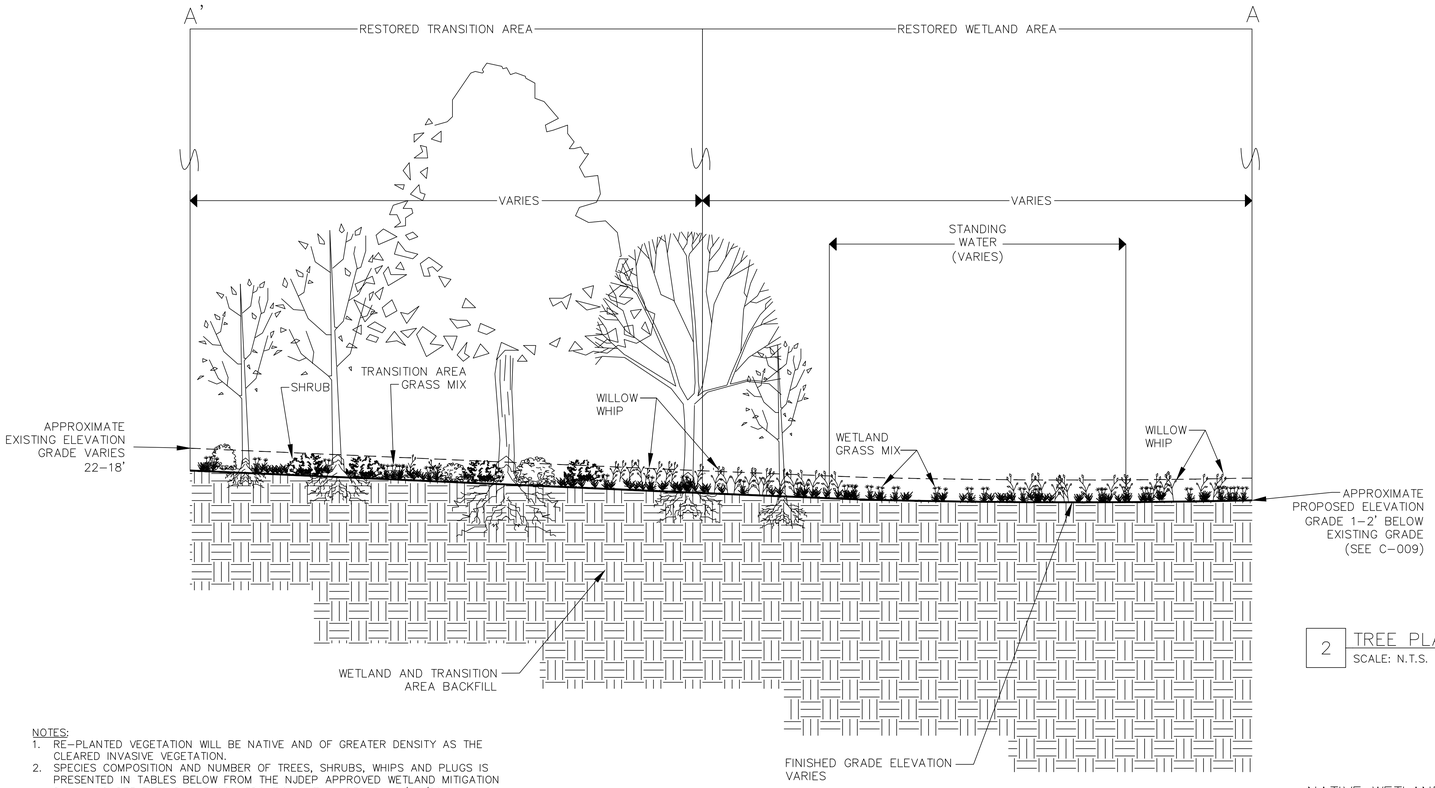


NOTES:
1. RE–PLANTED VEGETATION WILL BE NATIVE AND OF GREATER DENSITY AS THE CLEARED INVASIVE VEGETATION.
2. SPECIES COMPOSITION AND NUMBER OF TREES, SHRUBS, WHIPS AND PLUGS IS PRESENTED IN TABLES BELOW FROM THE NJDEP APPROVED WETLAND MITIGATION PLAN AND REFLECTS PHONE CONVERSATION WITH NJDEP ON 4/29/2014.
3. ALL RE–PLANTED VEGETATION WILL BE MONITORED AND MAINTAINED FOR 3–5 GROWING SEASON TO ENSURE PROPER ESTABLISHMENT AND SURVIVAL.
4. ALL MITIGATION RE–PLANTING WILL OCCUR ON SITE IN AREAS TEMPORARILY DISTURBED BY REMEDIATION, HAUL ROADS, AND LAYDOWN AREAS.
5. PLANTING TIMES SHALL BE CONDUCTED IN ACCORDANCE WITH PLANT HARDINESS ZONE 6B.

