

MDC The Metropolitan District
 555 Main Street
 Hartford, Connecticut

FILE NO. 2002-C-105
 DRAWN BY: J. BILALWAH
 CHECK BY: J. BILALWAH
 DATE: 11/15/02
 APPROVED BY: J. BILALWAH
 DATE: 11/15/02

60% SUBMITTAL
 NOT FOR
 CONSTRUCTION

PROJECT: SOUTH HARTFORD CONVEYANCE AND STORAGE TUNNEL
 CONTRACT NO. 20XX-XX
 OWNER: CITY OF HARTFORD, CT
 DESIGNER: BLACK & VEATCH

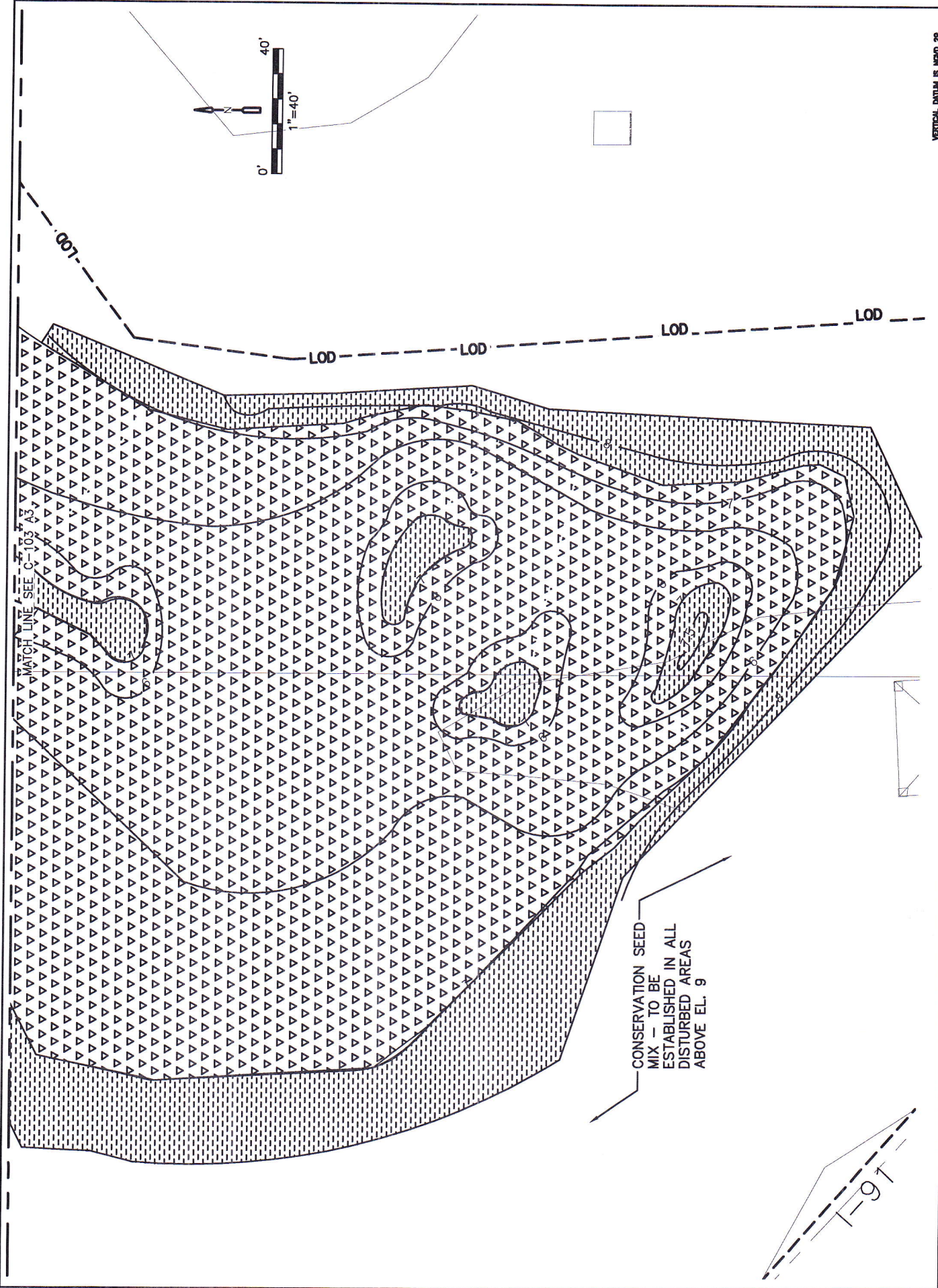
LAUNCH SHAFT- WETLAND MITIGATION
 AREAS X AND Y - PLANTING PLAN

VERTICAL DATUM IS NAVD 29
 HORIZONTAL DATUM IS NAD 83/92

PLAN NUMBER
 SHEET NO.
 C-105 A3

REV	DATE	DESCRIPTION	BY	CHKD	REMARKS

DATE PLOTTED: 11/15/02



VERTICAL DATUM IS NAVD 89
 HORIZONTAL DATUM IS NAD 83/92

PLAN NUMBER

SHEET NO.

C-105 A4

LAUNCH SHAFT- WETLAND MITIGATION
 AREAS X AND Y - PLANTING PLAN

PROJECT NO.

