

SITE PREP & EROSION CONTROL:

1. EXCAVATION WITHIN THE ALEWIFE RESERVATION SHALL BE CONDUCTED IN THE WINTER MONTHS STARTING IN OCTOBER IN ACCORDANCE WITH THE ORDER OF CONDITIONS ISSUED BY THE CITY OF CAMBRIDGE CONSERVATION COMMISSION. SEE APPENDIX TO SPECIFICATIONS.
2. PRIOR TO THE START OF CONSTRUCTION, ALL LIMITS OF WORK FOR THE STORMWATER WETLAND AREA SHALL BE SURVEYED BY A REGISTERED MA RLS AND STAKED OUT BY THE CONTRACTOR FOR REVIEW BY THE CITY'S REPRESENTATIVE WETLAND SCIENTIST. ALL SEDIMENT AND EROSION CONTROL DEVICES INCLUDING BUT NOT LIMITED TO: SILT FENCE, STRAW BALES, AND TURBIDITY CURTAINS SHALL BE PROVIDED. THIS WORK SHALL BE REVIEWED BY THE WETLAND SCIENTIST AND THE CONSERVATION COMMISSION PRIOR TO STARTING CONSTRUCTION. ALL WETLAND FLAGGING SHALL BE REESTABLISHED, SEE SPEC SECTION 01568.
3. PRIOR TO EXCAVATION OF THE LOW-FLOW OUTLET CHANNEL FROM THE STORMWATER WETLAND BASIN, A SAND BAG DIKE OR PORTADAM SHALL BE PLACED WITHIN THE SILT CURTAIN TO PREVENT FLOW FROM THE LITTLE RIVER FROM ENTERING THE WORK AREA. THIS WORK SHALL BE REVIEWED BY THE CITY'S REPRESENTATIVE ENGINEER BEFORE EXCAVATION OF THE OUTLET CHANNEL MAY BEGIN.
4. EXISTING SURVEY CONDITIONS ARE FROM A TOPOGRAPHIC SURVEY PREPARED BY HARRY R. FELDMAN INC, DATED OCTOBER 21, 2003.
5. WETLAND FLAG NUMBERS 1 THROUGH 14 WERE PLACED BY THE BIOENGINEERING GROUP, INC. IN OCTOBER 2003 AND MAPPED USING GPS DATA.
6. REFER TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) EROSION AND SEDIMENT CONTROL GUIDELINES (1997 OR MOST RECENT).
7. CONTRACTOR SHALL ARRANGE A SITE VISIT WITH THE CAMBRIDGE CONSERVATION COMMISSION AFTER THE INSTALLATION OF EROSION CONTROL IS COMPLETE AND PRIOR TO COMMENCEMENT OF WORK. NO WORK, OTHER THAN THAT REQUIRED TO STAKE, GRUB, AND GRADE, AND INSTALL THE EROSION CONTROL MEASURES, SHALL BE STARTED UNTIL THE CONSERVATION COMMISSION OR ITS AGENT APPROVES THE EROSION CONTROL INSTALLATION.
8. CONTRACTOR SHALL SUBMIT FOR APPROVAL A CLEARING AND GRUBBING SEQUENCING PLAN FOR COORDINATION WITH THE IMPLEMENTATION OF THE EROSION CONTROL AND SEDIMENTATION PLAN IN THE WETLAND BASIN AREA.
9. STRIP, REMOVE AND DISPOSE OF THE TOP SIX (6) INCHES OF TOPSOIL FROM ALL AREAS WITHIN LIMIT OF WORK LINE.
10. STRIP AND STOCKPILE NEXT TWELVE (12) INCHES OF HYDRIC SUBSOIL FROM AREAS SHOWN ON PLAN.
11. STOCKPILE LOCATIONS TO BE APPROVED BY CITY'S REPRESENTATIVE ENGINEER. STOCKPILE HEIGHTS AND VOLUMES SHALL BE AS OUTLINED IN SPEC SECTION 01568.
12. NO WORK SHALL BE PERFORMED BEYOND THE LIMIT OF WORK LINE WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
13. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
14. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS OR ABUTTING PROPERTY.
15. 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 DEVICES SHALL BE COMPLETED WITHIN 24 HOURS FOR SIGNIFICANT REPAIRS AND 48 HOURS FOR ALL OTHER REPAIRS. SEE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CLARIFICATION ON SIGNIFICANT REPAIRS.
16. PROVIDE AND MAINTAIN EROSION CONTROL DEVICES WHERE SHOWN ON PLANS. THE DEVICES ARE TO REMAIN IN PLACE UNTIL PAVEMENT AND STORMWATER STRUCTURES ARE CONSTRUCTED AND UNTIL A PERMANENT GROUND COVER IS ESTABLISHED. SEE SPECIFICATION SECTION 01568 FOR ESTABLISHMENT CRITERIA.
17. EROSION CONTROL DEVICES SHALL BE CHECKED, MAINTAINED AND/OR REPLACED, AS NECESSARY, DAILY AND AFTER EACH RAINFALL TO ENSURE WORKING ORDER.
18. INSTALL A SILT FENCE AROUND ALL STOCKPILED SOIL.
19. SEED OR HYDROMULCH ALL DISTURBED AREAS (INCLUDING STOCKPILES) EXPOSED FOR MORE THAN 14 DAYS WITH COVER CROP SEED MIX. SEE SPECIFICATION SECTION 01568.
20. CONTRACTOR SHALL CONDUCT A SETTLING TEST ON WATER IN DEWATERING SUMPS (L-1B). IF COLLOIDAL CONDITIONS ARE OBSERVED, FLOC LOGS, OR EQUIVALENT APPROVED BY ENGINEER, SHALL BE PLACED AT OUTLET OF FRENCH DRAIN AND AROUND PERIMETER OF SUMP TO TREAT INCOMING WATER AND ENHANCE SETTLING OF SEDIMENT.
21. ALL EROSION AND SEDIMENT CONTROL PROCEDURES SHALL BE IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN FOR THE SITE.
22. CONTRACTOR SHALL COMPLY WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL MANUAL AND/OR THE CONSTRUCTION CONTROL GENERAL PERMIT, WHICHEVER IS MORE STRINGENT.
23. SEE SPEC SECTION 01568 FOR DUST CONTROL.

LAYOUT AND MATERIALS:

1. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
2. ALL LINE AND GRADE WORK PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A MA REGISTERED CIVIL ENGINEER OR SURVEYOR ENGAGED BY THE CONTRACTOR.
3. STORAGE AREAS FOR CONTRACTOR'S EQUIPMENT AND MATERIALS SHALL BE WITHIN THE LIMITS OF WORK AND AS APPROVED BY THE ENGINEER.
4. ALL LAYOUTS FOR WALKS AND PATHS SHALL BE ADEQUATELY STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO RE-ESTABLISH WETLAND FLAGS AS SET FORTH IN DRAWING EC-1. SUCH WORK TO BE PERFORMED BY A MA REGISTERED CIVIL ENGINEER OR SURVEYOR ENGAGED BY CONTRACTOR. CONTRACTOR SHALL INSTALL TEMPORARY ORANGE FENCING ALONG LIMITS OF WORK ADJACENT TO WETLANDS. FENCE TO BE REMOVED ON COMPLETION OF WORK.

GRADING & DRAINAGE:

1. PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE "DIG SAFE" NOTIFICATION PROCEDURES PROMOTED BY RESPECTIVE UTILITY COMPANIES. THE "DIG SAFE" TELEPHONE NUMBER FOR MASSACHUSETTS IS 1-888-344-7233.
2. CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES BETWEEN EXISTING AND PROPOSED CONDITION TO THE ENGINEER. ALL GRADES ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD).
3. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM SLOPE OF ONE-EIGHTH INCH (1/8") PER FOOT. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.
4. WHERE NEW PAVING OR EARTHWORK MEETS EXISTING PAVING OR EARTHWORK, SMOOTHLY BLEND LINE AND GRADE OF EXISTING WITH NEW. PROVIDE VERTICAL CURVES OR ROUNDINGS AT TOP AND BOTTOM OF ALL SLOPES.
5. EXCAVATION REQUIRED WITHIN PROXIMITY OF UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE UTILITY COMPANIES OR THE OWNER.
6. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS, ADJACENT WETLANDS, AND ABUTTING PROPERTY.
7. MAXIMUM CROSSPITCH OF ALL PATHS IS 1.5%. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE ENGINEER.
8. ALL GRADING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG), LATEST EDITION. IN CASE OF CONFLICT BETWEEN REGULATIONS, THE GUIDELINE PROVIDING GREATER ACCESS SHALL APPLY.
9. COMPLY WITH ALL ORDER OF CONDITIONS ISSUED BY THE CAMBRIDGE CONSERVATION COMMISSION. SEE APPENDIX TO SPECIFICATIONS.
10. ROLL EDGES OF PLANTING SOIL FOR TALL TURF LAWN AND MEADOWS WHERE ADJACENT TO WALKS AND DRIVES.

