GENERAL NOTES

1. PROJECT SITE TOTAL TRACT AREA: 11.2 ACRES OF PROPOSED LOD.
2. THE PROJECT AREA IS ZONED R60, R90, R30, AND C1.
3. THE SITE IS LOCATED IN THE LITTLE FALLS BRANCH WATERSHED. THE USE CLASS DESIGNATION IS I-P.
4. THIS SITE IS NOT WITHIN IN A SPECIAL PROTECTION OR PRIMARY MANAGEMENT AREA.
5. THERE ARE NO FLOODPLAINS LOCATED ON-SITE PER FIRM MAP 24031C0455D (SEPTEMBER 29, 2006) AND FIRM MAP 24031C0435D (SEPTEMBER 29, 2006).
6. WETLANDS AND STREAMS ARE AS SHOWN ON THE DRAWINGS.
7. LETTERS WERE SENT TO MARYLAND DEPARTMENT OF NATURAL RESOURCES NATURAL WILDLIFE AND HERITAGE DIVISION AND THE UNITED STATES DEPARTMENT OF THE INTERIOR U.S. FISH AND WILDLIFE SERVICE TO CONFIRM THERE ARE NO THERE ARE NO RARE, THREATENED, OR ENDANGERED SPECIES WITHIN THE PROJECT SITE.
8. A LETTER WAS SENT TO MARYLAND DEPARTMENT OF PLANNING MARYLAND HISTORICAL TRUST TO VERIFY IF THERE ARE ANY HISTORIC OR CULTURAL RESOURCES WITHIN OR ADJACENT TO THE PROJECT SITE. THERE ARE HISTORIC RESOURCES ADJACENT TO THE PROJECT AREA. THEY INCLUDE:
   - ① THE SYCAMORE STORE (35/155-001A)
   - ② R. A. CHARLES CASTLE (35/029-002A)
   - ③ BALTZLEY CASTLE (35/029-001A)
   - ④ BONFIELD'S GARAGE (35/047-000A)
   - ⑤ THE GLEN ECHO HISTORIC DISTRICT(35/026-000A)
   - ⑥ C&O CANAL M:12-46
9. A FORESTRY DIAMETER TAPE WAS THE METHOD USED TO MEASURE THE DIAMETER OF INDIVIDUAL TREES.
10. FIELD WORK WAS CONDUCTED ON JANUARY 29-31, 2013 AND MARCH 7-13, 2013 BY GENE STUM, PLS AND WARREN GRAY, PWS, PWD.
11. THERE ARE SLOPES 25% AND GREATER WITHIN THE PROJECT SITE.
12. THERE ARE HIGHLY ERODIBLE SOILS WITHIN THE PROJECT SITE.
13. THERE ARE THREE POTENTIAL CHAMPION TREES (T-2, T-173, T-174) ADJACENT TO THE PROJECT AREA (SEE TREE SUMMARY). THERE WILL BE NO ADVERSE EFFECTS TO THESE TWO TREES.
14. ADJACENT NRI /FSD APPLICATIONS INCLUDE:

42008072E	420100010	420101090	42010127E
42003266E	42005229E	42005293E	42005356E
42007038E	42007066E	420031530	420043230
420091790	420100500	420120680	

15. WETLANDS WERE IDENTIFIED BY WARREN GRAY, PWS, PWD IN MARCH OF 2013.

NARRATIVE STATEMENT/ EXEMPTION REQUEST:

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION IS PROPOSING TO IMPROVE THE BIKE PATH AND TRAVEL LANES ALONG MACARTHUR BOULEVARD. THE PROJECT INCLUDES PEDESTRIAN, BICYCLE, AND VEHICLE SAFETY IMPROVEMENTS FROM OBERLIN AVENUE TO THE DISTRICT OF COLUMBIA LINE. THE PROJECT WILL UPGRADE THE EXISTING SHARED USE PATH TO A CONTINUOUS 8-FOOT WIDE PATH, WITH A MINIMUM 5-FOOT VEGETATIVE BUFFER BETWEEN MACARTHUR BOULEVARD AND THE PATH (WHERE FEASIBLE). THE PROJECT WOULD ALSO WIDEN MACARTHUR BOULEVARD BY FOUR FEET TO A TOTAL WIDTH OF 26 FEET TO PROVIDE FOR TWO 10-FOOT TRAVEL LANES AND TWO 3-FOOT WIDE STRIPED SHOULDERS.

ACCORDING TO SEC. 22A-5(E) (EXEMPTIONS) OF THE MONTGOMERY COUNTY FOREST CONSERVATION LAW, THE REQUIREMENTS OF ARTICLE 11 DO NOT APPLY TO A STATE OR HIGHWAY CONSTRUCTION ACTIVITY THAT IS SUBJECT TO SECTION 5-103 OF THE NATURAL RESOURCES ARTICLE OF THE MARYLAND CODE, OR SECTION 22A-9. THEREFORE THIS PROJECT IS EXEMPT. FOREST AND STREAMS ARE AS SHOWN ON THE PLANS. THE PROJECT SITE IS NOT WITHIN A SPECIAL PROTECTION AREA.

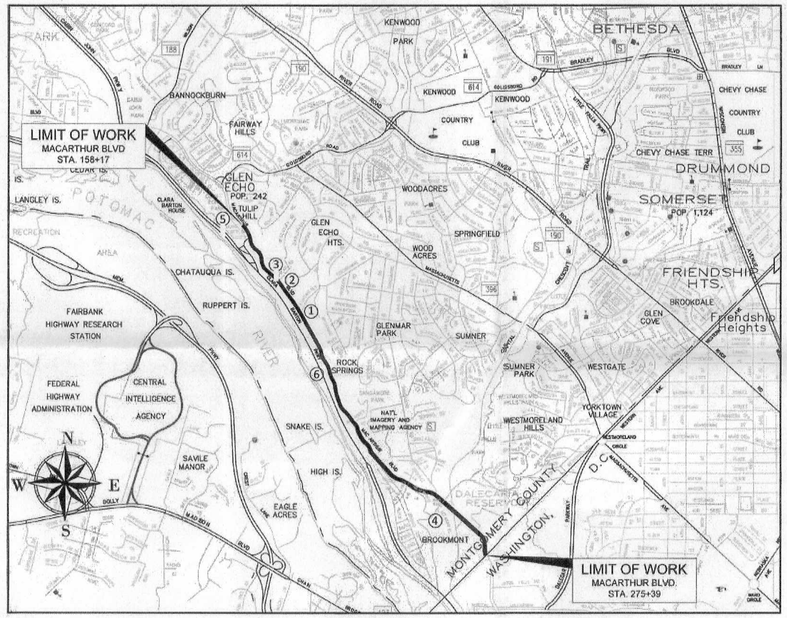
RESOURCE DATA TABLE

1	FOREST	0.37 AC
2	WETLANDS	0.1 AC
3	FOREST IN WETLANDS	0.0 AC
4	FLOODPLAINS	0.0 AC
5	FOREST IN FLOODPLAINS	0.0 AC
6	STREAM BUFFERS	1.4 AC
7	FOREST IN STREAM BUFFERS	0.0 AC

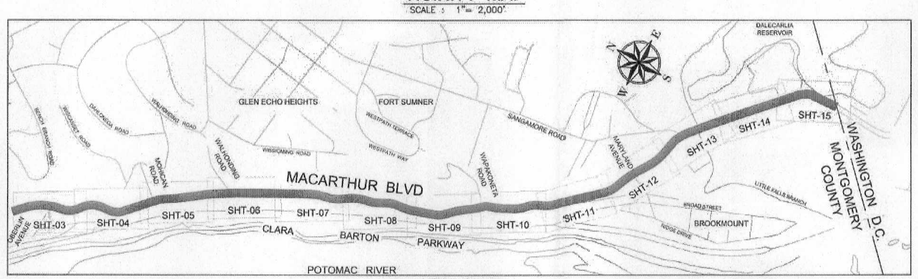
SOIL TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	K FACTOR (WHOLE SOIL)	HIGHLY ERODIBLE	HYDRIC RATING	HYDROLOGIC SOIL GROUP	DRAINAGE CLASS	WATER CAPACITY	PRIME AND OTHER IMPORTANT FARMLANDS
1C	GAILA SILT LOAM, 8 TO 15 PERCENT SLOPES	0.37	NO	PARTIALLY HYDRIC	B	WELL DRAINED	LOW	FARMLAND OR STATEWIDE IMPORTANCE
2B	GLENELG SILT LOAM, 3 TO 8 PERCENT SLOPES	0.32	NO	PARTIALLY HYDRIC	B	WELL DRAINED	LOW	PRIME FARMLAND
2UB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	0.32	NO	PARTIALLY HYDRIC	B	WELL DRAINED	LOW	NOT PRIME FARMLAND
2UC	GLENELG-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES	0.32	NO	PARTIALLY HYDRIC	B	WELL DRAINED	LOW	FARMLAND OR STATEWIDE IMPORTANCE
65B	WHEATON SILT LOAM, 0 TO 8 PERCENT SLOPES	0.49	NO	NOT HYDRIC	B	WELL DRAINED	LOW	FARMLAND OR STATEWIDE IMPORTANCE
16D	BRINKLOW-BLOCKTOWN CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES	0.28	YES	PARTIALLY HYDRIC	B	WELL DRAINED	LOW	NOT PRIME FARMLAND
116E	BLOCKTOWN CHANNERY SILT LOAM, 25 TO 45 PERCENT SLOPES, VERY ROCKY	0.24	YES	PARTIALLY HYDRIC	C	WELL DRAINED	LOW	NOT PRIME FARMLAND
400	URBAN LAND	NA	NO	NOT HYDRIC	D	NA	NA	NOT PRIME FARMLAND

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
MACARTHUR BOULEVARD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING, PHASE II
C.I.P. PROJECT NO. 509337
NATURAL RESOURCES INVENTORY / SIMPLIFIED FOREST STAND DELINEATION / FOREST CONSERVATION EXEMPTION PLAN (NRI /FSD/ FCE)
42014043E



VICINITY MAP
SCALE : 1"= 2,000'



KEY MAP
SCALE : 1"= 1,000'

NOTE:
SEE SHEET NRI-16 FOR FOREST CONSERVATION EXEMPTION NOTES AND DETAILS.

TREE SUMMARY
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	DBH (INCHES)	CONDITION COMMENTS
1	WHITE MULBERRY	MORUS ALBA	GOOD	26.5	
2*	EASTERN WHITE PINE	PINUS STROBUS	GOOD	35.4	75% OF CHAMPION
3*	WHITE OAK	QUERCUS ALBA	GOOD	31	
4	SOUTHERN RED OAK	QUERCUS FALCATA	POOR	29.7	
5	WHITE OAK	QUERCUS ALBA	GOOD	28	
6	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FAIR	28	
7	WHITE OAK	QUERCUS ALBA	GOOD	29.4	
8	WHITE OAK	QUERCUS ALBA	GOOD	29	
9	WHITE OAK	QUERCUS ALBA	GOOD	26.5	
10*	RED OAK	QUERCUS RUBRA	GOOD	34.5	
11*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	30	
12*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	36	
13	WHITE ASH	FRAXINUS AMERICANA	GOOD	26	
14	TWIN SLIPPERY ELM	ULMUS RUBRA	GOOD	26.5	
15*	RED OAK	QUERCUS RUBRA	GOOD	31.4	
16*	RED OAK	QUERCUS RUBRA	GOOD	30.5	
17	SOUTHERN RED OAK	QUERCUS RUBRA	GOOD	28.7	
18*	WHITE OAK	QUERCUS ALBA	GOOD	36	
19	WHITE OAK	QUERCUS ALBA	GOOD	25	
20*	WHITE OAK	QUERCUS ALBA	GOOD	44.5	
21	WHITE OAK	QUERCUS ALBA	GOOD	25	
22	WHITE OAK	QUERCUS ALBA	GOOD	26	
23	WHITE ASH	FRAXINUS AMERICANA	GOOD	29	
24	WHITE OAK	QUERCUS ALBA	GOOD	24.8	
25	WILLOW OAK	QUERCUS PHELLOS	GOOD	24	
26*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	53	
27*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	41	
28*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	38	
29*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	43	
30*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	43	
31	HACKBERRY	CELTIS OCCIDENTALIS	GOOD	29	
32*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	38.5	
33	WHITE OAK	QUERCUS ALBA	GOOD	27	
34	WHITE OAK	QUERCUS ALBA	GOOD	24	
35	WHITE OAK	QUERCUS ALBA	GOOD	26	
36	WHITE OAK	QUERCUS ALBA	GOOD	27.5	
37*	RED OAK	QUERCUS RUBRA	GOOD	40.5	
38	WHITE ASH	FRAXINUS AMERICANA	GOOD	24	
39*	WHITE ASH	FRAXINUS AMERICANA	GOOD	31.5	
40*	RED OAK	QUERCUS RUBRA	GOOD	38.3	
41	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	26.8	
42*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	35	
43*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	37	
44	WHITE OAK	QUERCUS ALBA	GOOD	29.7	
45*	WHITE OAK	QUERCUS ALBA	GOOD	37	
46*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	35.5	
47	WILLOW OAK	QUERCUS PHELLOS	GOOD	29.6	
48	PIGNUT HICKORY	CARYA GLABRA	GOOD	28.1	CHAMPION
49*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FAIR	37.5	
50*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	41.4	
51*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	35.6	
52	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	28.4	
53	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	25.5	
54	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	27.5	
55*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	37.5	
56*	BITTERNUT HICKORY	CARYA CORDIFORMIS	GOOD	34.5	
57*	SCARLET OAK	QUERCUS COCCINEA	GOOD	39	
58*	AMERICAN BEECH	FAGUS GRANDIFOLIA	GOOD	42.2	
59*	BOXELDER	ACER NEGUNDO	POOR	31	
60	WHITE ASH	FRAXINUS AMERICANA	GOOD	25.1	
61*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	41.5	
62	BLACK LOCUST	ROBINIA PSEUDOACACIA	GOOD	28.5	
63*	WHITE OAK	QUERCUS ALBA	GOOD	36	
64	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	28	
65*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	39	
66*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	40	
67*	RED OAK	QUERCUS RUBRA	GOOD	37.5	
68	WHITE OAK	QUERCUS ALBA	GOOD	24.8	
69*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	44.5	
70*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	56	
71*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	44	
72	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	28	
73*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	35	LEANING
74	WHITE OAK	QUERCUS ALBA	GOOD	29.5	
75*	WHITE OAK	QUERCUS ALBA	GOOD	37	
76	WHITE OAK	QUERCUS ALBA	GOOD	25	
77*	WHITE OAK	QUERCUS ALBA	GOOD	40	
78*	WHITE ASH	FRAXINUS AMERICANA	GOOD	34	
79*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	41.5	
80*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	36	
81	WHITE OAK	QUERCUS ALBA	GOOD	26	
82	WHITE OAK	QUERCUS ALBA	POOR	27	HEART ROT
83	WHITE OAK	QUERCUS ALBA	GOOD	26.5	
84*	PRINCESSTREE	PAULOWNIA TOMENTOSA	GOOD	35	
85*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	32	
86	CHESTNUT OAK	QUERCUS PRINUS	GOOD	26	
87	CHESTNUT OAK	QUERCUS PRINUS	GOOD	28	
88	WHITE OAK	QUERCUS ALBA	GOOD	26	
89	WHITE OAK	QUERCUS ALBA	GOOD	29.4	
90	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	28.5	
91	WHITE ASH	FRAXINUS AMERICANA	GOOD	26	
92*	WHITE OAK	QUERCUS ALBA	GOOD	33.5	
93*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	34	
94	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	29.5	
95	WILLOW OAK	QUERCUS ALBA	GOOD	20	

