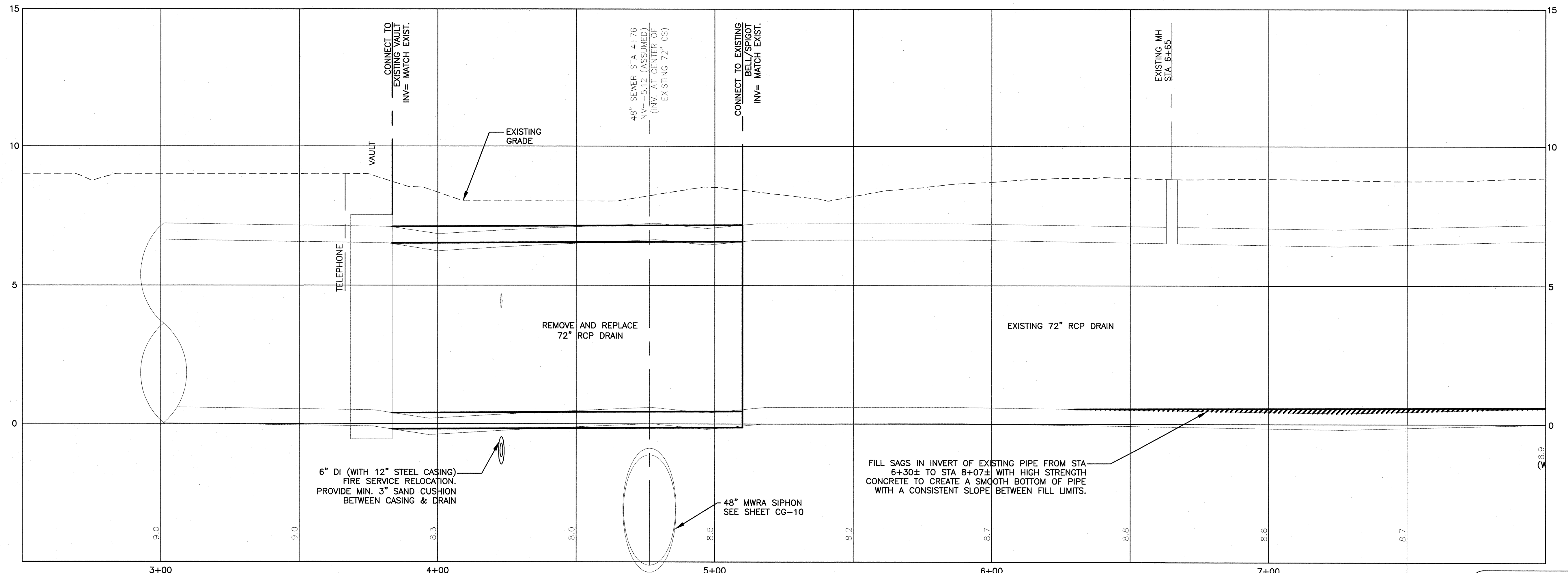
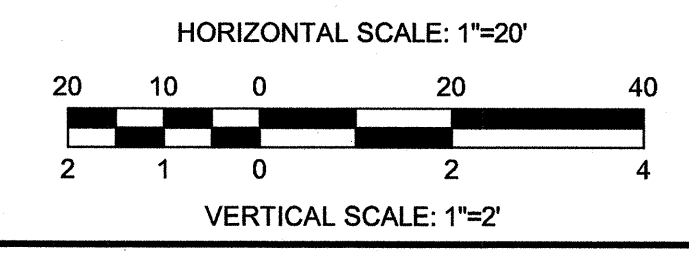


PLAN
SCALE: 1"=20'

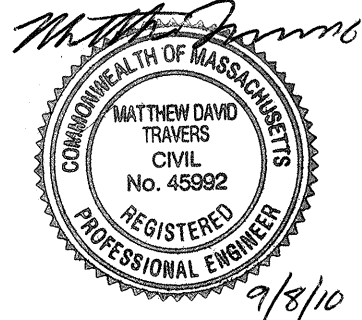
- NOTES:**
- 72" DRAIN TO BE BACKFILLED WITH CONTROLLED DENSITY FILL
 - TEST PIT TO VERIFY NEWLY INSTALLED 6" FIRE AND 4" DOMESTIC SERVICES ARE INSTALLED AT A DEPTH THAT IS OVER OR UNDER THE EXIST 72" DRAIN AND PROPOSED BOX CULVERT. IF SO, WATER RELOCATION IS NOT REQUIRED.



PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'



CONFORMED SET

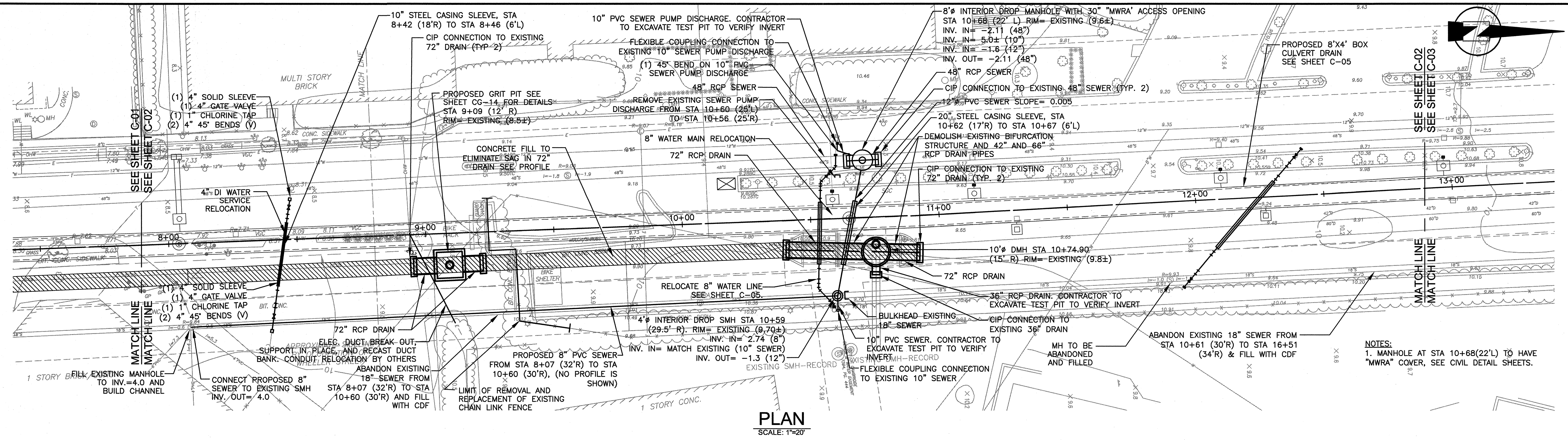


Scale	AS NOTED		
Date	SEPTEMBER 1, 2010		
Job No.	2220331		
Designed by	KMR		
Drawn by	AMF		
Checked by	WCP	No.	Description
Approved by	MDT		REVISIONS