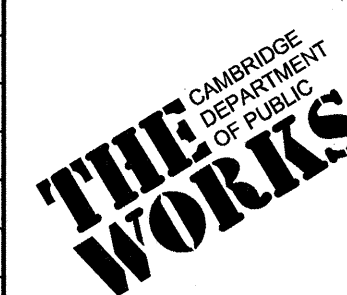
PLANTING:

1. IF DISCREPANCIES EXIST BETWEEN THE NUMBER OF PLANTS DRAWN ON THE PLANTING PLAN AND THE NUMBER OF PLANTS IN THE PLANT SCHEDULE, THE PLANTING PLAN SHALL GOVERN.
2. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN, INC. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF SPECIMEN QUALITY.
3. ALL PLANT MATERIAL SHALL BE NURSERY GROWN. NO FIELD - COLLECTED SPECIMENS SHALL BE ALLOWED.
4. ALL NEW PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE NOTED ON THE PLANT SCHEDULE.
5. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
6. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE CITY'S REPRESENTATIVE WETLAND SCIENTIST.
7. ALL NEW PLANTS SHALL BE TAGGED AND APPROVED BY THE ENGINEER AT THE NURSERY PRIOR TO DIGGING OR DELIVERY TO THE SITE.
8. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE ENGINEER. NO TREES SHALL BE PLANTED CLOSER THAN TEN FEET (10') TO ANY UNDERGROUND WATER AND DRAINAGE LINES OR STRUCTURES.
9. STAKE LOCATION OF ALL PROPOSED PLANTING ZONES FOR APPROVAL BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF PLANTING.
10. NO TREES OR SHRUBS SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING BY ENGINEER.
11. NEW SHRUBS AND GROUND COVER SHALL BEAR THE SAME RELATIONSHIP TO GRADE AS IT BORE TO PREVIOUS GRADE. TREES SHALL BEAR SAME RELATIONSHIP TO GRADE AS THEY BORE TO PREVIOUS GRADE IN NURSERY OR HIGHER TO PREVENT COVERING ROOT FLARE.
12. ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. PROTECTION TECHNIQUES SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
13. SEED AND/OR HYDROMULCH ALL DISTURBED AREAS WITH APPROVED SEED MIX.
14. ALL AREAS TO BE SEEDED SHALL RECEIVE A MINIMUM OF TWELVE INCHES (12") OF PLANTING SOIL, MEASURED AFTER COMPACTION, PRIOR TO SEEDING.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED, STOLEN, DEAD, DECLINING OR LOST MATERIAL UNTIL COMPLETION OF MAINTENANCE AND GUARANTEE PERIOD.

CONFORMED SET




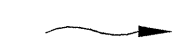


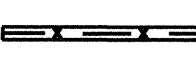
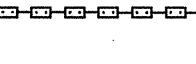
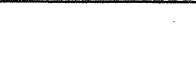

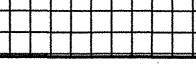


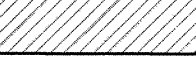
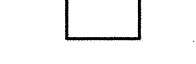
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Checked by	RWG	No.	Description	Date
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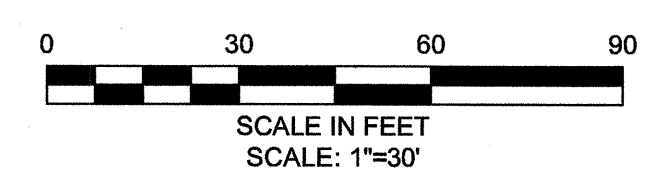
CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGE PARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
STORMWATER TREATMENT AND MITIGATION AREA	
GENERAL NOTES	

Sheet No. LG-1
File No.

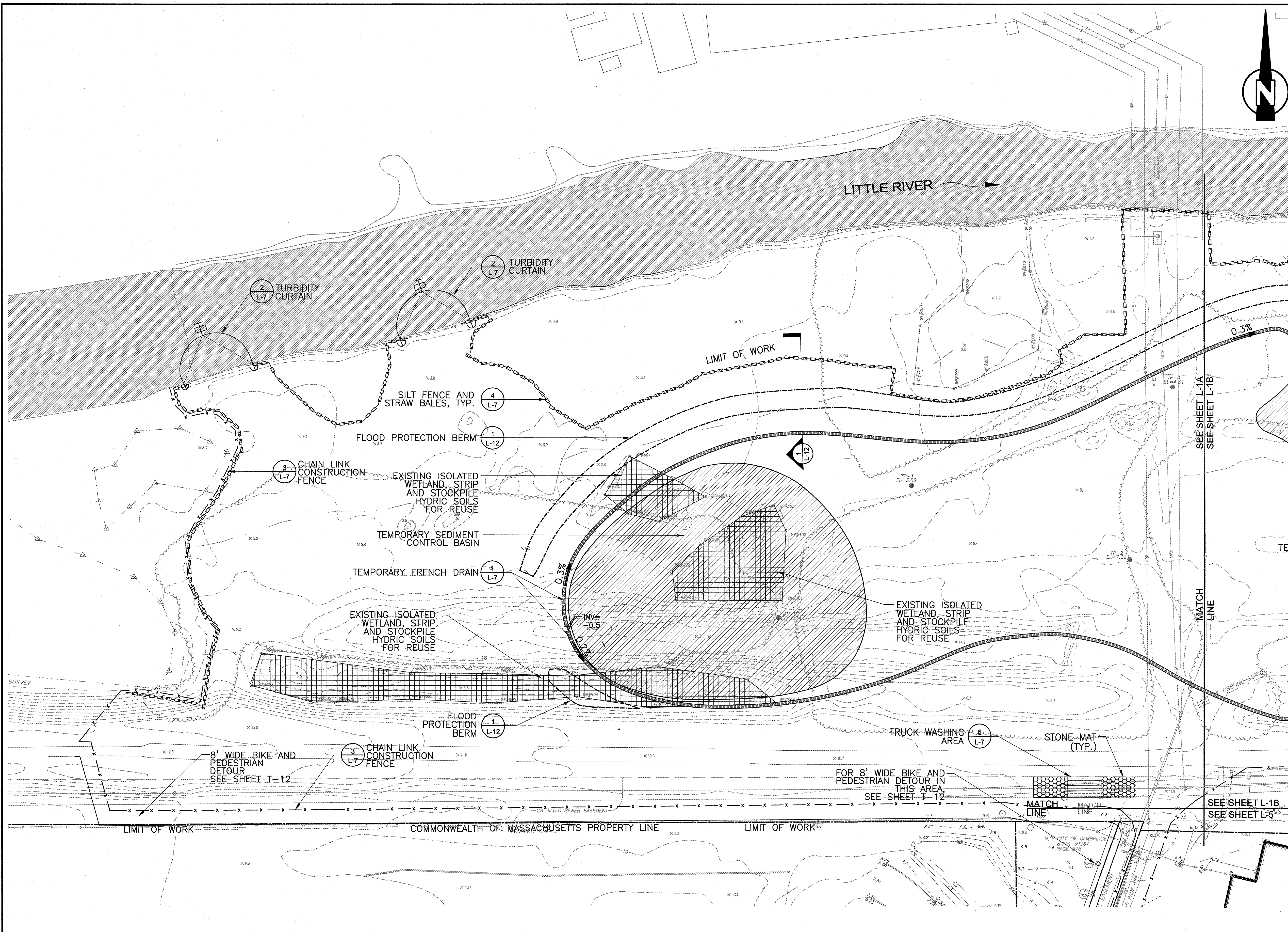
LEGEND

-  PROPERTY LINE
-  DIRECTION OF FLOW (LITTLE RIVER)
-  LIMIT OF WORK
-  CHAIN LINK CONSTRUCTION FENCE
-  CHAIN LINK FENCE ON CONCRETE BARRIER
-  STRAW BALES AND SILT FENCE
-  TEMPORARY FRENCH DRAIN
-  FLOOD PROTECTION BERM (FUTURE PHASE)
-  STRIP EXISTING HYDRIC SOIL
-  TEMPORARY SEDIMENT CONTROL BASIN
-  TURBIDITY CURTAIN
-  OPEN WATER
-  SUMP WITH PUMP

