER OR LENGTH. ANY AMENDMENTS THAT ARE TO BE ADDED SHOULD BE TILLED INTO SOIL PRIOR TO SEEDING. A SEED MIX COMPOSITION CHART SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. UNLESS SPECIFIED BY THE OWNER'S REPRESENTATIVE, THE SEED MIX MUST CONTAIN A MINIMUM OF THREE CULTIVARS OR TYPES OF GRASS IN THE BLEND, CHOSEN FROM THE RECOMMENDED CULTIVARS LIST OF THE MOST RECENT "TT-77 RECOMMENDED TURFGRASS CULTIVARS FOR CERTIFIED SOD PRODUCTION IN MARYLAND" DOCUMENT PRODUCED BY THE UNIVERSITY OF MARYLAND AND THE MARYLAND TURFGRASS COUNCIL. USE OF CULTIVARS ALSO APPEARING ON THE TURFGRASS WATER CONSERVATION ALLIANCE APPROVED LIST IS ENCOURAGED. SEEDS COATINGS THAT AID IN GERMINATION, MOISTURE RETENTION AND PREVENT LOSS TO BIRD CONSUMPTION ARE ACCEPTABLE. SEEDED AREAS ARE TO BE COVERED BY A LIGHT AND LOOSE LAYER OF RAPIDLY DEGRADABLE MULCH SUCH AS STRAW OR HYDRAULICALLY APPLIED CELLULOSE. USE OF EROSION CONTROL BLANKETS OR ANY SYNTHETIC WEBBING IS NOT PERMISSIBLE FOR LAWN AREAS UNLESS SPECIFIED BY THE OWNER'S REPRESENTATIVE.

**SODDED LAWN AREA:** UNLESS A PROPRIETARY SOD IS SPECIFIED BY THE OWNER'S REPRESENTATIVE, SOD MUST BE OF A MARYLAND OR VIRGINIA CERTIFIED VARIETY SUITED TO THE SPECIFIC GROWING REQUIREMENTS OF WHERE IT IS TO BE INSTALLED. GROWER AND VARIETY TO BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO ORDERING. CERTIFICATION DOCUMENTATION FOR ALL SOD IS TO BE PROVIDED TO THE OWNER'S REPRESENTATIVE UPON DELIVERY. FOR INSTALLATION ON SLOPES, THE CONTRACTOR SHALL USE BIODEGRADABLE SOD SPIKES TO SECURE SOD IN PLACE. METAL SOD STAPLES ARE NOT TO BE UTILIZED FOR INSTALLATION.

**INVASIVE SPECIES:** EXISTING INVASIVE SPECIES ARE TO BE REMOVED UTILIZING APPROPRIATE APPROVED METHODS INCLUDING IN THE INVASIVE SPECIES MANAGEMENT PLAN (IF APPLICABLE) PRIOR TO THE INSTALLATION OF NEW PLANT MATERIALS, AND IS SUBJECT TO INSPECTION, AND IS A FACTOR IN THE CERTIFICATION OF INSTALLATION.

**NOTE:** THESE SPECIFICATIONS AND DETAILS ARE BASED ON THOSE DEVELOPED BY THE URBAN TREE FOUNDATION, AND HAVE BEEN IMPROVED TO REFLECT CURRENT RESEARCH INTO EFFECTIVE PLANTING. THE ISA HAS ALSO REPLACED THEIR OWN DETAILS AND NOW REFERENCE THE UTF DETAILS. THE SPECIFICATIONS AND DETAILS ILLUSTRATED IN THIS PLAN SET EXCEED THE STANDARDS SET IN THE ISA, LCA, AND LOCAL JURISDICTIONAL PLANTING DETAILS AND SPECIFICATIONS.

