

- 4. THE VERTICAL DATUM SHOWN HEREON REFERENCES THE CITY OF CAMBRIDGE DATUM. TBM 0988 (56.59') WAS HELD FOR ELEVATION.
- 5. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON LABELED WITH AN (R) ARE FROM RECORD DOCUMENTS. ADDITIONAL FIELD INVESTIGATION WILL BE REQUIRED BY OTHERS TO DETERMINE THE ACTUAL PIPE SIZE(S) AND TYPE(S).
- 6. THE WETLAND FLAGS SHOWN HEREON WERE SET AND LOCATED BY GREEN INTERNATIONAL AFFILIATES, INC. AND FIELD VERIFIED BY WSP USA, INC.
- 7. THE PROPERTY LINES SHOWN HEREON ARE FROM THE CAMBRIDGE MA GIS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE.
- 8. THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- 6. TP-C2 COMPACTION (PENETROMETER SITE 2)
- 7. TP-C3 COMPACTION (PENETROMETER SITE 3)

UTILITY STATEMENTS:

THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

- NO LABEL MANHOLE
- S SEWER MANHOLE
- © ELECTRIC HANDHOLE
- E ELECTRIC METER © ELECTRIC MANHOLE
- G GAS METER ■ GAS VALVE
- S BIKE LANE

SPRINKLER

- **WATER MANHOLE** ⋈ WATER GATE
- RECORD IRRIGATION CONTROL VALVE IRRIGATION CONTROL VALVE
- C FIRE HYDRANT NO DUMP PLAQUE
- ___ BASKETBALL POST BIKE O BIKE POST O BOULDER

- GUIDE WIRE (DECIDUOUS TREE
- हिंदुें SHRUB TREE STUMP
- → SIGN (SINGLE POSTED) - SIGN (DOUBLE POSTED)

TRAFFIC SIGNAL

CONIFER TREE

 MAILBOX C LIGHT POLE \oplus BOLLARD

POST

- L HANDICAP PARKING FIRE ALARM
- → BENCHMARK ∨ENT
- VGC VERTICAL GRANITE CURB LSA LANDSCAPED AREA SRW STONE RETAINING WALL CRW CONCRETE RETAINING WALL WRW WOOD RETAINING WALL SWL SOLID WHITE LINE SYL SINGLE YELLOW LINE DYL DOUBLE YELLOW LINE RCP REINFORCED CONCRETE PIPE TOW TOP OF WATER TOP TOP OF PIPE TOH TOP OF HOOD PVC POLYVINYL CHLORIDE NPV NO PIPES VISIBLE

SGC SLOPED GRANITE CURB

	OTTAIN EININ TENOE
	TEMPORARY FENCE
_	WOOD GUARDRAIL
OHW	OVERHEAD WIRES
	METAL HANDRAIL
	TREE LINE
68.5	INTERMEDIATE CONTOURS (0.5')
69.0	INDEX CONTOURS (0.5')
	INTERMEDIATE CONTOURS (1')
71	INDEX CONTOURS (1')
	WETLAND DELINEATION
	EDGE OF WATER
D	DRAIN LINE
D	DRAIN LINE - GIS
	SEWER LINE
	SEWER LINE - GIS
——Е——	ELECTRIC LINE
G	GAS LINE