- NOTE:**
1. FOR GENERAL SEDIMENTATION AND EROSION CONTROL NOTES, AND SEQUENCING, SEE LG-1.
 2. TRUCK WASH SOURCE SHALL BE FROM THE PROPOSED YARD HYDRANT VIA THE EXISTING 6-INCH WATER LINE ON SITE OR AN APPROVED TEMPORARY SOURCE AND CONDUIT IF PROPOSED BY THE CONTRACTOR.
 3. INSTALL MIN. 6" THICK GRAVEL CONSTRUCTION PAD EACH SIDE OF TRUCK WASHING AREA. ACTUAL LENGTH TO BE DETERMINED IN FIELD BY THE OWNER'S REPRESENTATIVE ENGINEER. STONE TO BE COARSE AGGREGATE SIZE NO. 1 AASHTO M43 ON TOP OF GEOTEXTILE.



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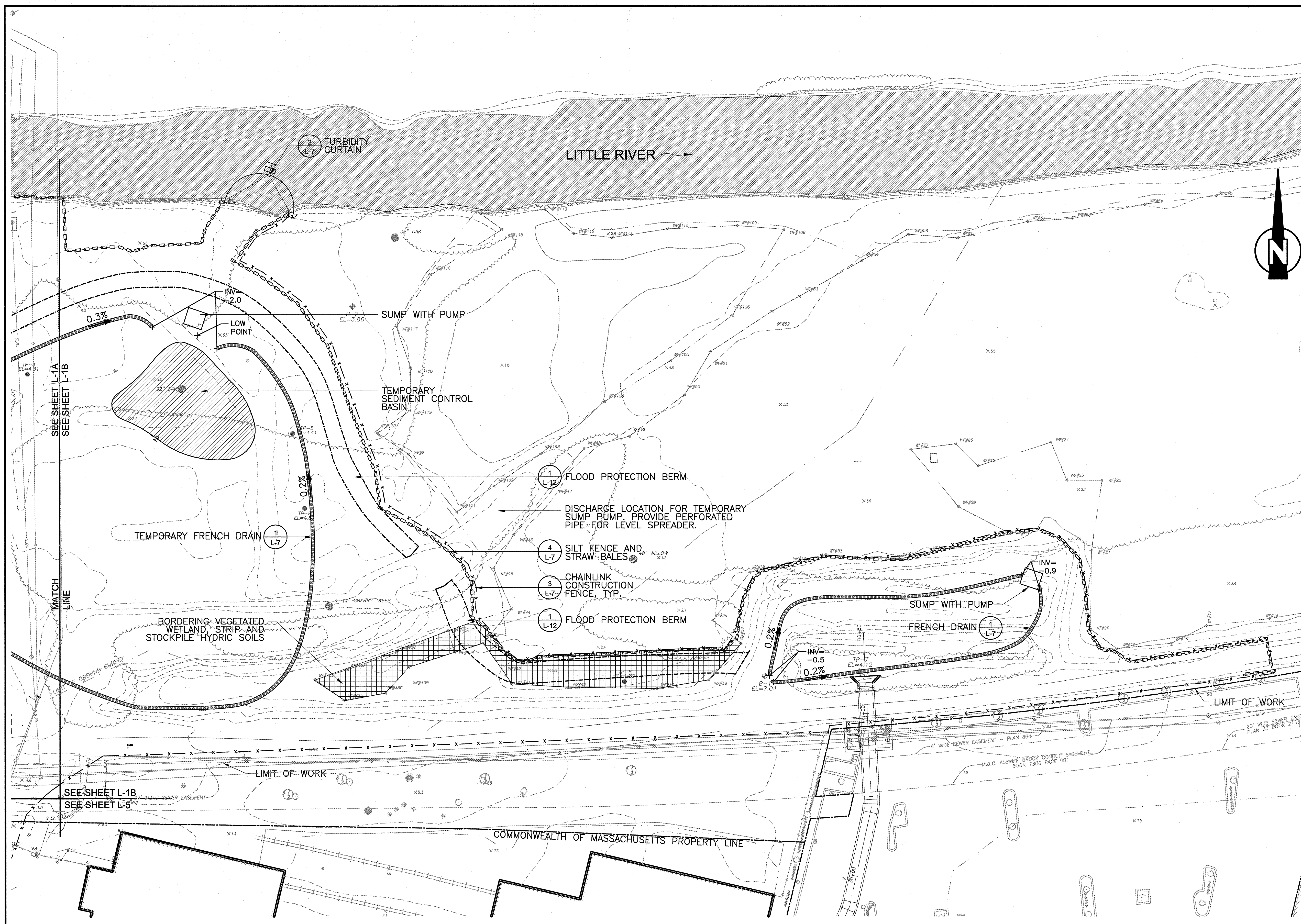
MARK K. OTTARIANO
CIVIL
No. 46698
REG. STATE OF MASSACHUSETTS
4-1-2010

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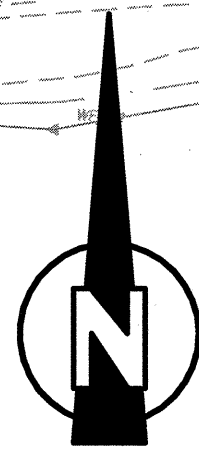
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CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
STORMWATER TREATMENT AREA AND MITIGATION AREA
SEDIMENTATION AND EROSION CONTROL PLAN: WEST

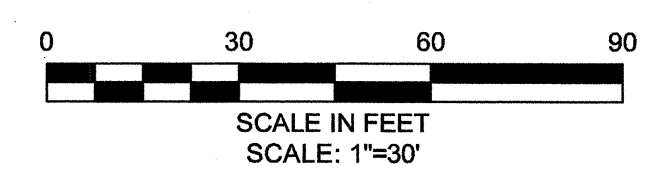
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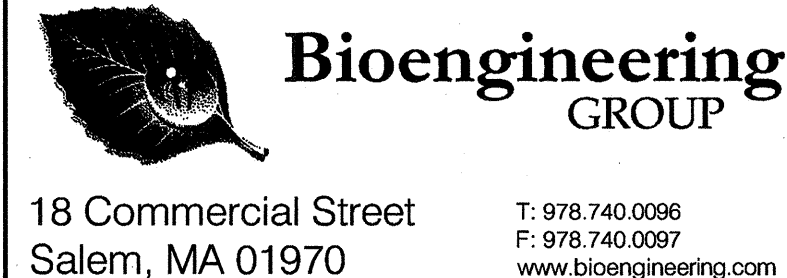
- ### LEGEND
- PROPERTY LINE
 - DIRECTION OF FLOW (LITTLE RIVER)
 - LIMIT OF WORK
 - CHAIN LINK CONSTRUCTION FENCE
 - CHAIN LINK FENCE ON CONCRETE BARRIER
 - STRAW BALES AND SILT FENCE
 - TEMPORARY FRENCH DRAIN
 - FLOOD PROTECTION BERM (FUTURE PHASE)
 - STRIP EXISTING HYDRIC SOIL
 - TEMPORARY SEDIMENT CONTROL BASIN
 - TURBIDITY CURTAIN
 - OPEN WATER
 - SUMP WITH PUMP



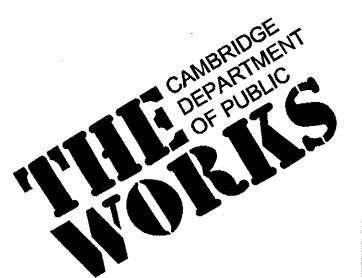
NOTE:
 1. FOR GENERAL SEDIMENTATION AND EROSION CONTROL NOTES, AND SEQUENCING, SEE LG-1.
 2. REMOVE SEDIMENT FROM TEMPORARY SEDIMENT CONTROL BASIN BEFORE PLACING WETLAND SOILS.