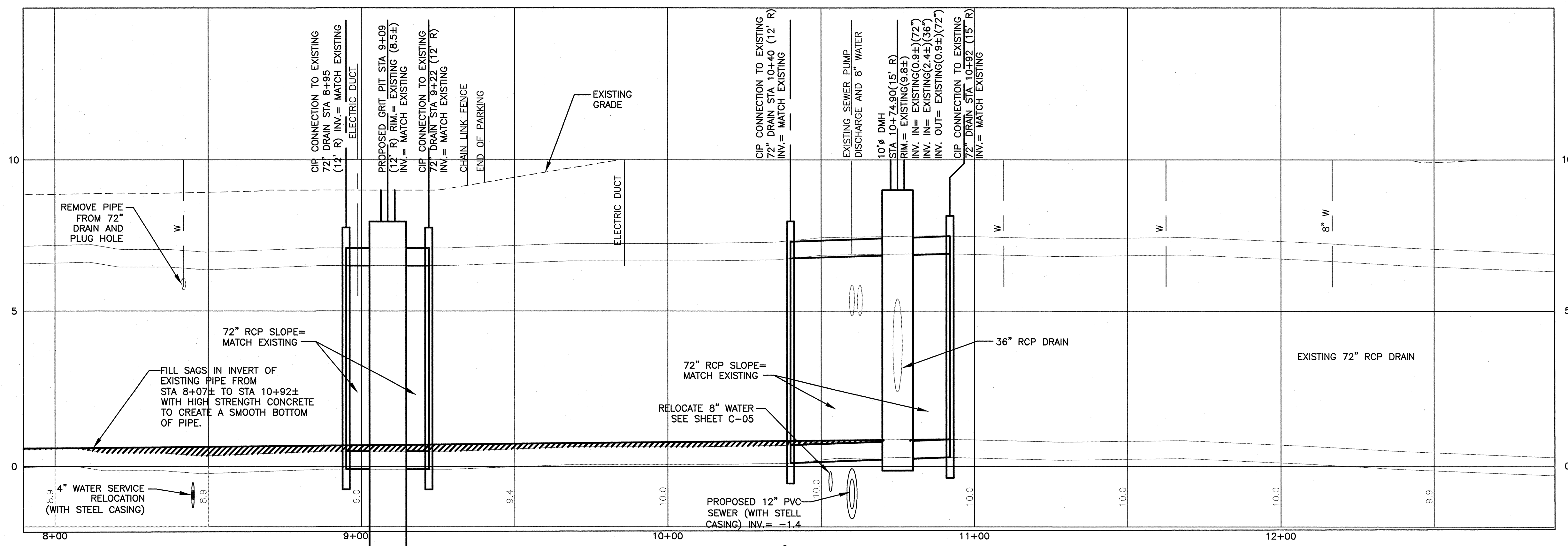


CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
DRAIN AREA I - EXISTING 72 - INCH DRAIN
PLAN AND PROFILE STA 3+00 TO 7+89

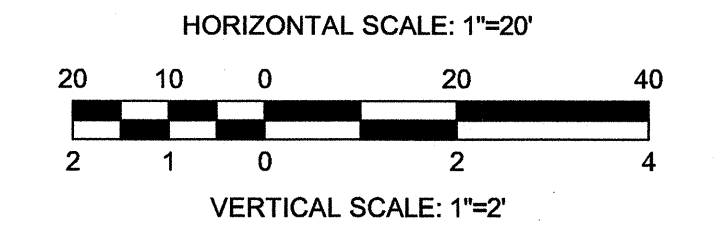
Sheet No. **C-01**
File No.



PLAN
SCALE: 1"=20'



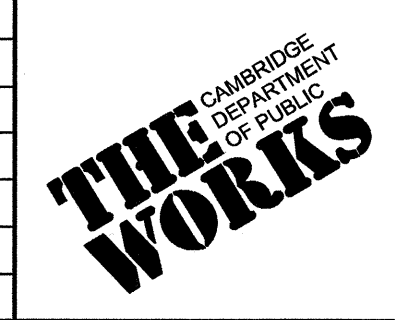
PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'



CONFORMED SET

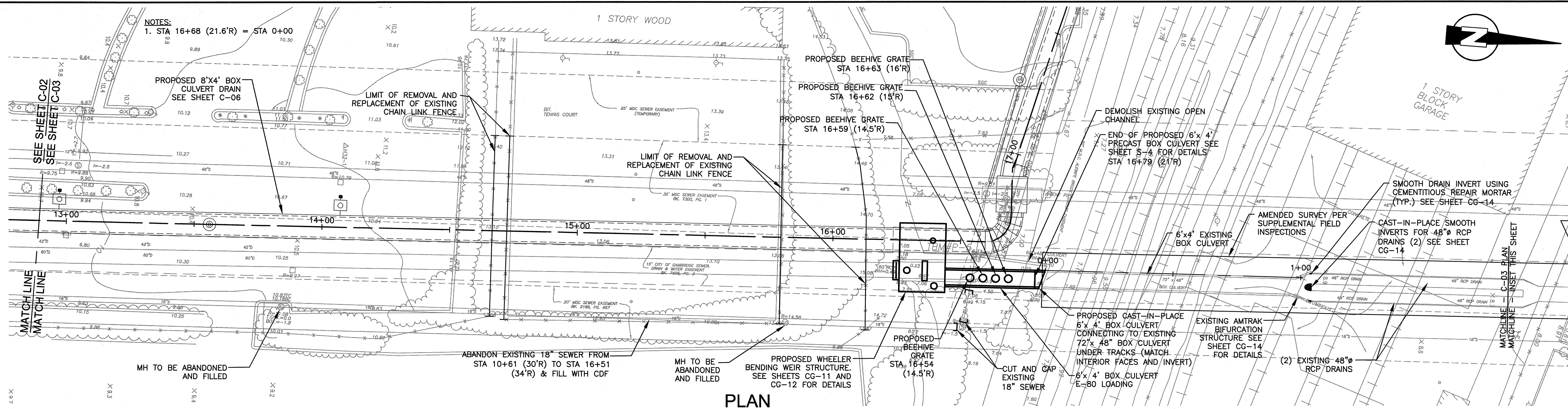


Scale	AS NOTED
Date	SEPTEMBER 1, 2010
Job No.	2220331
Designed by	KMR
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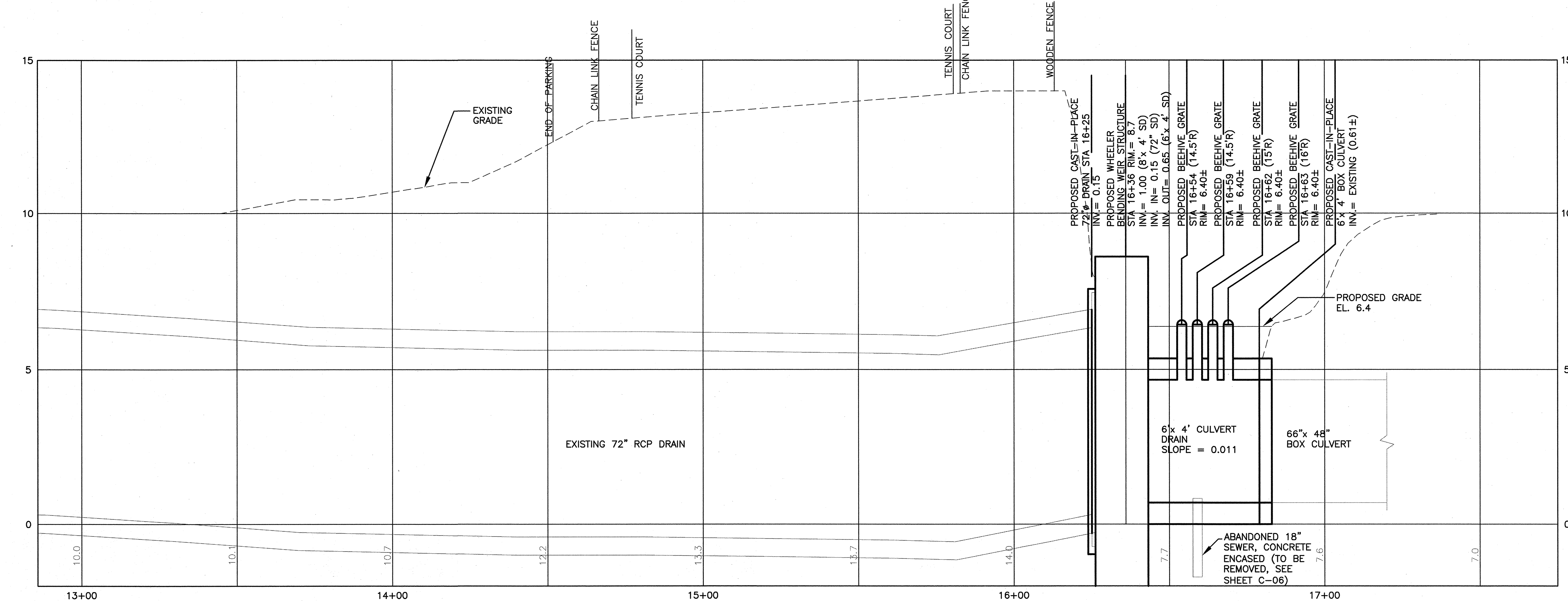


CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
DRAIN AREA II - EXISTING 72 - INCH DRAIN	
PLAN AND PROFILE STA 7+89 TO 12+89	

