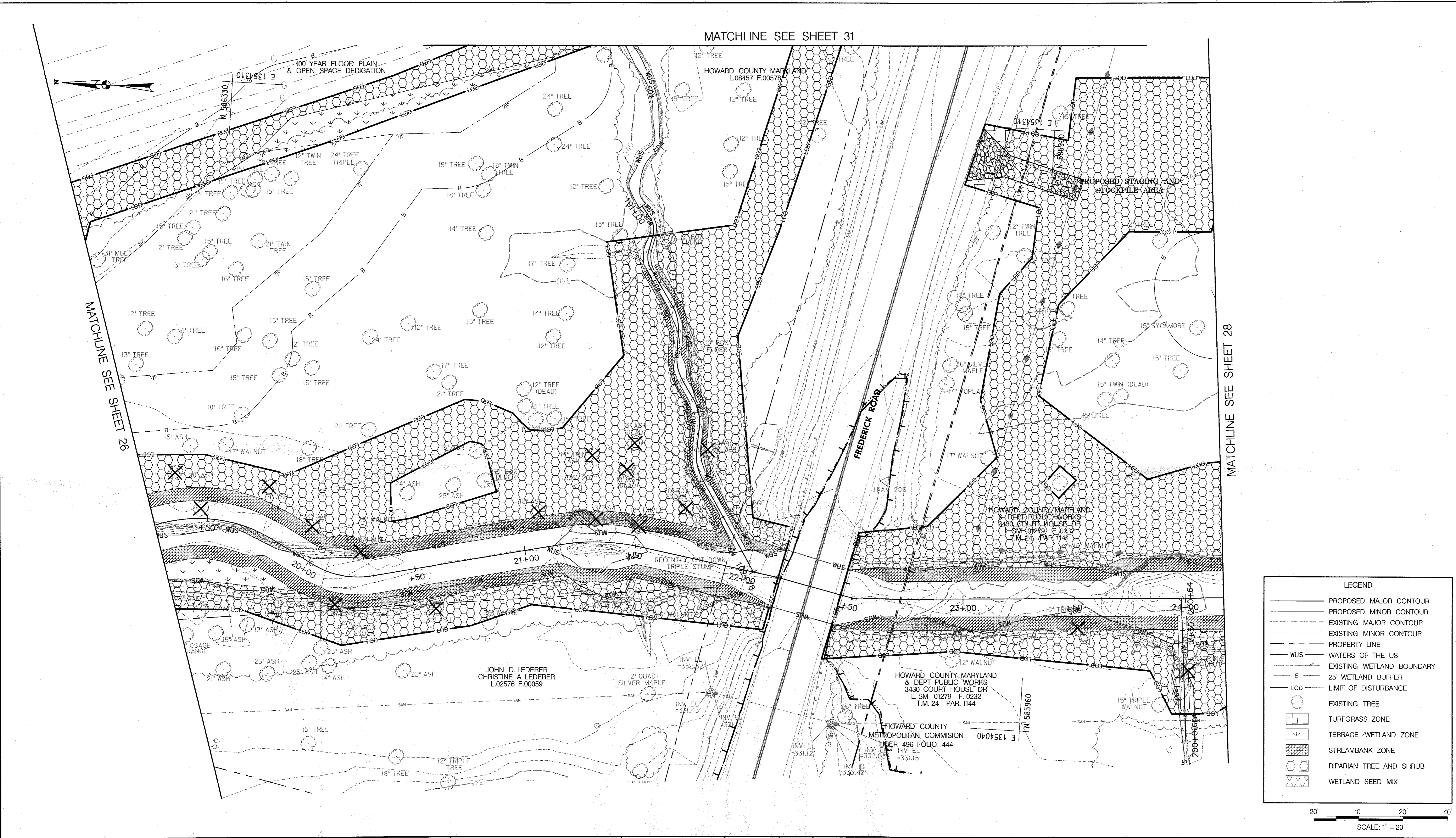


MATCHLINE SEE SHEET 31



LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPERTY LINE
- WUS — WATERS OF THE US
- EXISTING WETLAND BOUNDARY
- B — 25' WETLAND BUFFER
- LOD — LIMIT OF DISTURBANCE
- — EXISTING TREE
- — TURFGRASS ZONE
- ▽ — TERRACE /WETLAND ZONE
- ▨ — STREAMBANK ZONE
- ▩ — RIPARIAN TREE AND SHRUB
- ▧ — WETLAND SEED MIX