TREE SUMMARY - CONTINUED
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	DBH (INCHES)	COMMENTS
96*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	46	
97*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	32.2	
98	CHERRYBARK OAK	QUERCUS PAGODA	GOOD	25	
99	TULIP POPLAR	LIRIODENDRON TULIPIFERA	FAIR	26.6	
100	WHITE OAK	QUERCUS ALBA	GOOD	28.5	
101	WHITE ASH	FRAXINUS AMERICANA	GOOD	28.6	
102*	WHITE OAK	QUERCUS ALBA	GOOD	32.3	
103*	WHITE OAK	QUERCUS ALBA	GOOD	32.5	
104	WHITE OAK	QUERCUS ALBA	GOOD	29.5	
105	WHITE OAK	QUERCUS ALBA	GOOD	24	
106	CHESTNUT OAK	QUERCUS PRINUS	GOOD	24.1	
107*	WHITE OAK	QUERCUS ALBA	GOOD	35.2	
108	CHESTNUT OAK	QUERCUS PRINUS	GOOD	29.5	
109*	WHITE ASH	FRAXINUS AMERICANA	GOOD	30.5	
110*	WHITE OAK	QUERCUS ALBA	GOOD	30	
111*	RED OAK	QUERCUS RUBRA	POOR	37.4	LIGHTING STRIKE
112*	WHITE ASH	FRAXINUS AMERICANA	GOOD	30.5	
113	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	POOR	29	
114*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	44	
115*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	POOR	36	LIGHTING STRIKE
116	WHITE OAK	QUERCUS ALBA	GOOD	25	
117	PRINCESSTREE	PAULOWNIA TOMENTOSA	GOOD	24	
118	PRINCESSTREE	PAULOWNIA TOMENTOSA	GOOD	26.5	
119*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	34	
120*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	34.5	
121*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	45	
122*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	50	
123*	RED OAK	QUERCUS RUBRA	GOOD	39.5	
124*	WHITE OAK	QUERCUS ALBA	GOOD	41	
125*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	41.2	
126*	BLACK OAK	QUERCUS VELUTINA	POOR	34.2	HEART ROT
127*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	31.7	
128	WHITE OAK	QUERCUS ALBA	GOOD	29.3	
129*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	31.5	
130*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	POOR	39.5	
131*	RED OAK	QUERCUS RUBRA	GOOD	34	
132	BITTERNUT HICKORY	CARYA CORDIFORMIS	GOOD	24	
133*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	36	TWIN AT 6'
134	WHITE ASH	FRAXINUS AMERICANA	GOOD	24.5	
135*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	38	
136	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	28	
137	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	29	
138*	RED OAK	QUERCUS RUBRA	GOOD	43.5	
139*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	38	
140*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	42.5	
141	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	29.3	
142*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	59.5	
143*	SCARLET OAK	QUERCUS COCCINEA	GOOD	36.7	
144*	WHITE OAK	QUERCUS ALBA	GOOD	31.3	
145*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	38.5	
146*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	46.7	
147	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	28.6	
148*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	44.5	
149*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	32.9	
150*	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	48.5	
151*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	37	
152	WILLOW OAK	QUERCUS PHELLOS	GOOD	27	REMOVE
153*	AMERICAN ELM	ULMUS AMERICANA	GOOD	31	
154*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	POOR	39	HOLLOW
155	BLACK WALNUT	JUGLANS NIGRA	GOOD	28.5	
156	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	27	
157*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	40	
158	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	29	
159	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	26	
160	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	29.6	
161	BLACK LOCUST	ROBINIA PSEUDOACACIA	POOR	26	MOSTLY DEAD
162*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	44	
163*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	32	
164*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	32	
165*	RED MAPLE	ACER RUBRUM	GOOD	31	DENSE IVY COVER
166	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	25.8	REMOVE
167*	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	32.5	
168*	WHITE OAK	QUERCUS ALBA	GOOD	31.8	
169	WHITE OAK	QUERCUS ALBA	GOOD	29	
170	BLACK LOCUST	ROBINIA PSEUDOACACIA	GOOD	28.4	
171	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	GOOD	25	
172	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	GOOD	25	
173*	SIBERIAN ELM	ULMUS PUMILA	GOOD	46	
174*	RED OAK	QUERCUS RUBRA	GOOD	49.5	
175	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	28.5	

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐
APPROVED
FC Exemption No. 42014043E
Signature Stephen Peck Date 12-22-2015
Site conditions have not been field-verified as part of this approval.

RECEIVED M-NCPPC DEC 16 2015 MONTGOMERY COUNTY PLANNING DEPARTMENT

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND · ROXANNE K. KESECKER · No. 865 · LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL:
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 208NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 1 of 16

FILE NAME: U:\Projects\AA\20033443\CAD\NRI_FSD\pNRI-100T_MACA.dwg LAYOUT NAME: GT-01 PLOTTED: Tuesday, December 15, 2015 - 12:36pm USER: tim_horner

FOREST STAND INFORMATION

THE PURPOSE OF THIS FOREST STAND DELINEATION REPORT IS TO IDENTIFY EXISTING FOREST AREAS AND ENVIRONMENTAL FEATURES WITHIN THE PROPOSED LIMIT OF DISTURBANCE (LOD) TO DETERMINE IMPACTS ASSOCIATED WITH THE REMOVAL OF EXISTING TREES AND CRITICAL ROOT ZONE IMPACTS DURING THE IMPROVEMENTS TO THE BIKEWAY/ LANES OF MACARTHUR BOULEVARD.

DATA COLLECTION FOR THIS FOREST STAND DELINEATION WAS PERFORMED BY URS CORP. ON JANUARY 29-31, 2013 AND MARCH 7-13, 2013. SINCE THIS PROJECT IS LINEAR IN NATURE, A FULL OR SIMPLIFIED FOREST STAND DELINEATION WAS NOT PERFORMED. THROUGHOUT THE STUDY AREA (WITHIN 50 FEET OF THE LOD), EXCEPT FOR M-NCPPC, TREES GREATER THAN 24" IN DIAMETER AT BREAST HEIGHT (DBH), WERE LOCATED AND IDENTIFIED. ON M-NCPPC PROPERTY, ALL TREES GREATER THAN 6" DBH WERE LOCATED AND IDENTIFIED

FOREST STAND 1

STAND '1' IS LOCATED SOUTH OF MARYLAND AVENUE BETWEEN MACARTHUR BOULEVARD AND SILVERWOOD LANE. THE STAND IS BISECTED BY THE EXISTING HIKER/BIKER TRAIL AND PROVIDES COVER FOR THE 1859 AND 1921 ARMY CORP OF ENGINEERS AQUEDUCTS. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA), WHITE OAK (QUERCUS ALBA), AND EASTERN COTTONWOOD (POPULUS DELTOIDES) IN THE 10-17.9" AND 18-29.9" DBH. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
WHITE OAK (QUERCUS ALBA)	31.8"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	32.5"	GOOD

THE UNDERSTORY IS DOMINATED BY BOXELDER (ACER NEGUNDO) IN THE 10-17.9" DBH AND 2-5.9" DBH SIZE CLASS, AND WHITE MULBERRY (MORUS ALBA; INVASIVE) AT 2-5.9" DBH. TREE OF HEAVEN (AILANTHUS ALTISSIMA; INVASIVE) IS ALSO PRESENT. THE SHRUB LAYER IS SPARSE WITH PATCHES OF MULTIFLORA ROSE (ROSA MULTIFLORA; INVASIVE) AND COMMON GREENBRIER (SMILAX ROTUNDIFOLIA). THE HERBACEOUS LAYER IS DENSELY POPULATED WITH ENGLISH IVY (HEDERA HELIX; INVASIVE), JAPANESE HONEYSUCKLE (LONICERA JAPONICA; INVASIVE), AND BAMBOO (BAMBOO VULGARIS; INVASIVE). THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS 50% TO 75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION. SEVERAL SMALL SAPLINGS HAVE BEEN RECENTLY PLANTED ALONG THE EXISTING HIKER/BIKER TRAIL.

THE DOMINANT SOIL TYPE OF STAND 2 IS 2UC (GLENELG-URBAN LAND COMPLEX) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 2

STAND '2' IS LOCATED NORTH OF MARYLAND AVENUE AND WEST OF MACARTHUR BOULEVARD. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY WHITE OAK (QUERCUS ALBA), BOXELDER (ACER NEGUNDO), AND SIBERIAN ELM (ULMUS PUMILA) IN THE 10-17.9" DBH. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
RED MAPLE (ACER RUBRUM)	31.0"	GOOD

CO-DOMINANT SPECIES INCLUDE BLACK WALNUT (JUGLANS NIGRA) AND EASTERN COTTONWOOD (POPULUS DELTOIDES) IN THE 10-17.9" DBH SIZE CLASS. THE UNDERSTORY IS DOMINATED BY A DENSE STAND OF BAMBOO (BAMBOO VULGARIS; INVASIVE), VIRTUALLY ELIMINATING THE SHRUB LAYER. THE HERBACEOUS LAYER IS DENSELY POPULATED WITH ENGLISH IVY (HEDERA HELIX; INVASIVE) AND BAMBOO (BAMBOO VULGARIS; INVASIVE). THIS PIONEER TO EARLY-SERAL STAGE FOREST HAS A 25% TO 50% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 3 IS 2UB (GLENELG-URBAN LAND COMPLEX) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 0-8%.

FOREST STAND 3

STAND 3 IS LOCATED APPROXIMATELY 1000' NORTH OF MARYLAND AVENUE AND WEST OF MACARTHUR BOULEVARD. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA) AND SYCAMORE (PLATANUS OCCIDENTALIS) IN THE 10-17.9" DBH AND 18-29.9" DBH SIZE CLASSES. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	46.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	32.9"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	44.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	59.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	42.5"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	38.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	36.0"	GOOD
NORTHERN RED OAK (QUERCUS RUBRA)	34.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	39.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	31.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	50.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	45.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	34.5"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	34.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	44.0"	GOOD
WHITE ASH (FRAXINUS AMERICANA)	30.5"	GOOD
WHITE ASH (FRAXINUS AMERICANA)	30.5"	GOOD

CO-DOMINANT SPECIES INCLUDE BOXELDER (ACER NEGUNDO) AND AMERICAN ELM (ULMUS AMERICANA) IN THE 10-17.9" DBH SIZE CLASS. THE UNDERSTORY IS DOMINATED BY AMERICAN ELM (ULMUS AMERICANA) AND BOXELDER (ACER NEGUNDO). THE SHRUB LAYER IS SPARSELY POPULATED WITH TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE) AND WINEBERRY (RUBUS PHOENICOLASIUS; INVASIVE). THE HERBACEOUS LAYER IS DENSELY POPULATED WITH ENGLISH IVY (HEDERA HELIX; INVASIVE) AND JAPANESE HONEYSUCKLE (LONICERA JAPONICA; INVASIVE). THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50% TO 75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 4 IS 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 4

STAND 4 IS LOCATED APPROXIMATELY 400' SOUTH OF THE RAMP TO CLARA BARTON PARKWAY AND WEST OF MACARTHUR BOULEVARD. AN OVERHEAD UTILITY LINE BORDERS THE STAND ON THE WEST SIDE. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA), NORTHERN RED OAK (QUERCUS RUBRA) AND SYCAMORE (PLATANUS OCCIDENTALIS) IN THE 10-17.9" DBH AND 18-29.9" DBH SIZE CLASSES. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	38.0"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	30.0"	GOOD
NORTHERN RED OAK (QUERCUS RUBRA)	34.5"	GOOD

FOREST STAND 4 (CONT.)

CO-DOMINANT SPECIES INCLUDE TULIP POPLAR (LIRIODENDRON TULIPIFERA), SYCAMORE (PLATANUS OCCIDENTALIS) AND BITTERNUT HICKORY (CARYA CORDIFORMIS) IN THE 10-17.9" DBH SIZE CLASS. THE UNDERSTORY IS DOMINATED BY WHITE OAK (QUERCUS ALBA AND BOXELDER (ACER NEGUNDO). THE SHRUB LAYER IS DENSELY POPULATED WITH TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE) AND WINEBERRY (RUBUS PHOENICOLASIUS; INVASIVE). A DENSE HERBACEOUS LAYER INCLUDES SPECIES OF WILD GRAPE (VITIS SP.), ORIENTAL BITTERSWEET (CELASTRUS ORBICULATUS; INVASIVE) AND JAPANESE HONEYSUCKLE (LONICERA JAPONICA; INVASIVE). THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50% TO 75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 5 IS 2B (GLENELG SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 3-8%.

FOREST STAND 5

STAND 5 BEGINS ON THE WEST OF MACARTHUR BOULEVARD AT MOHICAN ROAD AND EXTENDS TO ITS SOUTHERLY LIMIT APPROXIMATELY 300 FEET SOUTH OF WALHONDING ROAD. AN OVERHEAD UTILITY LINE BORDERS THE STAND ON THE WEST SIDE. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA), SYCAMORE (PLATANUS OCCIDENTALIS), BLACK LOCUST (ROBINIA PSEUDOACACIA), WHITE ASH (FRAXINUS AMERICANA), AND WHITE OAK (QUERCUS ALBA) IN THE 10-17.9" DBH AND 18-29.9" DBH SIZE CLASSES. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SCARLET OAK (QUERCUS COCCINEA)	39.0"	GOOD
BITTERNUT HICKORY (CARYA CORDIFORMIS)	34.5"	GOOD
WHITE OAK (QUERCUS ALBA)	37.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	35.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	37.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	35.0"	GOOD
NORTHERN RED OAK (QUERCUS RUBRA)	40.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	38.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	38.5"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	41.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	53.0"	GOOD

CO-DOMINANT SPECIES INCLUDE BOXELDER (ACER NEGUNDO), BLACK LOCUST (ROBINIA PSEUDOACACIA), AND SYCAMORE (PLATANUS OCCIDENTALIS) IN THE 10-17.9" DBH SIZE CLASS. THE UNDERSTORY IS DOMINATED BY BOXELDER (ACER NEGUNDO). THE SHRUB LAYER IS DENSELY POPULATED WITH TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE) AND MULTIFLORA ROSE (ROSA MULTIFLORA; INVASIVE). A DENSE HERBACEOUS LAYER INCLUDES ENGLISH IVY (HEDERA HELIX; INVASIVE), COMMON GREENBRIAR (SMILAX ROTUNDIFOLIA), ORIENTAL BITTERSWEET (CELASTRUS ORBICULATUS; INVASIVE), WINEBERRY (RUBUS PHOENICOLASIUS; INVASIVE) AND JAPANESE HONEYSUCKLE (LONICERA JAPONICA; INVASIVE). THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50% TO 75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 6 IS 2B (GLENELG SILT LOAM) AND 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, 2B SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 3-8% AND 1C SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15% AS MAPPED IN THE WEB SOIL SURVEY.