0	O '	4	o,	0.0
	U	4	0'	
SCALE	E: 1"	= 20)'-0"	

ISSUED FOR BID

WATER LINE - GIS



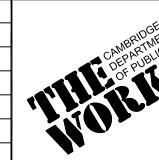


HATCH 27 Congress Street, Salem, MA 01970

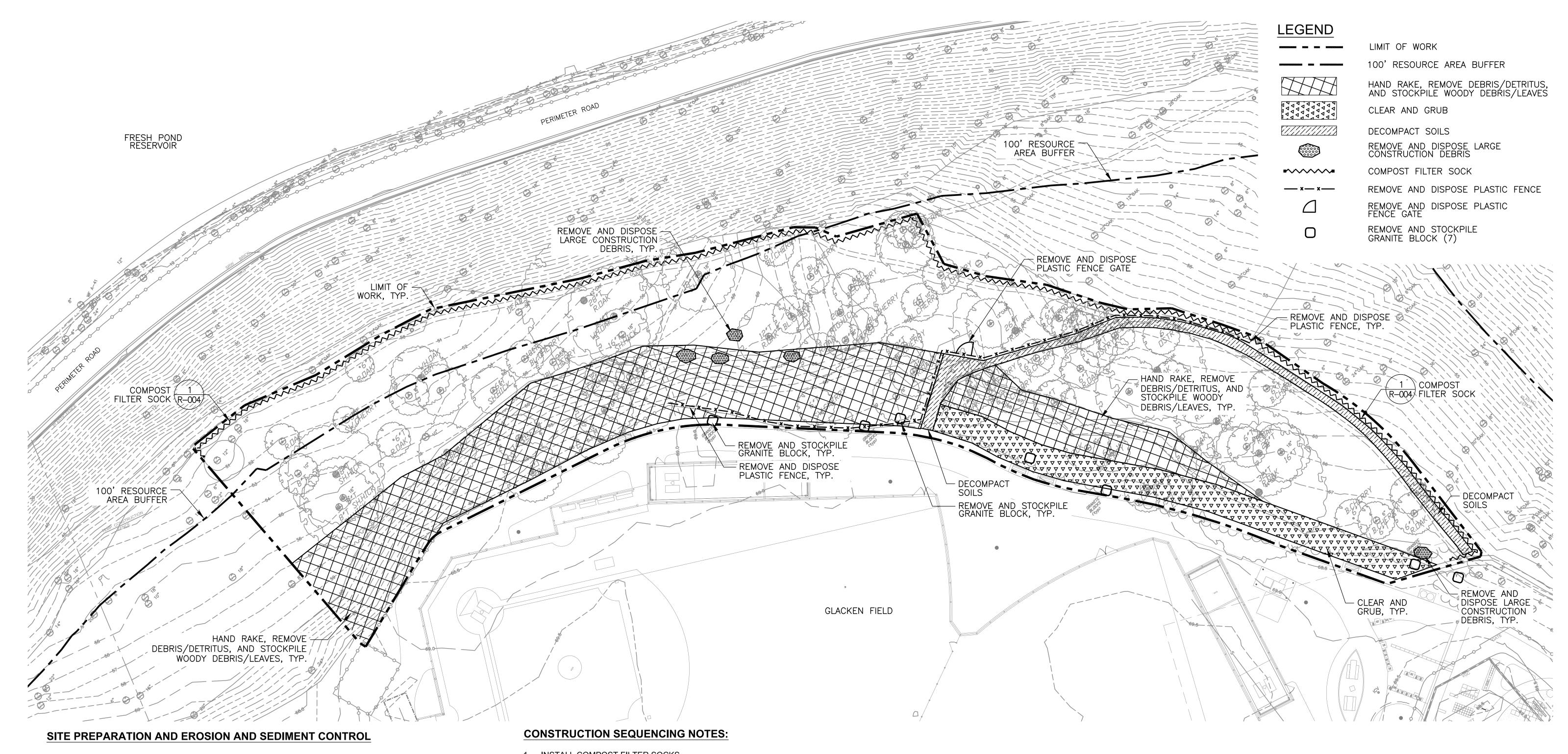
www.hatch.com



	Scale	1" = 20'				
	Date	03/05/2020				
	Job No.	20201034.002A				
	Designed by	DB, AK				1
	Drawn by	AK				
	Checked by	DB	No.	Description	Date	
)	Approved by	DB		REVISIONS		



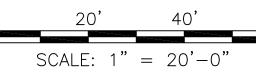
	NONTH		
Client	CITY OF CAMBRIDGE, MASSACHUSETTS		
roject GLACKEN FIELD RENOVATIONS		R-001	
		File No.	
)rawing	GLACKEN SLOPE PHASE 6 EXISTING CONDITIONS PLAN	9058	



- 1. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS OR ABUTTING PROPERTY
- 2. THE CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENT CONTROL DEVICES, AND SHALL NOT COMMENCE CONSTRUCTION UNTIL THESE MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE CONSERVATION COMMISSION'S AGENT AND OWNER'S REPRESENTATIVE.
- 3. CONTRACTOR SHALL USE ALL AVAILABLE MEANS TO MINIMIZE THE AMOUNT OF SOIL EROSION CAUSED BY THE WORK OF THE PROJECT. THIS INCLUDES RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DEVICES INDICATED. REPAIRS TO SOIL EROSION CONTROL DEVISES SHALL BE COMPLETED WITHIN 24 HOURS FOR SIGNIFICANT REPAIRS AND 48 HOURS FOR ALL OTHER REPAIRS.
- 4. EROSION CONTROL DEVICES SHALL BE CHECKED, MAINTAINED AND/OR REPLACED, AS NECESSARY, DAILY AND AFTER EACH RAINFALL TO ENSURE WORKING ORDER.
- 5. ALL TREES NOT IDENTIFIED FOR REMOVAL SHALL BE PROTECTED AGAINST CONSTRUCTION RELATED DAMAGE. TREE TRUNKS SHALL BE WRAPPED AND/OR BARRICADED FOR PROTECTION IF NECESSARY. BREAKAGE OF LIMBS SHALL NOT BE PERMITTED. "CONSTRUCTION PRUNING" SHALL CONSIST OF SQUARELY CUTTING LIMBS ONLY WHERE THEY CANNOT BE AVOIDED BY TRUCKS OR EQUIPMENT (RAISE PRUNING), UPON APPROVAL OF OWNER.
- 6. AT THE OWNER'S DISCRETION, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY TREE DAMAGED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 7. TREE ROOTS THAT CANNOT BE AVOIDED DURING CONSTRUCTION SHALL BE PRUNED IN ACCORDANCE WITH THE SPECIFICATIONS AND UNDER SUPERVISION OF THE OWNER'S REPRESENTATIVE, INCLUDING ROOT TREATMENT, IF REQUIRED.
- 8. (7) GRANITE BLOCKS TO BE REMOVED AND STOCKPILED IN LOCATION TO BE DETERMINED BY OWNER.

- 1. INSTALL COMPOST FILTER SOCKS.
- 2. INSTALL PLANT ESTABLISHMENT FENCE AND GATES (2) AS SHOWN ON SHEET R-003 TO REDUCE FOOT TRAFFIC OF RESERVATION USERS DURING CONSTRUCTION.
- 3. REMOVE AND DISPOSE OF PLASTIC FENCING AND GATES WITHIN PROJECT LIMITS.
- 4. REMOVE WOODY DEBRIS AND LEAVES AS DEPICTED ON PLAN AND STOCKPILE IN A LOCATION APPROVED BY OWNER.
- 5. REMOVE AND DISPOSE OF ALL DEBRIS INCLUDING, BUT NOT LIMITED TO, CONCRETE, BRICKS, AND BITUMINOUS CONCRETE.
- 6. RAKE AND DISPOSE OF CONSTRUCTION DEBRIS UNDER ONE INCH (1") IN DIAMETER. 7. REMOVE AND DISPOSE OF INVASIVE SAPLINGS, SHRUBS, VINES AND GROUNDCOVERS AS IDENTIFIED IN SPECIFICATION SECTION 31 12 00.13
- 8. DE-COMPACT SOILS AS INDICATED ON PLAN.





ISSUED FOR BID







THE SACROS	Scale	1" = 20'
AND WAR ON SO	Date	03/05/2020
	Job No.	20201034.002A
AO. 1558	Designed by	DB, AK
	Drawn by	AK
A STATISTICAL STAT	Checked by	DB
3/3/2020	Approved by	DB