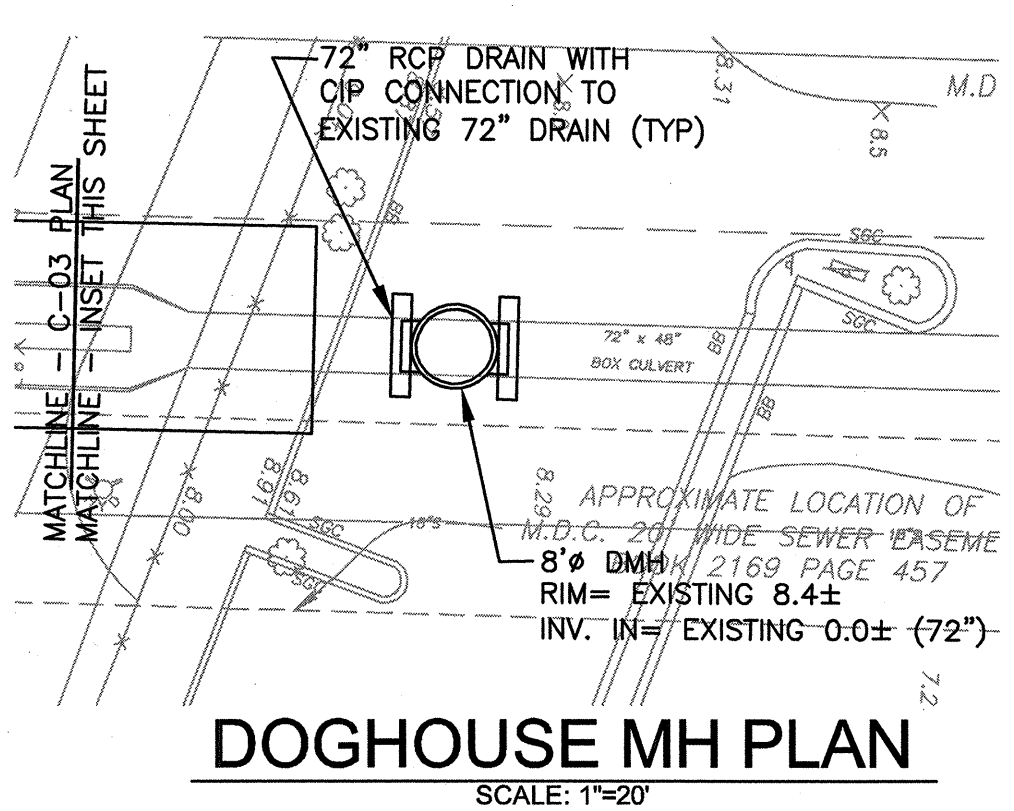
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File No.	



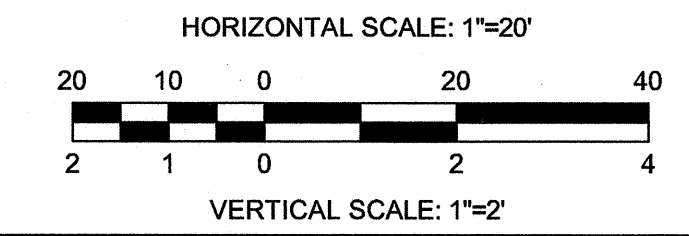
PLAN
SCALE: 1"=20'



PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'



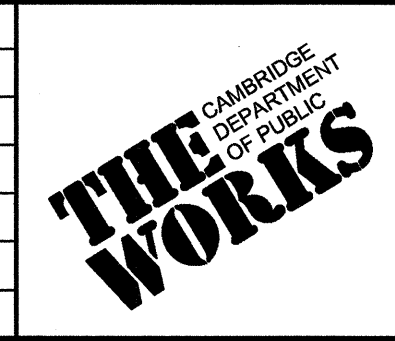
DOGHOUSE MH PLAN
SCALE: 1"=20'



CONFORMED SET

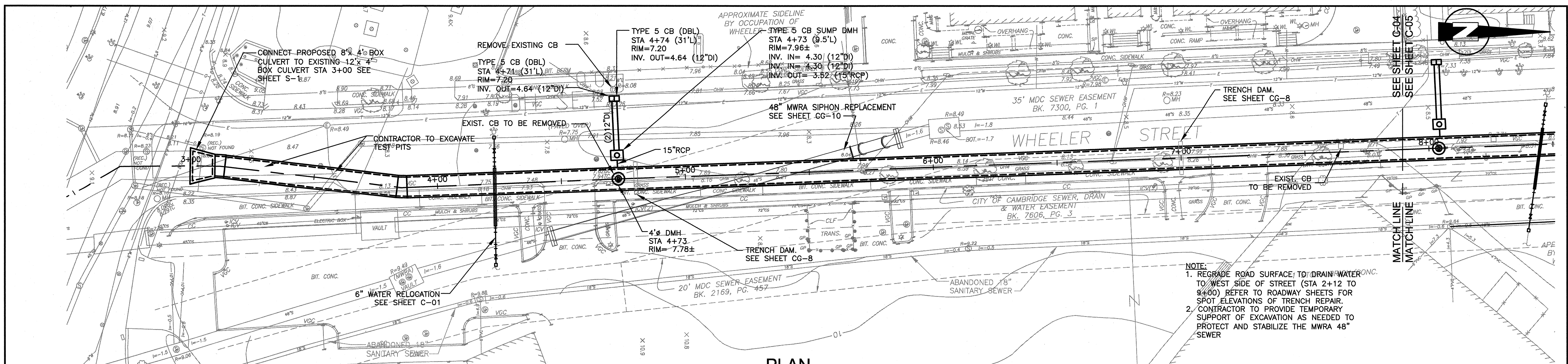


Scale	AS NOTED
Date	SEPTEMBER 1, 2010
Job No.	2220331
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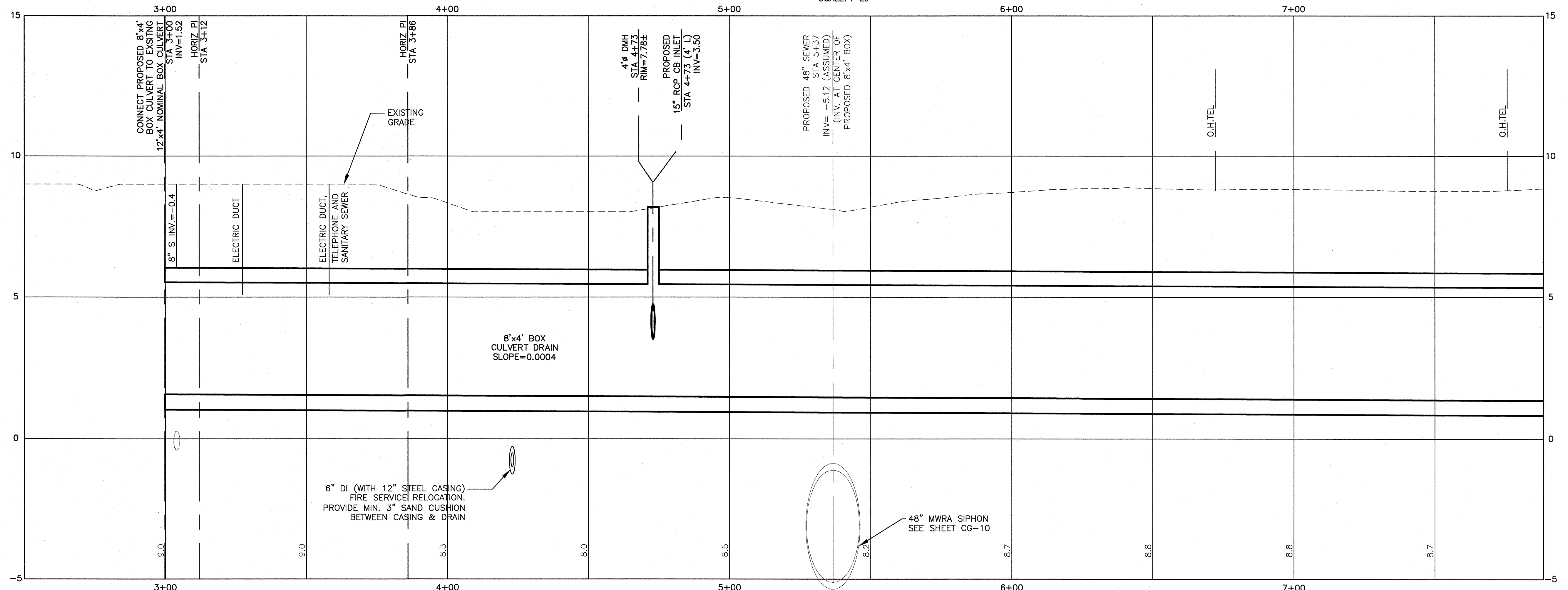
CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
DRAIN AREA III - EXSITING 72 - INCH DRAIN
PLAN AND PROFILE STA 12+89 TO 17+00

Sheet No. **C-03**
File No.