	TREES						WHIPS	SHRUBS			HERBACEOUS PLANTINGS
# OF PLANTINGS/SIZE	ACER RUBRUM	LIQUIDAMBAR STYRACIFLUA	QUERCUS RUBRA	QUERCUS ALBA	SALIX NIGRA	POPULUS DELTOIDES	SALIX NIGRA	RHUS GLABRA	MYRICA PENSYLVANICA	CEPHALANTHUS OCCIDENTALIS	JUNCUS EFFUSUS
70 LARGER TREES (>1.5" CALIPER)	5	10	5	10	15	25	–	–	–	–	–
25 SMALLER TREES (<1.5" CALIPER)	0	5	5	5	0	10	–	–	–	–	–
500 WHIPS (36–48")	–	–	–	–	–	–	500	–	–	–	–
180 CONTAINERIZED SHRUBS (18–24")	–	–	–	–	–	–	–	60	60	60	–
500 PLUGS (6–12")	–	–	–	–	–	–	–	–	–	–	500

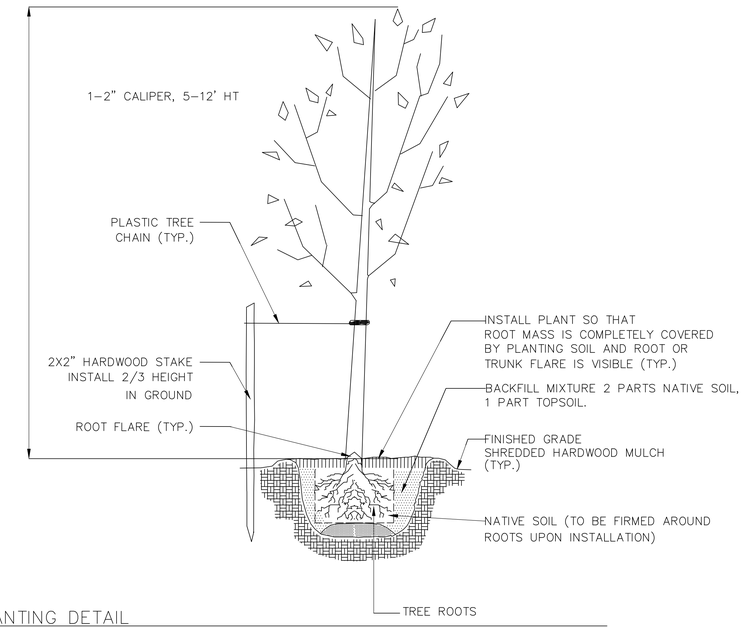
1 RE–VEGETATION SECTION
SCALE: N.T.S.

PREVIOUSLY APPROVED PLANTING SUMMARY FOR REMEDIATION AREA

ACTIVITY	TOTAL QUANTITY	PLANTS OR LBS PER ACRE	PLANTS OR LBS PER ACRE	COMMENTS
SUPPLY PLANT MATERIAL (HERBACEOUS PLANTS)				
CINNAMON FERN (OSMUNDA CINNAMONEA)	156	300	0.52	STREAM CORRIDOR AND PF01.
GRASS MIX – E.G. ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	181	50	3.61	TEMPORARY COVER ONLY – ALL AREAS.
WETLAND SEED MIX	7	2	3.61	PEM AREA AND TRANSITION AREA (PERTINENT TO THIS APPLICATION)
TOTAL HERBACEOUS PLANTS	344			

NOTES:
1. THE PLANTING SUMMARY TABLE ABOVE IS FROM A PORTION OF TABLE 3 FROM THE NJDEP APPROVED WETLAND MITIGATION PLAN (1225–02–0019.5 FWW 090001 GP4). WESTON WOULD LIKE TO POINT OUT THE AREA TO BE DISTURBED IS DEGRADED PEM WETLAND, DOMINATED BY PHRAGMITES. GIVEN THAT PHRAGMITES IS ALSO WIDESPREAD WITHIN THE SITE, WESTON PROPOSES TO IMPROVE EXISTING CONDITIONS TO CONTROL THE INVASIVE SPECIES BY RE–VEGETATING WITH NATIVE TREES, SHRUBS, WHIPS, AND PLUGS, IN ADDITION TO SPREADING WETLAND SEED MIX AS PREVIOUSLY APPROVED, FOR THE PROPOSED IMPROVED PLANTING SUMMARY SEE RE–VEGETATION SECTION 1, THIS SHEET.
2. WETLAND AND TRANSITION AREAS WILL BE BACKFILLED AND REGRADED TO A LOWER ELEVATION THAN EXISTING TO PROVIDE GREATER FLOOD STORAGE AND HYDRAULIC INTERCHANGE BETWEEN ADJACENT RESTORED WETLANDS, SEE RE–VEGETATION SECTION 1, THIS SHEET.
3. SPACING FOR TREES AND SHRUBS WILL BE PLANTED IN CLUMPS AND NOT EQUIDISTANTLY IN ORDER TO REPLICATE NATURAL CONDITIONS. THE HIGHEST DENSITY OF TREES AND SHRUBS WILL BE PLANTED ALONG THE PERIMETER OF THE WETLAND AND WITHIN THE WETLAND TRANSITION AREA.
4. WHIPS WILL BE PLANTED AT A HIGH DENSITY TO ENCOURAGE RAPID, DENSE, COLONIZATION.
5. ALL PLUGS WILL BE PLANTED IN CLUMPS TO REPLICATE NATURAL CONDITIONS.

