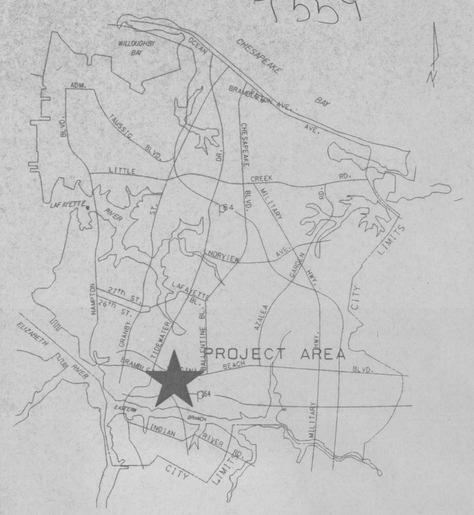
T559



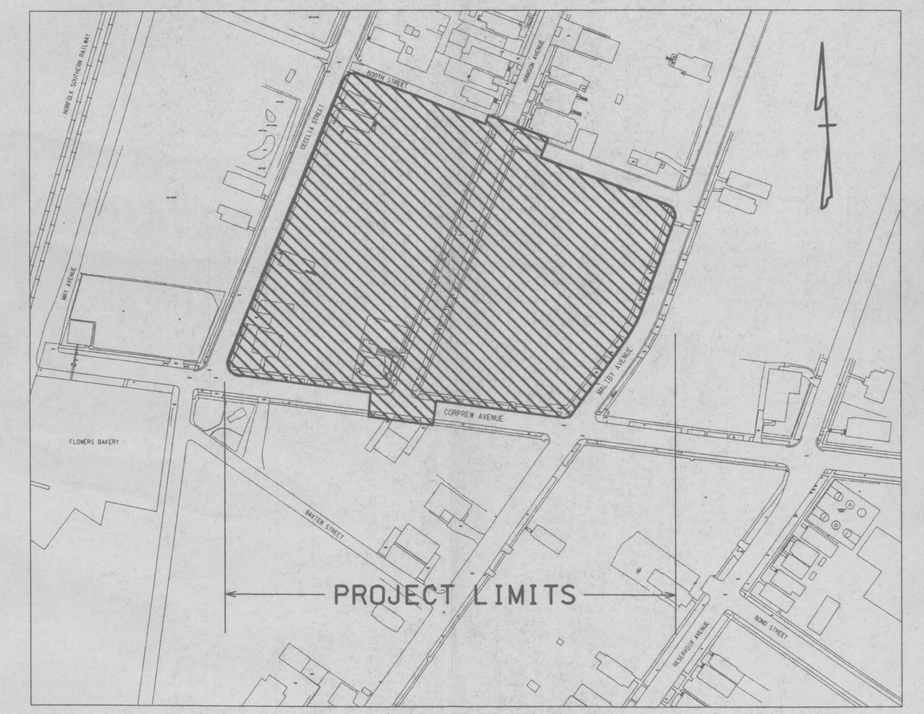
VICINITY MAP

N.T.S.

NRHA

Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND



LOCATION MAP

1"=100'

NOVEMBER 1997

35% PLANS

HDR

HDR Engineering, Inc.

LEGEND

DESCRIPTION	EXISTING	PROPOSED
Water Main	W	
Water Valve		
Water Meter		
Fire Hydrant		
Storm Drain Pipe		36"
Catch Basin		
Light Pole		
Power Pole		
Underground Electric	UGE	
Overhead Electric	OHE	
Sanitary Sewer Pipe	SS	
Sanitary Cleanout		
Temporary Bench Mark		
Sign		
Asphalt		
Top of Curb/ Flow Line	+ 8.88 8.38	
Curb & Gutter		
Spot Elevation (Ground Verified)	+ 8.38	
Spot Elevation (Aerial Mapping)	+ 8.4	
Light Pole		
Manhole		
Underground Gas	G	
Underground Telephone	UGT	
Underground Force Main	FM	
Overhead Telephone	OHT	
Overhead Cable Television	OHC	
Overhead Electric	OHE	
Drill Hole (Found)		
Nail Spike (Found)		
Pin (Found)		
Proposed Contour		5.50
Tree Protection Fence		
Temp. Silt Fence		

T559

Drawing Index

SHEET	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	TREE PROTECTION NOTES AND DETAILS
4	EROSION AND SEDIMENT CONTROL GENERAL NOTES AND DETAILS
5	TYPICAL SECTION AND DRAINAGE DESCRIPTIONS
6	DETAILS
7	PROJECT SITE PLAN
8	GENERAL GRADING PLAN
9	PLAN VIEW CORPREW AVENUE
10	PLAN VIEW MALTBY AVENUE
11	PLAN VIEW BOOTH AND HANSON STREETS
12	PLAN VIEW CECILIA STREET
L1	PLANTING PLAN
L2	PLANTING SCHEDULE AND DETAILS

DATE	SHEETS REVISED	INITIALS
	SIGNATURES	

_____ DATE: _____
NRHA DESIGN & CONSTRUCTION SERVICES MGR.

_____ DATE: _____
CITY ENGINEER, NORFOLK PUBLIC WORKS

_____ DATE: _____
NORFOLK DIR. OF RECREATION, PARKS & GEN. SERV.

_____ DATE: _____
DIR. OF CITY PLANNING & CODES ADMIN.

GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THE CURRENT SPECIFICATIONS AND STANDARDS OF THE DEPARTMENTS OF PUBLIC WORKS AND PUBLIC UTILITIES, CITY OF NORFOLK, VIRGINIA, AND ANY OTHER APPLICABLE CITY ORDINANCE AND CODE.