PLAN
SCALE: 1"=20'

NOTE:
 1. REGRADE ROAD SURFACE TO DRAIN WATER TO WEST SIDE OF STREET (STA 2+12 TO 9+00) REFER TO ROADWAY SHEETS FOR SPOT ELEVATIONS OF TRENCH REPAIR.
 2. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT OF EXCAVATION AS NEEDED TO PROTECT AND STABILIZE THE MWRA 48" SEWER

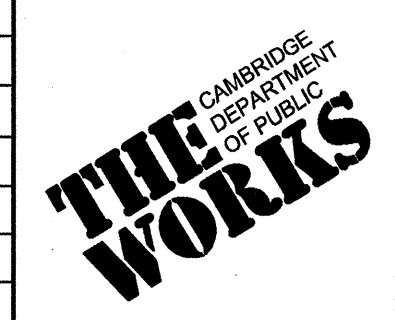


PROFILE
 HORZ. SCALE: 1"=20'
 VERT. SCALE: 1"=2'

CONFORMED SET

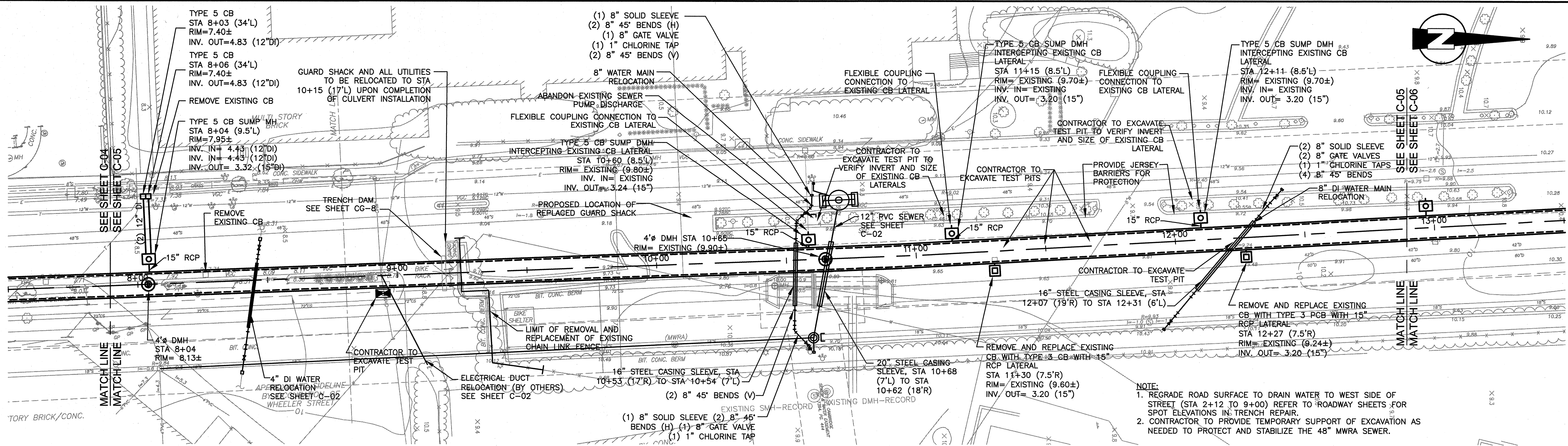


Scale	AS NOTED
Date	SEPTEMBER 1, 2010
Job No.	2220331
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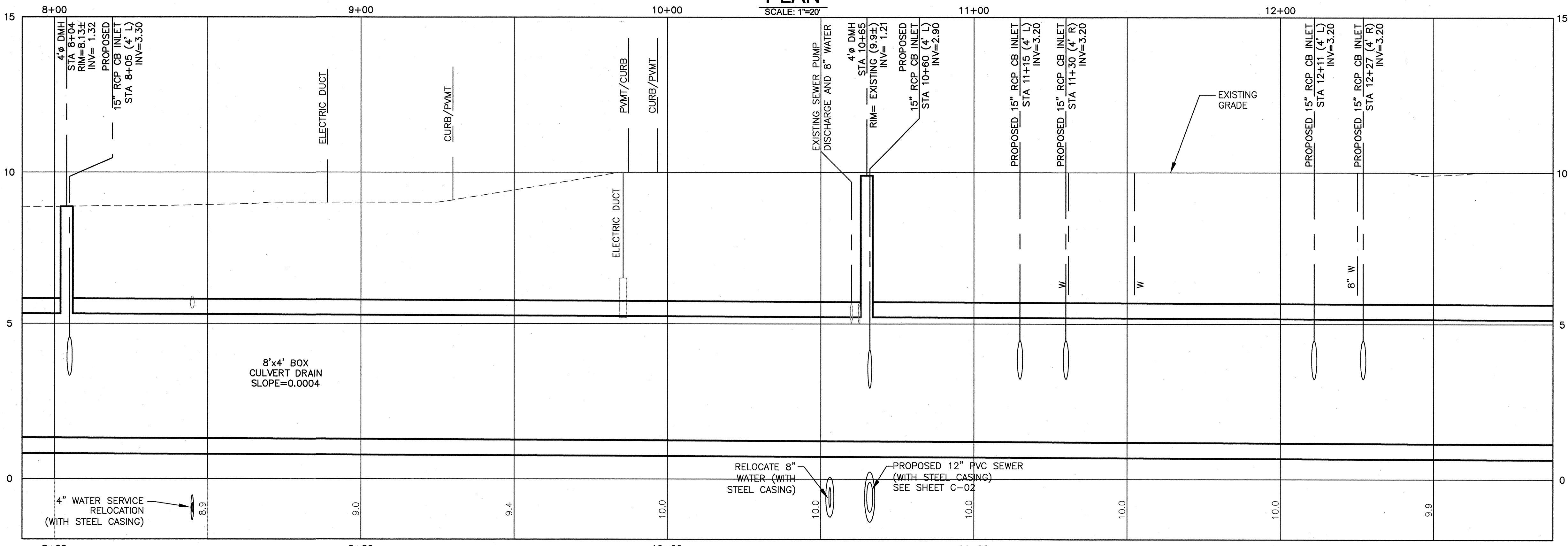
CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
DRAIN AREA I - 8"x4" BOX CULVERT PLAN AND PROFILE	
STA 3+00 TO 7+89	

Sheet No.	C-04
File No.	



PLAN

SCALE: 1"=20'

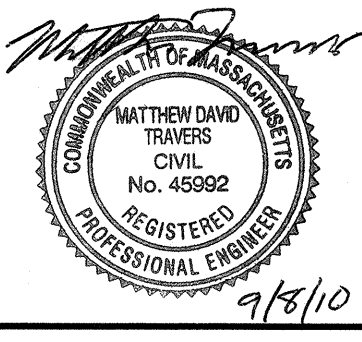
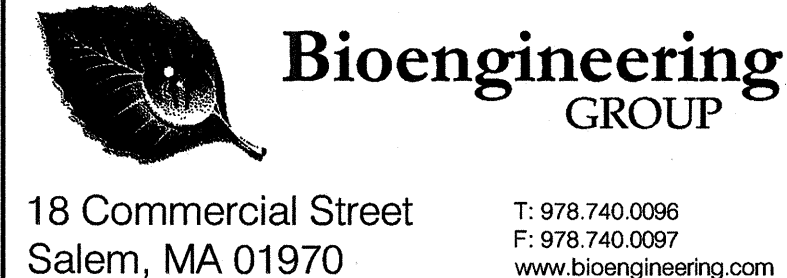


PROFILE

HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'

NOTE:
1. REGRADE ROAD SURFACE TO DRAIN WATER TO WEST SIDE OF STREET (STA 2+12 TO 9+00) REFER TO ROADWAY SHEETS FOR SPOT ELEVATIONS IN TRENCH REPAIR.
2. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT OF EXCAVATION AS NEEDED TO PROTECT AND STABILIZE THE 48" MWRA SEWER.