FOREST STAND 6

STAND 8 BEGINS ON THE EAST SIDE OF MACARTHUR BOULEVARD OPPOSITE THE RAMP TO CLARA BARTON PARKWAY AND EXTENDS SOUTHERLY FOR APPROXIMATELY 500 FEET. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA), WHITE ASH (FRAXINUS AMERICANA), NORTHERN RED OAK (QUERCUS RUBRA), AND WHITE OAK (QUERCUS ALBA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
WHITE PINE (PINUS STROBUS)	35.4"	GOOD
WHITE PINE (PINUS STROBUS)	31.0"	GOOD

THE UNDERSTORY IS DOMINATED BY AMERICAN BEECH (FAGUS GRANDIFOLIA) AND BLACK GUM (NYSSA SYLVATICA) IN THE 2-5.9" SIZE CLASS. THE SHRUB AND HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 7 IS 2B (GLENELG SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 3-8%.

FOREST STAND 7

STAND 7 BEGINS ON THE EAST SIDE OF MACARTHUR BOULEVARD BEGINNING AT MOHICAN ROAD AND EXTENDING NORTH FOR APPROXIMATELY 850 FEET. SEVERAL DRIVEWAYS LEAD FROM MACARTHUR BOULEVARD THROUGH THE STAND TO PRIVATE HOMES. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY WHITE ASH (FRAXINUS AMERICANA), NORTHERN RED OAK (QUERCUS ALBA), PIGNUT HICKORY (CARYA GLABRA), AND WHITE OAK (QUERCUS ALBA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
NORTHERN RED OAK (QUERCUS RUBRA)	31.4"	GOOD
SOUTHERN RED OAK (QUERCUS FALCATE)	30.5"	GOOD

THE UNDERSTORY IS DOMINATED BY AMERICAN BEECH (FAGUS GRANDIFOLIA), WHITE OAK (QUERCUS ALBA), BOXELDER (ACER NEGUNDO), AND BLACK GUM (NYSSA SYLVATICA) IN THE 6-9.9" DBH SIZE CLASS. THE SHRUB AND HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50%-75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 8 IS 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 8

STAND 8 BEGINS ON THE EAST SIDE OF MACARTHUR BOULEVARD BEGINNING AT MOHICAN ROAD AND EXTENDING SOUTHERLY TO THE ENTRANCE TO THE COMMUNITY POOL. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY WHITE ASH (FRAXINUS AMERICANA), NORTHERN RED OAK (QUERCUS ALBA), SYCAMORE (PLATANUS OCCIDENTALIS), TULIP POPLAR (LIRIODENDRON TULIPIFERA), AND WHITE OAK (QUERCUS ALBA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
NORTHERN RED OAK (QUERCUS RUBRA)	38.3"	GOOD
WHITE ASH (FRAXINUS AMERICANA)	31.5"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	43.0"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	43.0"	GOOD

THE UNDERSTORY IS DOMINATED BY AMERICAN BEECH (FAGUS GRANDIFOLIA) AND WHITE OAK (QUERCUS ALBA) IN THE 6-9.9" DBH SIZE CLASS. THE SHRUB LAYER CONSISTS OF VARIOUS HOLLIES (ILEX SP.), RHODODENDRONS (RHODODENDRON SP.), AND JUNIPERS (JUNIPERUS SP.) PLANTED BY THE LANDOWNER. THE HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 40%-50% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 9 IS 2B (GLENELG SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.32 AND OCCUR ON SLOPES OF 3-8%

FOREST STAND 9

STAND 9 BEGINS ON THE EAST SIDE OF MACARTHUR BOULEVARD BEGINNING AT WALHONDING ROAD AND EXTENDING NORTHERLY TO THE ENTRANCE TO THE COMMUNITY POOL. A SANITARY SEWER EASEMENT EXISTS WITHIN THE STAND. THE STAND ALSO STRADDLES THE EXISTING STREAM THAT FLOWS UNDER MACARTHUR BOULEVARD. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY SYCAMORE (PLATANUS OCCIDENTALIS), TULIP POPLAR (LIRIODENDRON TULIPIFERA), AND PIGNUT HICKORY (CARYA GLABRA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	41.4"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	35.6"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	37.5"	FAIR
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	37.5"	GOOD

THE UNDERSTORY IS DOMINATED BY TULIP POPLAR (LIRIODENDRON TULIPIFERA) AND BOXELDER (ACER NEGUNDO) IN THE 2-5.9" DBH SIZE CLASS. THE SHRUB LAYER CONSISTS OF TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE). THE HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 40%-50% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 10 IS 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 10

STAND 10 BEGINS ON THE EAST SIDE OF MACARTHUR BOULEVARD BEGINNING APPROXIMATELY 600' SOUTH OF WALHONDING ROAD AND EXTENDING SOUTHERLY FOR APPROXIMATELY 1000'. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY SYCAMORE (PLATANUS OCCIDENTALIS), NORTHERN RED OAK (QUERCUS RUBRA), WHITE OAK (QUERCUS ALBA), AND WHITE ASH (FRAXINUS AMERICANA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	44.5"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	56.0"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	44.0"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	35.0"	GOOD

A DENSE STAND OF BAMBOO (BAMBOO VULGARIS; INVASIVE) EXISTS AT THE NORTHERLY EXTENT OF THE STAND AND ENGLISH IVY (HEDERA HELIX; INVASIVE) COVERS MANY OF THE LARGER TREES ADJACENT TO MACARTHUR BOULEVARD. THE UNDERSTORY IS DOMINATED BY BOXELDER (ACER NEGUNDO), AMERICAN BEECH (FAGUS GRANDIFOLIA), WHITE ASH (FRAXINUS AMERICANA), AND WHITE OAK (QUERCUS ALBA) IN THE 6-9.9" DBH SIZE CLASS. THE SHRUB LAYER CONSISTS OF TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE). THE HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50%-75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 11 IS 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 11

STAND 11 IS LOCATED ON THE EAST SIDE OF MACARTHUR BOULEVARD. THE STAND ENCOMPASSES WETLAND 2 AND APPEARS TO HAVE BEEN A BORROW PIT AT ONE TIME. THIS STAND IS MOST SIMILAR TO THE SILVER MAPLE-AMERICAN ELM FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY BOXELDER (ACER NEGUNDO), SYCAMORE (PLATANUS OCCIDENTALIS), AND AMERICAN ELM (ULMUS AMERICANA) IN THE 10-17.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	32.0"	GOOD

THE UNDERSTORY IS DOMINATED BY BOXELDER (ACER NEGUNDO) AND AMERICAN ELM (ULMUS AMERICANA) 6-9.9" DBH SIZE CLASS. THE SHRUB LAYER CONSISTS OF TATARIAN HONEYSUCKLE (LONICERA TATARICA; INVASIVE). THE HERBACEOUS LAYER IS NON-EXISTENT. A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS PIONEER TO EARLY-SERAL STAGE FOREST HAS A 50%-75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

THE DOMINANT SOIL TYPE OF STAND 12 IS 1C (GAILA SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, THESE SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15%.

FOREST STAND 12

STAND 12 IS LOCATED ON THE EAST SIDE OF MACARTHUR BOULEVARD NORTH OF MACARTHUR LANE (WAPAKONETA ROAD). THIS STAND IS MOST SIMILAR TO THE CHESTNUT OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY CHESTNUT OAK (QUERCUS PRINUS), WHITE OAK (QUERCUS ALBA), TULIP POPLAR (LIRIODENDRON TULIPIFERA), AND WHITE ASH (FRAXINUS AMERICANA) IN THE 18-29.9" DBH SIZE CLASS WITH PIGNUT HICKORY (CARYA GLABRA) AND SYCAMORE (PLATANUS OCCIDENTALIS) OCCACIONALLY OCCURRING IN THE SAME SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
SYCAMORE (PLATANUS OCCIDENTALIS)	34.0"	GOOD
SYCAMORE (PLATANUS OCCIDENTALIS)	46.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	32.2"	GOOD
WHITE OAK (QUERCUS ALBA)	32.3"	GOOD
WHITE OAK (QUERCUS ALBA)	32.5"	GOOD
WHITE OAK (QUERCUS ALBA)	35.2"	GOOD
WHITE OAK (QUERCUS ALBA)	30.0"	GOOD
NORTHERN RED OAK (QUERCUS RUBRA)	37.4"	POOR
SYCAMORE (PLATANUS OCCIDENTALIS)	36.0"	POOR

THE UNDERSTORY IS DOMINATED BY WHITE OAK (QUERCUS ALBA) AND NORTHERN RED OAK (QUERCUS RUBRA) IN THE 6-9.9" DBH SIZE CLASS AND AMERICAN BEECH (FAGUS GRANDIFOLIA) IN THE 2-5.9" DBH SIZE CLASS. THE HERBACEOUS LAYER CONSISTS OF JAPANESE KNOTWEED (FALLOPIA JAPONICA; INVASIVE), ENGLISH IVY (HEDERA HELIX; INVASIVE) AND COMMON GREENBRIAR (SMILAX ROTUNDIFOLIA). A DENSE LEAF LAYER EXISTS THROUGHOUT THE STAND. THIS EARLY-SERAL TO CLIMAX STAGE FOREST HAS A 50%-75% CANOPY COVER AND APPEARS TO BE HEALTHY WITH NO EVIDENCE OF PAST OR PRESENT DISEASE OR INSECT INFESTATION.

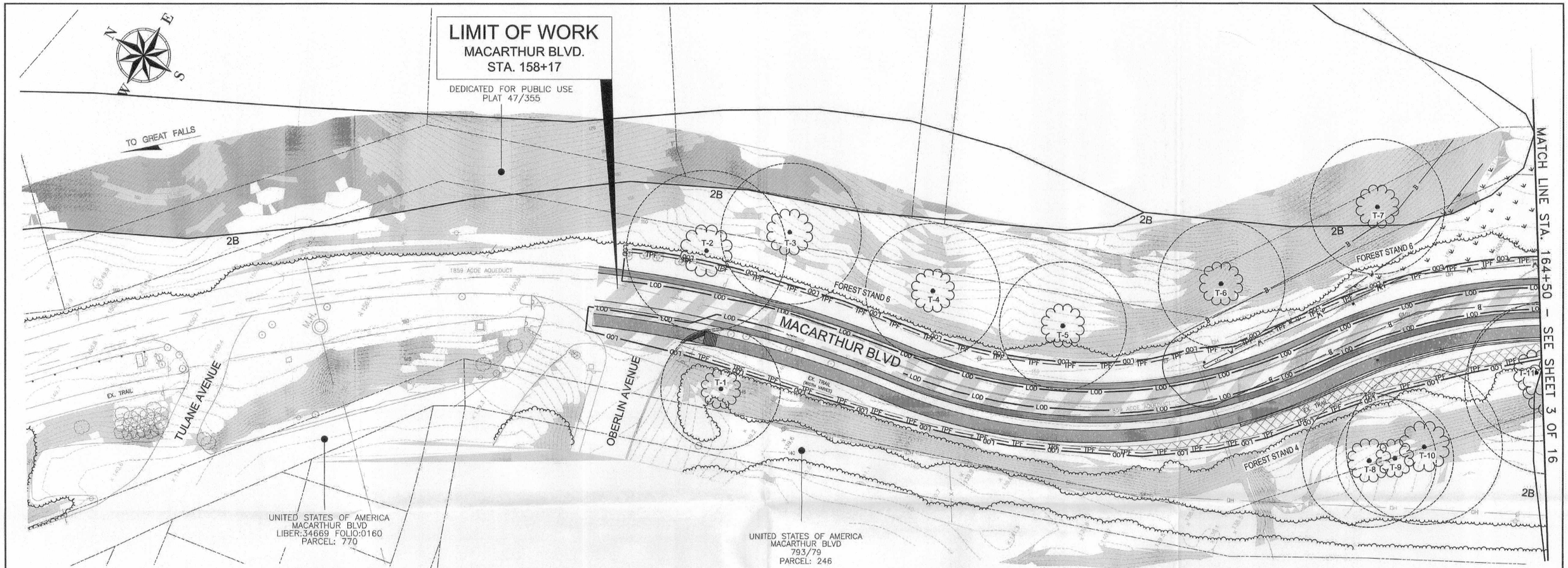
THE DOMINANT SOIL TYPE OF STAND 13 IS 1C (GAILA SILT LOAM) AND 116E (BLOCKTOWN CHANNERY SILT LOAM) AS MAPPED IN THE WEB SOIL SURVEY. ACCORDING TO THE SOIL SURVEY, 1C SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.37 AND OCCUR ON SLOPES OF 8-15% AND 116E SOILS ARE WELL DRAINED, PARTIALLY HYDRIC, HAVE A K-FACTOR OF 0.24 AND OCCUR ON SLOPES OF 25-45%.