2. ALL CONCRETE TO BE CLASS A-3 AIR ENTRAINED (3,000 P.S.I.) IN ACCORDANCE WITH SECTION 217 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS.

3. TEMPORARY DRAINAGE DURING CONSTRUCTION TO BE PROVIDED BY THE CONTRACTOR.

4. ALL CONCRETE STORM SEWER PIPES IN THE CITY RIGHT-OF-WAY SHALL BE TONGUE AND GROOVE. PIPES SHALL BE REINFORCED AND SHALL CONFORM TO THE SPECIFICATIONS FOR CONCRETE SEWER PIPE A.A.S.H.O. DESIGNATION M170 WITH THE MODIFICATION THAT ALL PIPE SHALL BE MANUFACTURED WITH 4,000 P.S.I. CONCRETE UNLESS OTHERWISE NOTED.

5. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF LOCATING ANY UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA OF CONSTRUCTION THAT ARE NOT SHOWN ON THESE PLANS. BEFORE YOU DIG, TO MISS THE UTILITIES, CALL "MISS UTILITY" OF TIDEWATER AT 1-800-552-7001. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AT HIS EXPENCE ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC., THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.

6. CURB AND GUTTER SHALL BE CONSTRUCTED IN SECTIONS OF UNIFORM LENGTHS, APPROXIMATELY 10', AS NECESSARY TO FORM CLOSURES. EXPANSION JOINTS SHALL BE FORMED AT INTERVALS OF APPROXIMATELY 100' USING 5/8" REMOLDED BITUMINOUS FIBER JOINT FILLER. NO SECTIONS SHALL BE LESS THAN 6'.

7. ALL STORM SEWER PIPES, DROP INLETS, AND CURB INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIAL AT ALL STAGES OF CONSTRUCTION.

8. ALL SLOPES WITHIN RIGHT-OF-WAY OR CITY EASEMENTS TO BE TOPSOILED AND SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CITY OF NORFOLK AND SHALL NOT EXCEED A MAXIMUM SLOPE OF 3:1 H:V. TEMPORARY SEEDING OR STABILIZATION WILL BE REQUIRED WITHIN 15 DAYS OF CONSTRUCTION OF THESE SLOPES.

9. ELEVATIONS AS SHOWN HEREIN ARE BASED NAVD88.

10. WHEN MATERIALS WHICH ARE UNSUITABLE FOR FOUNDATIONS, SUBGRADES, OR OTHER ROADWAY PURPOSE OCCUR WITHIN THE LIMITS OF STREET CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE SUCH MATERIAL BELOW THE GRADE SHOWN ON PLANS AND THE AREAS SO EXCAVATED SHALL BE BACKFILLED WITH APPROVED SUITABLE MATERIALS.

11. ALL EXCAVATION WITHIN RIGHT-OF-WAY AREAS SHALL BE BACKFILLED WITH SELECT OR GRANULAR MATERIAL PLACED IN 6-INCH LAYERS AND COMPACTED TO 95 PERCENT THEORETICAL AASHTO DENSITY.

12. FOR WORK IN THE CITY OF NORFOLK'S RIGHT OF WAY, CONTACT 48 HOURS IN ADVANCE:
    CONSTRUCTION 664-4677 DRAINAGE 441-2408
    LANDSCAPING 441-2435 UTILITIES 441-5676

13. APPROVAL DOES NOT PRECLUDE THE NECESSITY OF THE EXCAVATOR. BY STATE LAW, CONTACT THE TRAFFIC ENGINEERING NOTIFICATION CENTER 48 HOURS BEFORE EXCAVATION AT 664-7300.

14. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN THROUGHOUT THE JOB, ALL EROSION AND SILTATION CONTROL WORK, INCLUDING OTHER DEVICES, ALL AS REQUIRED BY THE EROSION AND SILTATION CONTROL PLANS AS SHOWN ON THE CONTRACT DRAWINGS. ALL CONTROL METHODS AND DETAILS SHALL COMPLY WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST EDITION). SEE PLANS FOR LOCATIONS.

15. PROJECT LIMITS ARE THE PROPERTY LINES, UNLESS OTHERWISE NOTED.

16. TOPSOIL, SEED AND FERTILIZE ALL AREAS WITHIN THE PROJECT LIMITS NOT OCCUPIED BY STRUCTURES, PAVEMENT, SIDEWALKS, ETC.

17. NO LANE CLOSURES PERMITTED WITHOUT PERMIT FROM TRAFFIC ENGINEERING AT 664-7300. ALL TRAFFIC CONTROL TO COMPLY WITH M.U.T.C.D. AS REQUIRED.