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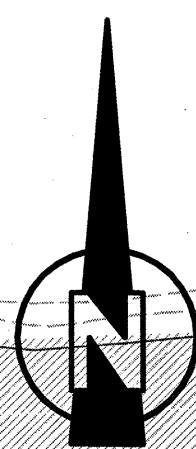
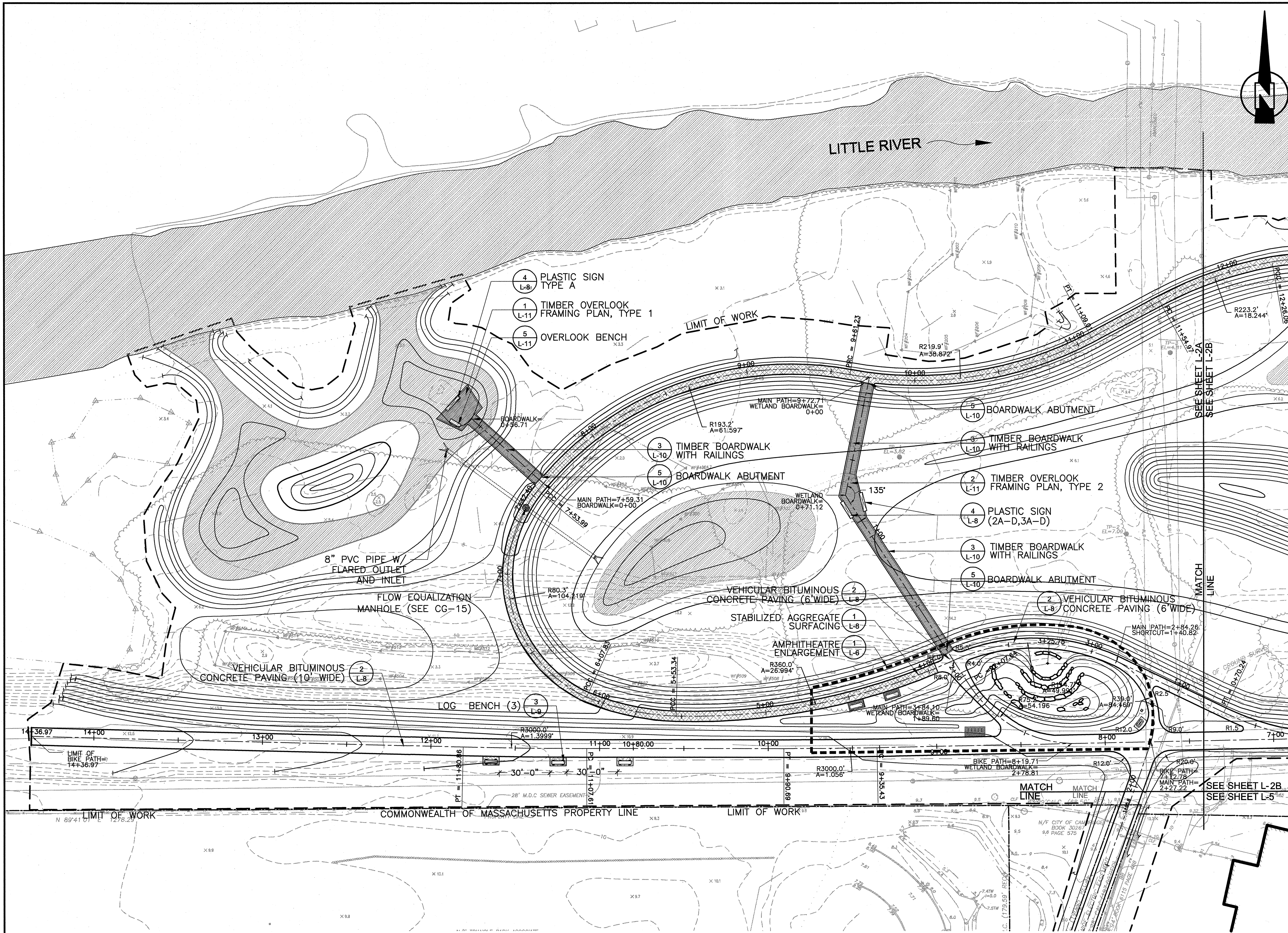


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 STORMWATER TREATMENT AREA AND MITIGATION AREA
 SEDIMENTATION AND EROSION CONTROL PLAN: EAST

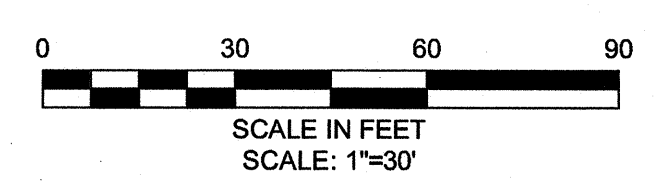
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LEGEND

- PROPERTY LINE
- DIRECTION OF FLOW (LITTLE RIVER)
- LIMIT OF WORK
- EXISTING CONTOUR
- PROPOSED CONTOURS (SEE GRADING PLANS)
- CENTER LINE
- OPEN WATER
- STABILIZED AGGREGATE SURFACING
- BITUMINOUS CONCRETE PATH
- TIMBER BOARDWALK WITH BUMPERS
- TIMBER BOARDWALK WITH RAILINGS
- TIMBER OVERLOOK, TYPE 1
- TIMBER OVERLOOK, TYPE 2
- OVERLOOK BENCH
- PLASTIC SIGN
- LOG BENCH
- BIKE RACK
- ENLARGEMENT AREA
- MANHOLE
- PC POINT OF CURVATURE
- PCC POINT OF COMPOUND CURVATURE
- PRC POINT OF REVERSE CURVATURE
- PT POINT OF TANGENCY
- R RADIUS
- A ANGLE