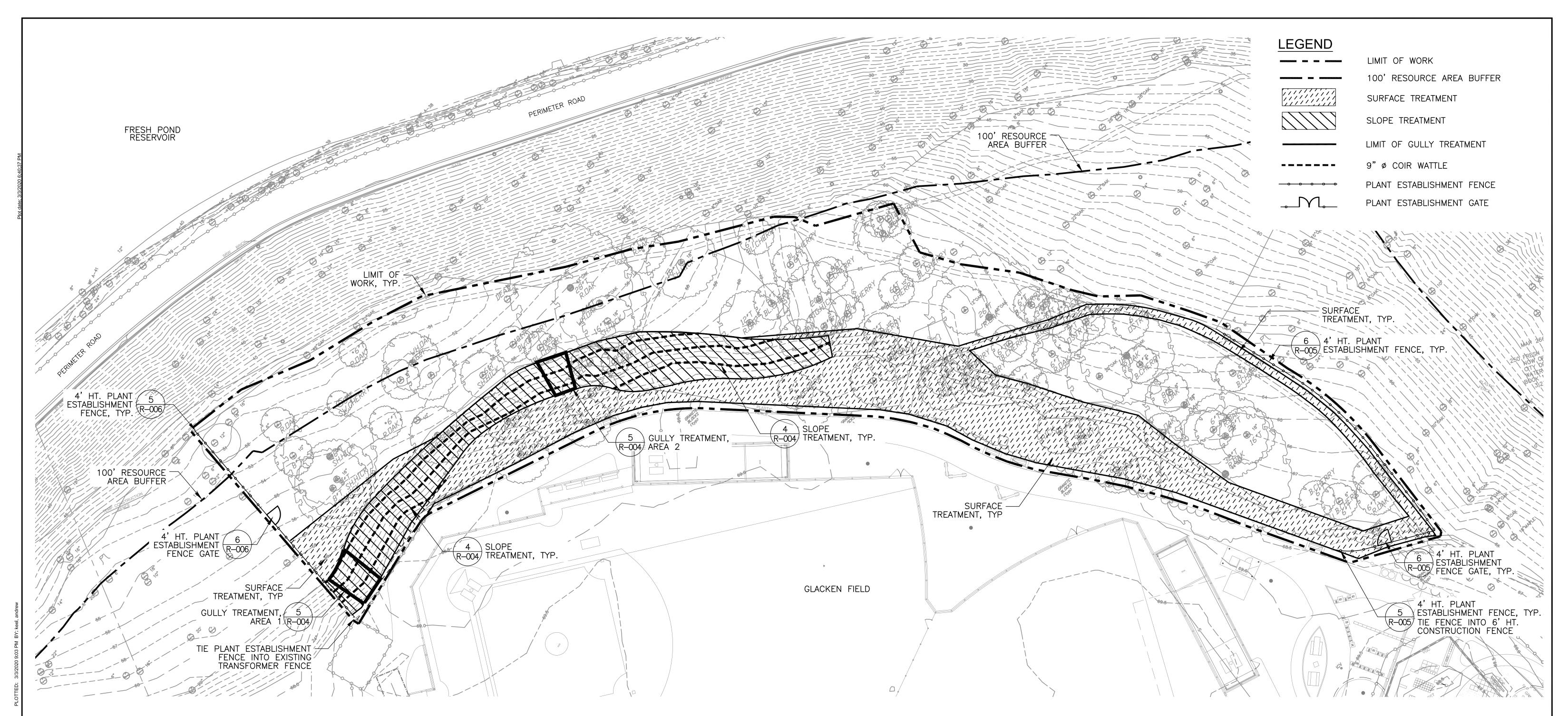
DB

Description

REVISIONS

	ABRIDGENT MENT
	CAMBRIDGENT CAMBRIDGENT DEPARTUELLC OF PUBLIC
	0,1
	dis Vice
Date	
	•

	NORTH 30/122. 1 20 0	
Client	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet R-002
Project	Project GLACKEN FIELD RENOVATIONS	
		File No.
Drawing	GLACKEN SLOPE PHASE 6 RESTORATION PREPARATION PLAN	9058



GENERAL NOTES:

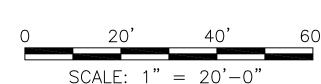
- 1. CONTRACTOR TO COMPLETE SLOPE AND WOODLAND RESTORATION IN A MANNER THAT DOES NOT DAMAGE THE ADJACENT PLAYING FIELDS OR IMPACT FINAL PROPOSED CONDITIONS OF THE ADJACENT PROJECT SITE. IT IS RECOMMENDED THAT
- SLOPE AND WOODLAND RESTORATION TO BE COMPLETED PRIOR TO JULY 1, 2020.

 2. NO WORK SHALL BE PERFORMED OUTSIDE THE PROJECT AREA WITHOUT PRIOR AUTHORIZATION FROM THE OWNER.
- 3. THE CONTRACTOR SHALL PROTECT ALL TRAVELED WAYS FROM DUST AND CONSTRUCTION DEBRIS AT ALL TIMES.
- 4. UNLESS OTHERWISE INDICATED ON THE DRAWINGS ALL AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE CONTRACTOR MAY BE ASKED BY THE OWNER TO SUSPEND CONSTRUCTION OPERATIONS TEMPORARILY TO AVOID CONFLICTS WITH LARGE PUBLIC EVENTS OR LARGE STORM EVENTS. THE CONTRACTOR SHALL NOT BE COMPENSATED FOR COSTS RELATING TO SHUTDOWNS FOR THESE REASONS.
- 6. THE CONTRACTOR SHALL NOT BLOCK ACCESS TO THE PATHS AND ACCESS ROADS IN THE VICINITY OF THE LIMITS OF CONSTRUCTION AFTER WORK HOURS AND ON WEEKENDS.
- 7. THE CONTRACTOR SHALL NOT BE PERMITTED TO STARTUP OR OPERATE EQUIPMENT BEFORE OR AFTER ESTABLISHED WORKING HOURS OF 7:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY WITHOUT WRITTEN APPROVAL BY THE OWNER, UNLESS NOTED OTHERWISE. NO WORK SHALL OCCUR ON HOLIDAYS OBSERVED BY CITY OF CAMBRIDGE.

CONSTRUCTION SEQUENCING NOTES:

- 1. REPAIR GULLIES (AREAS 1 AND 2) AND INSTALL SLOPE TREATMENTS.
- 2. RESTORE SURFACE TREATMENT AREAS AS SHOWN ON SHEET R-003 AND IDENTIFIED IN SPECIFICATION SECTION 32 91 13 PLANTING SOIL. MACHINERY AND HEAVY EQUIPMENT SHALL NOT BE PLACED IN THESE AREAS FOLLOWING RESTORATION.
- 3. INSTALL WOODLAND SEED MIX (SEE SHEET R-005 RESTORATION PLANTING PLAN).
- 4. STABILIZE WITH EROSION CONTROL MAT OR WEED-FREE STRAW.
- 5. INSTALL PLANTS (SEE SHEET R-005 RESTORATION PLANTING PLAN AND PLANT SCHEDULE).
- 6. PLACE STOCKPILED WOODY DEBRIS AND LEAVES WITHIN SURFACE AND SLOPE TREATMENT AREAS.