20' 0 20' 40'
SCALE: 1" = 20'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES _____ DATE _____

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Baltimore, Maryland 21202
(410) 662-7400

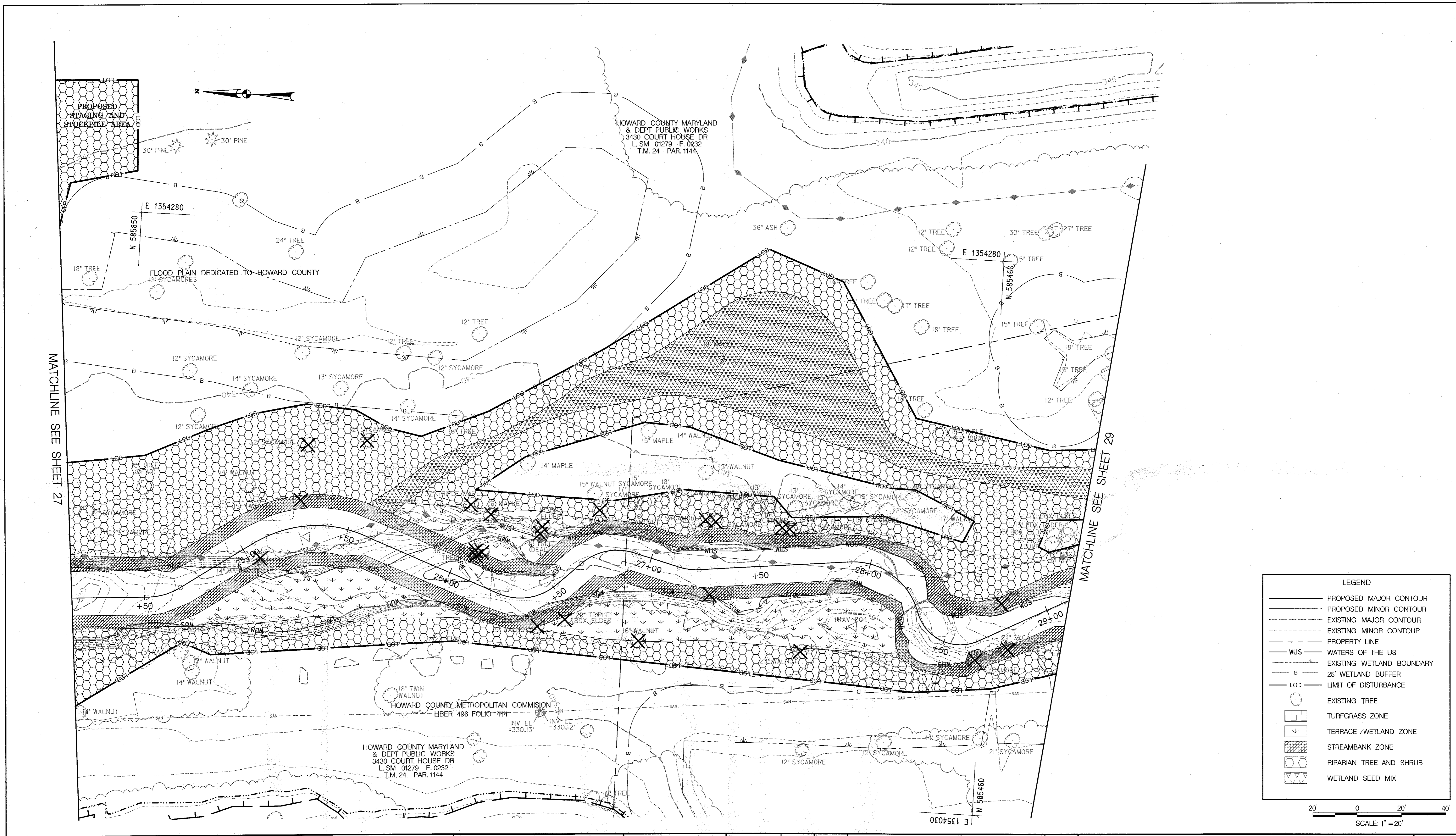
Howard County
MARYLAND
Storm Water Management Division
Bureau of Environmental Services
6751 Columbia Gateway Drive, Suite 514
Columbia, Maryland 21046-3143
(410) 313-6444