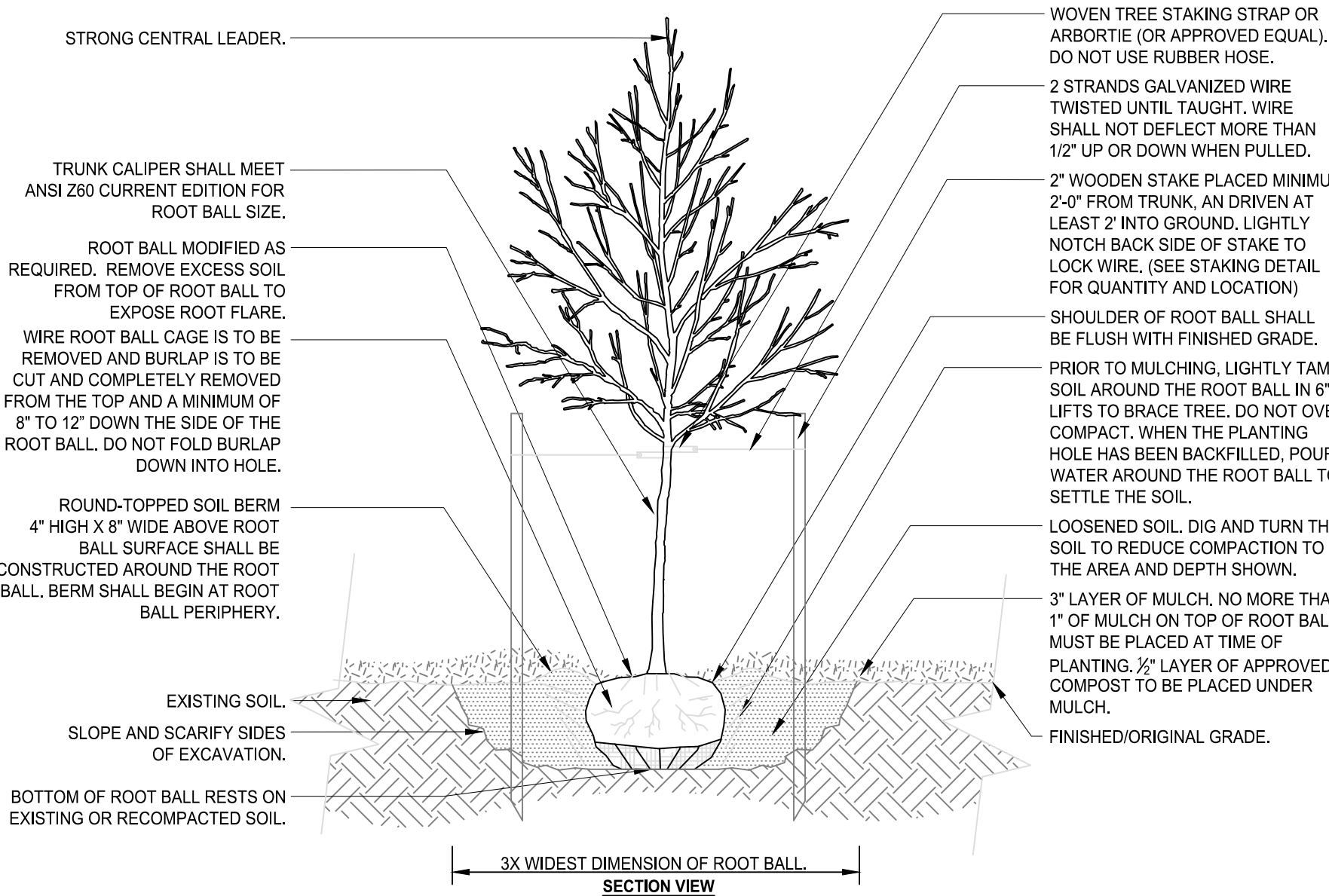
A



- NOTES:
1. UTILIZE ONLY ARBOR-TIE OR APPROVED EQUAL OR STAKING STRAPS AGAINST TREE TRUNKS.
  2. REFERENCE MANUFACTURER'S DETAIL OF APPROVED SYSTEM FOR INSTALLATION INSTRUCTIONS.
  3. WIRE TENSION (IF USED) SHOULD NOT ALLOW GREATER THAN 1/2" OF PLAY IN ANY DIRECTION.
  4. STAKING SHOULD BE REMOVED ON YEAR AFTER PLANTING OR AS INSTRUCTED.