FOREST STAND 13

STAND 13 IS LOCATED ON THE EAST SIDE OF MACARTHUR BOULEVARD BETWEEN MACARTHUR LANE (WAPAKONETA ROAD) AND MARYLAND AVENUE. THIS STAND IS MOST SIMILAR TO THE TULIP POPLAR-WHITE OAK-NORTHERN RED OAK FOREST ASSOCIATION (FOREST COVER TYPES OF THE UNITED STATES AND CANADA; F.H. EYRE; 1980). THE STAND IS DOMINATED BY WHITE OAK (QUERCUS ALBA), TULIP POPLAR (LIRIODENDRON TULIPIFERA), AND NORTHERN RED OAK (QUERCUS RUBRA) IN THE 18-29.9" DBH SIZE CLASS. THE FOLLOWING SPECIMEN TREES EXIST WITHIN THE STAND:

SPECIES	DBH	CONDITION
NORTHERN RED OAK (QUERCUS RUBRA)	39.5"	GOOD
WHITE OAK (QUERCUS ALBA)	41.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	41.2"	GOOD
BLACK OAK (QUERCUS VELUTINA)	34.2"	POOR
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	31.7"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	38.0"	GOOD
NORTHERN RED OAK (QUERCUS RUBRA)	43.5"	GOOD
SCARLET OAK (QUERCUS COCCINEA)	36.7"	GOOD
WHITE OAK (QUERCUS ALBA)	31.3"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	46.7"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	38.5"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	37.0"	GOOD
AMERICAN ELM (ULMUS AMERICANA)	31.0"	GOOD
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	39.0"	POOR
TULIP POPLAR (LIRIODENDRON TULIPIFERA)	40.0"	GOOD

THE UNDERSTORY IS DOMINATED BY WHITE OAK (QUERCUS ALBA), AMERICAN BEECH (FAGUS GRANDIFOLIA) AND NORTHERN RED OAK (QUERCUS RUBRA) IN THE 6-9.9" DBH SIZE CLASS AND AMERICAN BEECH (FAGUS GRANDIFOLIA) IN THE 2-5.9



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

TREE SUMMARY

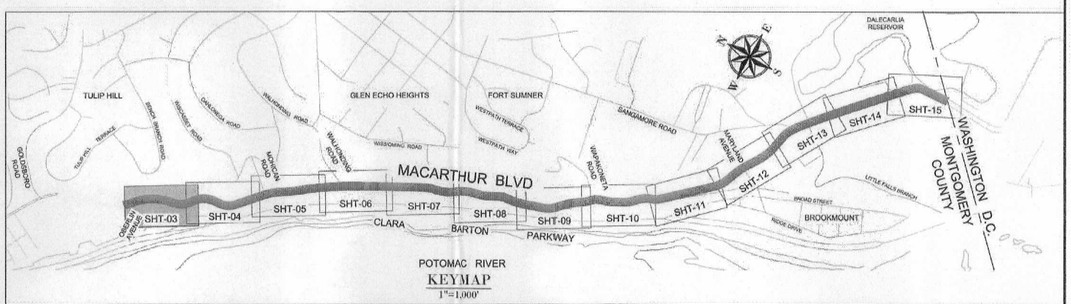
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
1	26.5	WHITE MULBERRY	MORUS ALBA	GOOD	
2*	35.4	EASTERN WHITE PINE	PINUS STROBUS	GOOD	POTENTIAL CHAMPION
3*	31	WHITE OAK	QUERCUS ALBA	GOOD	
4	29.7	SOUTHERN RED OAK	QUERCUS FALCATA	POOR	
5	28	WHITE OAK	QUERCUS ALBA	GOOD	
6	28	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FAIR	
7	29.4	WHITE OAK	QUERCUS ALBA	GOOD	
8	29	WHITE OAK	QUERCUS ALBA	GOOD	
9	26.5	WHITE OAK	QUERCUS ALBA	GOOD	
10*	34.5	RED OAK	QUERCUS RUBRA	GOOD	
11*	30	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☐
Tree Save Plan ☐
APPROVED
FC Exemption No 42014043E
Stephen Peck 12-22-2015
Signature Date
Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND — ROBBINE K. KESECKER — No. 886 — LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

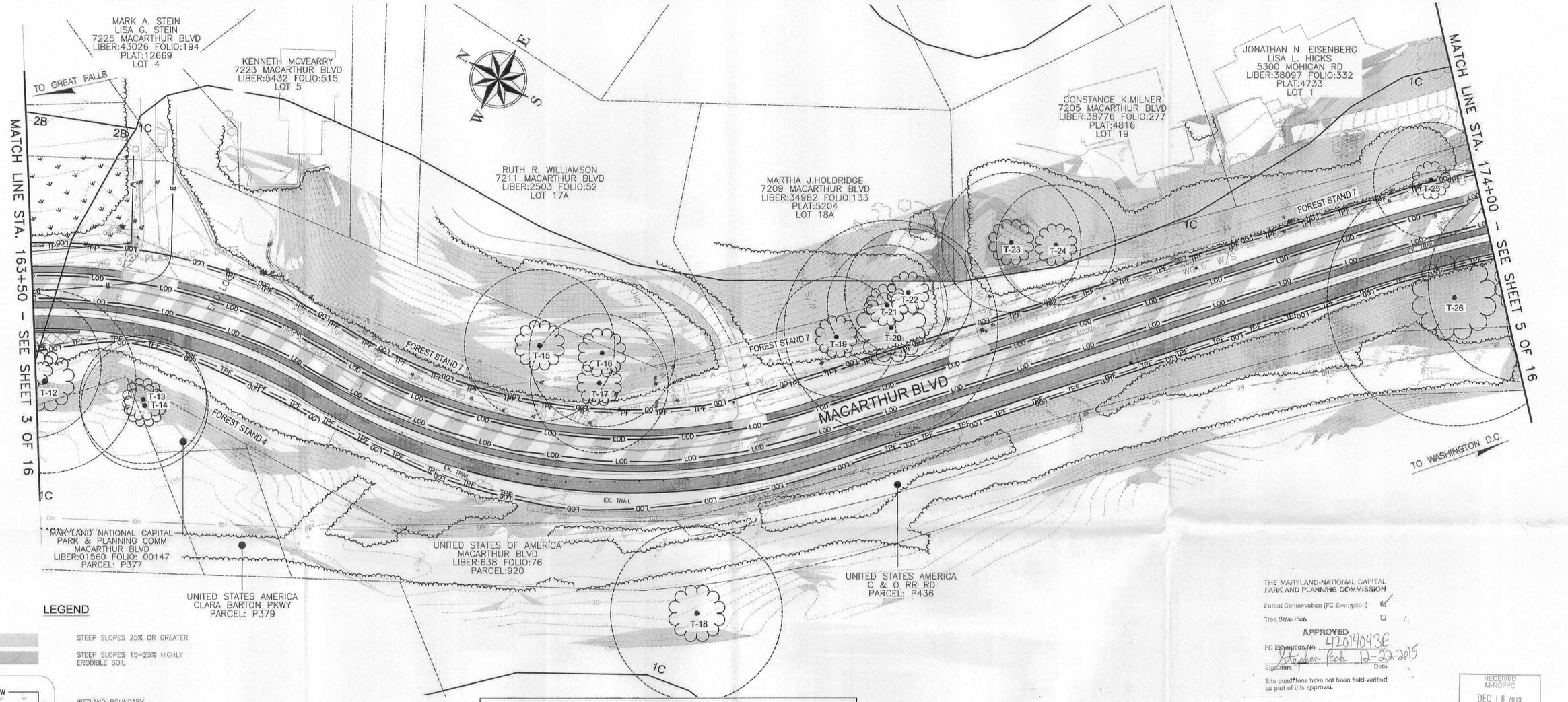
RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343
SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 3 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-03 PLOTTED: Tuesday, December 15, 2015 - 12:39pm USER: tin_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- SOIL BOUNDARY / CLASSIFICATION
- EXISTING TREELINE / FOREST STAND NO.
- LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

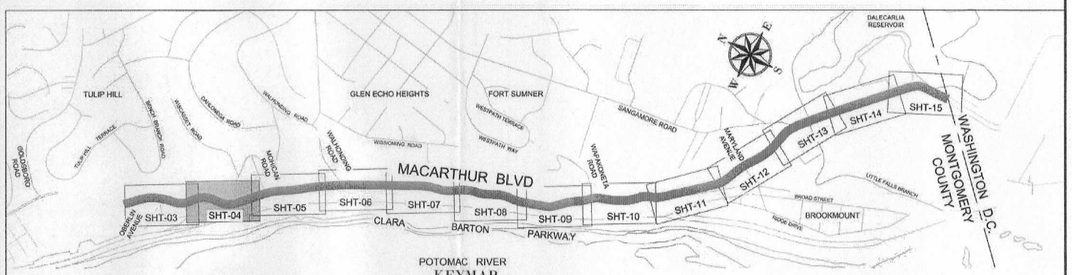
0 30 60
SCALE IN FEET

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
12*	38	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
13	26	WHITE ASH	FRAXINUS AMERICANA	GOOD	
14	26.5	TWIN SLIPPERY ELM	ULMUS RUBRA	GOOD	
15*	31.4	RED OAK	QUERCUS RUBRA	GOOD	
16*	30.5	RED OAK	QUERCUS RUBRA	GOOD	
17	28.7	SOUTHERN RED OAK	QUERCUS RUBRA	GOOD	
18*	36	WHITE OAK	QUERCUS ALBA	GOOD	
19	25	WHITE OAK	QUERCUS ALBA	GOOD	
20*	44.5	WHITE OAK	QUERCUS ALBA	GOOD	
21	25	WHITE OAK	QUERCUS ALBA	GOOD	
22	26	WHITE OAK	QUERCUS ALBA	GOOD	
23	29	WHITE ASH	FRAXINUS AMERICANA	GOOD	
24	24.8	WHITE OAK	QUERCUS ALBA	GOOD	
25	24	WILLOW OAK	QUERCUS PHELLOS	GOOD	
26*	53	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION

STATE OF MARYLAND · ROMAINE K. KESECKER · No. 881 · LANDSCAPE ARCHITECT
12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: TJH Drawn by: TJH Checked by: RKK

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐
APPROVED
FC Exemption No. 42014043E
Signature Stephen Peck Date 12-22-2015
Site conditions have not been field-verified as part of this approval.

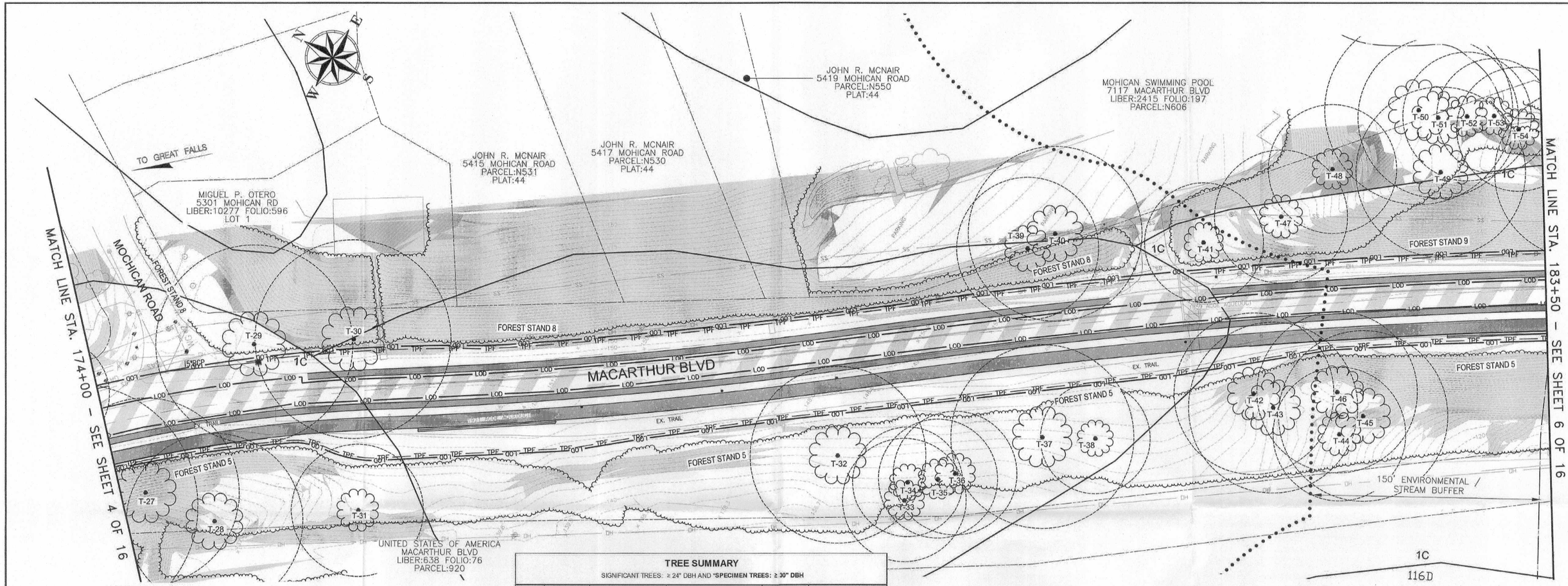
RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 4 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-04 PLOTTED: Tuesday, December 15, 2015 - 12:41pm USER: tin_horner



TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
27*	41	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
28*	38	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
29*	43	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
30*	43	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
31	29	HACKBERRY	CELTIS OCCIDENTALIS	GOOD	
32*	38.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
33	27	WHITE OAK	QUERCUS ALBA	GOOD	
34	24	WHITE OAK	QUERCUS ALBA	GOOD	
35	26	WHITE OAK	QUERCUS ALBA	GOOD	
36	27.5	WHITE OAK	QUERCUS ALBA	GOOD	
37*	40.5	RED OAK	QUERCUS RUBRA	GOOD	
38	24	WHITE ASH	FRAXINUS AMERICANA	GOOD	
39*	31.5	WHITE ASH	FRAXINUS AMERICANA	GOOD	
40*	38.3	RED OAK	QUERCUS RUBRA	GOOD	
41	26.8	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
42*	35	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
43*	37	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
44	29.7	WHITE OAK	QUERCUS ALBA	GOOD	
45*	37	WHITE OAK	QUERCUS ALBA	GOOD	
46*	35.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
47	29.6	WILLOW OAK	QUERCUS PHELLOS	GOOD	
48	28.1	PIGNUT HICKORY	CARYA GLABRA	GOOD	
49*	37.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FAIR	
50*	41.4	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
51*	35.6	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
52	28.4	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
53	25.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
54	27.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- T-1 — SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH; CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

PROFESSIONAL CERTIFICATION

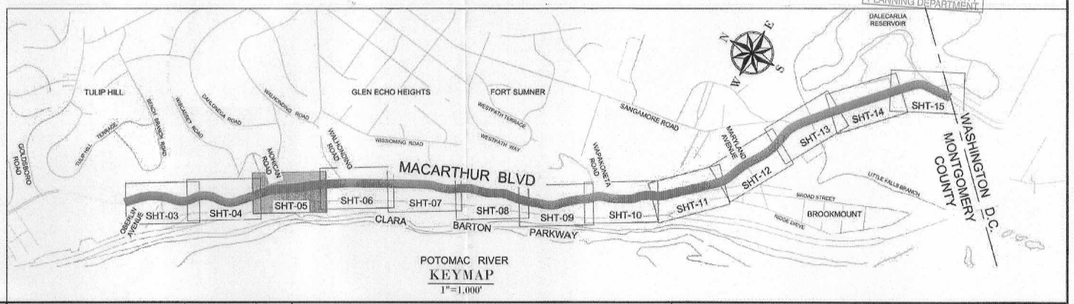
STATE OF MARYLAND — ROMAINE K. RESECKER — No. 886 — LANDSCAPE ARCHITECT
12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☐
Tree Save Plan ☐
APPROVED
FC Exemption No 42014043E
Signature Stephen Peck Date 12-22-2015
Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT



KEYMAP
1"=1,000'

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 5 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-05 PLOTTED: Tuesday, December 15, 2015 - 12:42pm USER: tin_horner

MOHICAN SWIMMING POOL INC
6541 WALHONDING RD
LIBER:3356 FOLIO:560
PARCEL:N690

TO GREAT FALLS

WILLIAM A. VEIRS
6540 WALHONDING RD
LIBER:14594 FOLIO:629
PLAT:45
LOT P32

ROBERT M. HAZEN
MARGARET H. HAZEN
7021 MACARTHUR BLVD
LIBER:45390 FOLIO:475
PLAT:5691
LOT P44

ALEXANDER V. STRUNNIKOV
NATALIA V. STRUNNIKOVA
7019 MACARTHUR BLVD
LIBER:32027 FOLIO:447
PLAT:11790
LOT P58

JOHN M.SCHMIDT
ELIZABETH E. VOGEL
7011 MACARTHUR BLVD
PLAT:8724
LOT 56

DIEGO PRECIADO
MAGALI REMUDO
7007 MACARTHUR BLVD
LIBER:46965 FOLIO:446
LOT 38

PHILLIP THORSON
7001 MACARTHUR BLVD
LIBER:17959 FOLIO:421
PLAT:45
LOT PT.39,PT.40,
PT.41,PT.42

JOHNS HOPKINS
UNIVERSITY
10 WISSIOMING CT
LIBER:43730
FOLIO:442
PARCEL:N881
PLAT:45

WALHONDING ROAD

MACARTHUR BLVD

150' ENVIRONMENTAL STREAM BUFFER

FOREST STAND 10

FOREST STAND 5

UNITED STATES OF AMERICA
MACARTHUR BLVD
LIBER:638 FOLIO:76
PARCEL:920

MATCH LINE STA. 183+50 – SEE SHEET 5 OF 16

MATCH LINE STA. 193+00 – SEE SHEET 7 OF 16

TO WASHINGTON D.C.

LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
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- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐

APPROVED
FC Exemption No. 42014043E
Signature: Stephen Terra Date: 12-22-2015

Site conditions have not been field-verified as part of this approval.

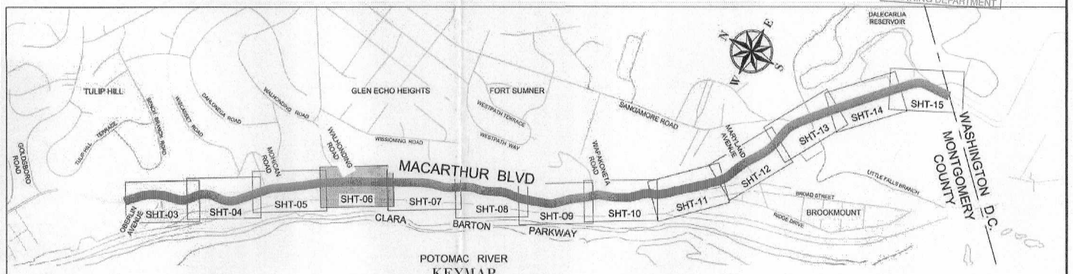
RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY
PLANNING DEPARTMENT

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
55*	37.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
56*	34.5	BITTERNUT HICKORY	CARYA CORDIFORMIS	GOOD	
57*	39	SCARLET OAK	QUERCUS COCCINEA	GOOD	
58*	42.2	AMERICAN BEECH	FAGUS GRANDIFOLIA	GOOD	
59*	31	BOXELDER	ACER NEGUNDO	POOR	
60	25.1	WHITE ASH	FRAXINUS AMERICANA	GOOD	
61*	41.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
62	28.5	BLACK LOCUST	ROBINIA PSEUDOACACIA	GOOD	
63*	36	WHITE OAK	QUERCUS ALBA	GOOD	
64	28	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
65*	39	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
66*	40	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND — ROMAINE K. KESECKER — No. 806 — LANDSCAPE ARCHITECT
12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
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PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

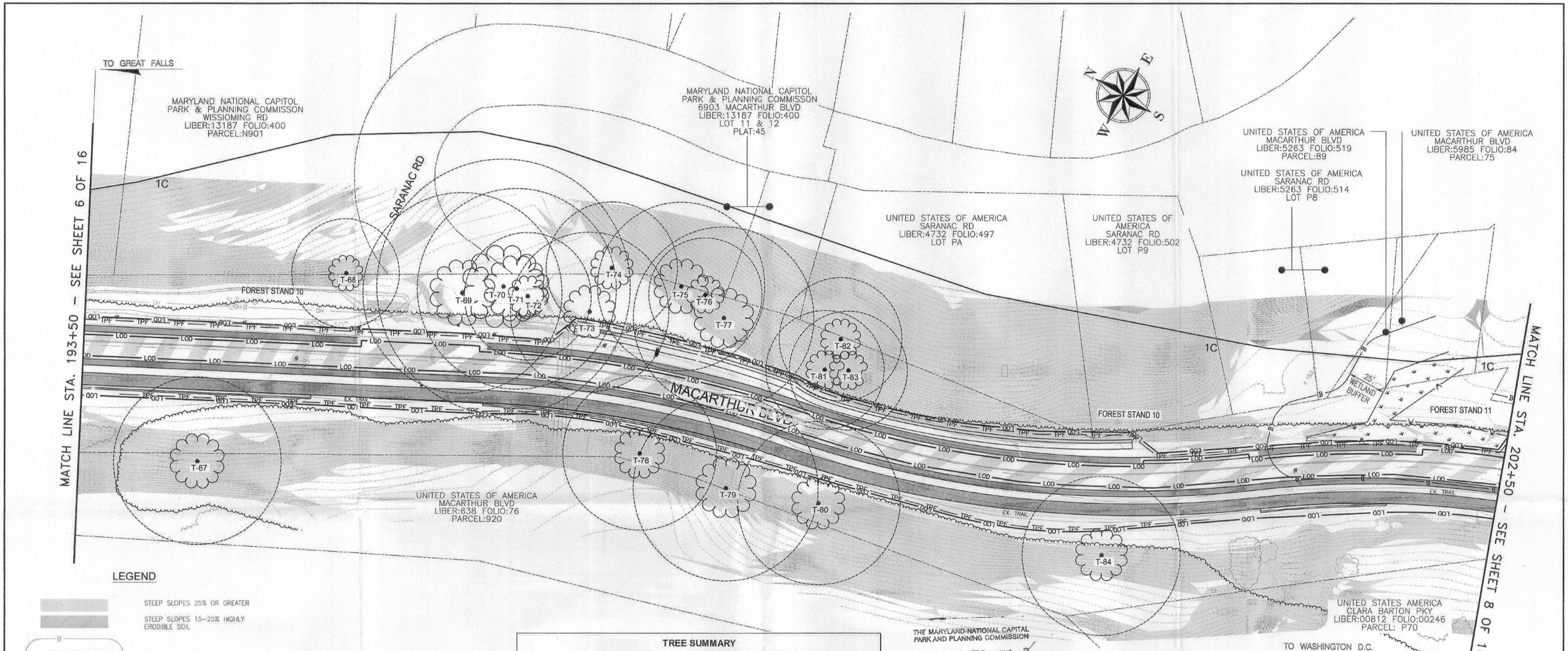
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 6 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-06 PLOTTED: Tuesday, December 15, 2015 - 12:46pm USER: tim_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

SCALE IN FEET: 0, 30, 60

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
67*	37.5	RED OAK	QUERCUS RUBRA	GOOD	
68	24.8	WHITE OAK	QUERCUS ALBA	GOOD	
69*	44.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
70*	56	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
71*	44	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
72	28	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
73*	35	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	LEANING
74	29.5	WHITE OAK	QUERCUS ALBA	GOOD	
75*	37	WHITE OAK	QUERCUS ALBA	GOOD	
76	25	WHITE OAK	QUERCUS ALBA	GOOD	
77*	40	WHITE OAK	QUERCUS ALBA	GOOD	
78*	34	WHITE ASH	FRAXINUS AMERICANA	GOOD	
79*	41.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
80*	36	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
81	26	WHITE OAK	QUERCUS ALBA	GOOD	
82	27	WHITE OAK	QUERCUS ALBA	POOR	HEART ROT
83	26.5	WHITE OAK	QUERCUS ALBA	GOOD	
84*	35	PRINCESS TREE	PAULOWNIA TOMENTOSA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

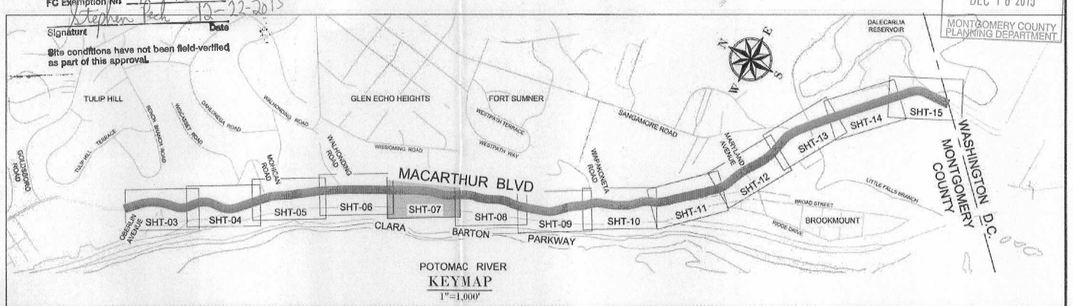
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☒
Tree Save Plan ☐

APPROVED
FC Exemption No. 42014043E
Signature — Date 12-22-2015

Site conditions have not been field-verified as part of this approval.

RECEIVED M-NCPPC DEC 16 2015 MONTGOMERY COUNTY PLANNING DEPARTMENT



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND — ROMAINE K. KESECKER — No. 868 — LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777–7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL:
Chief, Transportation Planning and Design Section — Date
APPROVED:
Chief, Division of Transportation Engineering — Date

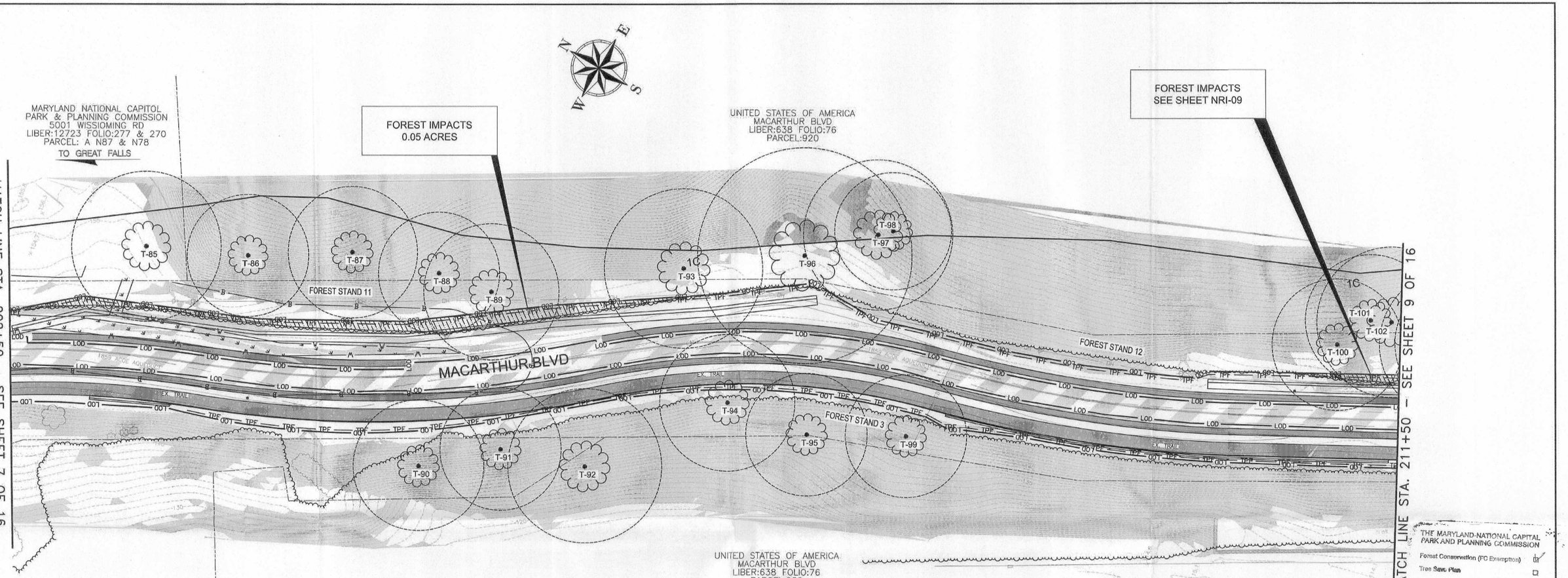
Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 206NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 7 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-07 PLOTTED: Tuesday, December 15, 2015 - 12:45pm USER: tim_horner



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☑

Tree Save Plan ☐

APPROVED

FC Exemption No. 42014043E

Signature Stephen Peck Date 12-22-2015

Site conditions have not been field-verified as part of this approval.

LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- T-1 — SIGNIFICANT TREE WITH KEY NO.: INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
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- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

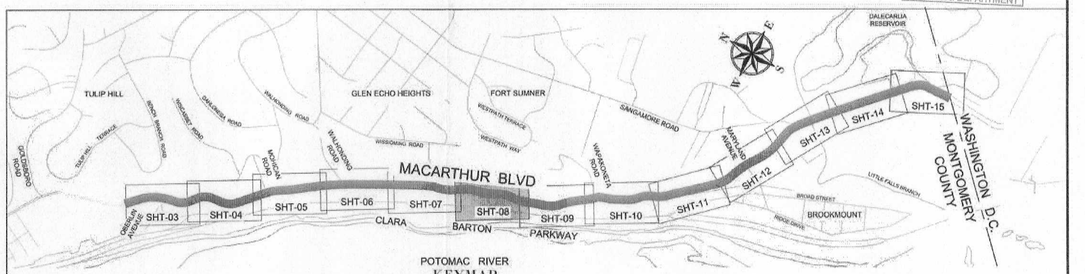
TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
85*	32	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
86	26	CHESTNUT OAK	QUERCUS PRINUS	GOOD	
87	28	CHESTNUT OAK	QUERCUS PRINUS	GOOD	
88	26	WHITE OAK	QUERCUS ALBA	GOOD	
89	29.4	WHITE OAK	QUERCUS ALBA	GOOD	
90	28.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
91	26	WHITE ASH	FRAXINUS AMERICANA	GOOD	
92*	33.5	WHITE OAK	QUERCUS ALBA	GOOD	
93*	34	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
94	29.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
95	20	WILLOW OAK	QUERCUS ALBA	GOOD	
96*	46	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
97*	32.2	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
98	25	CHERRYBARK OAK	QUERCUS PAGODA	GOOD	
99	26.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	FAIR	
100	28.5	WHITE OAK	QUERCUS ALBA	GOOD	
101	28.5	WHITE ASH	FRAXINUS AMERICANA	GOOD	
102*	32.3	WHITE OAK	QUERCUS ALBA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

RECEIVED
M-NCPPC
DEC 18 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT



POTOMAC RIVER
KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION

STATE OF MARYLAND — ROMAINE K. RESECKER — No. 808 — LANDSCAPE ARCHITECT — 12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