CONFORMED SET



Scale	AS NOTED
Date	SEPTEMBER 1, 2010
Job No.	2220331
Designed by	KMR
Drawn by	AMF
Checked by	MDT
Approved by	WCP

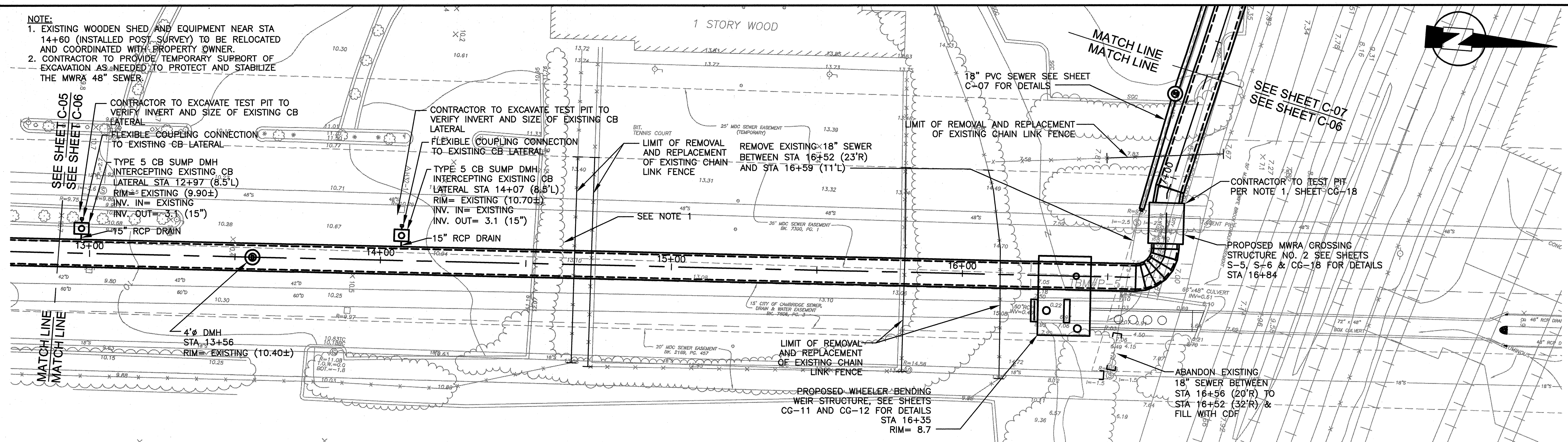


CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
DRAIN AREA II - 8'x4' BOX CULVERT PLAN AND PROFILE
STA 7+89 TO 12+89

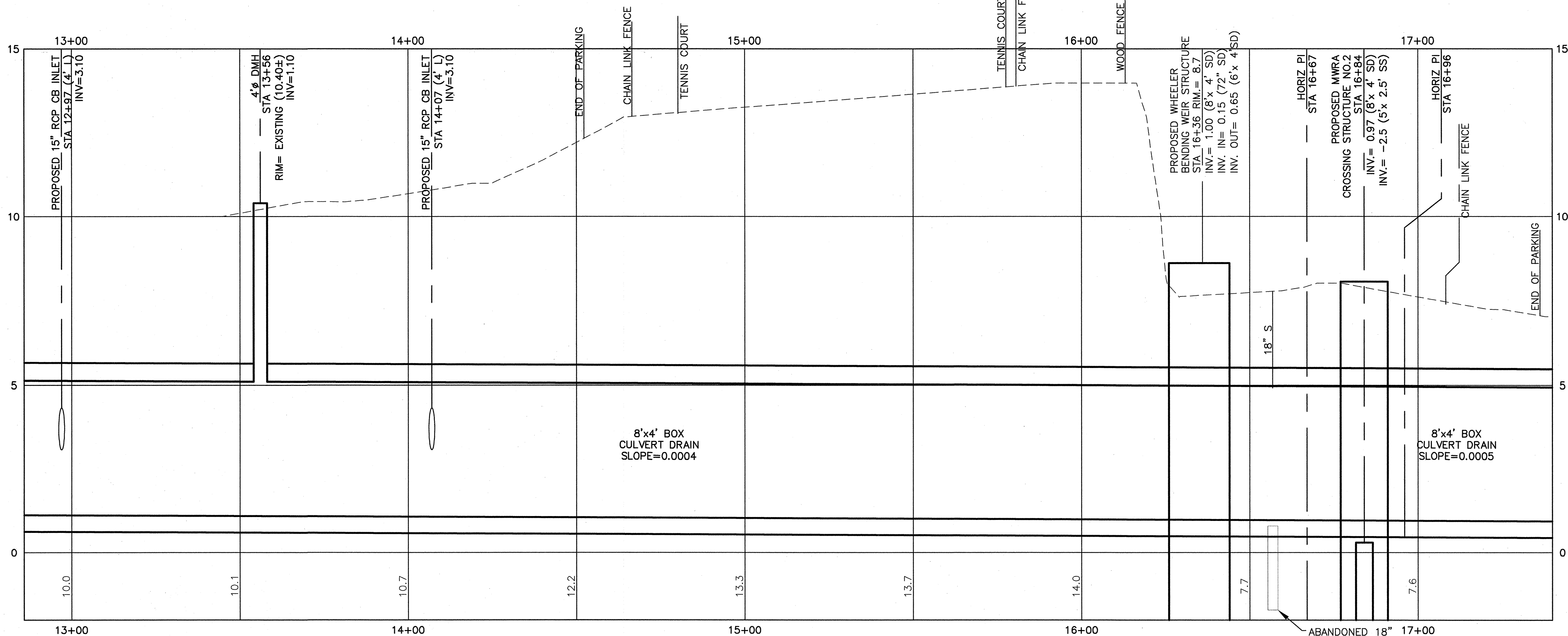
Sheet No. **C-05**
File No.

NOTE:

- EXISTING WOODEN SHED AND EQUIPMENT NEAR STA 14+60 (INSTALLED POST SURVEY) TO BE RELOCATED AND COORDINATED WITH PROPERTY OWNER.
- CONTRACTOR TO PROVIDE TEMPORARY SUPPORT OF EXCAVATION AS NEEDED TO PROTECT AND STABILIZE THE MWRA 48" SEWER.

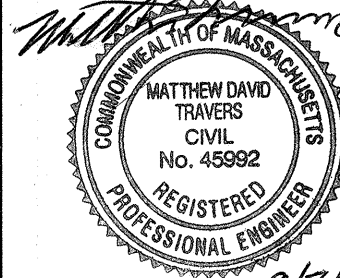


PLAN
SCALE: 1"=20'

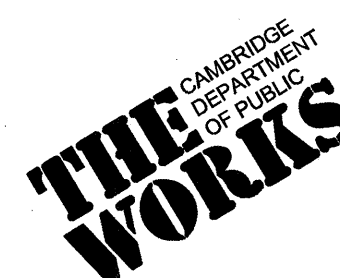


PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'