CONTRACT NO. 20XX-XX

SOUTH HARTFORD CONVEYANCE AND
 STORAGE TUNNEL

60% SUBMITTAL
 NOT FOR
 CONSTRUCTION

DATE: 02/01/2016
 DRAWN BY: J. BELLAMY
 CHECKED BY: J. BELLAMY
 APPROVED BY: J. BELLAMY

DATE: 02/01/2016
 DRAWN BY: J. BELLAMY
 CHECKED BY: J. BELLAMY
 APPROVED BY: J. BELLAMY

REV	DATE	DESCRIPTION

MDC The Metropolitan District
 555 Main Street
 Hartford, Connecticut

**South Hartford
Conveyance
and Storage Tunnel**

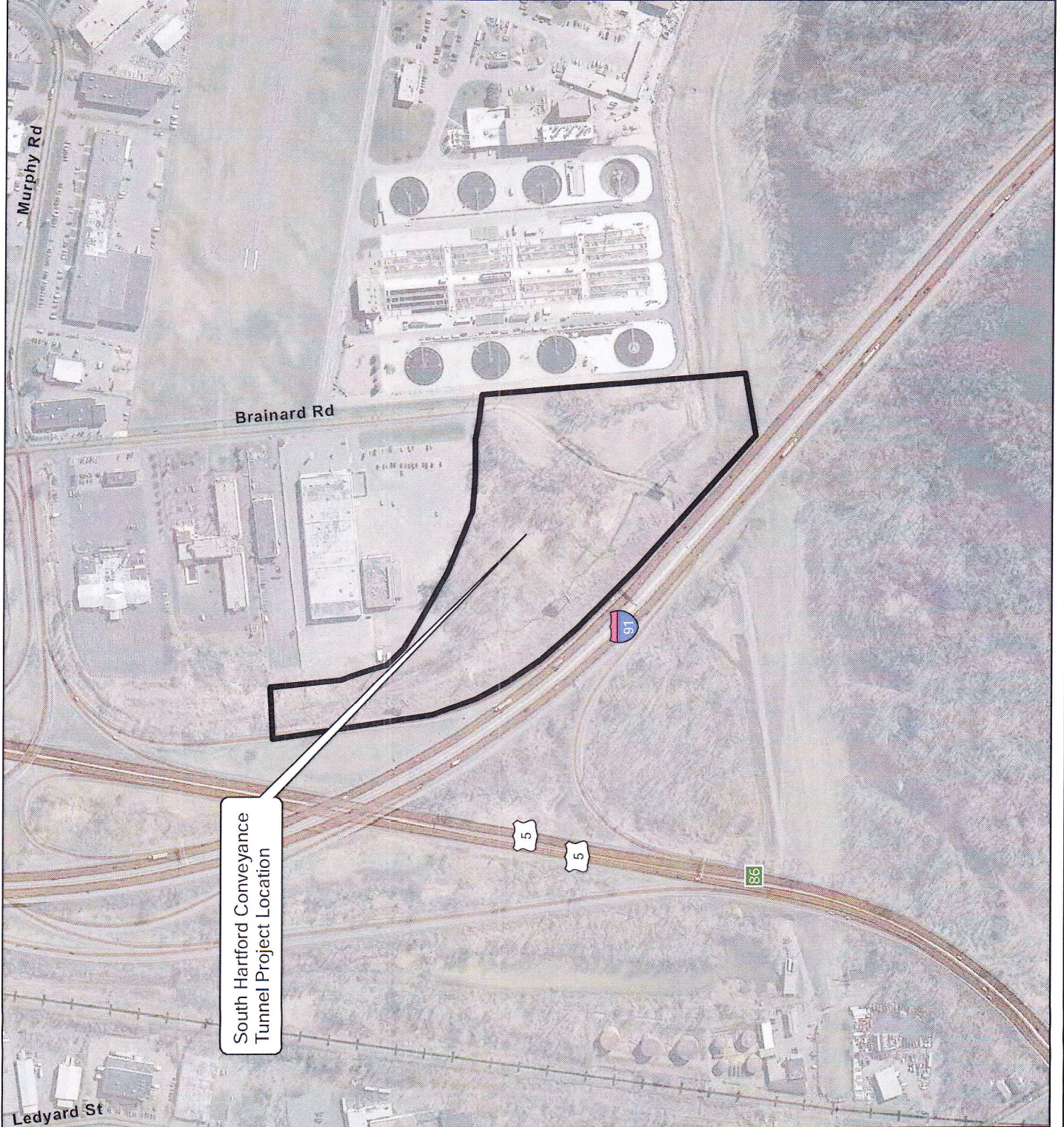
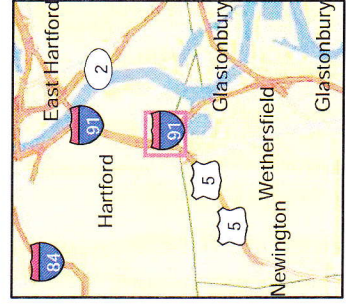
Figure 2
Existing Conditions

 Project Location

USGS Quadrangle
Hartford South



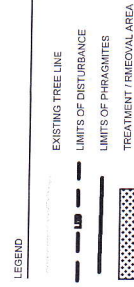
0 250 500
Feet





LAUNCH SHAFT - WETLAND MITIGATION AREA A -
PHRAGMITES AUSTRALIS REMOVAL

- PHRAGMITES REMOVAL NOTES:
1. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND RESTORATION SPECIALIST WITH DETAILED REMOVAL/TREATMENT WORK PLANS AND SCHEDULE FOR APPROVAL PRIOR TO THE COMMENCING OF WORK.
 2. THE CONTRACTOR SHALL FOLLOW ALL PERTINENT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS WHEN TREATING OR REMOVING INVASIVE SPECIES.
 3. THE LIMITS OF REMOVAL SHALL BE DELINEATED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER AND RESTORATION SPECIALIST PRIOR TO THE COMMENCEMENT OF ANY WORK.