OHA RIS	Scale	1" = 20'		
PALLEY PALLEY	Date	03/05/2020		
	Job No.	20201034.002A		
	Designed by	DB, AK		
^{AO} . 1558	Drawn by	AK		
A Shirmaning the	Checked by	DB	No.	
3/3/2020	Approved by	DB		

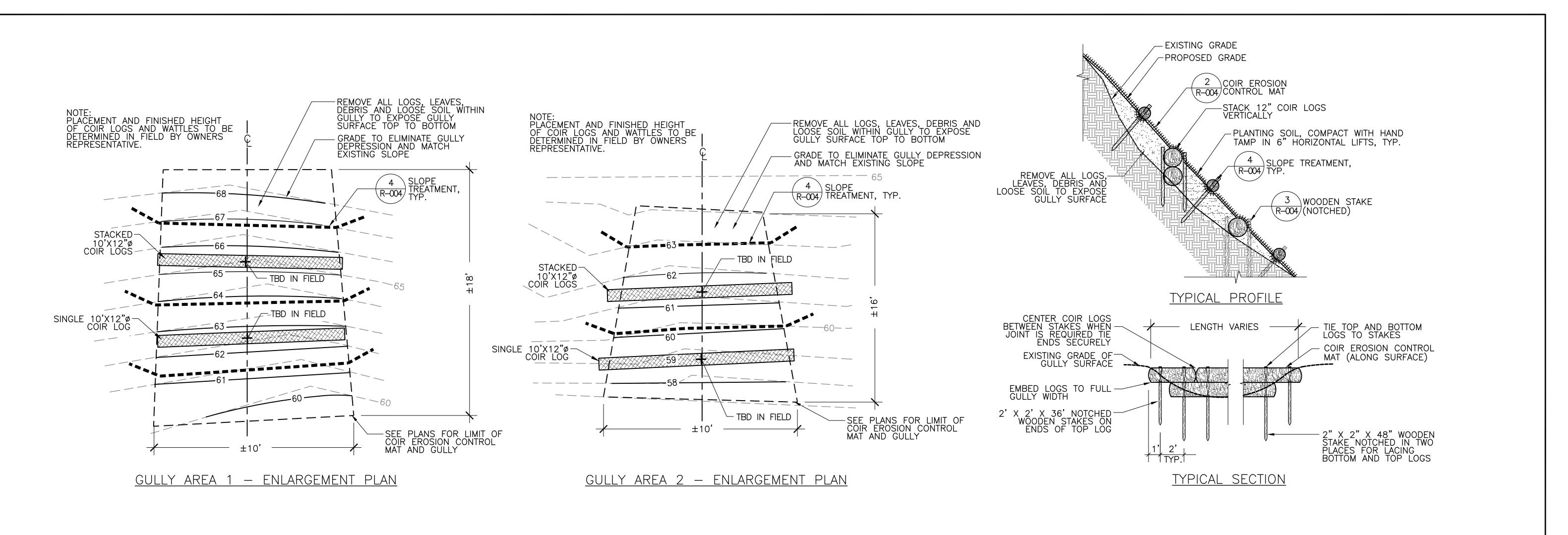
CAMBRIDGE WT DEPARTMENT OF PUBLIC

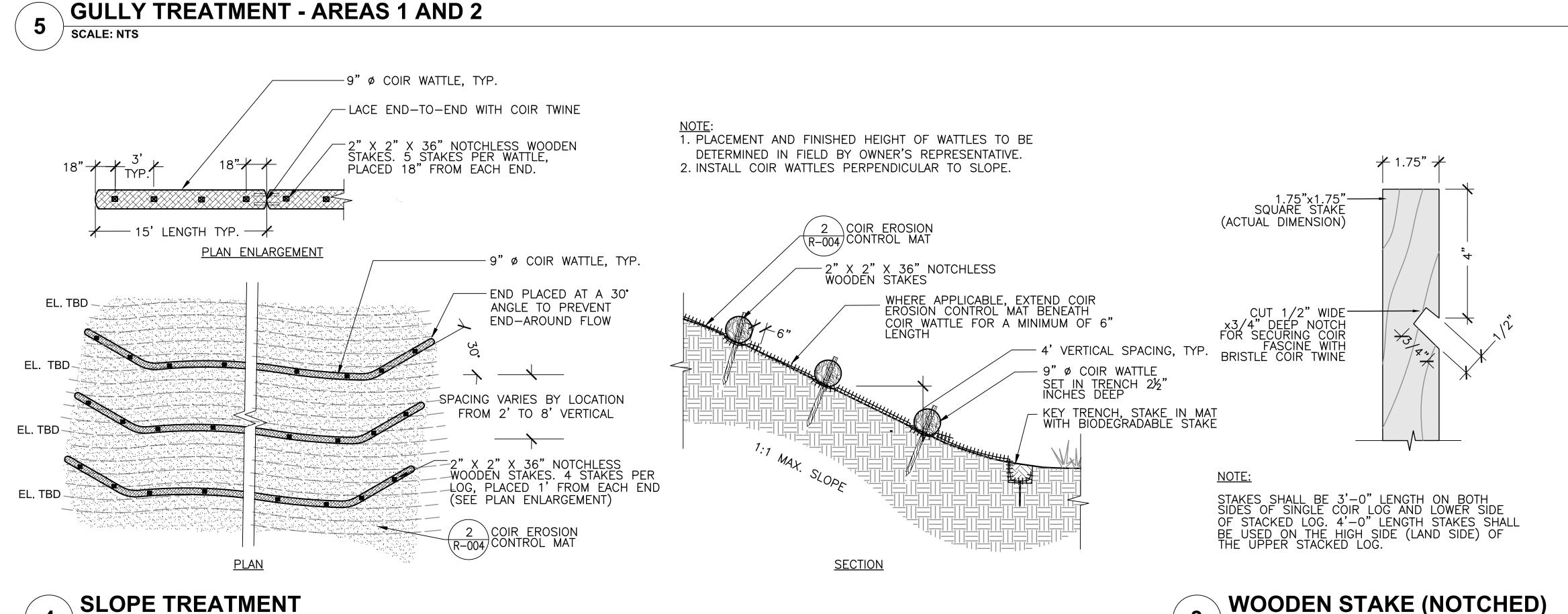
Date

Description

REVISIONS

		1101111		
				,
	Client	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet R-003	
)	Project	GLACKEN FIELD RENOVATIONS	K-003	
			File No.	
	Drawing	GLACKEN SLOPE PHASE 6 SURFACE RESTORATION PLAN	9058	