DES: KR /NW					
DRN: DD					
CHK: LN					
DATE: 3/22/18	BY	NO.	REVISION	DATE	

HOWARD COUNTY STORMWATER MANAGEMENT EVALUATION
LITTLE PATUXENT AT FREDERICK ROAD
STREAM REHABILITATION PROJECT
CAPITAL PROJECT #D-1158
HOWARD COUNTY
HSCD #: EP-17-39

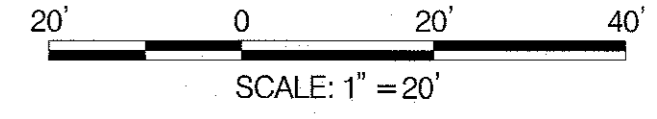
LANDSCAPE PLAN

SCALE: 1" = 20'
SHEET: 28 OF 36



LEGEND

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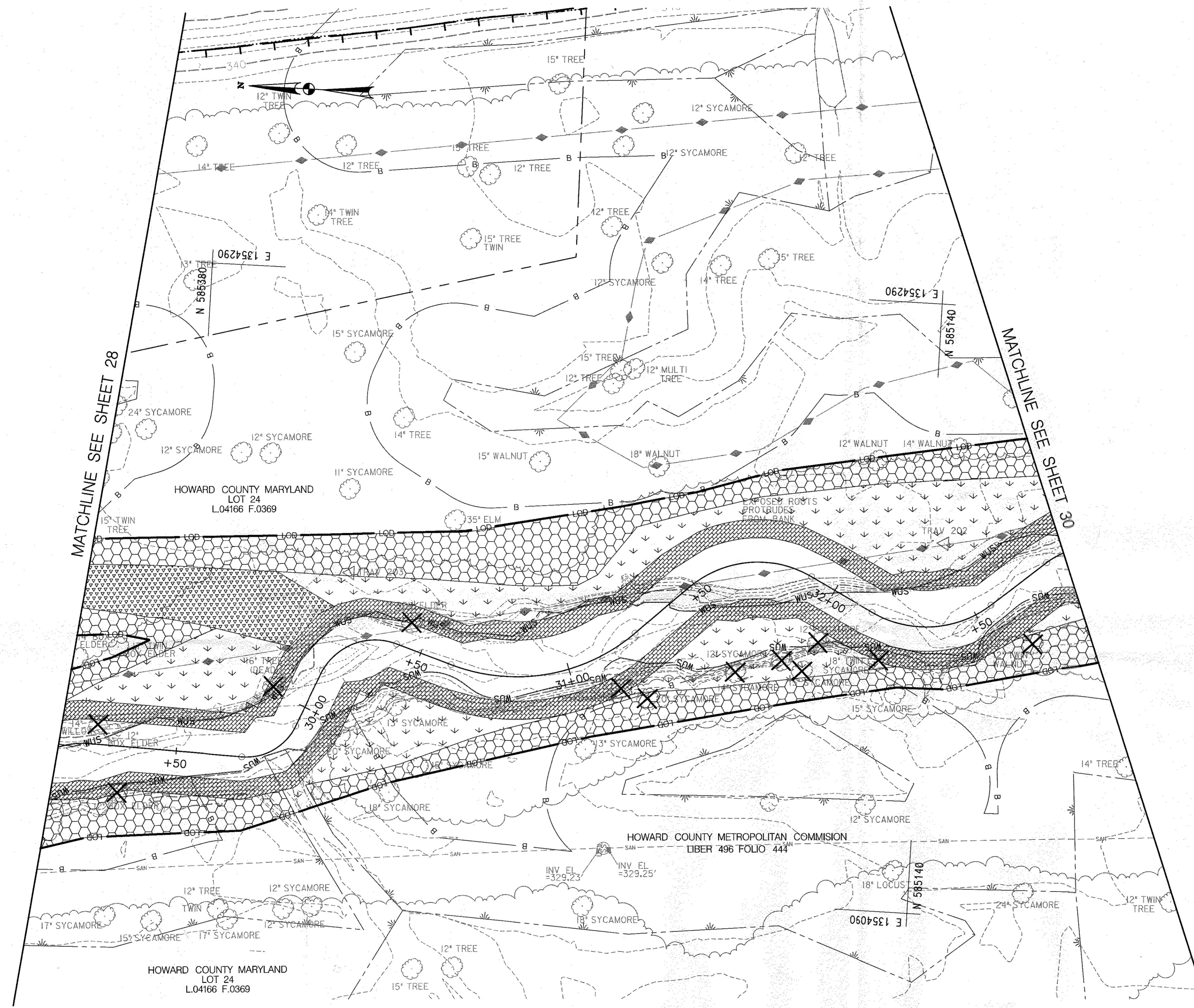
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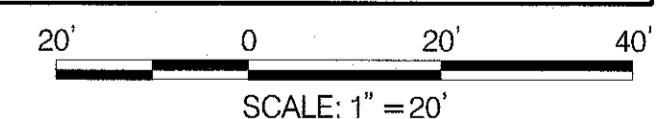
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LITTLE PATUXENT AT FREDERICK ROAD
STREAM REHABILITATION PROJECT
CAPITAL PROJECT #D-1158
HOWARD COUNTY
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LANDSCAPE PLAN