CONFORMED SET



Scale	AS NOTED
Date	SEPTEMBER 1, 2010
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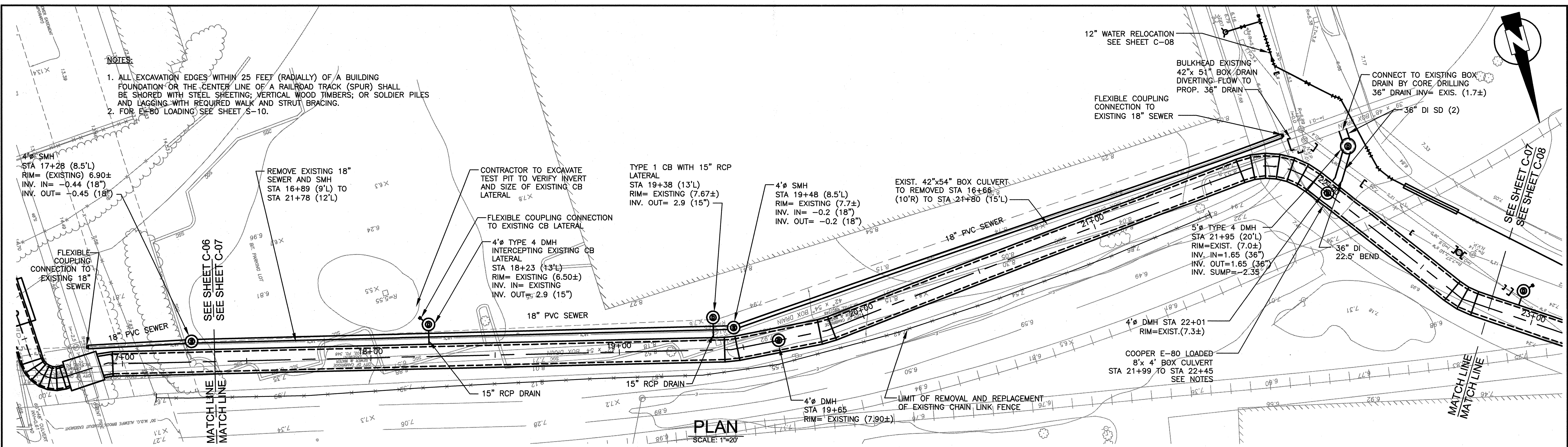


CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGE PARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
DRAIN AREA III - 8"x4" BOX CULVERT PLAN AND PROFILE	
STA 12+89 TO 17+37	

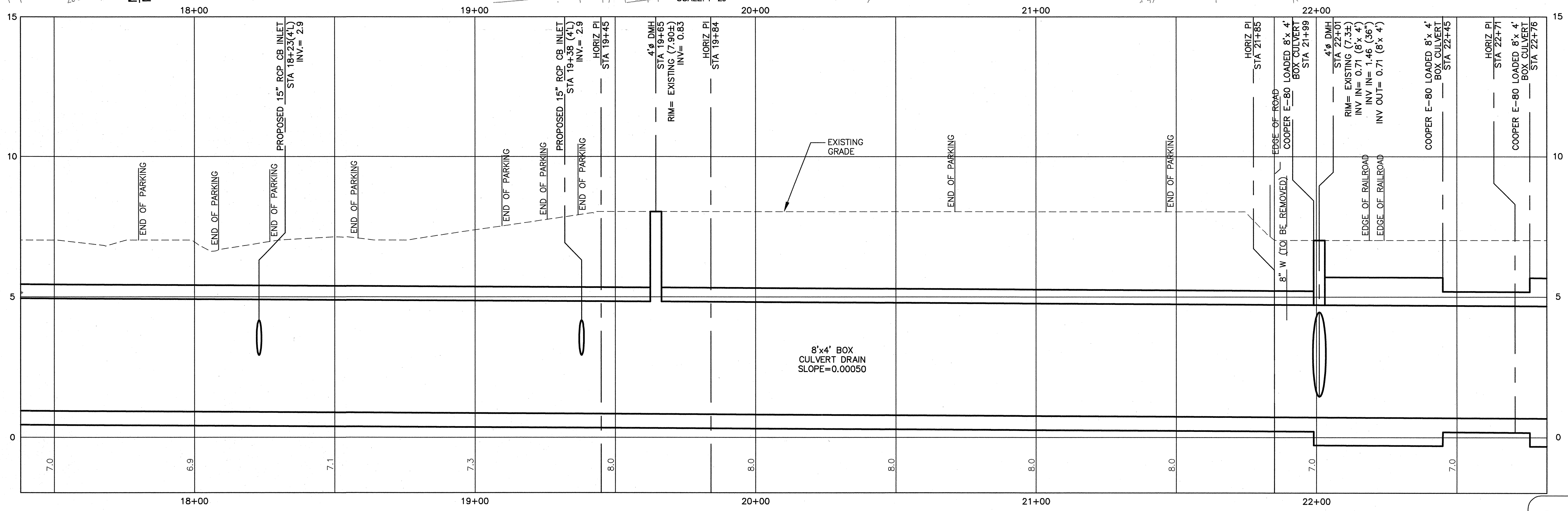
Sheet No.	C-06
File No.	

NOTES:

1. ALL EXCAVATION EDGES WITHIN 25 FEET (RADIALY) OF A BUILDING FOUNDATION OR THE CENTER LINE OF A RAILROAD TRACK (SPUR) SHALL BE SHORED WITH STEEL SHEETING; VERTICAL WOOD TIMBERS; OR SOLDIER PILES AND LAGGING WITH REQUIRED WALK AND STRUT BRACING.
2. FOR E-80 LOADING SEE SHEET S-10.



PLAN
SCALE: 1"=20'



PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'

CONFORMED SET

SEA
SEA CONSULTANTS INC.
Scientists/Engineers/Architects

MWH

Bioengineering GROUP
18 Commercial Street
Salem, MA 01970
T: 978.740.0086
F: 978.740.0087
www.bioengineering.com

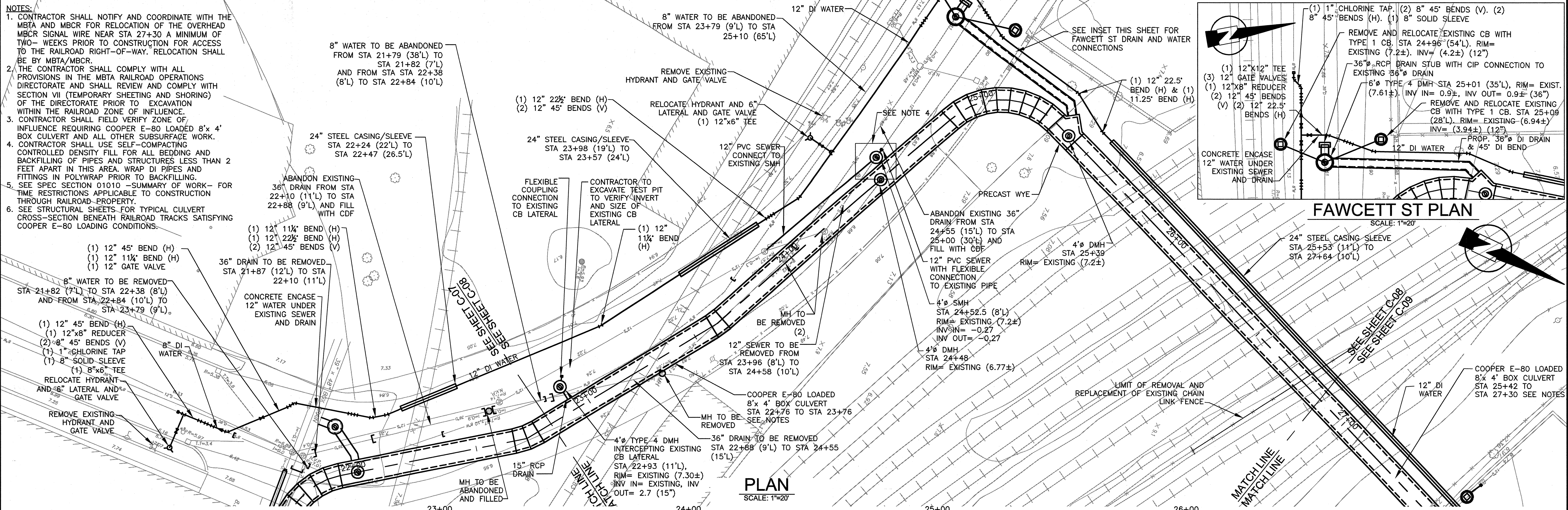
Matthew David Travers
CIVIL
No. 45992
REGISTERED PROFESSIONAL ENGINEER
9/8/10

Scale	AS NOTED	Date	SEPTEMBER 1, 2010	Job No.	2220331	Designed by	KMR	Drawn by	AMF	Checked by	MDT	Approved by	WCP	No.	Description	Date
REVISIONS																