18. FENCES WITHIN THE LIMITS OF CONSTRUCTION MUST BE REMOVED AND REPLACED AFTER THE FINE GRADING OPERATION. THE CONTRACTOR IS TO ADJUST THE GRADE OF THE FENCES TO MATCH THE PROPOSED GRADES. THE CONTRACTOR IS TO REPLACE OR REPAIR DAMAGED SECTIONS TO THE SATISFACTION OF THE CITY OF NORFOLK.

19. THE LIMITS OF GRADING SHOWN ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTINUE THE CUT OR FILL SLOPE UNTIL A SMOOTH TIE-IN WITH THE EXISTING GRADE CAN BE MADE. THE CITY INSPECTOR MAY MAKE VARIATIONS IN THE TIE-IN POINT TO BETTER FIT THE EXISTING CONDITIONS.

20. THE CONTRACTOR SHALL INSTALL 36" ORANGE SAFETY FENCE AS DIRECTED BY THE INSPECTOR TO PROTECT CITIZENS FROM THE CONTRUCTION AREA AND/OR TO PROVIDE ACCESS FOR PEDESTRAINS THROUGH THE WORK AREA.

21. SAFETY BARRICADES SHALL BE A MINIMUM OF THREE (3) FEET IN HEIGHT AND CONSTRUCTED OF MATERIAL WHICH WILL PROHIBIT PEDESTRIAN MOVEMENT INTO THE WORK AREA AND PROVIDE A VISIBLE WARNING TO PEDESTRAINS OF THE ADJACENT WORK AREA AND ITS ASSOCIATED HAZARDS. MATERIAL SHALL BE HIGH DENSITY POLYETHYLENE SAFETY BARRICADE (SUCH AS TENSAR SAFETY BARRICADE # UX405016) OR APPROVED EQUAL. THE SAFETY BARRICADE SHALL BE SUPPORTED IN SUCH SAFE MANNER AS TO PREVENT FAILING OR PREVENT INJURY IF LEANED UPON BY PEDESTRIANS. THE CONTRACTOR SHALL MAINTAIN THE BARRICADE THROUGHOUT THE DURATION OF THE CONSTRUCTION IN THE AREA OF WHICH IT IS INSTALLED, AND SHOULD THE BARRICADE FALL OR REQUIRE REPAIRS, THE CONTRACTOR SHALL CORRECT SUCH PROBLEMS WITHOUT DELAY AT NO ADDITIONAL COMPENSATION.

22. INFORM THE DEPARTMENT OF PUBLIC WORKS WATER DISTRIBUTION, MR. TED DIXON AT (757) 441-2928 WITH THE DATES FOR SHUT-OFF OF WATER LINES. CONTACT FIELD ENGINEERING AT (757) 441-5676, FIVE (5) DAYS PRIOR TO THE START OF WORK TO SCHEDULE AN INSPECTOR. INSPECTION FEE: $250.00.

HDR

HDR Engineering, Inc.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

Project Manager: P. DAHMEN
Architect | I&C/Process
Civil: R. OVERTON | Mechanical
Electrical | Structural
Drawn By

NRHA
Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

GENERAL NOTES

Date	Project No.	Drawing No.	Issue
11/97	07605-008-045	2	

Scale: AS NOTED

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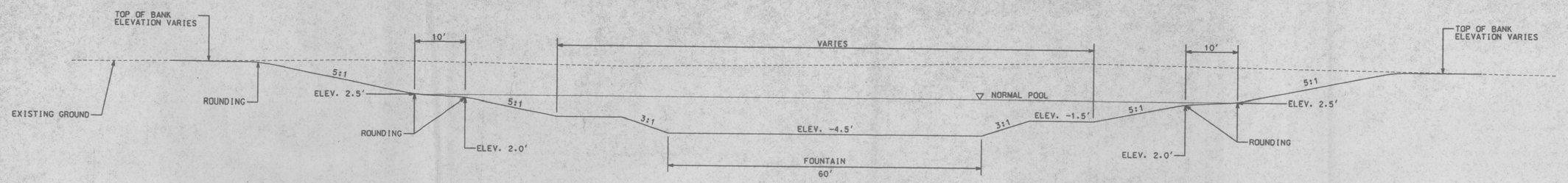


TYPICAL SECTION

SCALE: 1"=10'

9-1

1 - DI-2B DROP INLET REQ'D.
L = 16'
H = 3.36'
INV = 4.6'

9-1 TO 9-2

22' - 14" x 23" HECP REQ'D.
(1.5' COVER)
INV (IN) 4.6' (OUT) 4.43'

9-2

1 - DI-2B DROP INLET REQ'D.
L = 16'
H = 3.5'
INV = 4.43'
ST'D. IS-1 INLET SHAPING REQ'D.

9-2 TO 9-3

70' - 14" x 23" HECP REQ'D.
(2.0' COVER)
INV (IN) 4.43' (OUT) -0.45'
--- TONS CLASS 1 RIPRAP REQ'D.

9-4

48" PLUG REQ'D.

9-4 TO 9-5

50' - 48" CONC. PIPE REQ'D.
(4.4' COVER)
INV (IN) -0.10 (OUT) -2.83

10-2

1 - ST'D. ES-1 END SECTION REQ'D.
--- TONS CLASS 1 RIPRAP REQ'D.