VERTICAL DATUM IS MVD. 20
HORIZONTAL DATUM IS MAD 83/92

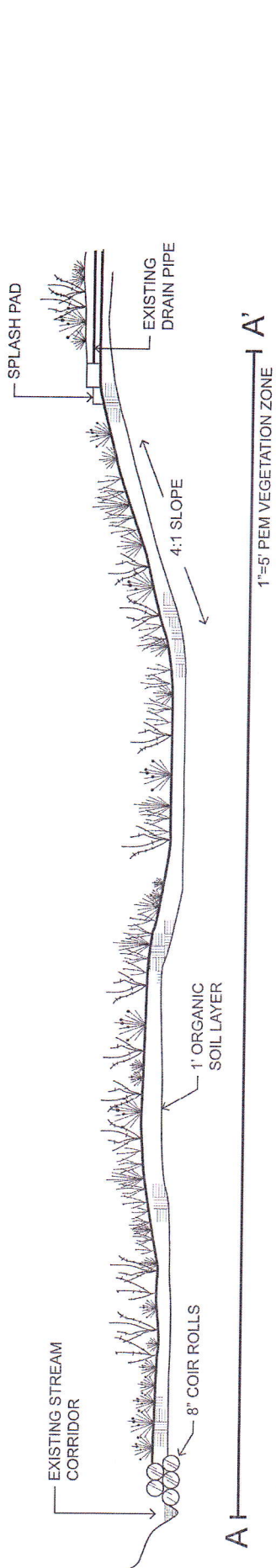
LAUNCH SHAFT - WETLAND MITIGATION
PHRAGMITES REMOVAL / TREATMENT PLAN

CONTRACTOR'S USE
DATE OF APPROVAL BY OWNER
BLACK & VEATCH
CONTRACT NO. 20XX-XX
SOUTH HARTFORD CONVEYANCE AND
STORAGE TUNNEL

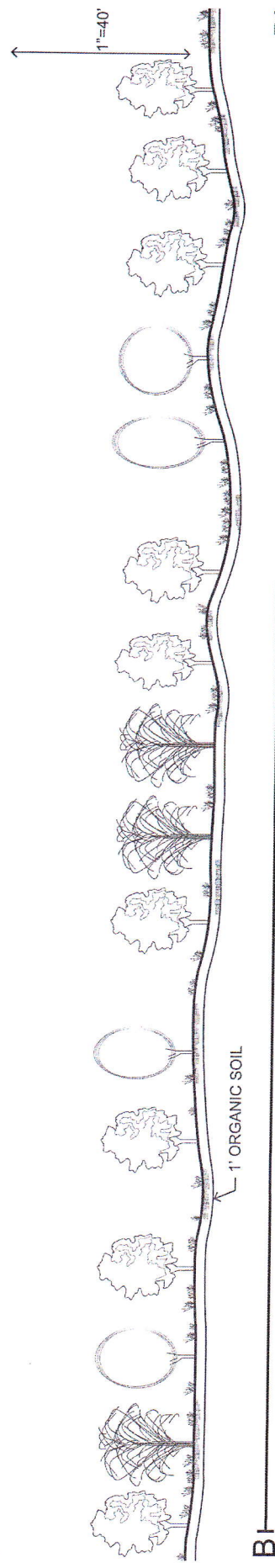
80% SUBMITTAL
NOT FOR
CONSTRUCTION

REV.	DATE	BY	CHKD.	DATE	REVISIONS

MDC
The Metropolitan District
555 Main Street
Hartford, Connecticut



SECTION A



SECTION B

<p>The Metropolitan District 555 Main Street Hartford, Connecticut</p>	<p>DATE: 2/21/14 DRAWN BY: JAWANKE CHECK BY: JAT APPROVED BY: J. SULLIVAN DATE: 2/21/14</p>	<p>60% SUBMITTAL NOT FOR CONSTRUCTION</p>	<p>IN COOPERATION WITH BLACK VEATCH</p>	<p>LANDSCAPE SECTIONS A AND B</p>	<p>PLAN NUMBER SHEET NO. C-108</p>
	<p>PROJECT: SOUTH HARTFORD CONVEYANCE AND STORAGE TUNNEL CONTRACT NO. 20XX-XX</p>	<p>60% SUBMITTAL NOT FOR CONSTRUCTION</p>	<p>IN COOPERATION WITH BLACK VEATCH</p>	<p>LANDSCAPE SECTIONS A AND B</p>	<p>PLAN NUMBER SHEET NO. C-108</p>