WRAP TOP EDGE OF MAT
INTO 6"WX6"D KEY TRENCH,
SECURE WITH 6" STAKES @
6" O.C. AND BACKFILL, TYP. — 6" WOOD "ECO—STAKE" OR APPROVED EQUAL @ 24" O.C. IN FIELD, TYP. EROSION CONTROL MAT FLUSH WITH FINISHED GRADE

1. REFER TO SPEC SECTION 312514, SLOPE STABILIZATION.

COIR EROSION CONTROL MAT 2 SCALE: NTS PROTECTED AREA 2"X2"X36" WOODEN STAKE COMPOST FILTER SOCK (12"ø TYPICAL) -STAKE 10' O.C. LINEAR SPACING FLOW WATER FLOW COMPOST FILTER SOCK AREA TO BE PROTECTED <u>SECTION</u> PLAN VIEW

CONTRACTOR TO SLICE MESH FABRIC TUBING OF COMPOST FILTER SOCK, REMOVE ALL FABRIC OFF SITE AND RAKE OUT MULCH AT COMPLETION OF PROJECT.

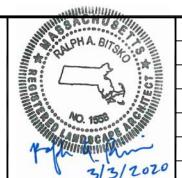
COMPOST FILTER SOCK SCALE: NTS

ISSUED FOR BID





HATCH 27 Congress Street, Salem, MA 01970 www.hatch.com



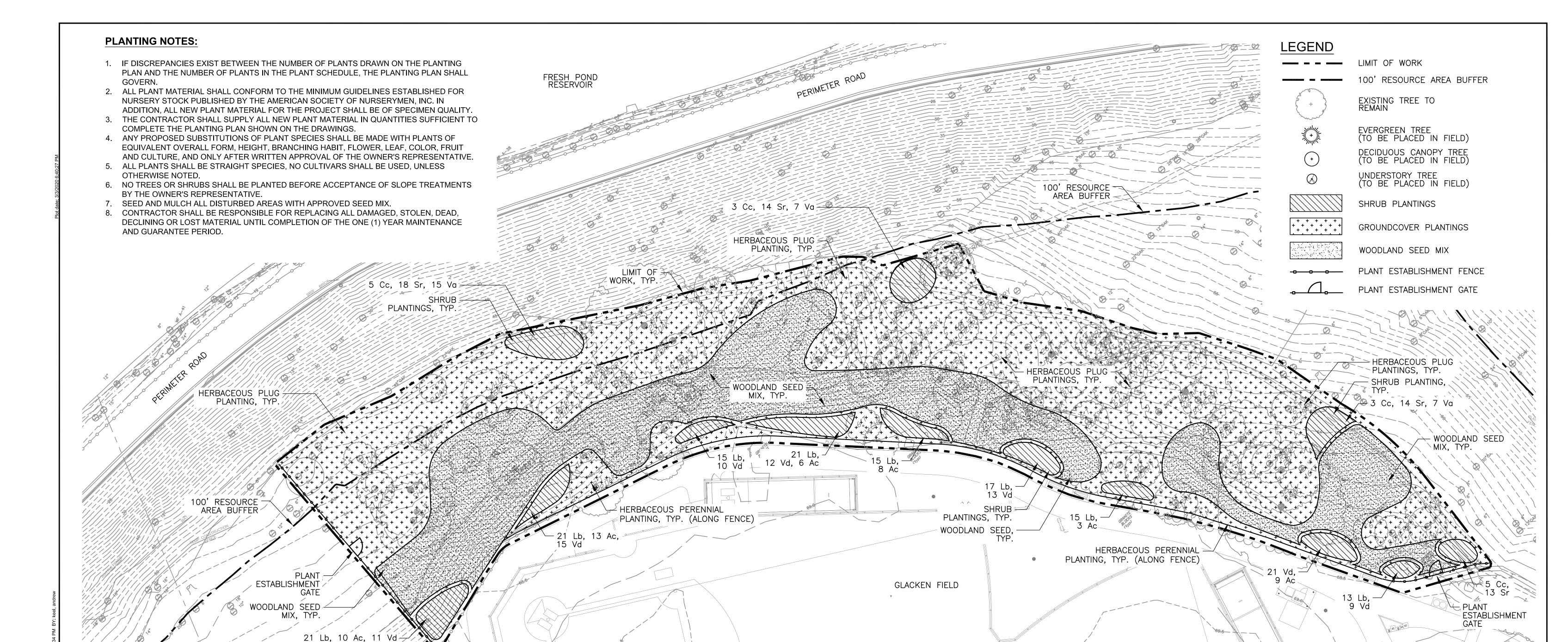
MALL	Scale	NTS				
0	Date	03/05/2020				
67	Job No.	20201034.002A				
WITE	Designed by	DB, AK				
WATEGT # S.	Drawn by	AK				1
~	Checked by	НН	No.	Description	Date	
2020	Approved by	DB		REVISIONS		

SCALE: NTS

3



ent	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet R-004
ject	GLACKEN FIELD RENOVATIONS	1\-004
		File No.
wing	GLACKEN SLOPE PHASE 6 RESTORATION DETAILS	9058



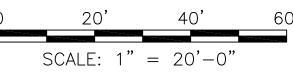
PLANT SCHEDULE - STRAIGHT NATIVE SPECIES ONLY

CANOPY TREES						
QTY.	ID	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS/ SHADE TOLERANCE	
4	AC	Acer Saccharum	Sugar maple	2" CAL, B&B	VERY TOLERANT	
8	BL	Betula lenta	Sweet birch	1" CAL, CONT.	INTERMEDIATE	
12	CA	Carya glabra	Pignut hickory	1" CAL, CONT.	INTERMEDIATE	
15	CO	Carya ovata	Shagbark hickory	2" CAL, B&B	INTERMEDIATE	
5	FA	Fraxinus americana	White ash	1" CAL, CONT.	TOLERANT	
9	FG	Fagus grandifolia	American beech	2" CAL, B&B	VERY TOLERANT	
5	PrSe	Prunus serotina	Black cherry	1" CAL, CONT.	INTOLERANT, FIELD EDGE	
8	PS1	Pinus strobus	White pine	4' HT, CONT.	INTERMEDIATE, FIELD EDGE	
4	PS2	Pinus strobus	White pine	8' HT, B&B	INTERMEDIATE, FIELD EDGE	
18	QR	Quercus rubra	Red oak	2" CAL, B&B	TOLERANT	
8	QV	Quercus velutina	Black oak	1" CAL, CONT.	INTERMEDIATE	
16	SA	Sassafras albidum	Sassafras	1" CAL, CONT.	INTOLERANT, FIELD EDGE	