SCALE
 1" = 20'
 SHEET
 29 OF 36



LEGEND	
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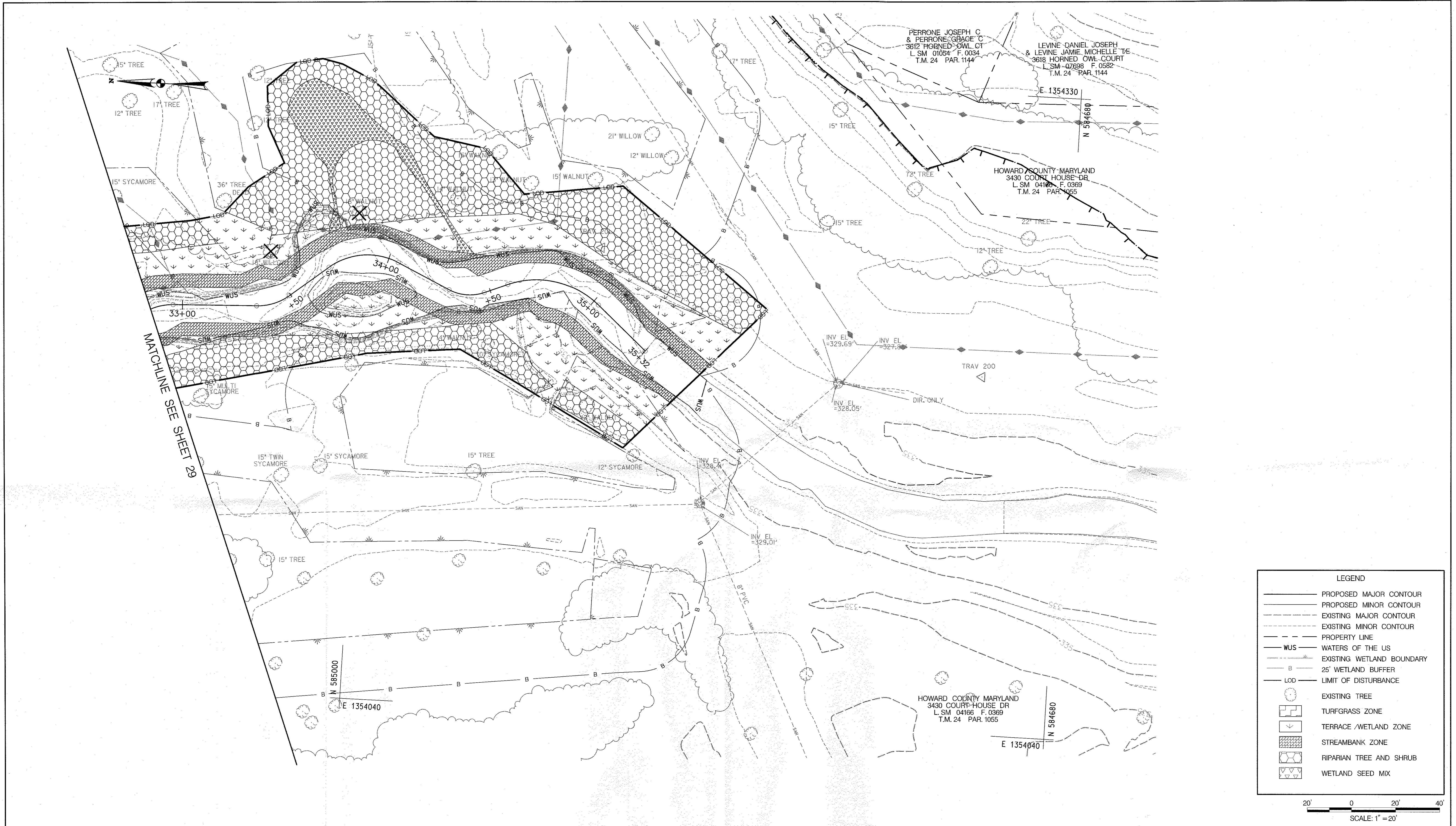
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LANDSCAPE PLAN