10-1

1 - ST'D. HS-6 CATCH BASIN REQ'D.
H = 7.4'
INV = 1.20'
ST'D. IS-1 INLET SHAPING REQ'D.

10-1 TO 10-2

54' - 36" CONC. PIPE REQ'D.
(2.69' COVER)
INV (IN) 1.20' (OUT) -2.25'

10-2

1 - ST'D. ES-1 END SECTION REQ'D.
--- TONS CLASS 1 RIPRAP REQ'D.

11-1

1 - ST'D. DOUBLE HS-6 CATCH BASIN REQ'D.
H = 5.15'
INV = 2.70'
TIE INTO EXISTING 20" PIPE (NORTH)
ST'D. IS-1 INLET SHAPING REQ'D.

11-1 TO 11-2

18' - 36" CONC. PIPE REQ'D.
(0.82' COVER)
INV (IN) 2.70' (OUT) 2.60'

11-2

1 - ST'D. HS-8 MANHOLE REQ'D.
RIM ELEV. = 6.87'
INV = 2.6'
TIE INTO EXISTING 24" PIPE (NORTH)
ST'D. IS-1 MANHOLE SHAPING REQ'D.

11-2 TO 11-4

14' - 36" CONC. PIPE REQ'D.
(0.88' COVER)
INV (IN) 2.6' (OUT) 2.53'

11-4

1 - ST'D. DOUBLE HS-6 CATCH BASIN REQ'D.
H = 6.44'
INV = 2.53'
ST'D. IS-1 INLET SHAPING REQ'D.

11-3

1 - ST'D. DOUBLE HS-6 CATCH BASIN REQ'D.
H = 3.13'
INV = 3.59'
ST'D. IS-1 INLET SHAPING REQ'D.

11-3 TO 11-4

25' - 18" CONC. PIPE REQ'D.
(1.0' COVER)
INV (IN) 3.59' (OUT) 3.39'

11-4 TO 11-5

46' - 36" CONC. PIPE REQ'D.
(3.11' COVER)
INV (IN) 0.43' (OUT) -1.93'

11-5

1 - ST'D. ES-1 END SECTION REQ'D.
--- TONS CLASS 1 RIPRAP REQ'D.

12-1

SPECIAL DESIGN HEADWALL REQ'D.
SEE DETAIL
--- TONS CLASS 1 RIPRAP REQ'D.

12-1 TO 12-2

64' - 29" x 45" HECP REQ'D.
INV (IN) 2.50' (OUT) 2.20'

4769

12-2

REPLACE EXISTING CATCH BASIN
WITH ST'D HS-6 CATCH BASIN
H = 5.34'
INV = 2.17'
TIE IN WITH EXISTING 24" PIPE (EAST)
ST'D. IS-1 INLET SHAPING REQ'D.

12-3

1 - ST'D. HS-6 CATCH BASIN REQ'D.
H = 7.63'
INV = 1.09'
ST'D. IS-1 INLET SHAPING REQ'D.

12-3 TO 12-4

46' - 36" CONC. PIPE REQ'D.
(2.88' COVER)
INV (IN) 1.09' (OUT) -1.75'

12-4

1 - ST'D. ES-1 END SECTION REQ'D.
--- TONS CLASS 1 RIPRAP REQ'D.

HDR

HDR Engineering, Inc.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

Project Manager: P. DAHMEN
Architect | I&C/Process
Civil: R. OVERTON | Mechanical
Electrical | Structural
Drawn By

NRHA
Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

TYPICAL SECTION AND DRAINAGE DESCRIPTIONS

Date
Scale: AS NOTED
Project No.: 07605-008-045
Drawing No.: 5
Issue

GENERAL MAINTENANCE OF TRAFFIC NOTES:

1. ALL TRAFFIC CONTROL METHODS AND DEVICES SHALL CONFORM TO THE CURRENT VIRGINIA WORK AREA PROTECTION MANUAL ISSUED BY V.D.O.T., JANUARY 1, 1996 AND PART VI, STANDARDS AND GUIDES FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY AND INCIDENT MANAGEMENT OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), REVISION 3-SEPTEMBER 3, 1993 ISSUED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION (1988).

2. ONE 11' MINIMUM LANE SHALL BE MAINTAINED ALONG CORPREW AVENUE AND BOOTH STREET. FLAGGER SERVICE MAY BE USED TO CONTROL ONE WAY TRAFFIC THROUGH THE WORK ZONE.

3. THE CONTRACTOR SHALL NOT LEAVE THE WORK ZONE UNATTENDED WITH OPEN TRENCHES DEEPER THAN 2 FEET.

NOTES:

1) DATE OF SURVEY: OCTOBER 17, 1997

2) ALL UTILITIES INCLUDING SANITARY SEWER, STORM SEWER, ELECTRIC POWER, GAS, CABLE AND TELEPHONE LINES ARE TO BE REMOVED ON EXISTING HANSON AVENUE.