UNDE	UNDERSTORY TREES AND SHRUBS					
QTY.	ID	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS/ SHADE TOLERANCE	
20	Aa	Aronia arbutifolia	Red chokeberry	24" HT, CONT.	INTERMEDIATE, FIELD EDGE	
49	Ac	Amelanchier canadensis	Serviceberry	36" HT, CONT.	VERY TOLERANT, FIELD EDGE	
5	Ва	Betula alleghaniensis	Yellow birch	6' HT, CONT.	TOLERANT, FIELD EDGE	
16	Сс	Corylus cornuta	Beaked hazelnut	36" HT, CONT.	TOLERANT	
19	Cf	Cornus florida	Flowering dogwood	6' HT, CONT.	VERY TOLERANT, FIELD EDGE	
9	Hv	Hamamelis virginiana	Witch hazel	4' HT, CONT.	VERY TOLERANT	
124	Lb	Lindera benzoin	Spicebush	36" HT, CONT.	VERY TOLERANT, FIELD EDGE	
5	٥v	Ostrya virginiana	American hophornbeam	6' HT, CONT.	VERY TOLERANT	
59	Sr	Swida racemosa	Gray dogwood	36" HT, CONT.	TOLERANT	
29	Va	Viburnum acerifolium	Mapleleaf viburnum	36" HT, CONT.	VERY TOLERANT, FIELD EDGE	
65	Vd	Viburnum dentatum	Arrowwood viburnum	36" HT, CONT.	TOLERANT, FIELD EDGE	

HERBACEOUS GROUNDCOVERS						
QTY.	ID	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS	
250	ac	Asarum canadensis	Canadian wild ginger	2.5" PLUG	12" O.C.	
250	ср	Carex pensylvanica	Pennsylvania sedge	2.5" PLUG	12" O.C.	
250	dm	Dryopteris marginalis	Marginal woodfern	2.5" PLUG	12" O.C.	
250	ed	Eurybia divaricata	White wood aster	2.5" PLUG	12" O.C.	
250	pt	Pteridium aquilinum	Bracken fern	2.5" PLUG	12" O.C.	
250	tc	Tiarella cordifolia	Foamflower	2.5" PLUG	12" O.C.	
400	dp	Dennstaedtia punctilobula	Hay—scented fern	#1 CONT.	18" O.C, FIELD EDGE	





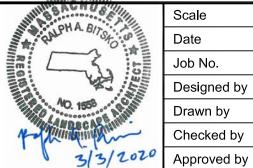
ISSUED FOR BID







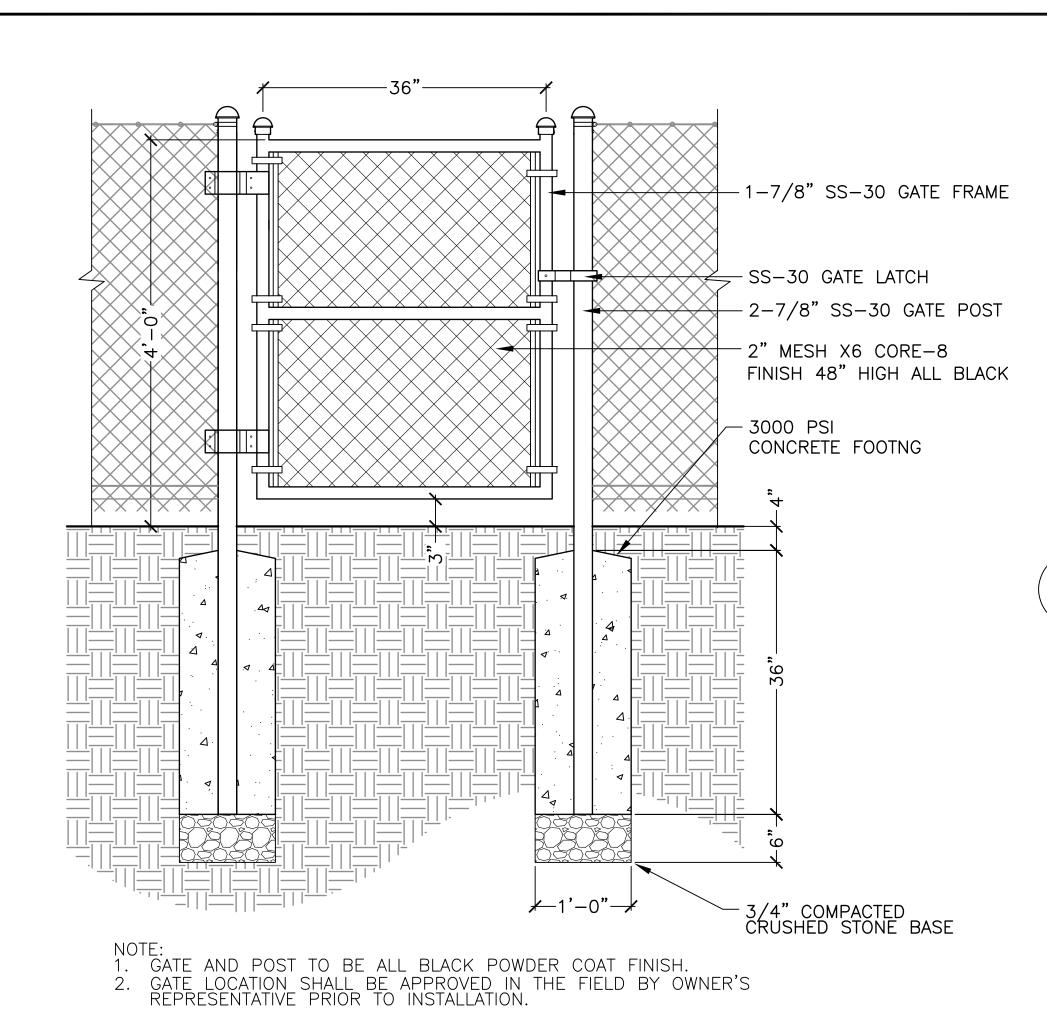
www.hatch.com



	Scale	1" = 20'				
	Date	03/05/2020				
	Job No.	20201034.002A				
	Designed by	DB, AK				
	Drawn by	AK				١ '
	Checked by	JB	No.	Description	Date	
0	Approved by	DB		REVISIONS		