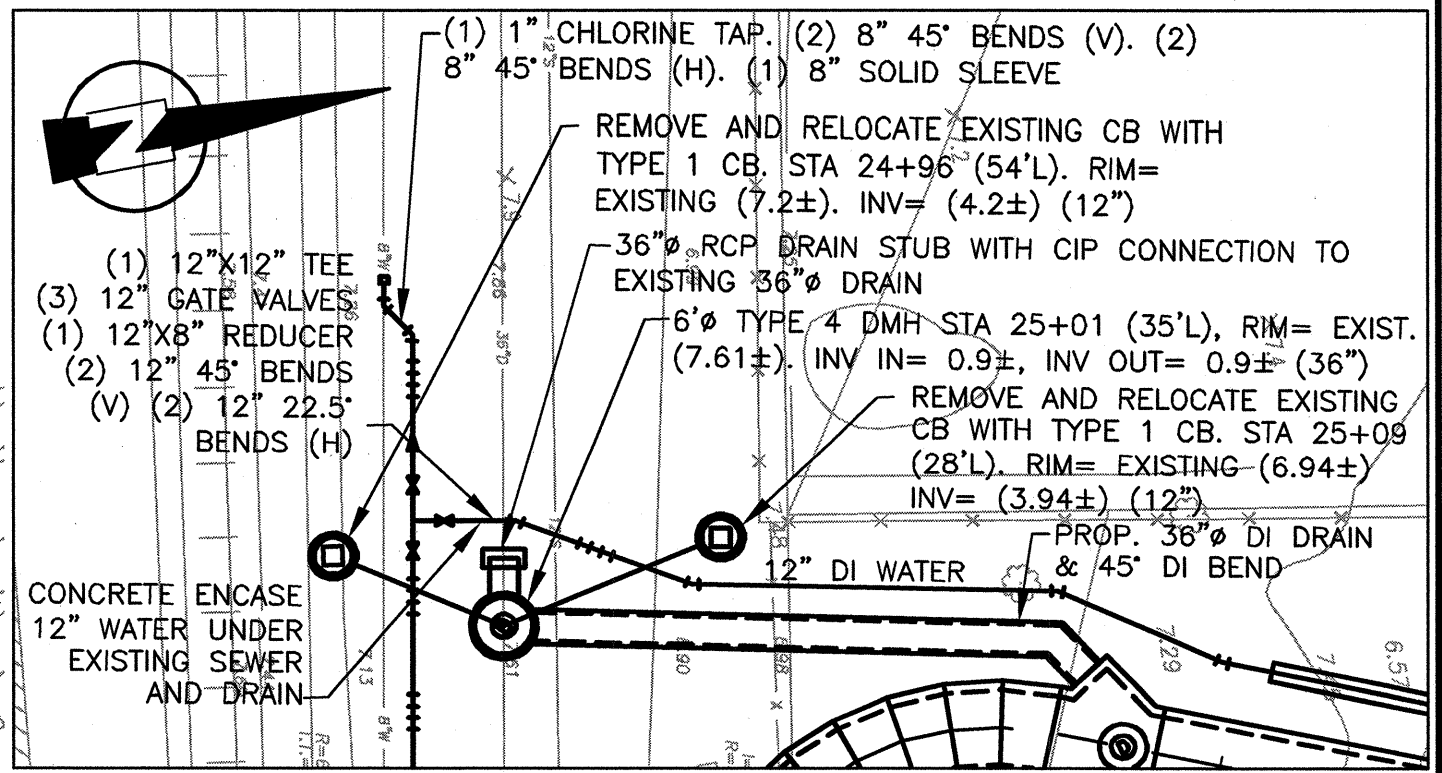


CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
DRAIN AREA IV - 8'x4' BOX CULVERT PLAN AND PROFILE
STA 17+37 TO 22+82

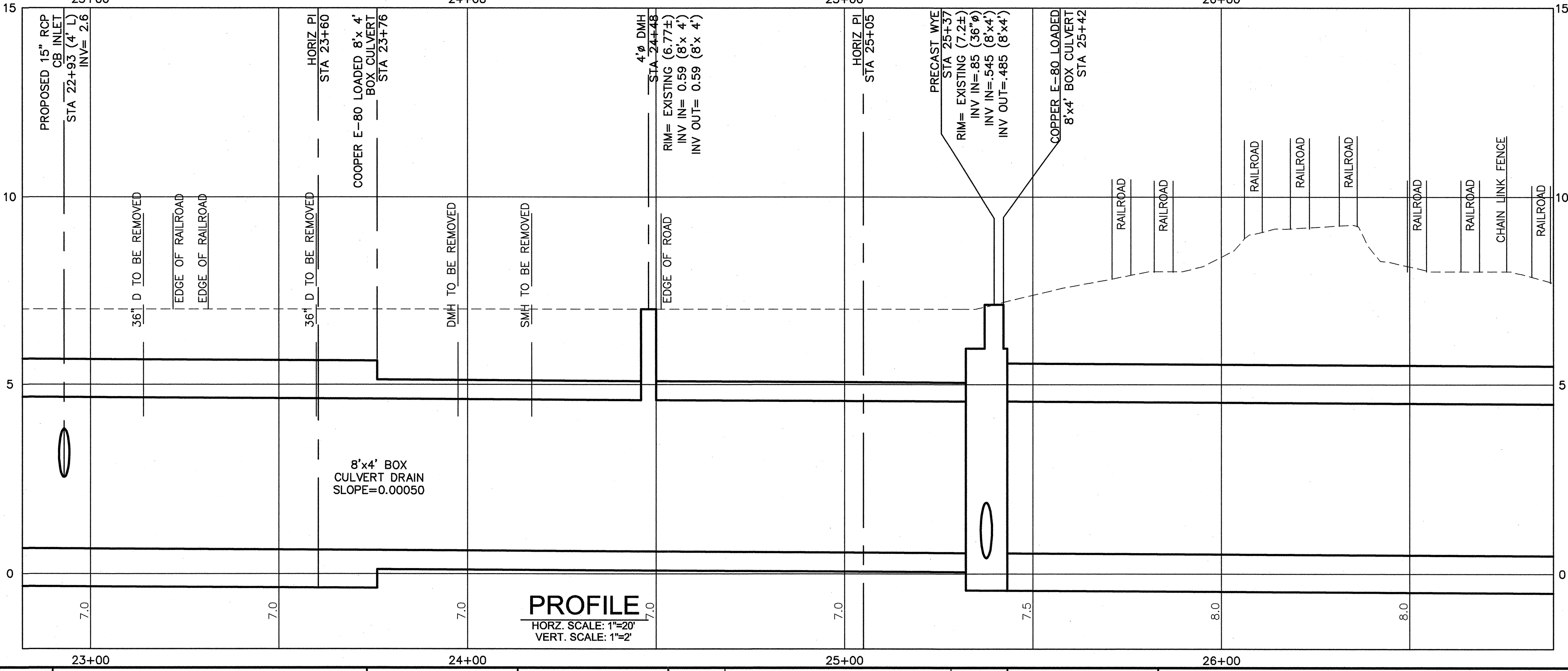
Sheet No. **C-07**
File No.



- NOTES:**
- CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE MBTA AND MBR FOR RELOCATION OF THE OVERHEAD MBR SIGNAL WIRE NEAR STA 27+30 A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION FOR ACCESS TO THE RAILROAD RIGHT-OF-WAY. RELOCATION SHALL BE BY MBTA/MBR.
 - THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS IN THE MBTA RAILROAD OPERATIONS DIRECTORATE AND SHALL REVIEW AND COMPLY WITH SECTION VII (TEMPORARY SHEETING AND SHORING) OF THE DIRECTORATE PRIOR TO EXCAVATION WITHIN THE RAILROAD ZONE OF INFLUENCE.
 - CONTRACTOR SHALL FIELD VERIFY ZONE OF INFLUENCE REQUIRING COOPER E-80 LOADED 8'x 4' BOX CULVERT AND ALL OTHER SUBSURFACE WORK.
 - CONTRACTOR SHALL USE SELF-COMPACTING CONTROLLED DENSITY FILL FOR ALL BEDDING AND BACKFILLING OF PIPES AND STRUCTURES LESS THAN 2 FEET APART IN THIS AREA. WRAP DI PIPES AND FITTINGS IN POLYWRAP PRIOR TO BACKFILLING.
 - SEE SPEC SECTION 01010 - SUMMARY OF WORK - FOR TIME RESTRICTIONS APPLICABLE TO CONSTRUCTION THROUGH RAILROAD PROPERTY.
 - SEE STRUCTURAL SHEETS FOR TYPICAL CULVERT CROSS-SECTION BENEATH RAILROAD TRACKS SATISFYING COOPER E-80 LOADING CONDITIONS.