HDR

HDR Engineering, Inc.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

Project Manager: P. DAHMEN	
Architect	I&C/Process
Civil: R. OVERTON	Mechanical
Electrical	Structural
	Drawn By

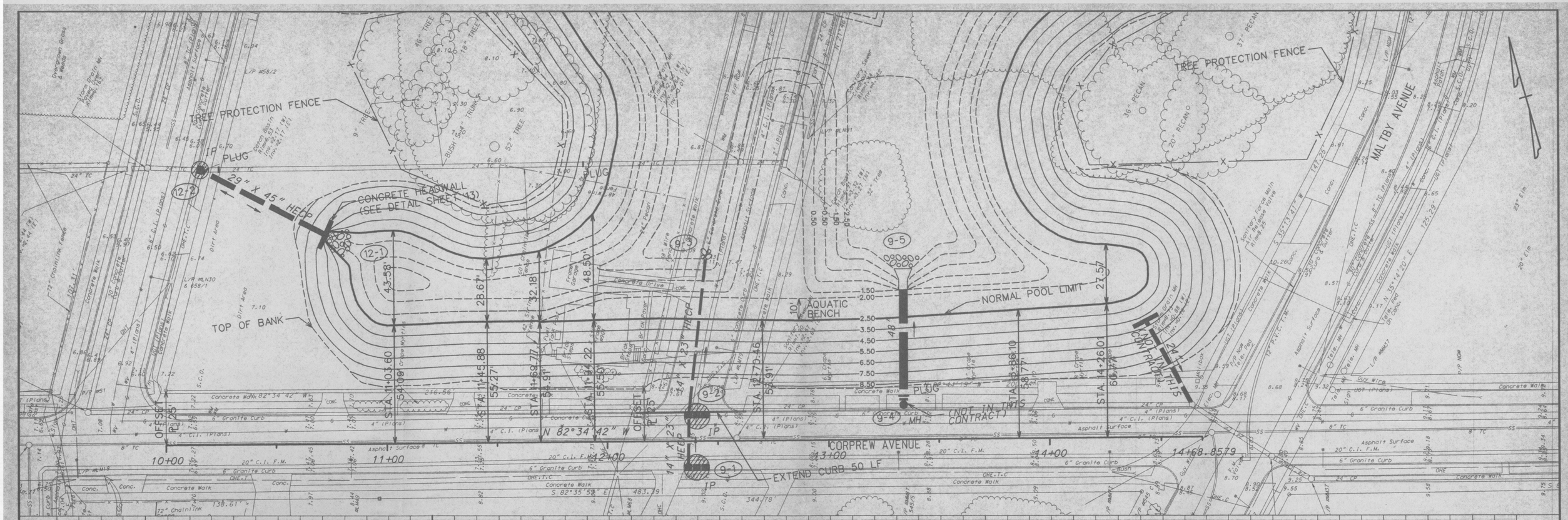
NRHA
Norfolk Redevelopment & Housing Authority

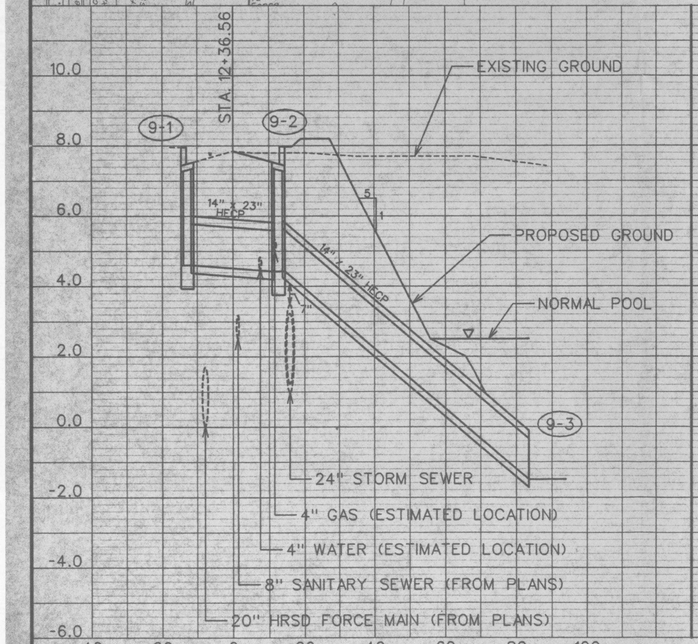
CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