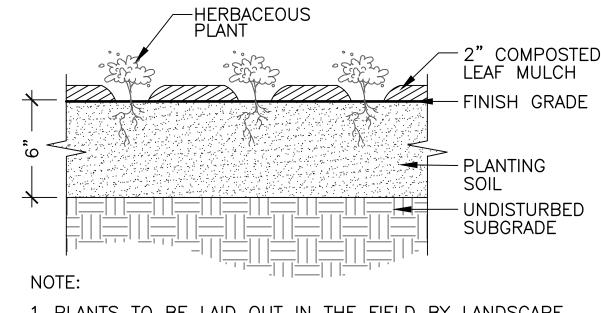
|--|

	TVOTCTT	
lient	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet R-005
roject	GLACKEN FIELD RENOVATIONS	File No.
rawing	GLACKEN SLOPE PHASE 6 RESTORATION PLANTING PLAN AND SCHEDULE	9058



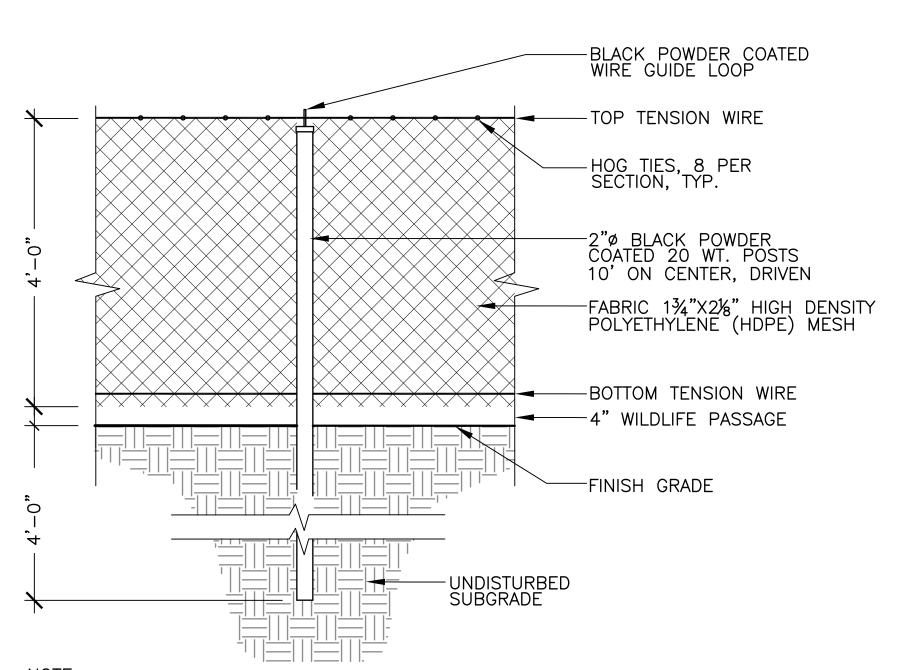
HERBACEOUS PLUG, TYP. 1. SEE PLANT SCHEDULE FOR PLUG SPACING. 1. SEE PLANT SCHEDULE FOR PLUG SPACING. CUT "X" SHAPE IN EROSION CONTROL MAT FOR PLANT INSTALLATION. USE EXCAVATED PLANTING SOIL TO FIRMLY COMPACT SAUCER EDGE, TYP. TOP OF ROOT SYSTEM TO BE SET AT FINISHED GRADE EXISTING SUBGRADE, TYP.

5 HERBACEOUS PLUG PLANTING SCALE: NTS



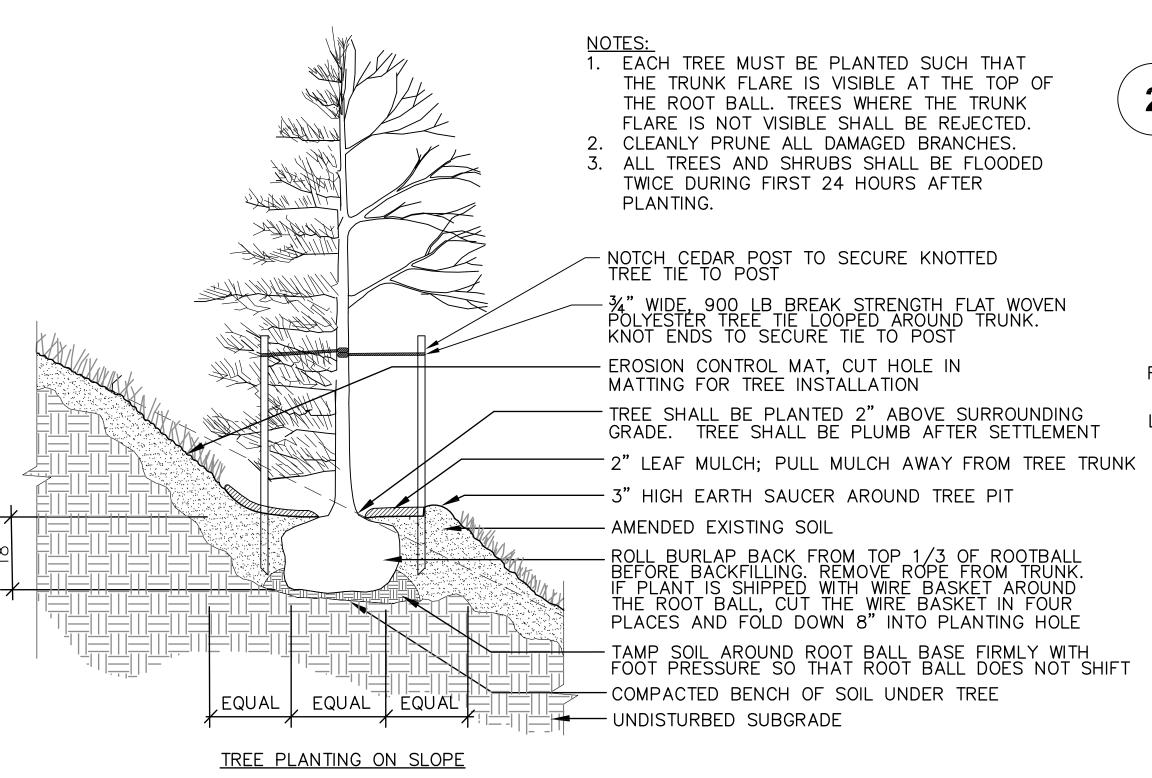
1. PLANTS TO BE LAID OUT IN THE FIELD BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.