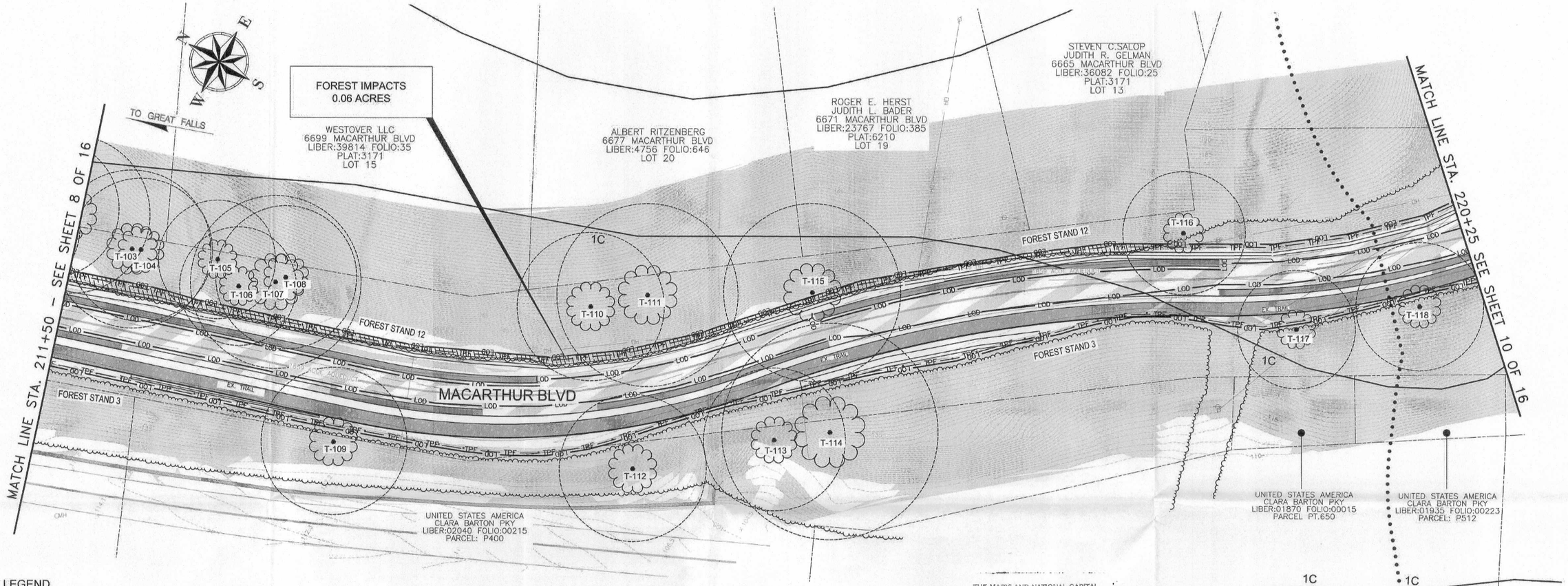
MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 8 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-08 PLOTTED: Tuesday, December 15, 2015 - 12:46pm USER: tin_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

TREE SUMMARY

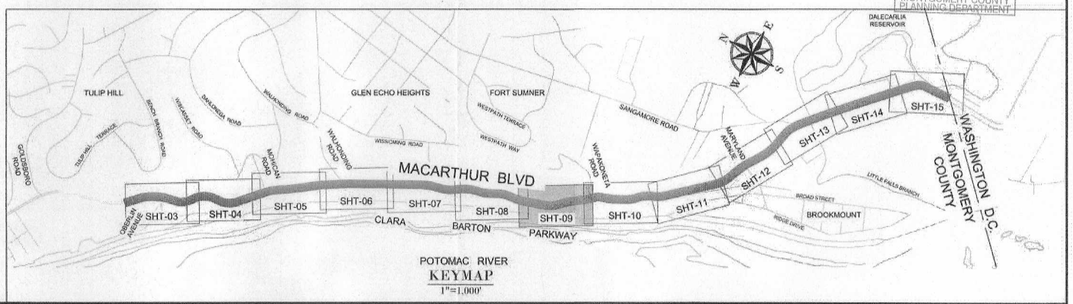
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
103*	32.5	WHITE OAK	QUERCUS ALBA	GOOD	
104	29.5	WHITE OAK	QUERCUS ALBA	GOOD	
105	24	WHITE OAK	QUERCUS ALBA	GOOD	
106	24.1	CHESTNUT OAK	QUERCUS PRINUS	GOOD	
107*	35.2	WHITE OAK	QUERCUS ALBA	GOOD	
108	29.5	CHESTNUT OAK	QUERCUS PRINUS	GOOD	
109*	30.5	WHITE ASH	FRAXINUS AMERICANA	GOOD	
110*	30	WHITE OAK	QUERCUS ALBA	GOOD	
111*	37.4	RED OAK	QUERCUS RUBRA	POOR	LIGHTENING STRIKE
112*	30.5	WHITE ASH	FRAXINUS AMERICANA	GOOD	
113	29	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	POOR	
114*	44	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
115*	36	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	POOR	LIGHTENING STRIKE
116	25	WHITE OAK	QUERCUS ALBA	GOOD	
117	24	PRINCESSTREE	PAULOWNIA TOMENTOSA	GOOD	
118	26.5	PRINCESSTREE	PAULOWNIA TOMENTOSA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐
APPROVED
FC Exemption No. 42014043E
Signature Stephen Peck Date 12-22-2015
Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY
PLANNING DEPARTMENT



PROFESSIONAL CERTIFICATION
STATE OF MARYLAND · ROMAINE K. KESECKER · No. 866 · LANDSCAPE ARCHITECT
12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM662, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 9 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-09 PLOTTED: Tuesday, December 15, 2015 - 12:47pm USER: tim_horner

FOREST IMPACTS
0.01 ACRES

TO GREAT FALLS

WAPAKONETA ROAD

MATCH LINE STA. 220+25 – SEE SHEET 9 OF 16

MATCH LINE STA. 230+50 SEE SHEET 11 F 16

150' ENVIRONMENTAL / STREAM BUFFER

150' ENVIRONMENTAL / STREAM BUFFER

UNITED STATES AMERICA
MACARTHUR BLVD
LIBER:542 FOLIO:40
PARCEL:644

COVILLIE'S PHACELIA

COVILLIE'S PHACELIA

MACARTHUR BLVD

FOREST STAND 13

FOREST STAND 13

FOREST STAND 3

FOREST STAND 3

1C

T-119 T-120 T-121 T-122 T-123 T-124 T-125 T-126 T-127 T-128 T-129 T-130 T-131 T-132 T-133 T-134 T-135 T-136 T-137 T-138 T-139 T-140 T-141 T-142 T-143

UNITED STATES AMERICA
CLARA BARTON PKY
LIBER:01870 FOLIO:00015
PARCEL P650

UNITED STATES AMERICA
CLARA BARTON PKY
LIBER:01849 FOLIO:00192
PARCEL P568

UNITED STATES AMERICA
CLARA BARTON PKY
LIBER:01870 FOLIO:00015
PARCEL PT.650

TO WASHINGTON D.C.

LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- T-1 — SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
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- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

TREE SUMMARY

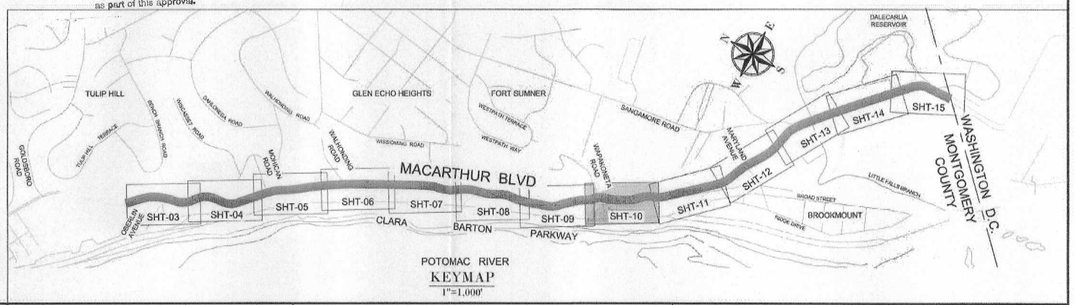
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
119*	34	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
120*	34.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
121*	45	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
122*	50	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
123*	39.5	RED OAK	QUERCUS RUBRA	GOOD	
124*	41	WHITE OAK	QUERCUS ALBA	GOOD	
125*	41.2	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
126*	34.2	BLACK OAK	QUERCUS VELUTINA	POOR	HEART ROT
127*	31.7	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
128	29.3	WHITE OAK	QUERCUS ALBA	GOOD	
129*	31.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
130*	39.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	POOR	
131*	34	RED OAK	QUERCUS RUBRA	GOOD	
132	24	BITTERNUT HICKORY	CARYA CORDIFORMIS	GOOD	
133*	36	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	TWIN AT 6'
134	24.5	WHITE ASH	FRAXINUS AMERICANA	GOOD	
135*	38	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
136	28	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
137	29	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
138*	43.5	RED OAK	QUERCUS RUBRA	GOOD	
139*	38	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
140*	42.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
141	29.3	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
142*	59.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
143*	36.7	SCARLET OAK	QUERCUS COCCINEA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption)
Tree Save Plan
APPROVED
FC Exemption No. 42014043E
Stephen Tech 12-22-2015
Signature Date
Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND · ROMAINE K. RESCHER · No. 866 · LANDSCAPE ARCHITECT
12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

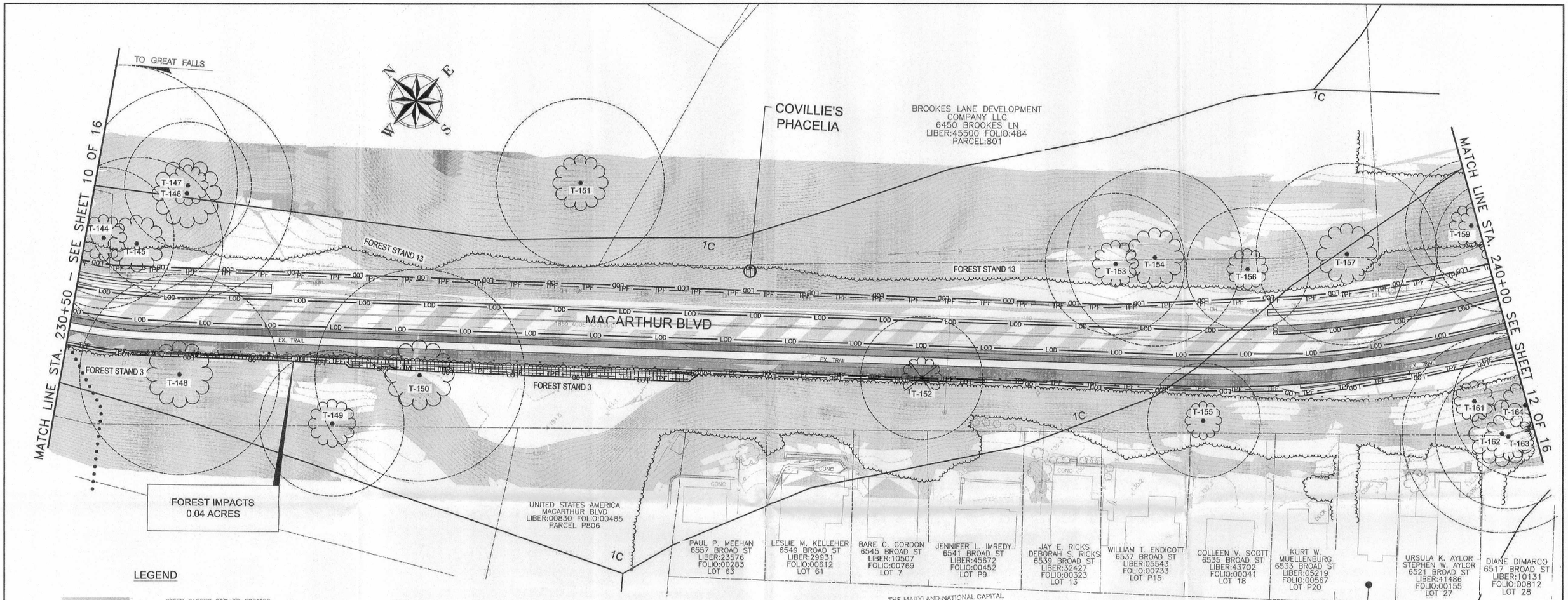
Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
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TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 10 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-10 PLOTTED: Tuesday, December 15, 2015 - 12:49pm USER: tim_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- T-1: SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
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- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
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0 30 60
SCALE IN FEET

TREE SUMMARY

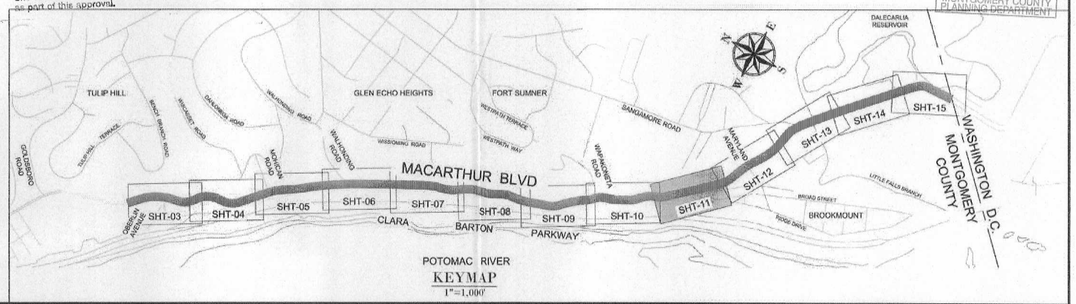
SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
144*	31.3	WHITE OAK	QUERCUS ALBA	GOOD	
145*	38.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
146*	46.7	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
147	28.6	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
148*	44.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
149*	32.9	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
150*	46.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
151*	37	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
152	27	WILLOW OAK	QUERCUS PHELLOS	GOOD	
153*	31	AMERICAN ELM	ULMUS AMERICANA	GOOD	
154*	39	TULIP POPLAR	LIRIODENDRON TULIPIFERA	POOR	HOLLOW
155	25.5	BLACK WALNUT	JUGLANS NIGRA	GOOD	REMOVE
156	27	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
157*	40	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
158	29	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
159	26	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
160	28.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
161	26	BLACK LOCUST	ROBINIA PSEUDOACACIA	POOR	MOSTLY DEAD
162*	44	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
163*	32	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	
164*	32	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐
APPROVED
FC Exemption No. 42014043E
Stephen Roch 12-22-2015
Signature Date
Site conditions have not been field-verified as part of this approval.