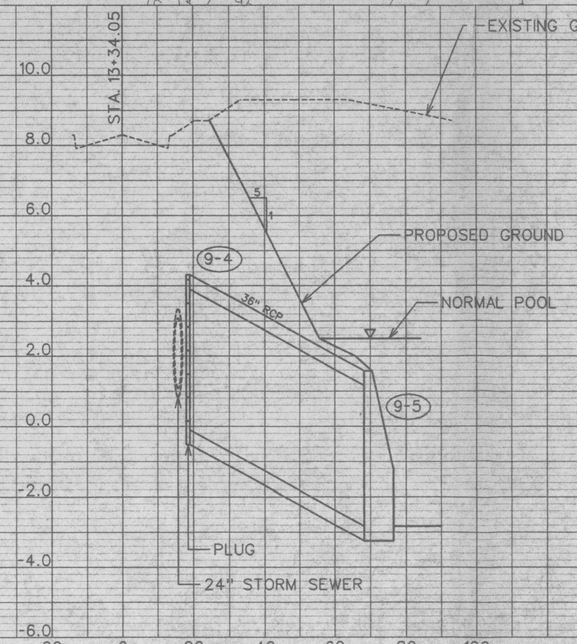
PROJECT SITE PLAN

Date	Project No.	Drawing No.	Issue
Scale 1"= 30'	07605-008-045	7	

BOOTH STREET
CECELIA STREET
HANSON AVENUE
MALTBY AVENUE
CORBREW AVENUE
REPLACE 8" SS WITH 8" DI
REMOVE & REPLACE CURB & GUTTER 15 LF
EXTEND CURB & GUTTER 41 LF
MATCH EXISTING PAVEMENT
FOUNTAIN
TREE PROTECTION FENCE
PLUG
CONCRETE HEADWALL (SEE DETAIL SHEET 13)
TOP OF BANK
AQUATIC BENCH
NORMAL POOL LIMIT
EXTEND CURB 50 LF
CONTRACT LIMITS
(NOT IN THIS CONTRACT)
HDR
HDR Engineering, Inc.
Project Manager
P. DAHMEN
Architect
Civil
R. OVERTON
Electrical
I&C/Process
Mechanical
Structural
Drawn By
NRHA
Norfolk Redevelopment & Housing Authority
CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND
GENERAL GRADING PLAN
Date
Scale
1" = 25'
Project No.
07605-008-045
Drawing No.
8
Issue
Issue No.
Description
Date
Drwn.
Chkd.
Resp. Engr.
Proj. Mgr.







HDR

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Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

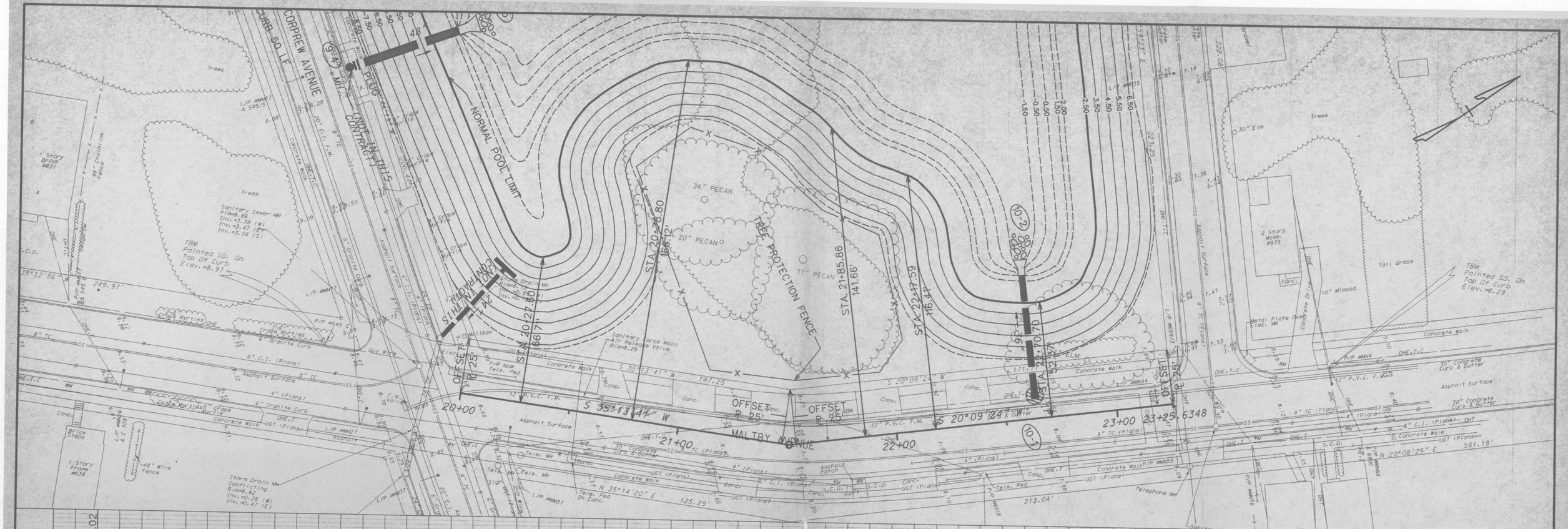
Project Manager: P. DAHMEN
Architect | I&C/Process
Civil: R. OVERTON | Mechanical
Electrical | Structural
Drawn By