4 PREVIOUSLY APPROVED PLANTING SUMMARY
SCALE: N.T.S.



2 TREE PLANTING DETAIL
SCALE: N.T.S.

NATIVE WETLAND SEED MIX @ 20 LBS PER ACRE

SEED MIXTURE % BY WEIGHT	SEED SPECIES	APPLICATION RATE LBS/ACRE	LBS/10000SF
17%	GIANT BUR REED, PA ECOTYPE (SPARGANIUM EURYCARPUM, PA ECOTYPE)	3.4	0.78
15%	FOWL BLUEGRASS (POA PALUSTRIS)	3	0.69
15%	FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE)	3	0.69
15%	LURID (SHALLOW) SEDGE, PA ECOTYPE (CAREX LURIDA, PA ECOTYPE)	3	0.69
7%	EASTERN BUR REED (SPARGANIUM AMERICANUM)	1.4	0.32
5.5%	GREEN BULRUSH, PA ECOTYPE (SCIRPUS ATROVIRENS, PA ECOTYPE)	1.1	0.25
5%	HOP SEDGE, PA ECOTYPE (CAREX LUPULINA, PA ECOTYPE)	1	0.23
3%	COSMOS (BRISTLY) SEDGE, PA ECOTYPE (CAREX COMOSA, PA ECOTYPE)	0.6	0.14
3%	FRINGED (NODDING) SEDGE, PA ECOTYPE (CAREX CRINITA, PA ECOTYPE)	0.6	0.14
3%	SOFT RUSH (JUNCUS EFFUSUS)	0.6	0.14
2%	PURPLESTEM ASTER, PA ECOTYPE (ASTER PUNICEUS, PA ECOTYPE)	0.4	0.09
2%	SWAMP MILKWEED, PA ECOTYPE (ASCLEPIAS INCARNATA, PA ECOTYPE)	0.4	0.09
2%	BONESET, PA ECOTYPE (EUPATORIUM PERFOLIATUM, PA ECOTYPE)	0.4	0.09
2%	SOFTSTEM BULRUSH, PA ECOTYPE (SCIRPUS VALIDUS I), PA ECOTYPE)	0.4	0.09
1%	BLUEFLAG, PA ECOTYPE (IRIS VERSICOLOR, PA ECOTYPE)	0.2	0.05
1%	WOOLGRASS, PA ECOTYPE (SCIRPUS CYPERINUS, PA ECOTYPE)	0.2	0.05
1%	ROUGHLEAF GOLDENROD, PA ECOTYPE (SOLIDAGO PATULA, PA ECOTYPE)	0.2	0.05
0.5%	GREAT BLUE LOBELIA, PA ECOTYPE (LOBELIA SIPHILITICA, PA ECOTYPE)	0.1	0.02
SUB TOTAL: 100%		20	4.58
WETLAND COMPANION CROP: RIVERBANK WILDRYE (@ 12 LBS PER ACRE)		12	2.75
	GRAND TOTAL	32 LBS/ACRE	7.33 LBS/10000 SF

NATIVE WETLAND TRANSITION AREA UPLAND MEADOW MIX @ 40 LBS PER ACRE

		LBS/ACRE	LBS/10000SF
25%	LITTLE BLUESTEM, 'CAMPER' (SCHIZACHYRIUM SCOPARIUM, 'CAMPER')	10	2.29
25%	INDIANGRASS, SUFFOLK COUNTY–NY ECOTYPE (SORGHASTRUM NUTANS)	10	2.29
20%	VIRGINIA WILDRYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE)	8	1.83
11%	PURPLETOP, SOUTHEASTERN VA ECOTYPE (TRIDENS FLAVUS)	4.4	1.01
10%	BIG BLUESTEM, 'NIAGARA' (ANDROPOGON GERARDII, 'NIAGARA')	4	0.92
5%	SWITCHGRASS, 'SHELTER' (PANICUM VIRGATUM, 'SHELTER')	2	0.46
2%	DEERTONGUE, 'TIOGA' (PANICUM CLANDESTINUM (DICHANTHELIUM C.), 'TIOGA')	0.8	0.18
2%	BIGTOP LOVEGRASS, VA ECOTYPE (ERAGROSTIS HIRSUTA, VA ECOTYPE)	0.8	0.18
TOTAL: 100%			
	GRAND TOTAL	40 LBS/ACRE	9.16 LBS/10000 SF

3 PROPOSED NATIVE SEED MIXTURES
SCALE: N.T.S.

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SEAL
LeeAnn Beebe, P.E.
N.J. PROFESSIONAL ENGINEER
No. 42828

CLIENT NAME: Chemtura Corporation
PROJECT NAME: Hatco Remediation Southeast Leg Project

DRAWING TITLE: LANDSCAPE DETAILS
DATE: 6/12/2014
SCALE: N/A
FIGURE: C-011

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