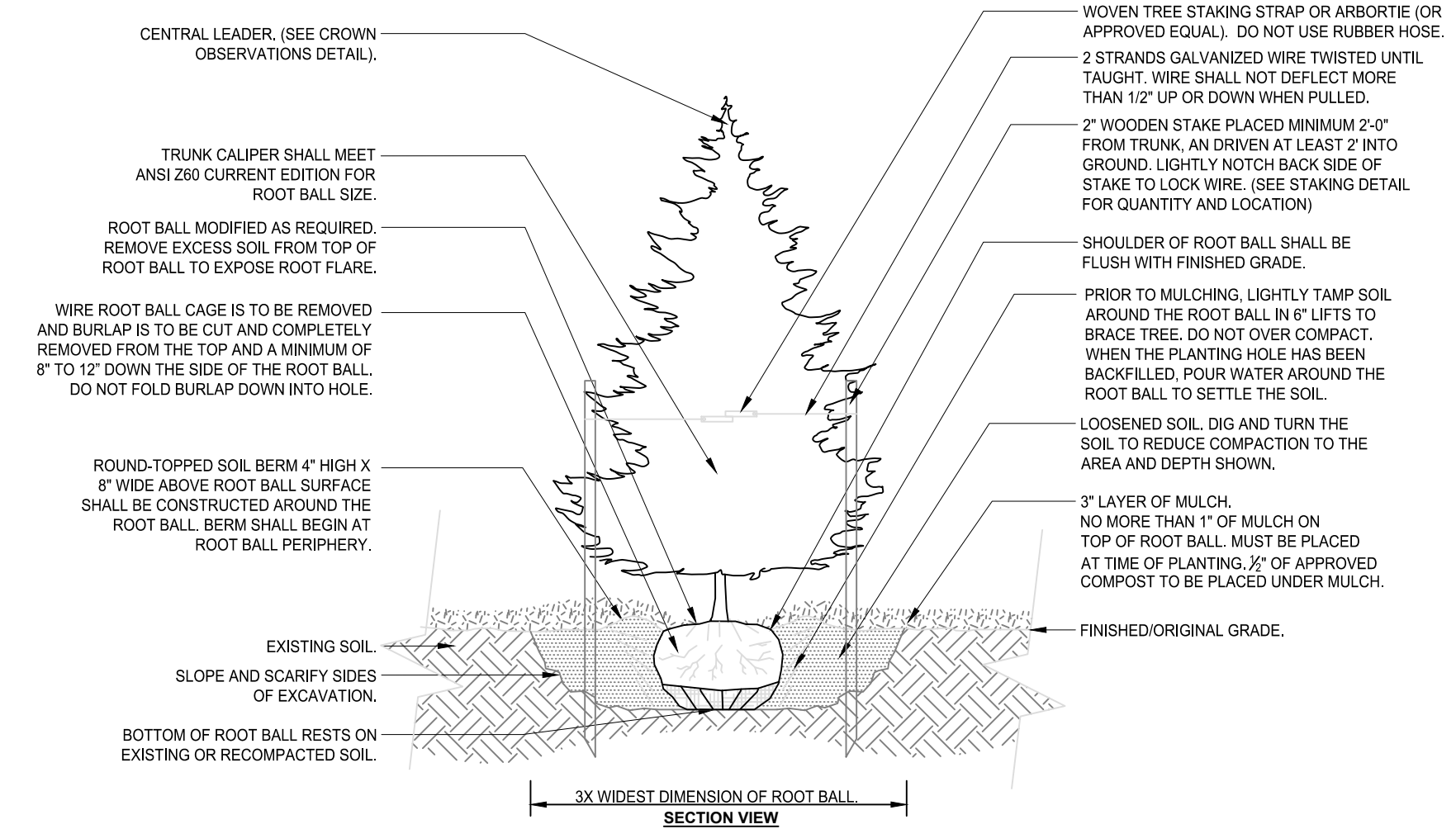
#### 1 TREE STAKING DETAIL

SCALE: NOT TO SCALE



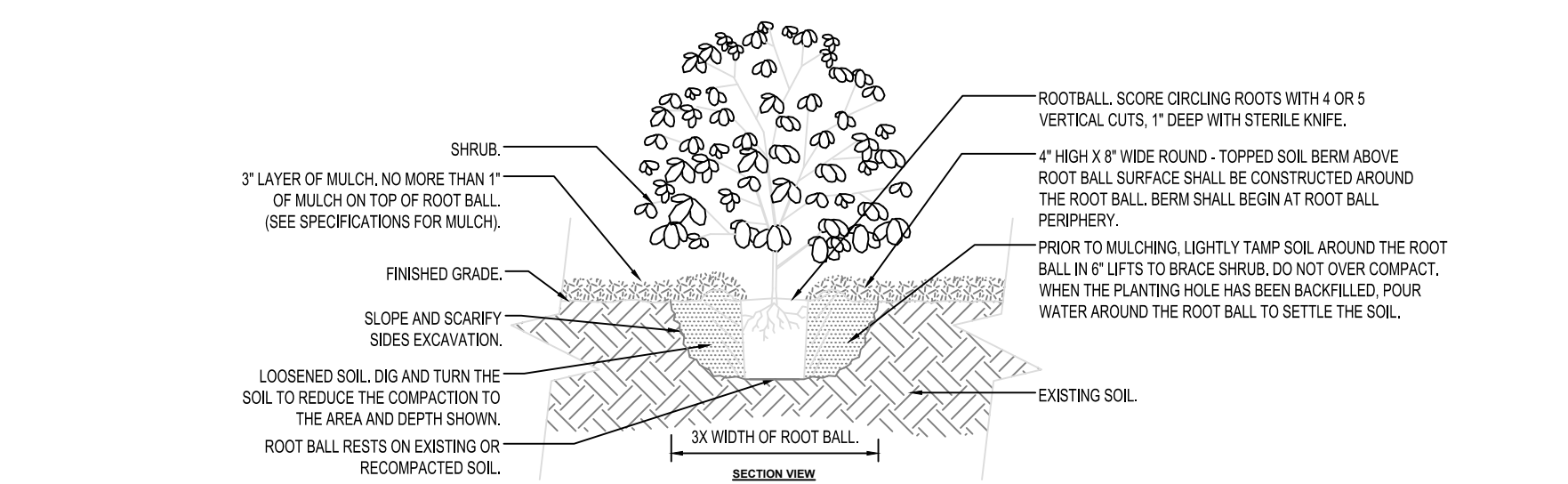
#### 2 DECIDUOUS TREE PLANTING DETAIL

SCALE: NOT TO SCALE