SCALE
1" = 20'
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30 OF 36

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES _____ DATE _____



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LANDSCAPE PLAN

SCALE
1" = 20'
SHEET
31 OF 36

Planting Schedule					
Zone	Botanical Name	Common Name	Size	Comment	Quantity
Streambank	<i>Cornus amomum</i>	Silky Dogwood	3' Min. Length, Live Stake	Plant 2' O. C.	867
Streambank	<i>Sambucus nigra</i>	American Black Elderberry	3' Min. Length, Live Stake	Plant 2' O. C.	867
Streambank	<i>Salix nigra</i>	Black Willow	3' Min. Length, Live Stake	Plant 2' O. C.	867
Streambank	<i>Cornus amomum</i>	Silky Dogwood	6" Min. HT X 8" Min. Deep, Tubeling	Plant 3' O. C.	513
Streambank	<i>Viburnum dentatum</i>	Southern Arrowwood	6" Min. HT X 8" Min. Deep, Tubeling	Plant 3' O. C.	513
Streambank	<i>Salix nigra</i>	Black Willow	6" Min. HT X 8" Min. Deep, Tubeling	Plant 3' O. C.	513
Live Fence	<i>Cornus amomum</i>	Silky Dogwood	0.5-2.5" Dia. X 5-6' HT	SEE DETAIL	440
Live Fence	<i>Viburnum dentatum</i>	Southern Arrowwood	0.5-2.5" Dia. X 5-6' HT	SEE DETAIL	440
Live Fence	<i>Salix sericea</i>	Silky Willow	0.5-2.5" Dia. X 5-6' HT	SEE DETAIL	440
Riparian Tree & Shrub	<i>Quercus rubra</i>	Northern Red Oak	5' HT, 3 GAL. Cont.	Plant 12' O.C.	128
Riparian Tree & Shrub	<i>Quercus alba</i>	White Oak	5' HT, 3 GAL. Cont.	Plant 12' O.C.	128
Riparian Tree & Shrub	<i>Platanus occidentalis</i>	American Sycamore	5' HT, 3 GAL. Cont.	Plant 12' O.C.	128
Riparian Tree & Shrub	<i>Acer saccharinum</i>	Sugar Maple	5' HT, 3 GAL. Cont.	Plant 12' O.C.	128
Riparian Tree & Shrub	<i>Betula nigra</i>	River Birch	5' HT, 3 GAL. Cont.	Plant 12' O.C.	128
Riparian Tree & Shrub	<i>Amelanchier arborea</i>	Serviceberry	2' HT, 3 GAL. Cont.	Plant 8' O.C.	205
Riparian Tree & Shrub	<i>Photinia melanocarpa</i>	Black Chokeberry	2' HT, 3 GAL. Cont.	Plant 8' O.C.	205
Riparian Tree & Shrub	<i>Hamamelis virginiana</i>	American Witchhazel	2' HT, 3 GAL. Cont.	Plant 8' O.C.	205
Terrace/Wetland	<i>Betula nigra</i>	River Birch	5' HT, 3 GAL. Cont.	Plant 12' O.C.	29
Terrace/Wetland	<i>Quercus palustris</i>	Pin Oak	5' HT, 3 GAL. Cont.	Plant 12' O.C.	29
Terrace/Wetland	<i>Quercus bicolor</i>	Swamp White Oak	5' HT, 3 GAL. Cont.	Plant 12' O.C.	29
Terrace/Wetland	<i>Nyssa sylvatica</i>	Black Gum	5' HT, 3 GAL. Cont.	Plant 12' O.C.	29
Terrace/Wetland	<i>Acer negundo</i>	Boxelder	5' HT, 3 GAL. Cont.	Plant 12' O.C.	29
Terrace/Wetland	<i>Alnus serrulata</i>	Smooth Alder	2' HT, 3 GAL. Cont.	Plant 8' O.C.	47
Terrace/Wetland	<i>Sambucus canadensis</i>	Elderberry	2' HT, 3 GAL. Cont.	Plant 8' O.C.	47
Terrace/Wetland	<i>Rhododendron viscosum</i>	Swamp Azalea	2' HT, 3 GAL. Cont.	Plant 8' O.C.	47