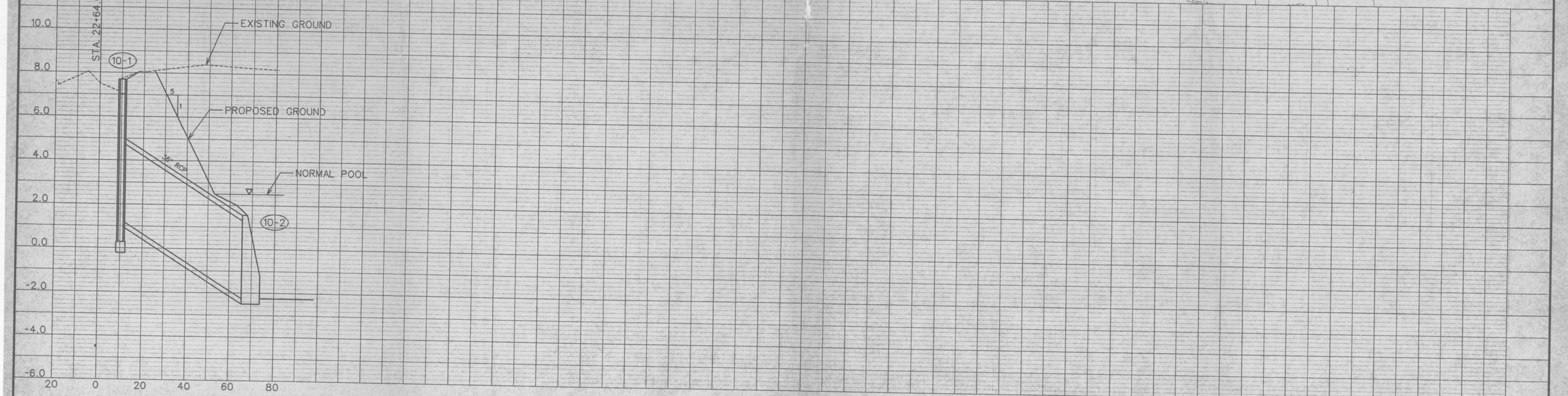
NRHA
Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

PLAN VIEW
CORPREW AVENUE

Date
Scale 1" = 20'
Project No. 07605-008-045
Drawing No. 9
Issue





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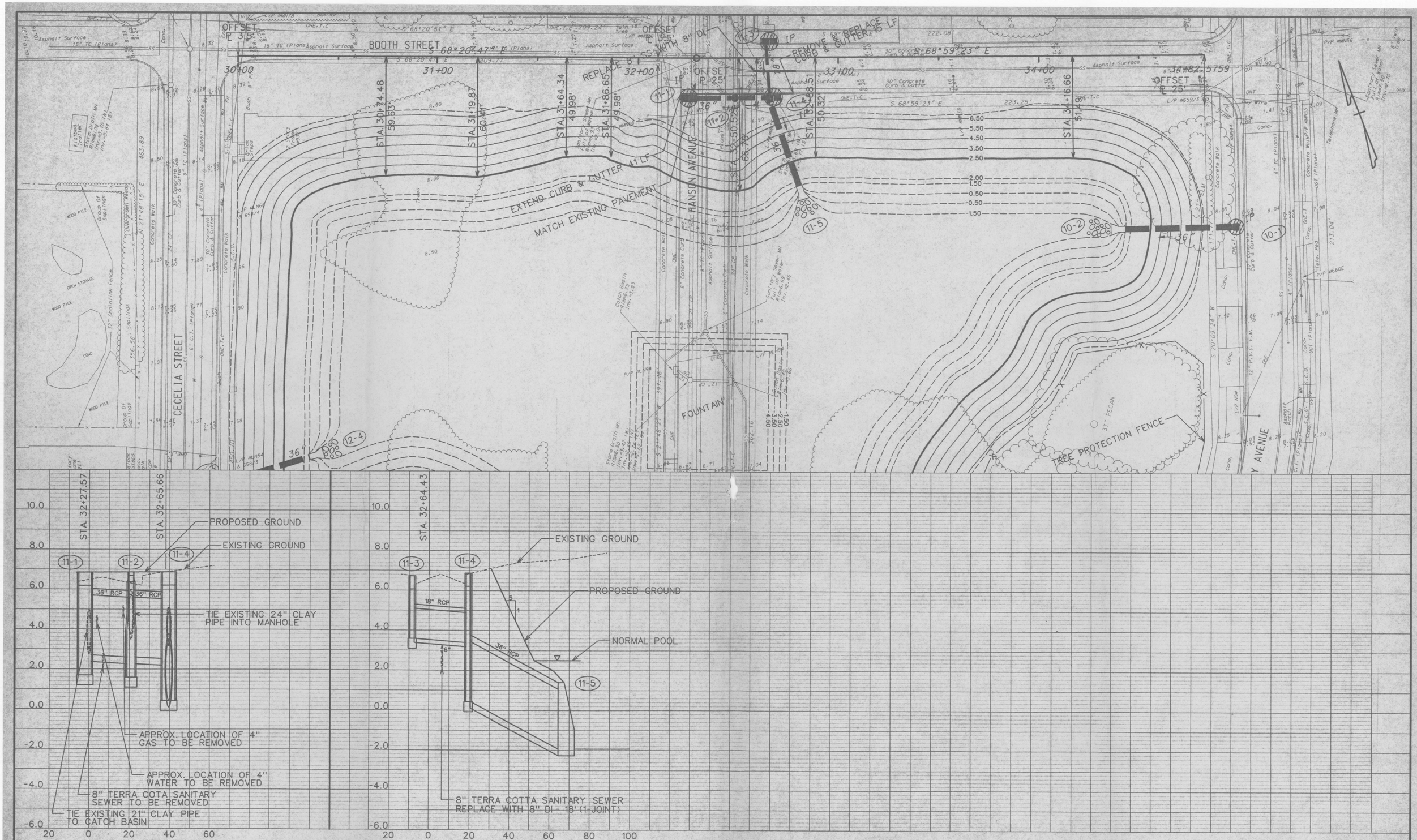
Project Manager: P. DAHMEN
Architect | I&C/Process
Civil: R. OVERTON | Mechanical
Electrical | Structural
Drawn By