6 4' HT. PLANT ESTABLISHMENT GATE SCALE: NTS



NOTE: 1. AT CHANGES IN DIRECTION, FENCE SHALL BE GENTLE CURVE, NOT EXCEEDING A RADIUS OF 170. 2. FOR TIGHTER RADII, FENCE SHALL BE DETAILED AS SHOWN IN PLAN.

4 HERBACEOUS PERENNIAL PLANTING SCALE: NTS



FINISH GRADE

EARTH SAUCER
AROUND SHRUB

2" LEAF MULCH

PLANTING SOIL

REMOVE CONTAINERS
AND BUTTERFLY ANY
ROOTBOUND PLANTS
PRIOR TO BACKFILLING

UNDISTURBED SUBGRADE

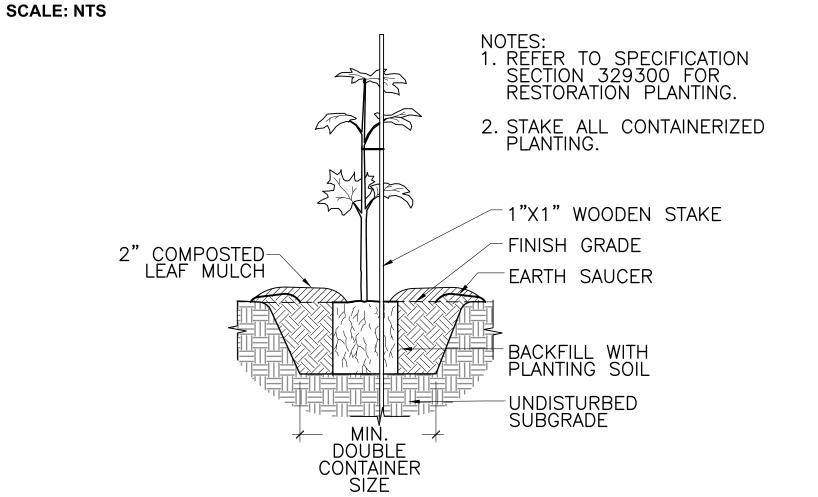
CUT "X" SHAPE IN EROSION
CONTROL MAT FOR SHRUB
INSTALLATION. USE EXCAVATED
PLANTING SOIL TO FIRMLY
COMPACT SAUCER EDGE. TOP
OF ROOT SYSTEM TO BE SET
AT FINISH GRADE

COIR EROSION
CONTROL MAT

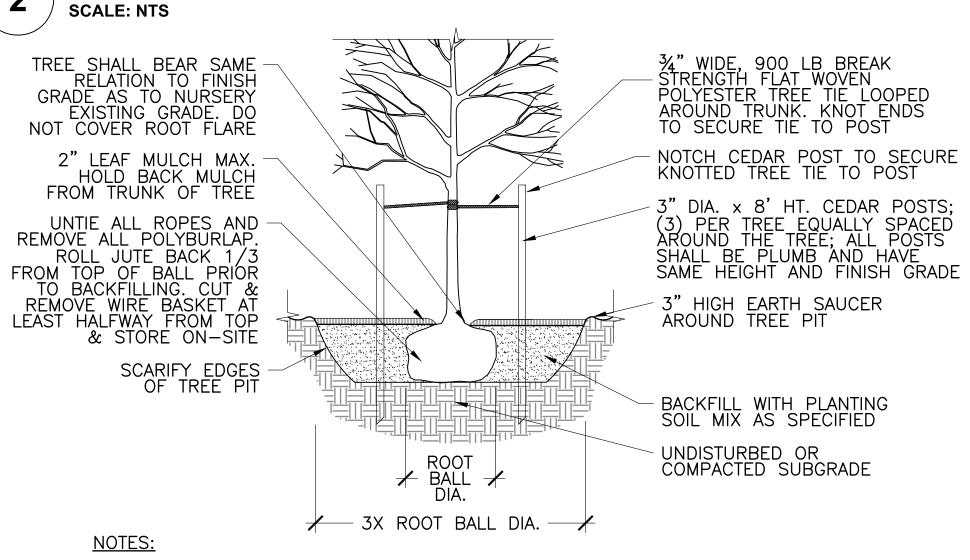
CONTROL MAT

SHRUB PLANTING ON SLOPE

SHRUB PLANTING



CONTAINERIZED TREE PLANTING



CLEANLY PRUNE ALL DAMAGED BRANCHES.
 TREE SHALL HAVE STRAIGHT TRUNK AND BE PLUMB AFTER SETTLEMENT.
 CONTRACTOR SHALL ADJUST AS REQUIRED OR AS DIRECTED BY OWNER'S
 REPRESENTATIVE.

B&B TREE PLANTING

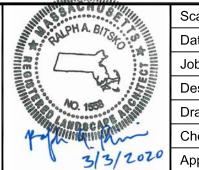
SCALE: NTS

5 4' HT. PLANT ESTABLISHMENT FENCE SCALE: NTS





27 Congress Street, Salem, MA 01970
www.hatch.com



	Scale	NTS				
	Date	03/05/2020				
111111	Job No.	20201034.002A				
	Designed by	DB, AK				
	Drawn by	AK				•
	Checked by	JB	No.	Description	Date	
0	Approved by	DB		REVISIONS		



Client	CITY OF CAMBRIDGE, MASSACHUSETTS	Sheet R-006
Project	GLACKEN FIELD RENOVATIONS	
Drawing	GLACKEN SLOPE PHASE 6 RESTORATION PLANTING DETAILS	File No. 9058

ISSUED FOR BID