RECEIVED M-NCPPC DEC 16 2015 MONTGOMERY COUNTY PLANNING DEPARTMENT



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND · ROMAINE K. KESECKER · No. 886 · LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015
Project No. : 509337 SHEET 11 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-11 PLOTTED: Tuesday, December 15, 2015 - 12:52pm USER: tim_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15–25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
- LOD — LIMIT OF DISTURBANCE / TRACT AREA
- CENTERLINE OF STREAM
- 150' ENVIRONMENTAL / STREAM BUFFER
- TPF — TPF — TREE PROTECTION FENCE
- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

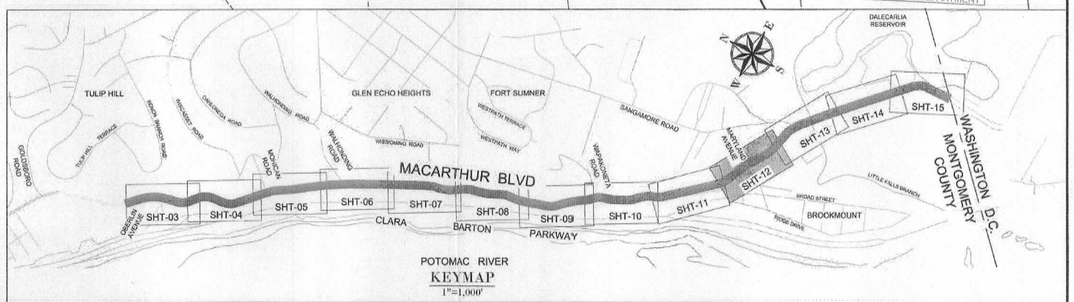
0 30 60
SCALE IN FEET

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
160	29.5	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	GOOD	
165*	31	RED MAPLE	ACER RUBRUM	GOOD	DENSE IVY COVER
166	25.8	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	REMOVE
167*	32.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND — ROMAINE K. KESECKER — No. 881 — LANDSCAPE ARCHITECT — 12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

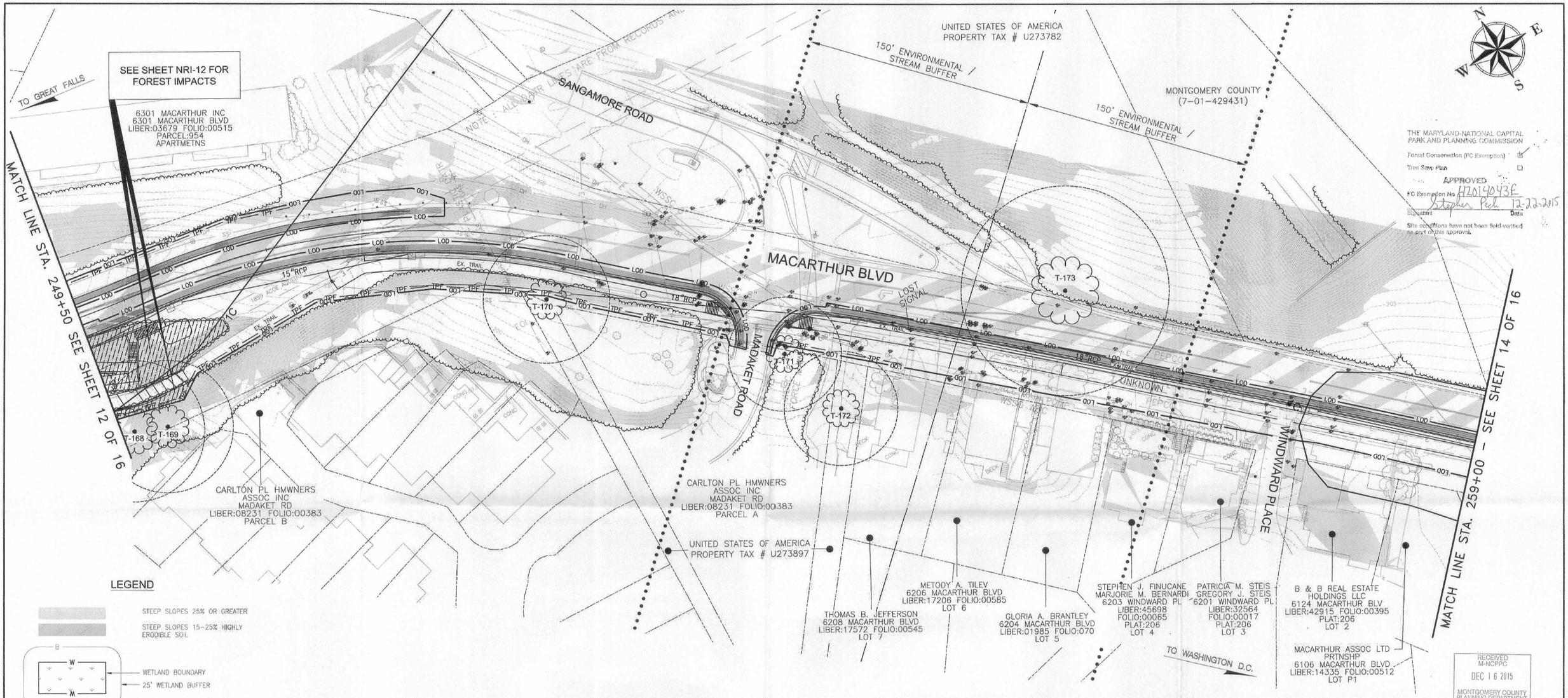
MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 12 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-12 PLOTTED: Tuesday, December 15, 2015 - 12:55pm USER: tim_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
- CRZ: 1" DBH=1.5' RADIUS CRZ
- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
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- FOREST IMPACTS
- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
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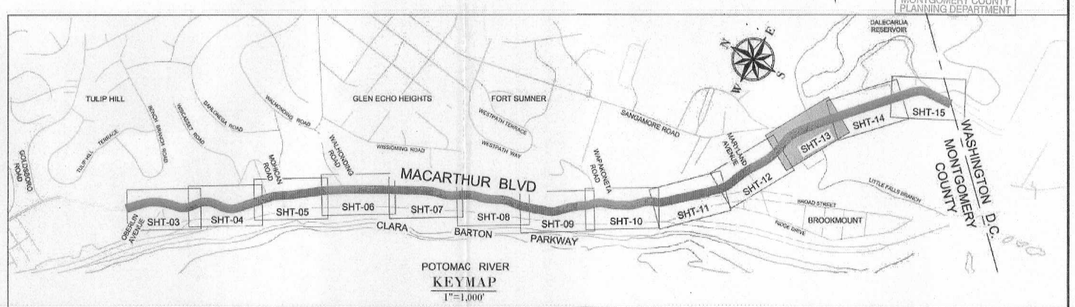
0 30 60
SCALE IN FEET

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
168*	31.8	WHITE OAK	QUERCUS ALBA	GOOD	
169	29	WHITE OAK	QUERCUS ALBA	GOOD	
170	28.4	BLACK LOCUST	ROBINIA PSEUDOACACIA	GOOD	
171	25	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	GOOD	
172	25	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	GOOD	
173*	46	SIBERIAN ELM	ULMUS PUMILA	GOOD	POTENTIAL CHAMPION

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION
STATE OF MARYLAND — ROMAINE K. KESECKER — No. 886 — LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL:
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

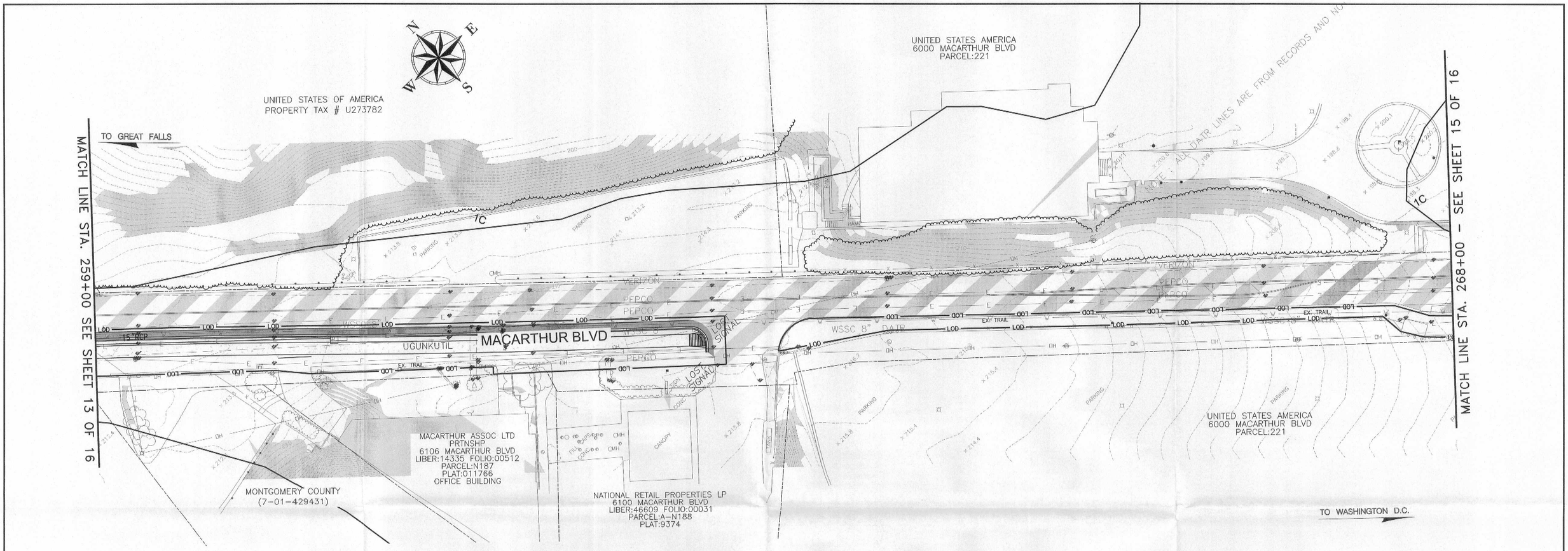
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 13 of 16

FILE NAME: U:\Projects\AA\20033443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-13 PLOTTED: Tuesday, December 15, 2015 - 12:55pm USER: tim_horner



LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
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- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
- TREE TO BE REMOVED

0 30 60
SCALE IN FEET

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐

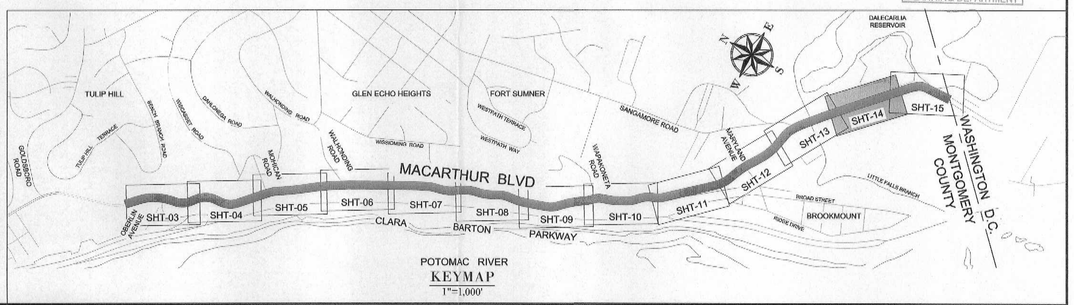
APPROVED

FC Exemption No. 42014043E

Stephen Peck 12-22-2015
Signature Date

Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY
PLANNING DEPARTMENT



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION

STATE OF MARYLAND
ROMAINE K. KESECKER
No. 886
LANDSCAPE ARCHITECT
12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

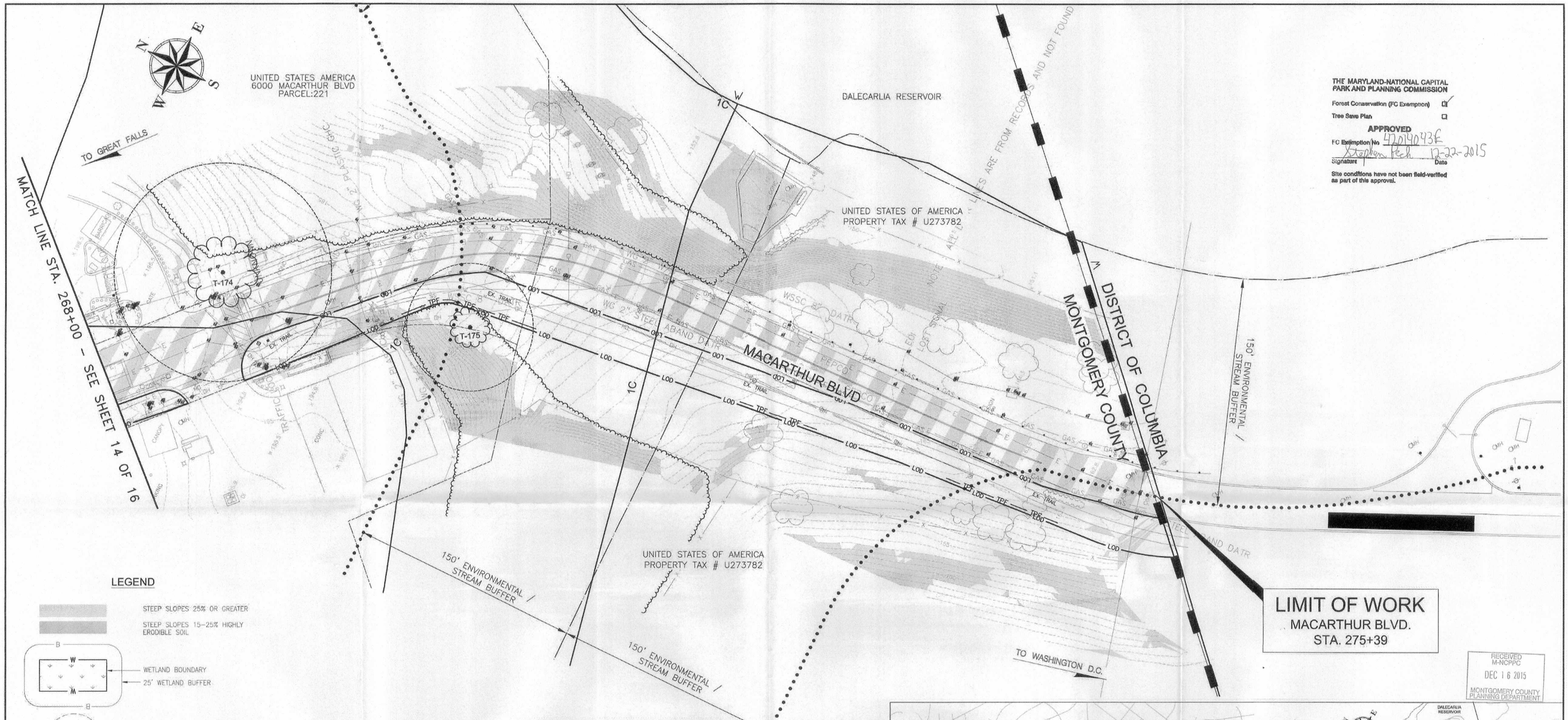
MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 14 of 16

FILE NAME: U:\Projects\AA\20033443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-14 PLOTTED: Tuesday, December 15, 2015 - 12:57pm USER: tim_horner



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☑

Tree Save Plan ☐

APPROVED

FC Exemption No 42014043E

Stephen Peck 12-22-2015

Signature Date

Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY
PLANNING DEPARTMENT

LEGEND

- STEEP SLOPES 25% OR GREATER
- STEEP SLOPES 15-25% HIGHLY ERODIBLE SOIL
- WETLAND BOUNDARY
- 25' WETLAND BUFFER
- SIGNIFICANT TREE WITH KEY NO. INVENTORIED TREE>24" DBH
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- 2B / 16D — SOIL BOUNDARY / CLASSIFICATION
- FOREST STAND 1 — EXISTING TREELINE / FOREST STAND NO.
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- TPF — TPF — TREE PROTECTION FENCE
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- RARE, THREATENED, AND ENDANGERED SPECIES (PHACELIA COVILLEI)
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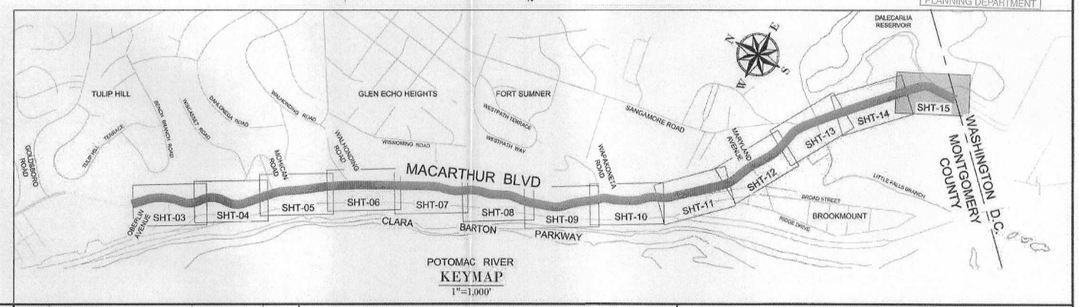
SCALE IN FEET 0 30 60