NRHA
Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

PLAN VIEW
MALTBY AVENUE

Date
Scale 1"= 20'
Project No. 07605-008-045
Drawing No. 10
Issue



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Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

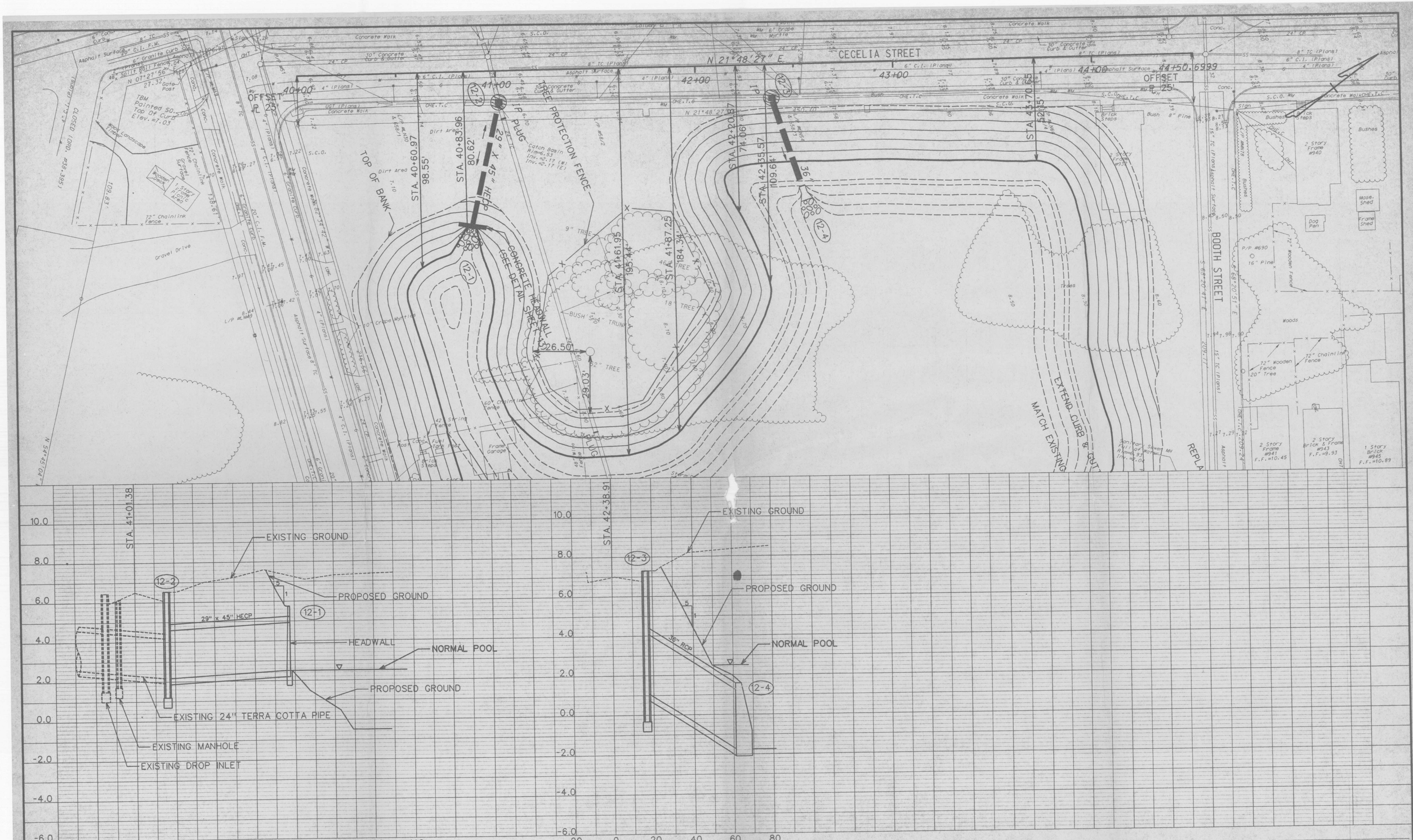
Project Manager: P. DAHMEN
Architect
I&C/Process
Civil: R. OVERTON
Mechanical
Electrical
Structural
Drawn By

NRHA
Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

PLAN VIEW
BOOTH AND HANSON STREETS

Date
Scale 1"= 20'
Project No. 07605-008-045
Drawing No. 11
Issue



HDR

HDR Engineering, Inc.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

Project Manager: P. DAHMEN
Architect
I&C/Process
Civil: R. OVERTON
Mechanical
Electrical
Structural
Drawn By

NRHA Norfolk Redevelopment & Housing Authority

CENTRAL BRAMBLETON REDEVELOPMENT AND CONSERVATION AREA STORM WATER MANAGEMENT POND

PLAN VIEW
CECELIA STREET

Date
Scale 1" = 20'
Project No. 07605-008-045
Drawing No. 12
Issue