PLAN
SCALE: 1"=20'



PROFILE
HORZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'

CONFORMED SET

SEA
SEA CONSULTANTS INC.
Scientists/Engineers/Architects

MWH

Bioengineering GROUP
18 Commercial Street
Salem, MA 01970
T: 978.740.0086
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www.bioengineering.com

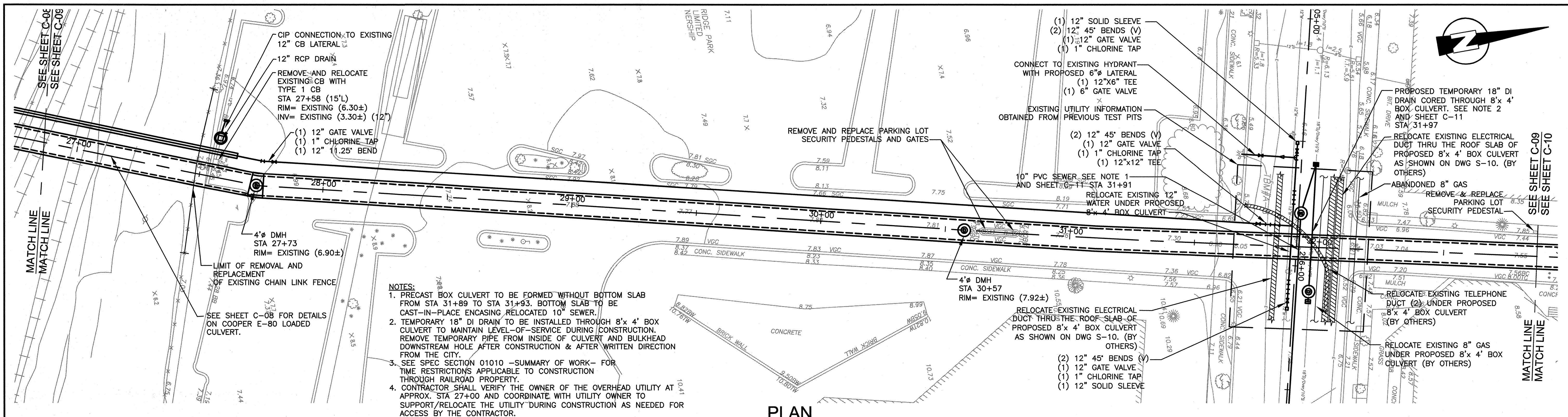
Matthew David Travers
CIVIL ENGINEER
No. 49982
REGISTERED PROFESSIONAL ENGINEER
9/18/10

Scale	AS NOTED
Date	SEPTEMBER 1, 2010
Job No.	2220331
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Drawn by	AMF
Checked by	MDT
Approved by	WCP

THE WORKS
CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

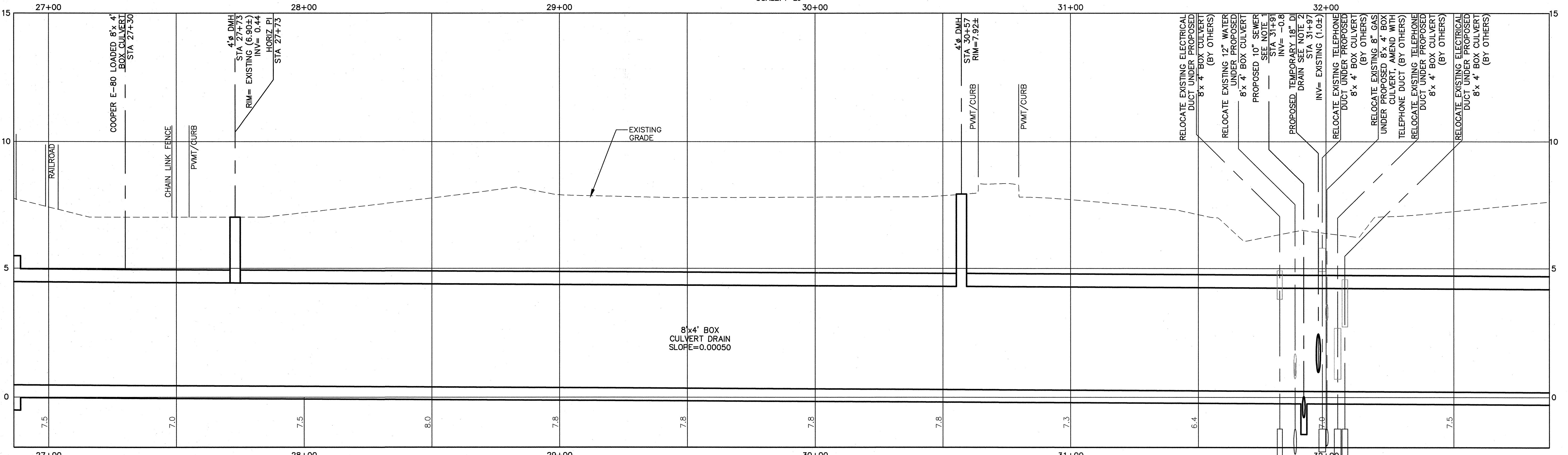
CITY OF CAMBRIDGE, MASSACHUSETTS
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
CONTRACT NO. 12
DRAIN AREA V - 8'X4' BOX CULVERT PLAN AND PROFILE
STA 22+82 TO 26+87

Sheet No. **C-08**
File No.



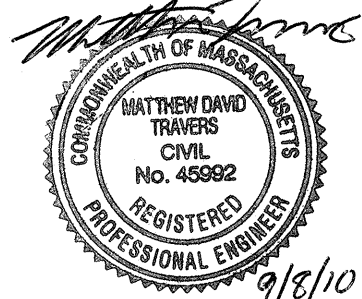
- NOTES:**
1. PRECAST BOX CULVERT TO BE FORMED WITHOUT BOTTOM SLAB FROM STA 31+89 TO STA 31+93. BOTTOM SLAB TO BE CAST-IN-PLACE ENCASING RELOCATED 10" SEWER.
 2. TEMPORARY 18" DI DRAIN TO BE INSTALLED THROUGH 8'x 4' BOX CULVERT TO MAINTAIN LEVEL-OF-SERVICE DURING CONSTRUCTION. REMOVE TEMPORARY PIPE FROM INSIDE OF CULVERT AND BULKHEAD DOWNSTREAM HOLE AFTER CONSTRUCTION & AFTER WRITTEN DIRECTION FROM THE CITY.
 3. SEE SPEC SECTION 01010 -SUMMARY OF WORK- FOR TIME RESTRICTIONS APPLICABLE TO CONSTRUCTION THROUGH RAILROAD PROPERTY.
 4. CONTRACTOR SHALL VERIFY THE OWNER OF THE OVERHEAD UTILITY AT APPROX. STA 27+00 AND COORDINATE WITH UTILITY OWNER TO SUPPORT/RELOCATE THE UTILITY DURING CONSTRUCTION AS NEEDED FOR ACCESS BY THE CONTRACTOR.

PLAN
SCALE: 1"=20'

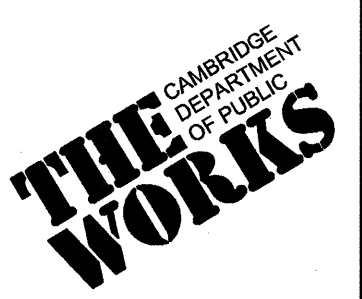


PROFILE
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=2'

CONFORMED SET



Scale	AS NOTED
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CITY OF CAMBRIDGE, MASSACHUSETTS	
CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS	
CONTRACT NO. 12	
DRAIN AREA VI - 8'x4' BOX CULVERT PLAN AND PROFILE	
STA 26+87 TO 32+87	

Sheet No.	C-09
File No.	