Riparian Seed Mix					
Zone	Botanical Name	Common Name	Percent Mix	Seeding Rate	Quantity (lbs.)
Streambank, Riparian	<i>Elymus virginicus</i>	Virginia Wildrye	5	30 lbs per acre	
Streambank, Riparian	<i>Agrostis alba</i>	Redtop	5	30 lbs per acre	
Streambank, Riparian	<i>Poa compressa</i>	Canada Bluegrass	5	30 lbs per acre	
Streambank, Riparian	<i>Festuca arundinacea</i>	Trident tall Fescue	10	30 lbs per acre	
Streambank, Riparian	<i>Sorghastrum nutans</i>	Indian Grass	5	30 lbs per acre	
Streambank, Riparian	<i>Lolium multiflorum</i>	Annual Ryegrass	25	30 lbs per acre	
Streambank, Riparian	<i>Elymus sp.</i>	Saint Perennial Ryegrass	20	30 lbs per acre	
Streambank, Riparian	<i>Festuca rubra</i>	Creeping Red Fescue	25	30 lbs per acre	
		TOTAL MIX			115

Wetland Seed Mix					
Zone	Botanical Name	Common Name	Percent Mix	Seeding Rate	Quantity (lbs.)
Wetland	<i>Panicum rigidulum</i>	Redtop Panicgrass	32	30 lbs per acre	
Wetland	<i>Elymus virginicus</i>	Virginia Wildrye	20	30 lbs per acre	
Wetland	<i>Carex lurida</i>	Lurid (Shallow) Sedge	15	30 lbs per acre	
Wetland	<i>Scirpus atrovirens</i>	Green Bulrush	10	30 lbs per acre	
Wetland	<i>Carex scoparia</i>	Blunt Broom Sedge	6	30 lbs per acre	
Wetland	<i>Carex lupulina</i>	Hop Sedge	6	30 lbs per acre	
Wetland	<i>Panicum anceps</i>	Beaked Panicgrass	6	30 lbs per acre	
Wetland	<i>Asclepias incarnata</i>	Swamp Milkweed	5	30 lbs per acre	
		TOTAL MIX			28

Turfgrass Seed Mix					
Zone	Botanical Name	Common Name	Percent Mix	Seeding Rate	Quantity (lbs.)
Turfgrass	<i>Poa pratensis</i>	Kentucky Blue Grass	33	50 lbs per acre	
Turfgrass	<i>Lolium perenne</i>	Perennial Rye Grass	33	50 lbs per acre	
Turfgrass	<i>Schedonorus phoenix</i>	Tall Fescue	34	50 lbs per acre	
		TOTAL MIX			13

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LANDSCAPE DETAILS

SCALE _____
SHEET _____
34 OF 36