NOTE:
1. FOR GENERAL LAYOUT AND MATERIALS NOTES, SEE LG-1



CONFORMED SET

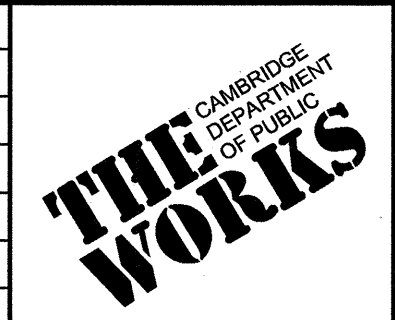
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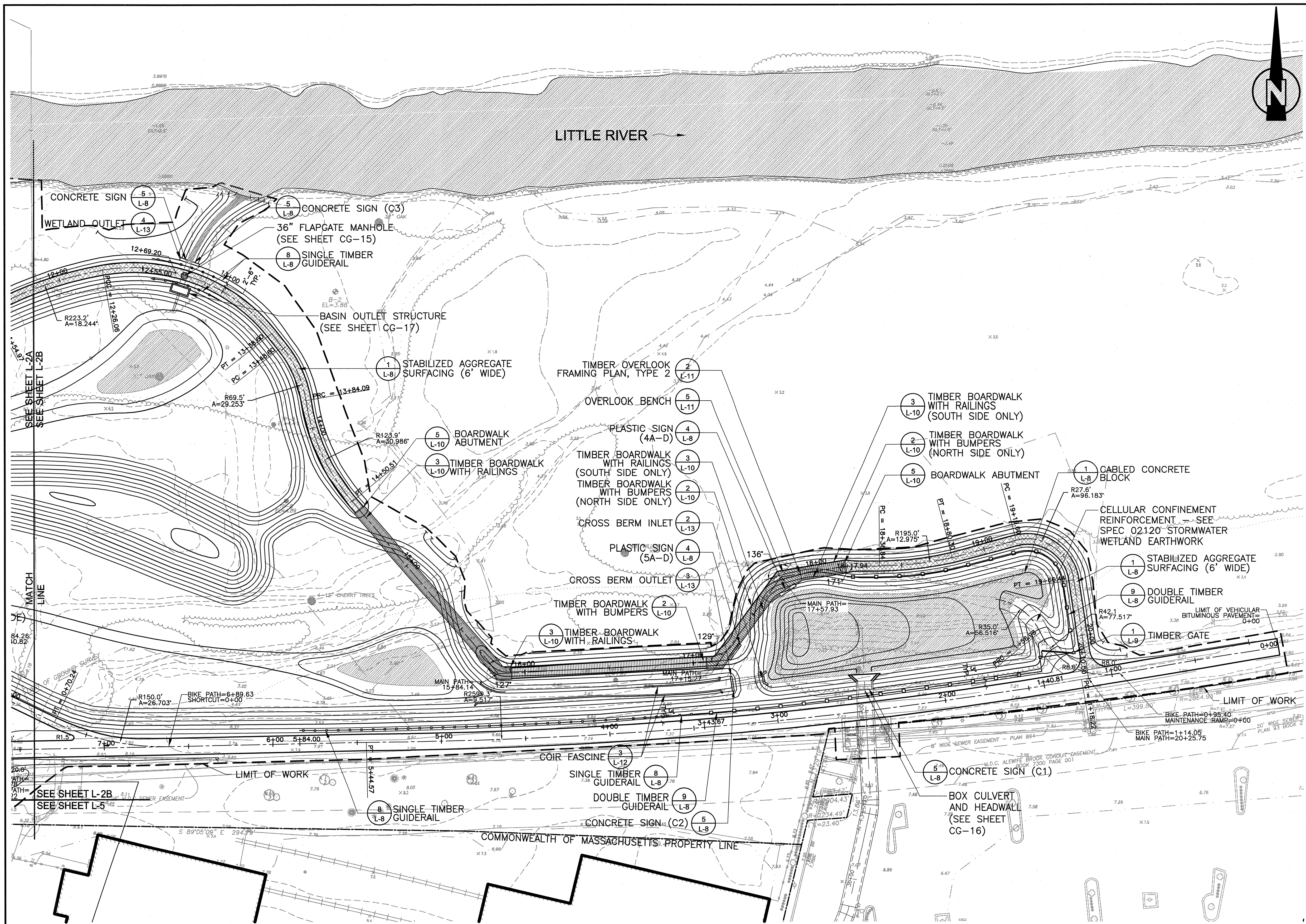


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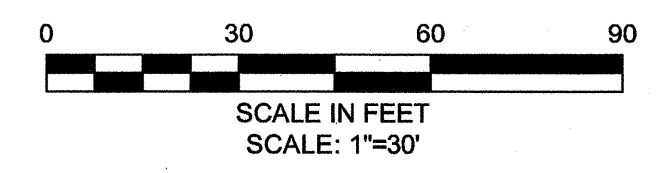
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CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
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STORMWATER TREATMENT AREA AND MITIGATION AREA
LAYOUT AND MATERIALS PLAN: WEST

Sheet No. **L-2A**
File No.



- ### LEGEND
- PROPERTY LINE
 - DIRECTION OF FLOW (LITTLE RIVER)
 - LIMIT OF WORK
 - EXISTING CONTOUR
 - PROPOSED CONTOURS (SEE GRADING PLANS)
 - CENTER LINE
 - OPEN WATER
 - STABILIZED AGGREGATE SURFACING
 - BITUMINOUS CONCRETE PATH
 - TIMBER BOARDWALK WITH BUMPERS
 - TIMBER BOARDWALK WITH RAILINGS
 - TIMBER BOARDWALK (RAILING AND BUMPER)
 - SINGLE TIMBER GUIDERAIL
 - DOUBLE TIMBER GUIDERAIL
 - TIMBER GATE
 - TIMBER OVERLOOK, TYPE 2
 - ENLARGEMENT AREA
 - OVERLOOK BENCH
 - PLASTIC SIGN
 - MANHOLE
 - POINT OF CURVATURE
 - POINT OF COMPOUND CURVATURE
 - POINT OF REVERSE CURVATURE
 - POINT OF TANGENCY
 - RADIUS
 - ANGLE

NOTE:
1. FOR GENERAL LAYOUT AND MATERIALS NOTES, SEE LG-1



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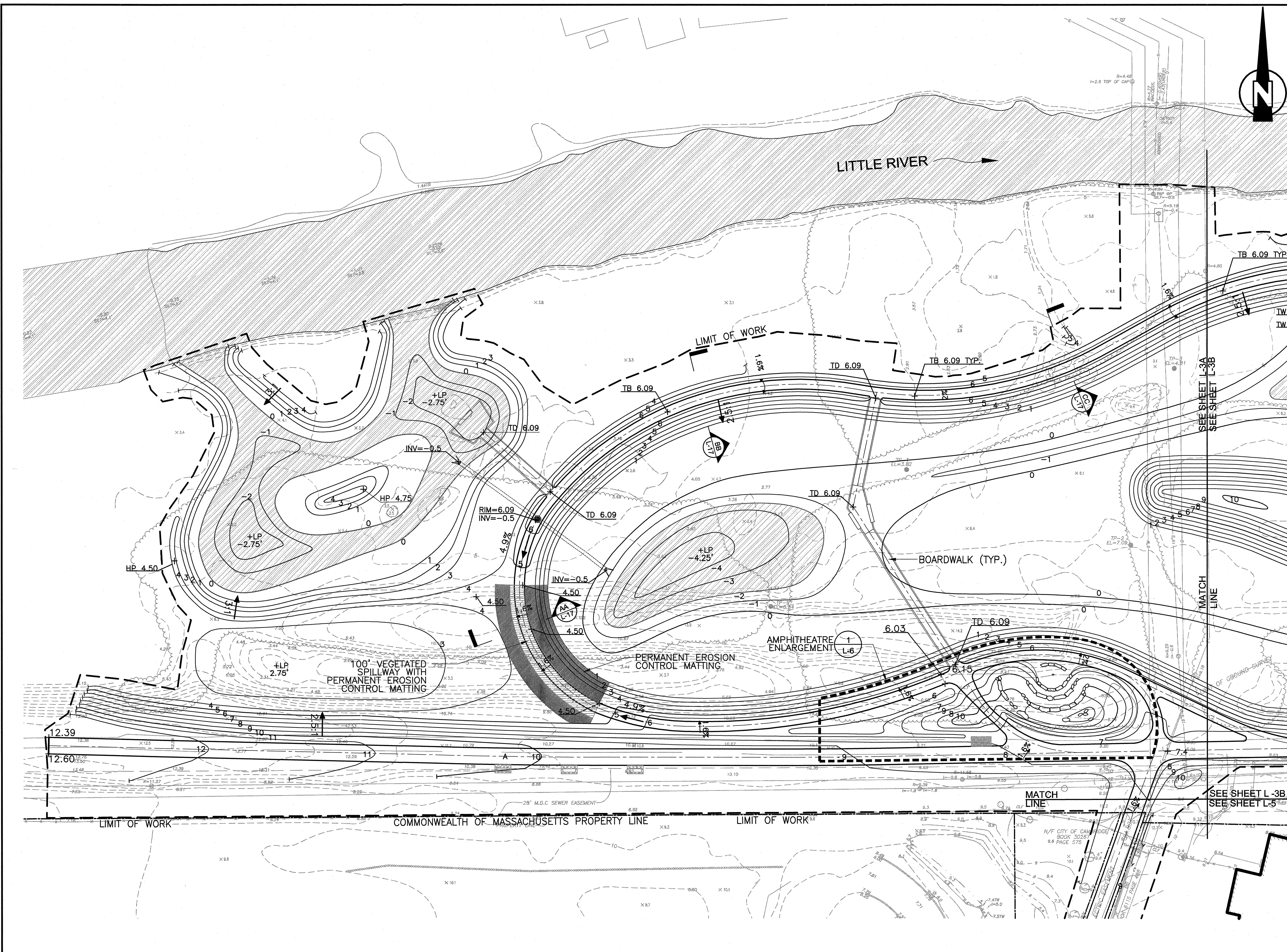
COMMONWEALTH OF MASSACHUSETTS
MARK K. OTTAVIANO
CIVIL ENGINEER
No. 48898
EXPIRES 12/31/2015