#### 3 EVERGREEN TREE PLANTING DETAIL

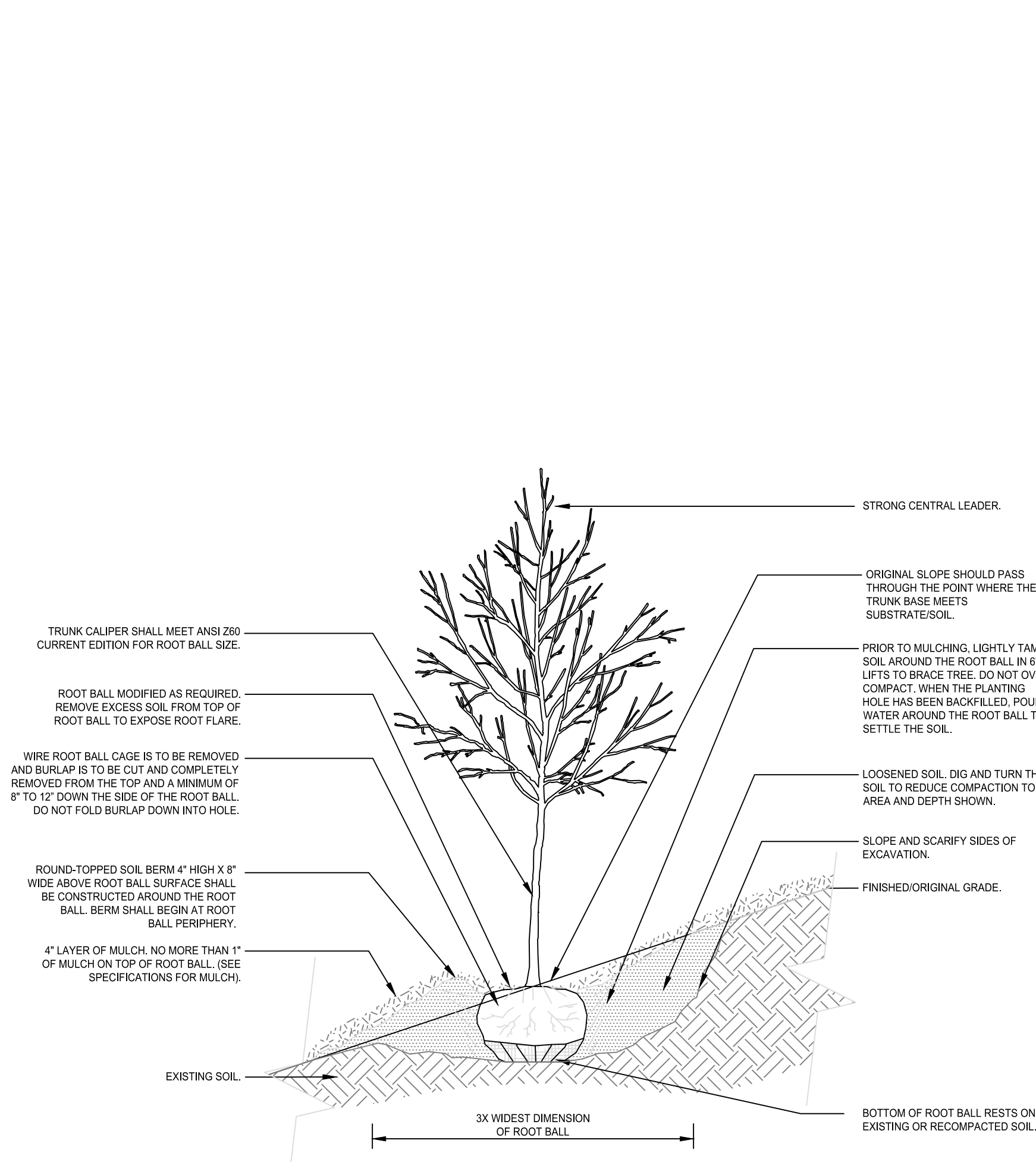
SCALE: NOT TO SCALE



- NOTES:
1. FOR BALL AND BURLAPPED SHRUBS, REMOVE COMPLETELY AS MUCH BURLAP AS POSSIBLE. MINIMUM HALF-WAY DOWN THE SIDE OF THE ROOTBALL. DO NOT FOLD BURLAP DOWN INTO HOLE.
  2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