TREE SUMMARY

SIGNIFICANT TREES: ≥ 24" DBH AND *SPECIMEN TREES: ≥ 30" DBH

TREE NO.	DBH (INCHES)	COMMON NAME	SCIENTIFIC NAME	CONDITION RATING	CONDITION COMMENTS
174*	48.5	RED OAK	QUERCUS RUBRA	GOOD	POTENTIAL CHAMPION
175	28.5	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD	

Tree Condition:
Good: No apparent problem with structure or disease
Fair: Minor problems with structure and/or disease
Poor: Major problems with structure and/or disease



KEYMAP
1"=1,000'

PROFESSIONAL CERTIFICATION

STATE OF MARYLAND · ROMAINE K. KESECKER · No. 866 · LANDSCAPE ARCHITECT

12.15.2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

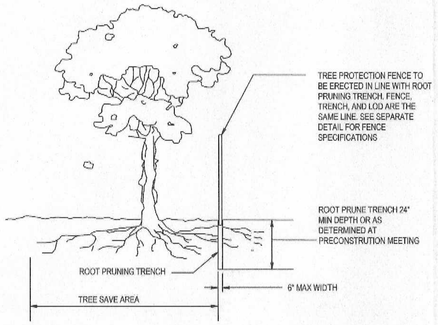
NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

SCALE : 1"=30' DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 15 of 16

FILE NAME: D:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-300P_MACA.dwg LAYOUT NAME: NRI-15 PLOTTED: Tuesday, December 15, 2015 - 12:58pm USER: tim_horner

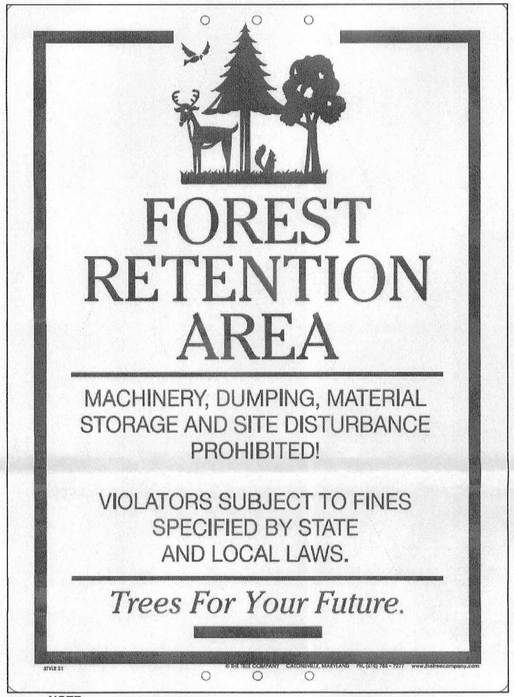


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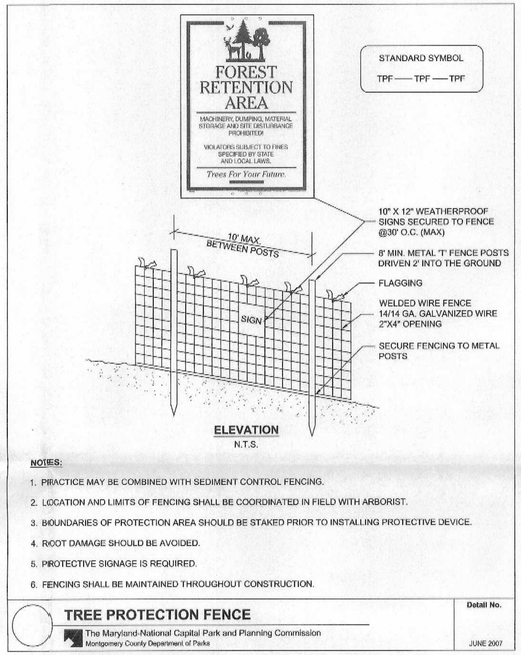
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INPECTOR .
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

ROOT PRUNING DETAIL

NTS



NOTE 1. PLACE AT 30' O.C.



ELEVATION
N.T.S.

NOTES:

1. PRACTICE MAY BE COMBINED WITH SEDIMENT CONTROL FENCING.
2. LOCATION AND LIMITS OF FENCING SHALL BE COORDINATED IN FIELD WITH ARBORIST.
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED PRIOR TO INSTALLING PROTECTIVE DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE IS REQUIRED.
6. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE

The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Parks

Detail No.

JUNE 2007

FOREST CONSERVATION EXEMPTION NOTES

PRE-CONSTRUCTION

1. AN ON-SITE PRE-CONSTRUCTION MEETING IS REQUIRED AFTER THE LIMITS OF DISTURBANCE HAVE BEEN STAKED AND FLAGGED AND BEFORE ANY LAND DISTURBANCE. THE PROPERTY OWNER SHALL CONTACT THE MONTGOMERY COUNTY PLANNING DEPARTMENT INSPECTION STAFF BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR TO VERIFY THE LIMITS OF DISTURBANCE AND DISCUSS TREE PROTECTION AND TREE CARE . THE PROPERTY OWNER'S REPRESENTATIVE, CONSTRUCTION SUPERINTENDENT, INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST OR MARYLAND LICENSED TREE EXPERT THAT WILL IMPLEMENT THE TREE PROTECTION MEASURES, FOREST CONSERVATION INSPECTOR, AND MONTGOMERY MOUNTY DEPARTMENT OF PERMITTING SERVICES (DPS) SEDIMENT CONTROL INSPECTOR MUST ATTEND THIS PRE-CONSTRUCTION MEETING.
2. ROOT PRUNING WILL BE DETERMINED AT THE PRECONSTRUCTION MEETING WITH M-NCPPC INSPECTOR.
3. NO LAND DISTURBANCE SHALL BEGIN BEFORE STRESS-REDUCTION MEASURES HAVE BEEN IMPLEMENTED. APPROPRIATE STRESS-REDUCTION MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO:
   A. ROOT PRUNING
   B. CROWN REDUCTION OR PRUNING
   C. WATERING
   D. FERTILIZING
   E. VERTICAL MULCHING
   F. ROOT AERATION MATTING

   MEASURES NOT SPECIFIED ON THE PLAN MAY BE REQUIRED AS DETERMINED BY THE FOREST CONSERVATION INSPECTOR IN COORDINATION WITH THE PROPERTY OWNER'S ARBORIST.
3. A MARYLAND LICENSED TREE EXPERT, OR AN ISA CERTIFIED ARBORIST MUST PERFORM ALL STRESS REDUCTION MEASURES. IMPLEMENTATION OF THE STRESS REDUCTION MEASURES MUST BE OBSERVED BY THE FOREST CONSERVATION INSPECTOR OR WRITTEN DOCUMENTATION MUST BE SENT TO THE FOREST CONSERVATION INSPECTOR AT 8787 GEORGIA AVENUE, SILVER SPRING, MD 20910. THE FOREST CONSERVATION INSPECTOR WILL DETERMINE THE EXACT METHOD TO CONVEY THE IMPLEMENTATION OF ALL STRESS REDUCTIONS MEASURES DURING THE PRE-CONSTRUCTION MEETING.
4. TEMPORARY TREE PROTECTION DEVICES SHALL BE INSTALLED PER THE APPROVED FOREST CONSERVATION PLAN, EXEMPTION FROM SUBMITTING A FOREST CONSERVATION PLAN, OR TREE SAVE PLAN AND PRIOR TO ANY LAND DISTURBANCE. TREE PROTECTION FENCING LOCATIONS MUST BE STAKED AND FLAGGED PRIOR TO THE PRE-CONSTRUCTION MEETING. THE FOREST CONSERVATION INSPECTOR, IN COORDINATION WITH THE DPS SEDIMENT CONTROL INSPECTOR, MAY MAKE FIELD ADJUSTMENTS TO INCREASE THE SURVIVABILITY OF TREES AND FOREST SHOWN AS SAVED ON THE APPROVED PLAN. TEMPORARY TREE PROTECT DEVICES MAY INCLUDE:
   A. CHAIN LINK FENCE (FOUR FEET HIGH)
   B. SUPER SILT FENCE WITH WIRE STRUNG BETWEEN THE SUPPORT POLES (MINIMUM 4 FEET HIGH) WITH HIGH VISIBILITY FLAGGING.
   C. 14 GAUGE 2 INCH X 4 INCH WELDED WIRE FENCING SUPPORTED BY STEEL T-BAR POSTS (MINIMUM 4 FEET HIGH) WITH HIGH VISIBILITY FLAGGING.
5. TEMPORARY PROTECTION DEVICES MUST BE MAINTAINED AND INSTALLED BY THE PROPERTY OWNER FOR THE DURATION OF CONSTRUCTION PROJECT AND MUST NOT BE ALTERED WITHOUT PRIOR APPROVAL FROM THE FOREST CONSERVATION INSPECTOR. NO EQUIPMENT, TRUCKS, MATERIALS, OR DEBRIS MAY BE STORED WITHIN THE TREE PROTECTION FENCE AREAS DURING THE ENTIRE CONSTRUCTION PROJECT. NO VEHICLE OR EQUIPMENT ACCESS TO THE FENCED AREA IS PERMITTED. TREE PROTECTION MUST NOT BE REMOVED WITHOUT PRIOR APPROVAL OF FOREST CONSERVATION INSPECTOR.
6. FOREST RETENTION AREA SIGNS MUST BE INSTALLED AS REQUIRED BY THE FOREST CONSERVATION INSPECTOR, OR AS SHOWN ON THE APPROVED PLAN.
7. LONG-TERM PROTECTION DEVICES MUST BE INSTALLED PER THE APPROVED PLAN. INSTALLATION WILL OCCUR AT THE APPROPRIATE TIME DURING THE CONSTRUCTION PROJECT. REFER TO THE APPROVED PLAN DRAWING FOR THE LONG-TERM PROTECTION MEASURES TO BE INSTALLED.
8. TWO (2) 2 INCH CALIPER TREES (MCDOT-APPROVED MID ATLANTIC NATIVE SPECIES) SHALL BE INSTALLED FOR EACH SPECIMEN TREE TO BE REMOVED.

DURING CONSTRUCTION

9. PERIODIC INSPECTIONS BY THE FOREST CONSERVATION INSPECTOR WILL OCCUR DURING THE CONSTRUCTION PROJECT. CORRECTIONS AND REPAIRS TO ALL TREE PROTECTION DEVICES, AS DETERMINED BY THE FOREST CONSERVATION INSPECTOR, MUST BE MADE WITHIN THE TIMEFRAME ESTABLISHED BY THE FOREST CONSERVATION INSPECTOR.
10. THE PROPERTY OWNER MUST IMMEDIATELY NOTIFY THE FOREST CONSERVATION INSPECTOR OF ANY DAMAGE TO TREES, FORESTS, UNDERSTORY, GROUND COVER, AND ANY OTHER UNDISTURBED AREAS SHOWN ON THE APPROVED PLAN. REMEDIAL ACTIONS TO RESTORE THESE AREAS WILL BE DETERMINED BY THE FOREST CONSERVATION INSPECTOR AND THOSE CORRECTIVE ACTIONS MUST BE MADE WITHIN THE TIMEFRAME ESTABLISHED BY THE FOREST CONSERVATION INSPECTOR.

POST-CONSTRUCTION

11. AFTER CONSTRUCTION IS COMPLETED, THE PROPERTY OWNER MUST REQUEST A FINAL INSPECTION WITH THE FOREST CONSERVATION INSPECTOR. AT THE FINAL INSPECTION, THE FOREST CONSERVATION INSPECTOR MAY REQUIRE ADDITIONAL CORRECTIVE MEASURES, WHICH MAY INCLUDE:
    A. REMOVAL AND REPLACEMENT OF DEAD AND DYING TREES
    B. PRUNING OF DEAD OR DECLINING LIMBS
    C. SOIL AERATION
    D. FERTILIZATION
    E. WATERING
    F. WOUND REPAIR
    G. CLEAN UP OF RETENTION AREAS INCLUDING TRASH REMOVAL
11. AFTER THE FINAL INSPECTION AND COMPLETION OF ALL CORRECTIVE MEASURES THE FOREST CONSERVATION INSPECTOR WILL REQUEST ALL TEMPORARY TREE AND FOREST PROTECTION DEVICES BE REMOVED FROM THE SITE. REMOVAL OF TREE PROTECTION DEVICES THAT ALSO OPERATE FOR EROSION AND SEDIMENT CONTROL MUST BE COORDINATED WITH BOTH DPS AND THE FOREST CONSERVATION INSPECTOR. NO ADDITIONAL GRADING, SODDING, OR BURIAL MAY TAKE PLACE AFTER THE TREE PROTECTION FENCING IS REMOVED.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Forest Conservation (FC Exemption) ☑
Tree Save Plan ☐

APPROVED

FC Exemption No. 42014043E

Signature: Stephen Peck Date: 12-22-2015

Site conditions have not been field-verified as part of this approval.

RECEIVED
M-NCPPC
DEC 16 2015
MONTGOMERY COUNTY PLANNING DEPARTMENT

PARK PERMIT NOTE:

A M-NCPPC PARK PERMIT SHALL BE REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON PARK PROPERTY.

PROFESSIONAL CERTIFICATION

STATE OF MARYLAND — TRIMAINE K. KESECKER — No. 805 — LANDSCAPE ARCHITECT

12-15-2015

APPLICANT:
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MARYLAND 21050
ATTN: BRUCE JOHNSTON
PHONE: (240) 777-7220

PREPARED BY
URS
41 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
PHONE: 410-785-7220

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: TJH Drawn by: TJH Checked by: RKK

MACARTHUR BLVD
BIKEWAY IMPROVEMENTS - SEGMENT 3
FACILITY PLANNING PHASE II

NRI / FSD / FCE PLAN

WSSC MAP GRID NUMBER: 205NW06, 206NW06, 207NW06, 207NW07, 208NW07
TAX MAP GRID NUMBER: HM121,GM561, GM562, GM563, GM343

DATE : DECEMBER 15, 2015

Project No. : 509337 SHEET 16 of 16

FILE NAME: U:\Projects\AA\20833443\CAD\NRI_FSD\pNRI-400D_MACA.dwg LAYOUT NAME: GT-02 PLOTTED: Tuesday, December 15, 2015 - 7:59am USER: tim_horner