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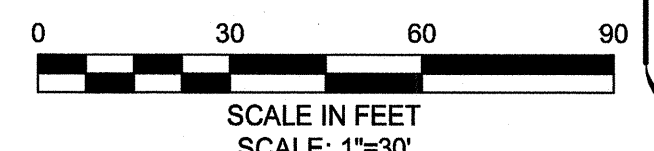
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LEGEND

- PROPERTY LINE
- DIRECTION OF FLOW (LITTLE RIVER)
- - - - - LIMIT OF WORK
- ▨ OPEN WATER
- 10 5' CONTOUR PROPOSED
- 8 PROPOSED CONTOUR
- EXISTING CONTOUR
- +4.5 SPOT ELEVATION
- +HP 3.4 HIGH POINT
- +LP 1.8 LOW POINT
- + TD TOP OF BOARDWALK DECK
- + TW TOP OF WALL
- + TB TOP OF BERM
- + INV INVERT
- 2.5% SLOPE
- 2% CROWNED
- UNDERGROUND PIPE
- ▲ FLARED PIPE END
- MANHOLE
- ▨ VEGETATED SPILLWAY
- ▨ PERMANENT EROSION CONTROL MATTING (SEE NOTE 8)
- ENLARGEMENT AREA

- NOTES:**
1. ALL GRADES ARE SHOWN TO FINAL ELEVATIONS. SUBGRADE ELEVATIONS SHALL BE ESTABLISHED AS INDICATED IN THE SPECIFICATIONS TO ACCOMMODATE WETLAND AND TOP SOIL PLACEMENT AND GRADING.
 2. ALL FINAL GRADES SHALL BE ESTABLISHED WITH 1" OF WETLAND SOIL OR 1" OF UPLAND SOIL, AS APPROPRIATE.
 3. WETLAND SOIL SHALL BE PLACED AT ELEVATION -2 TO 1. UPLAND SOIL SHALL BE PLACED AT ELEVATIONS ABOVE 1, WHERE THERE IS PLANTING.
 4. TEMPORARY EROSION CONTROL MATTING SHALL BE PLACED IN HIGH MARSH AREAS AND ON ALL SLOPES GREATER THAN 3:1. SEE SPEC 01568 - EROSION & SEDIMENT CONTROL, FOR MATTING DESCRIPTION.
 5. SEE SPECIFICATION 01568, EROSION & SEDIMENT CONTROL, FOR DESCRIPTION OF PERMANENT E.C. MATTING. PROVIDE SECURING OF MATTING TERMINATION POINTS PER MANUFACTURER'S RECOMMENDATIONS.
 6. WIRE MESH FOR RODENT CONTROL SHALL BE LAID PRIOR TO THE PLACEMENT OF PLANTING SOIL. SEE DETAIL 1/L-13.
 7. FOR GENERAL GRADING NOTES, SEE LG-1.
 8. SEE PLANTING PLAN, L-4A, FOR SEED MIX BENEATH PERMANENT EROSION CONTROL MATTING.

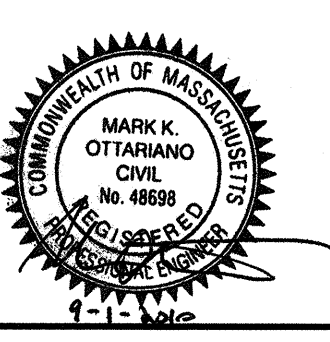


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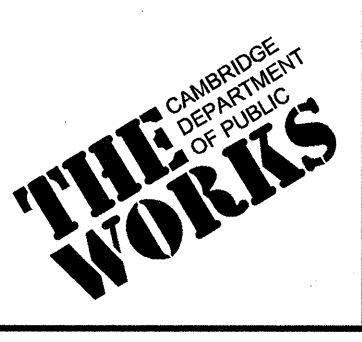
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Scale	1"=30'		
Date	SEPTEMBER 1, 2010		
Job No.	CAM		
Designed by	EJW		
Drawn by	MKO		
Checked by	RWG/KB	No.	Description
Approved by	RWG		REVISIONS



CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
STORMWATER TREATMENT AREA AND MITIGATION AREA
GRADING PLAN: WEST

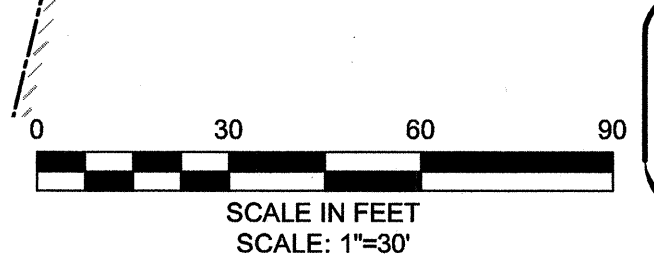
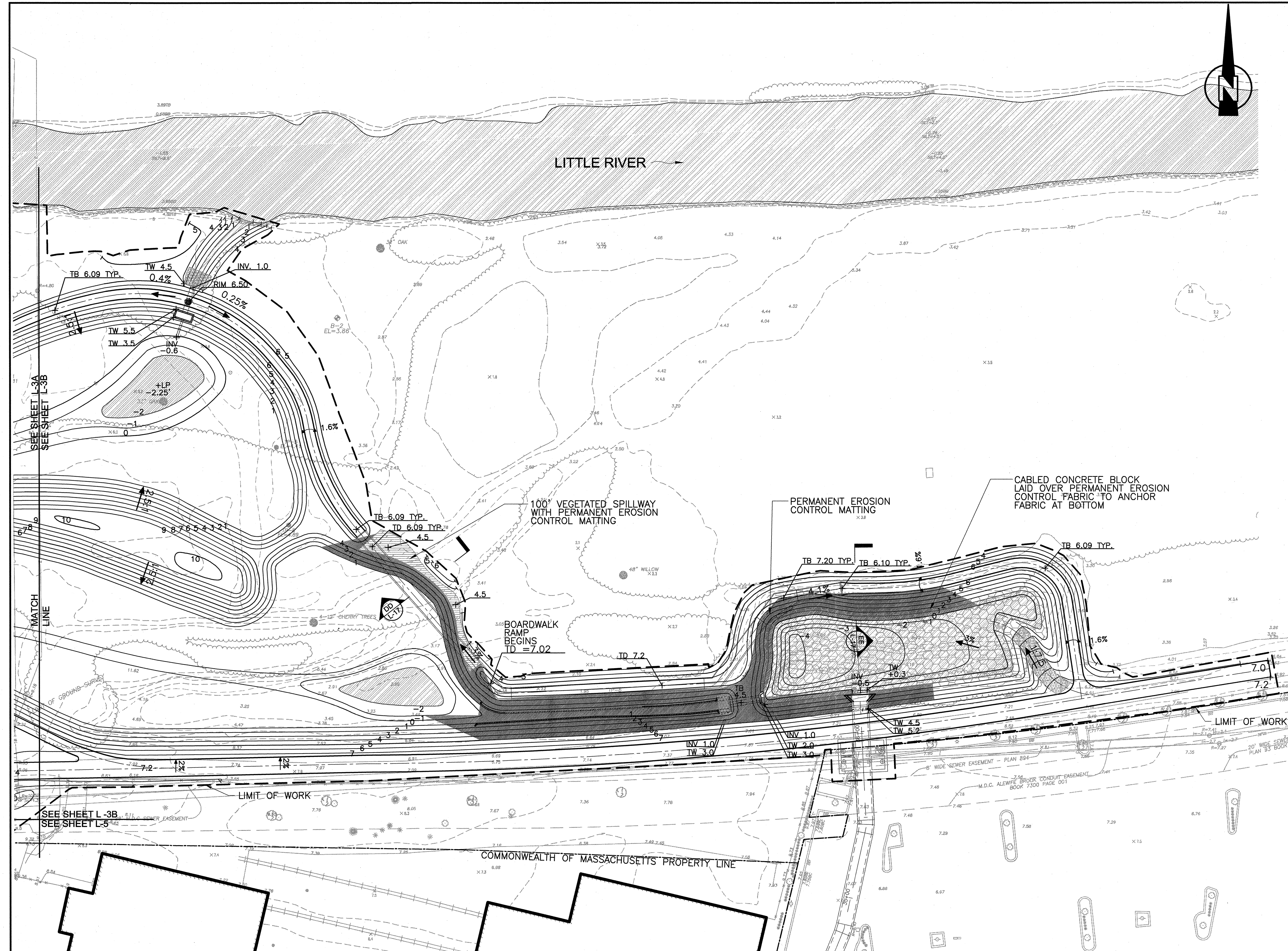
Sheet No. **L-3A**
File No.