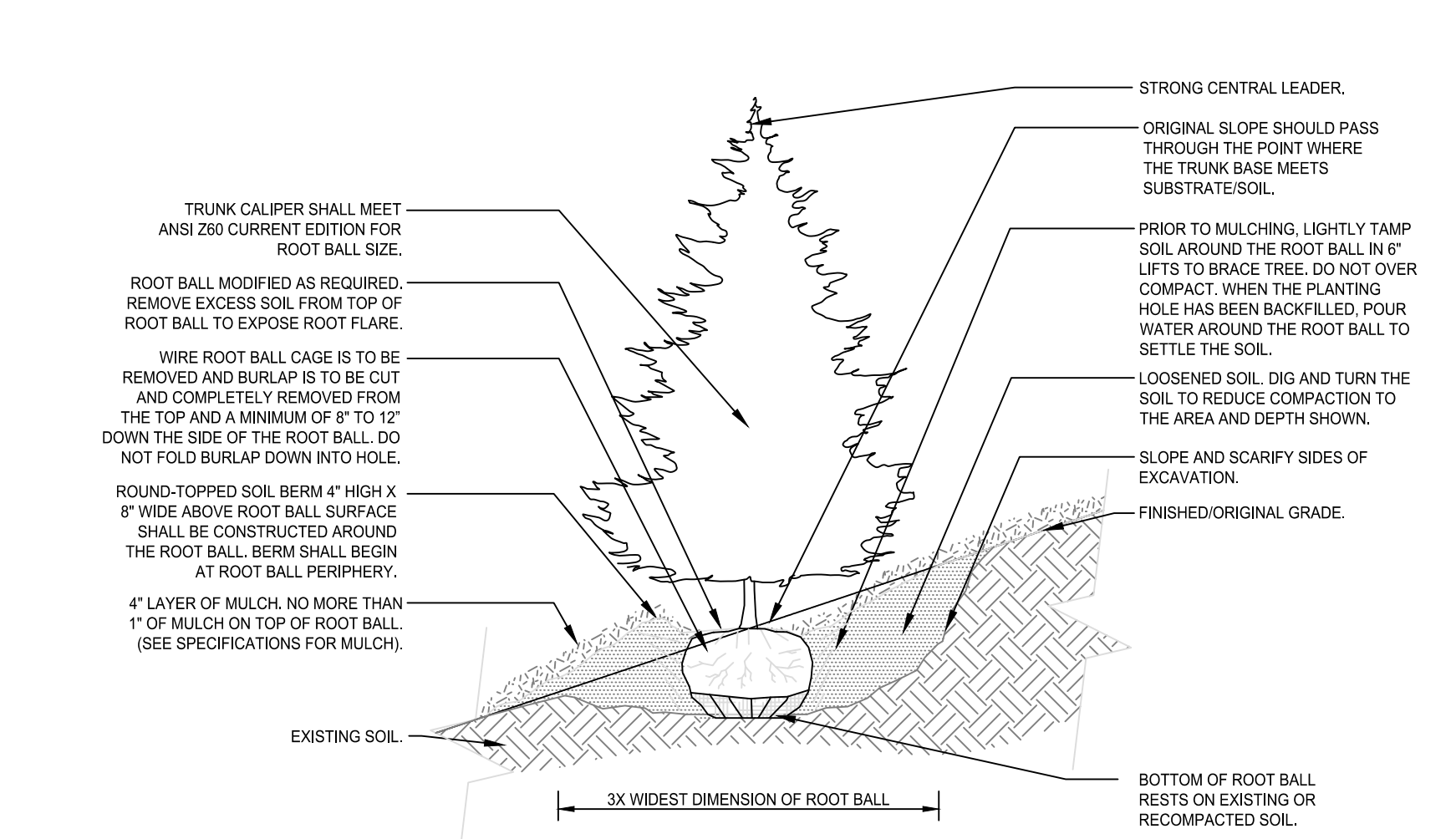
#### 4 SHRUB PLANTING DETAIL

SCALE: NOT TO SCALE



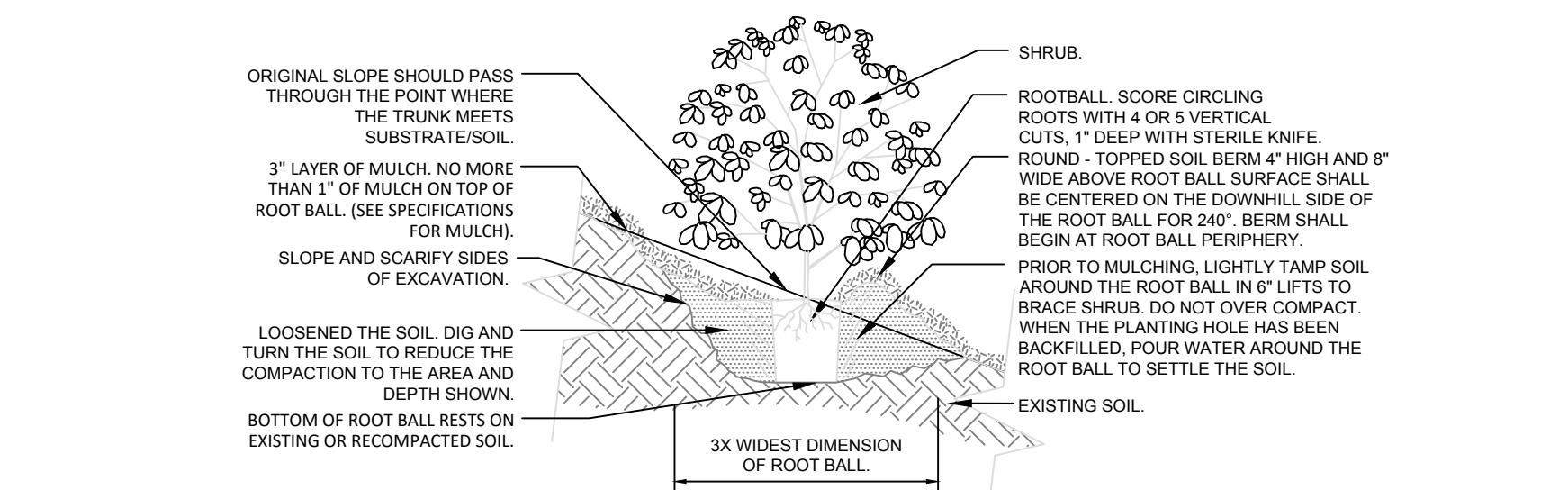
#### 5 DECIDUOUS TREE SLOPE PLANTING DETAIL

SCALE: NOT TO SCALE



#### 6 EVERGREEN TREE SLOPE PLANTING DETAIL

SCALE: NOT TO SCALE



- NOTES:
1. FOR BALL AND BURLAPPED SHRUBS, REMOVE COMPLETELY AS MUCH BURLAP AS POSSIBLE. MINIMUM HALF-WAY DOWN THE SIDE OF THE ROOTBALL. DO NOT FOLD BURLAP DOWN INTO HOLE.
  2. SEE WRITTEN SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

#### 7 SHRUB SLOPE PLANTING DETAIL

SCALE: NOT TO SCALE



4035 Ridge Top Rd, Suite 601  
Fairfax, VA 22030 P 703.273.6820  
engineering • surveying • land planning



## HIGHLANDS AT MANTUA GENERAL DEVELOPMENT PLAN AMENDMENT

CITY OF FAIRFAX, VA

PROJECT No.:	23005060.00
DRAWING No.:	112931
DATE:	2024-01-24
SCALE:	NOT TO SCALE
DESIGN:	QN
DRAWN:	QM
CHECKED:	JM
SHEET TITLE:	

PROJECT No.: 23005060.00  
DRAWING No.: 112931  
DATE: 2024-01-24  
SCALE: NOT TO SCALE  
DESIGN: QN  
DRAWN: QM  
CHECKED: JM

SHEET TITLE:

## LANDSCAPE DETAILS & SPECIFICATIONS

SHEET No.

L101