PEM-2

MDC South Conveyance Tunnel Project Mitigation Planting Schedule

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	LOCATION
AREA (S.F.)					
Emergent					
Saxifraga hypnoides	Wood sedge	FACTW	12" H	5' O.C.	322
Achillea millefolium	Self heal	FACTW	12" H	5' O.C.	322
Achillea millefolium	Chamae draco	FACTW	12" H	5' O.C.	322
TOTAL					966
TOTAL COST					\$8,362.00

PEM-1

MDC South Conveyance Tunnel Project Mitigation Planting Schedule

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	LOCATION
AREA (S.F.)					
Emergent					
Saxifraga hypnoides	Wood sedge	FACTW	12" H	5' O.C.	322
Achillea millefolium	Self heal	FACTW	12" H	5' O.C.	322
Achillea millefolium	Chamae draco	FACTW	12" H	5' O.C.	322
TOTAL					966
TOTAL COST					\$8,362.00

PFO-2

MDC South Conveyance Tunnel Project Mitigation Planting Schedule

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	LOCATION
AREA (S.F.)					
TREES					
Aster multiflorus	Starflower	FACTW	2'-5" HT B.B.	10' O.C.	45
Aster multiflorus	Starflower	FACTW	18"-24" HT B.B.	10' O.C.	45
Phlox paniculata	Blue phlox	FACTW	2'-3" HT B.B.	10' O.C.	45
Aster multiflorus	Starflower	FACTW	2'-3" HT B.B.	10' O.C.	45
TOTAL					180
TOTAL COST					\$11,600.00

PFO-1

MDC South Conveyance Tunnel Project Mitigation Planting Schedule

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	LOCATION
AREA (S.F.)					
TREES					
Prunella pennsylvanica	Black cherry	FACTW	2'-5" HT B.B.	10' O.C.	165
Aster multiflorus	Starflower	FACTW	18"-24" HT B.B.	10' O.C.	164
Quercus prinus	White oak	FACTW	2'-3" HT B.B.	10' O.C.	164
Solidago canadensis	Goldenrod	FACTW	18"-24" HT B.B.	10' O.C.	164
TOTAL					657
TOTAL COST					\$8,362.00

MASTER

MDC South Conveyance Tunnel Project Mitigation Planting Schedule

BOTANICAL NAME	COMMON NAME	INDICATOR	SIZE	SPACING	LOCATION	NUMBER OF PLANTS	COST PER PLANT	TOTAL PRICE	NOTES
AREA (S.F.)									
TREES									
Prunella pennsylvanica	Black cherry	FACTW	2'-5" HT B.B.	10' O.C.	10	40	\$14.00	\$560.00	REPLANT
Aster multiflorus	Starflower	FACTW	18"-24" HT B.B.	10' O.C.	10	40	\$6.00	\$240.00	REPLANT
Quercus prinus	White oak	FACTW	2'-3" HT B.B.	10' O.C.	10	40	\$14.00	\$560.00	REPLANT
TOTAL					30	120	\$34.00	\$4,080.00	
TOTAL COST					30	120	\$34.00	\$4,080.00	
SHRUBS									
Ribes gracile	Skunk cabbage	FACTW	18"-24" HT B.B.	8' O.C.	10	120	\$22.00	\$2,640.00	PCP
Viburnum lentago	Hairy viburnum	FACTW	18"-24" HT B.B.	8' O.C.	10	120	\$8.00	\$960.00	REPLANT
Prunella pennsylvanica	Black cherry	FACTW	18"-24" HT B.B.	8' O.C.	10	120	\$14.00	\$1,680.00	PCP
TOTAL					30	360	\$24.00	\$8,640.00	
TOTAL COST					30	360	\$24.00	\$8,640.00	

REPLANT = New Plants/Established Plants, Inc.
PCP = Plant in Container Form

PLANTING NOTES:

- CONTRACTOR SHALL PROVIDE THE ENGINEER WITH PRELIMINARY AS-BUILT DRAWINGS OF FINISHED GRADES PRIOR TO PLANTING AND PLANTING SHALL OCCUR UNTIL THE ENGINEER HAS REVIEWED THE PRELIMINARY AS-BUILT DRAWINGS AND PROVIDED WRITTEN PERMISSION TO COMMENCE WITH THE PLANTING OPERATIONS
- SEE PLANT INSTALLATION DETAILS AND SPECIFICATIONS FOR ACCEPTABLE METHODS FOR INSTALLATION OF PLANT MATERIAL. PLANT MATERIAL NOT INSTALLED CORRECTLY SHALL BE REJECTED BY THE ENGINEER AND SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- ALL PLANT MATERIAL SHALL BE ESTABLISHED IN A NATURALIZED PATTERN. PLANTED PLANTING SHALL RESULT IN A RELATIVELY EVEN DISTRIBUTION OF PLANT SPECIES ACROSS THE PLANTING AREA AT THE SPECIFIED DENSITY PLANTINGS. UNIFORM DISTRIBUTIONS OF SPECIES OR NOMENCLATURES, EXCEPT WHERE NOTED ON THE DRAWINGS, SHALL BE SOLELY DETERMINED BY THE ENGINEER. ALL TREES AND SHRUBS SHALL BE PLANTED AT THE TOP OF THE BEDDING HARROWS.
- AREAS SHALL BE PLANTED AND SEEDS AS SHOWN ON THE PLANS IN THE ZONES CORRESPONDING TO THE PLANTING PLAN. BEDDING AND SEEDING SHALL OCCUR PRIOR TO PLANTING.
- ALL BARE ROOT PLANT STOCK WILL BE INSTALLED BETWEEN MARCH 1 TO MAY 15 FOR SPRING PLANTING. FALL PLANTING OF BARE ROOT STOCK IS NOT PERMITTED.
- ALL CONTAINERIZED PLANT STOCK WILL BE INSTALLED BETWEEN MARCH 1 TO MAY 15 FOR SPRING PLANTING OR SEPTEMBER 1 TO NOVEMBER 1 FOR FALL PLANTING.
- SEED WINDOWS SHALL BE AS FOLLOWS OR AT THE DISCRETION OF THE ENGINEER: MARCH 15 TO JUNE 15 OR SEPTEMBER 1 TO NOVEMBER 15.
- IF THE ESTABLISHMENT DATES CANNOT BE MET AND FALL PLANTING IS REQUIRED, PLANT SPECIES, TYPE OF MATERIAL, AND ESTIMATED PLANTING DATES SHALL BE SUBMITTED IN WRITING TO THE SITE SUPERVISOR FOR APPROVAL. ALL CHANGES MUST BE APPROVED IN WRITING.
- A NON-GROWING SEASON STABILIZATION COVER SHALL BE APPLIED IF COMPLETED PRIOR TO FEBRUARY 16 AS DETAILED IN THE SPECIFICATIONS.
- SEEDING SHALL NOT OCCUR WHEN SEEDING SURFACE IS INUNDATED. THE SEEDING SHALL BE APPLIED AS DETAILED IN THE SPECIFICATIONS.
- APPROPRIATE TREE SNAGS (PERCH TREE) LOCATIONS ARE DEPICTED IN THE FIELD BY THE ENGINEER.
- BRUSH PILES WILL BE CONSTRUCTED AT THE APPROXIMATE LOCATIONS ARE DEPICTED ON THE PLANTING PLAN, BUT FINAL LOCATIONS WILL BE DELINEATED IN THE FIELD BY THE ENGINEER.

MDC The Metropolitan District
565 Main Street
Hartford, Connecticut

REVISIONS

NO.	DATE	DESCRIPTION

60% SUBMITTAL NOT FOR CONSTRUCTION

DATE: 02/16/2011
DRAWN BY: J. SHAWAN
CHECKED BY: J. SHAWAN
APPROVED BY: J. SHAWAN

LANDSCAPE DETAILS 3

CONTRACT NO. 20XX-XX
SOUTH HARTFORD CONVEYANCE AND STORAGE TUNNEL

PLAN NUMBER
SHEET NO.
C-503