LEGEND

- PROPERTY LINE
- DIRECTION OF FLOW (LITTLE RIVER)
- - - LIMIT OF WORK
- [Hatched Box] OPEN WATER
- 5' CONTOUR PROPOSED
- PROPOSED CONTOUR
- EXISTING CONTOUR
- +4.5 SPOT ELEVATION
- +HP 3.4 HIGH POINT
- +LP 1.8 LOW POINT
- + TD TOP OF BOARDWALK DECK
- + TW TOP OF WALL
- + TB TOP OF BERM
- + INV INVERT
- 2.5% SLOPE
- 2% CROWNED
- [Grid Pattern Box] CABLED CONCRETE BLOCK
- [Cross-hatch Box] CELLULAR CONFINEMENT REINFORCEMENT
- [Dotted Box] STONE FOR PIPE ENDS
- COIR FASCINE
- PROPOSED PIPES
- | HEADWALL
- | HEADWALL WITH WINGWALLS
- MANHOLE
- [Box with Headwall] BOX CULVERT AND HEADWALL
- [Rectangular Box] COMPOUND OUTLET STRUCTURE
- [Hatched Area] VEGETATED SPILLWAY
- [Dark Hatched Area] PERMANENT EROSION CONTROL MATTING (SEE NOTE 8)

NOTES:

1. ALL GRADES ARE SHOWN TO FINAL ELEVATIONS. SUBGRADE ELEVATIONS SHALL BE ESTABLISHED AS INDICATED IN THE SPECIFICATIONS TO ACCOMMODATE WETLAND AND TOP SOIL PLACEMENT AND GRADING.
2. ALL FINAL GRADES SHALL BE ESTABLISHED WITH 1' OF WETLAND SOIL OR 1' OF UPLAND SOIL, AS APPROPRIATE.
3. WETLAND SOIL SHALL BE PLACED AT ELEVATION -2 TO 1. UPLAND SOIL SHALL BE PLACED AT ELEVATIONS ABOVE ONE, WHERE THERE IS PLANTING.
4. TEMPORARY EROSION CONTROL MATTING SHALL BE PLACED ON SPILLWAYS, IN HIGH MARSH AREAS, AND ALL SLOPES GREATER THAN 3:1. SEE SPEC 01568 - EROSION & SEDIMENT CONTROL, FOR MATTING DESCRIPTION.
5. SEE SPECIFICATION 01568, EROSION & SEDIMENT CONTROL, FOR DESCRIPTION OF PERMANENT E.C. MATTING. PROVIDE SECURING OF MATTING TERMINATION POINTS PER MANUFACTURER'S RECOMMENDATIONS.
6. WIRE MESH FOR RODENT CONTROL SHALL BE LAID PRIOR TO THE PLACEMENT OF PLANTING SOIL. SEE DETAIL 1/L-13.
7. FOR GENERAL GRADING NOTES, SEE LG-1.
8. SEE PLANTING PLAN, L-4B, FOR SEED MIX BENEATH PERMANENT EROSION CONTROL MATTING.



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MARK K. OTTAVIANO
CIVIL ENGINEER
No. 48698
REG. IN STATE OF MASSACHUSETTS
1-1-2010

Scale	1"=30'
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Approved by	RWG

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CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
STORMWATER TREATMENT AREA AND MITIGATION AREA
GRADING PLAN: EAST

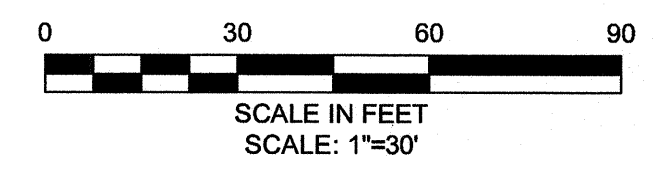
Sheet No. **L-3B**
File No.

No.	Description	Date
	REVISIONS	

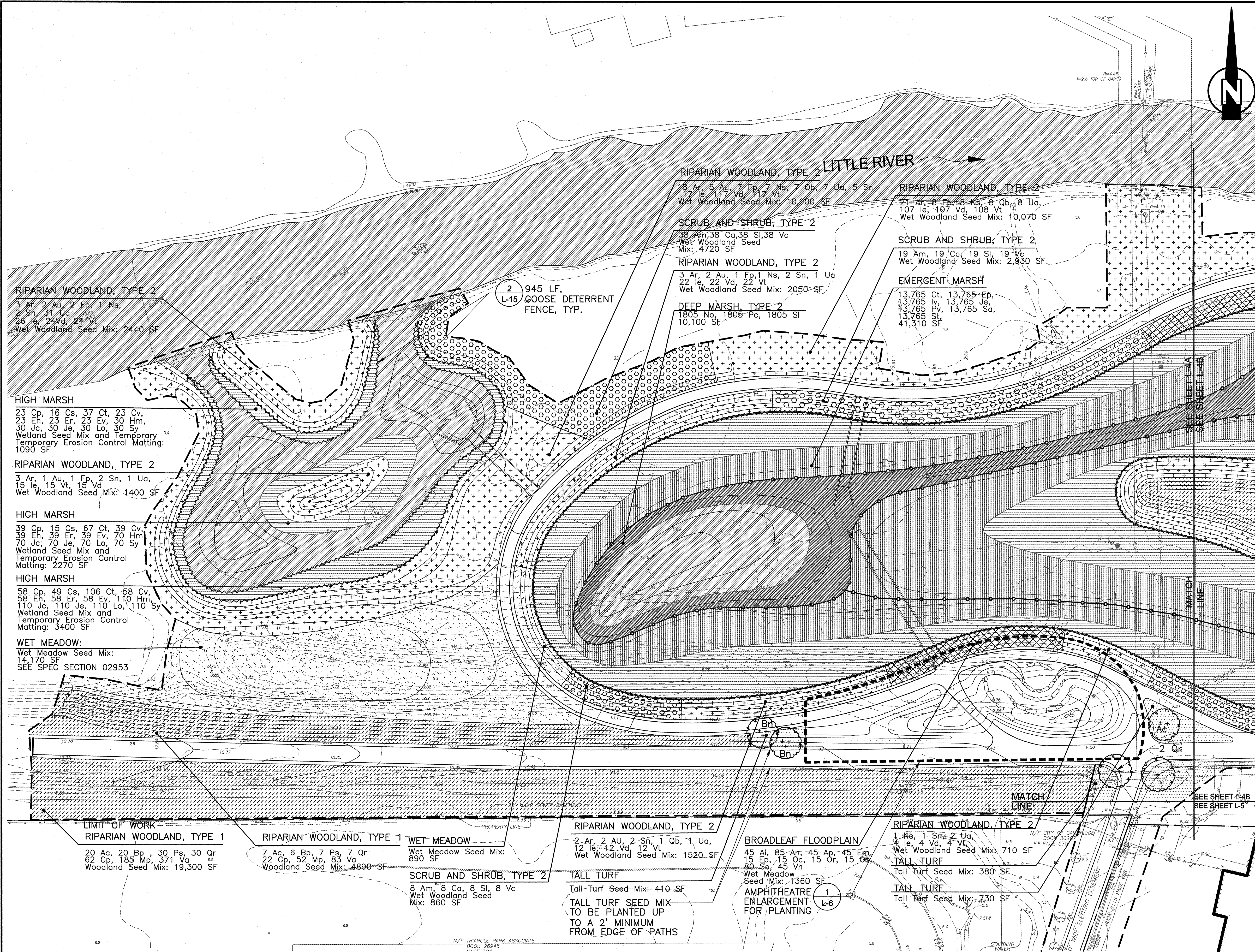
LEGEND

- PROPERTY LINE
- DIRECTION OF FLOW (LITTLE RIVER)
- - - LIMIT OF WORK
- - - EXISTING CONTOUR
- - - PROPOSED CONTOURS (SEE GRADING PLANS)
- [Pattern] RIPARIAN WOODLAND TYPE 1
- [Pattern] RIPARIAN WOODLAND TYPE 2
- [Pattern] SCRUB & SHRUB TYPE 1
- [Pattern] SCRUB AND SHRUB TYPE 2
- [Pattern] TALL TURF SEED MIX
- [Pattern] WET MEADOW SEED MIX
- [Pattern] BROADLEAF FLOOD PLAIN
- [Pattern] HIGH MARSH
Stormwater Basin Elevations +1.0 to +0.5;
Compensatory Wetland Elevations +0.5 to 0.0
- [Pattern] EMERGENT MARSH
Elevations +0.5 to -0.5
- [Symbol] DEEP MARSH TYPE 1:
Elevation -0.5
- [Symbol] DEEP MARSH:
Elevations -0.5 to -2.0;
- [Symbol] OPEN WATER
- [Symbol] SPECIMEN TREE
- [Symbol] CLUMP TREE
- [Symbol] AMPHITHEATRE ENLARGEMENT

- NOTES:**
- TALL TURF SEED MIX TO BE INSTALLED UP TO A MINIMUM OF 2' FROM EDGES OF PATH AND AS SHOWN IN THE DRAWINGS.
 - FOR GENERAL PLANTING NOTES, SEE SHEET LG-1.
 - FOR PLANTING SCHEDULE, SEE SHEET L-16.
 - BEFORE PLANTING, CONTRACTOR SHALL TEST REPRESENTATIVE SOIL SAMPLES (4 MIN) TO DETERMINE THE LEVEL OF SODIUM AND OTHER MINERAL CHLORIDES IN THE SOIL AND PROVIDE RESULTS TO ENGINEER. HIGH LEVELS OF CHLORIDES MAY RESULT IN A DECISION TO SUBSTITUTE SPECIES IN MARSH PLANTINGS. LOCATIONS OF TESTING TO BE APPROVED BY ENGINEER PRIOR TO SAMPLING.



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Date	SEPTEMBER 1, 2010
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Drawn by	MKO
Checked by	RWG/KB
Approved by	RWG

No.	Description	Date



CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGE PARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
STORMWATER TREATMENT AREA AND MITIGATION AREA	
PLANTING PLAN: WEST	

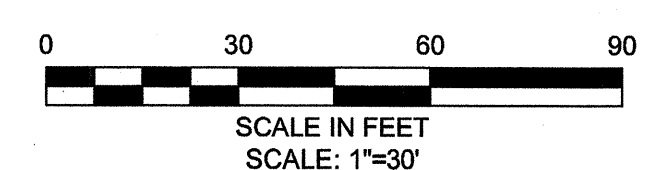
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File No.	

LEGEND

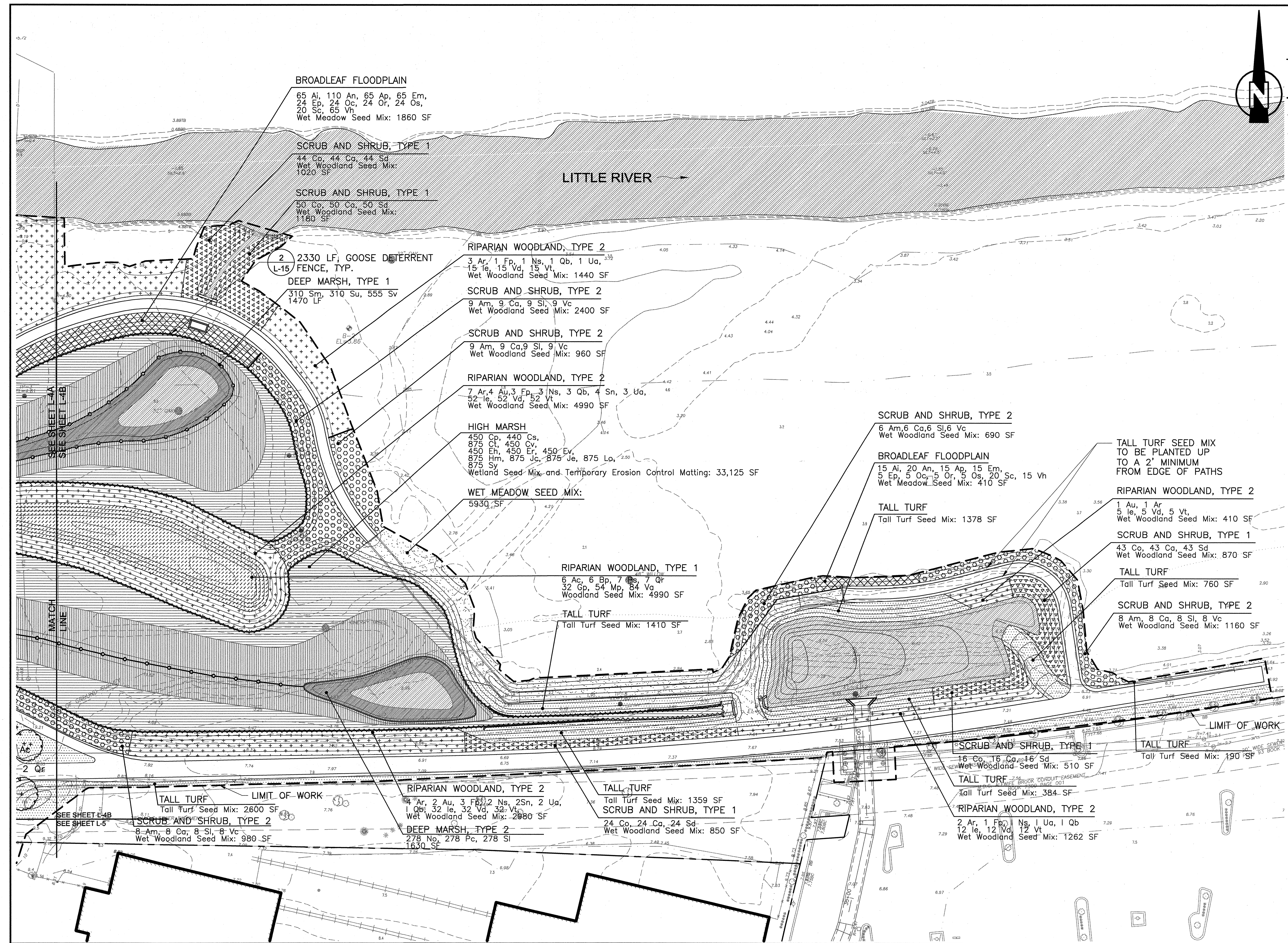
- PROPERTY LINE
- DIRECTION OF FLOW (LITTLE RIVER)
- - - LIMIT OF WORK
- - - EXISTING CONTOUR
- - - PROPOSED CONTOURS (SEE GRADING PLANS)
- [Pattern] RIPARIAN WOODLAND TYPE 1
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- [Pattern] SCRUB & SHRUB TYPE 1
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- [Pattern] HIGH MARSH
Stormwater Basin Elevations +1.0 to +0.5;
Compensatory Wetland Elevations +0.5 to 0.0
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Elevations +0.5 to -0.5
- DEEP MARSH TYPE 1:
Elevation -0.5
- [Pattern] DEEP MARSH:
Elevations -0.5 to -2.0;
- [Pattern] OPEN WATER
- SPECIMEN TREE
- ⊕ CLUMP TREE
- [Pattern] AMPHITHEATRE ENLARGEMENT

NOTES:

1. TALL TURF SEED MIX TO BE INSTALLED A MINIMUM OF 2' FROM EDGES OF PATH AND AS SHOWN IN THE DRAWINGS.
2. FOR GENERAL PLANTING NOTES, SEE SHEET LG-1.
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COMMONWEALTH OF MASSACHUSETTS
MARK K. OTTAVIANO
CIVIL
No. 48938
REGISTERED PROFESSIONAL ENGINEER
9-1-2010

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PLANTING PLAN: EAST

Sheet No.
L-4B
File No.