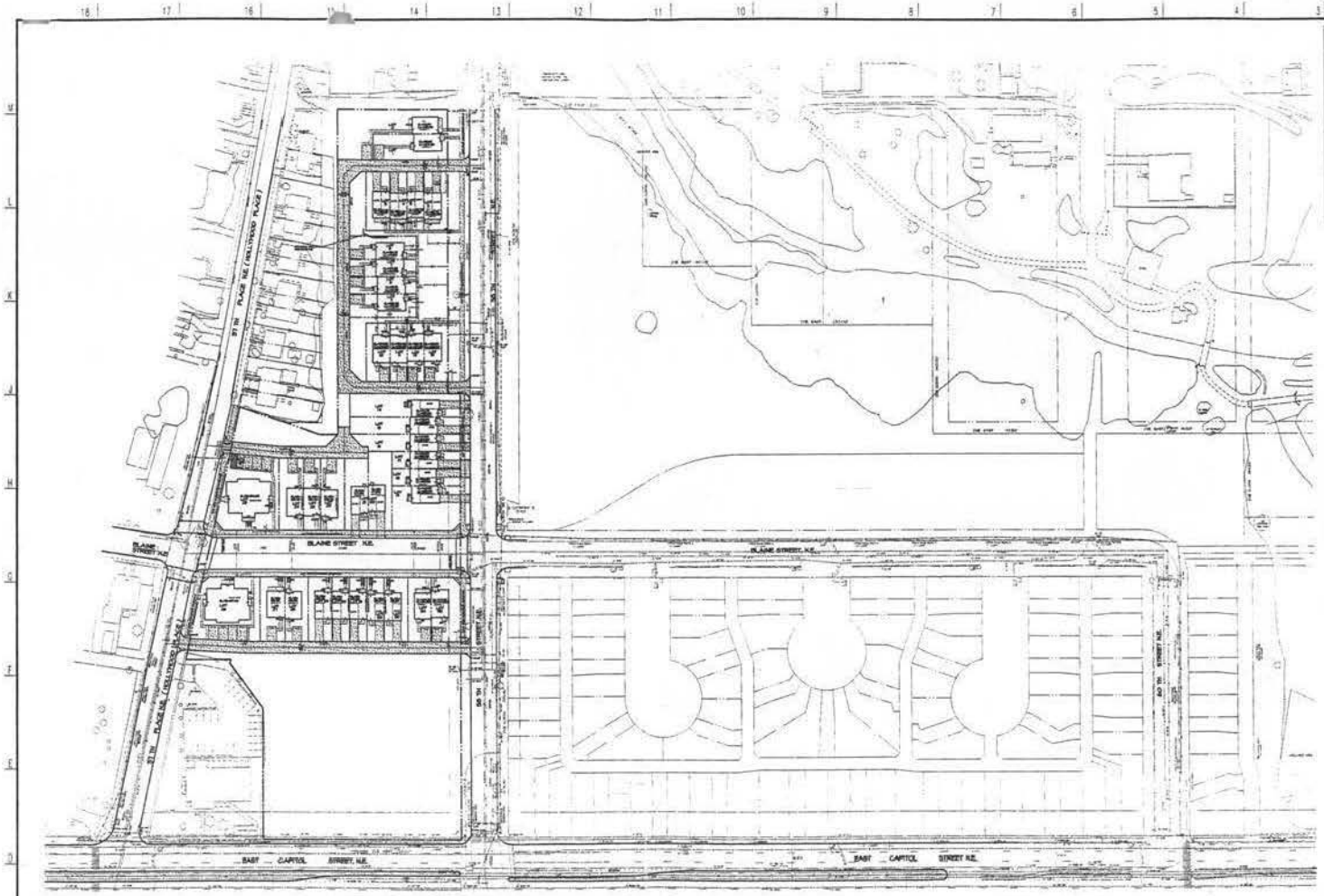




ZONING COMMISSION
District of Columbia
Case 03-03
Exhibit 33

COMPOSITE SITE PLAN

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'

50' 0 50' 100' 150'

SHEET 1 of 2

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
A&R/HC, LLC.
514 10TH STREET NW
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2257

Grimm and Parker Architects
11785 Beltsville Drive Suite 1400 Calverton MD 20705 301.595.1000 301.595.0997 Fax
1355 Beverly Road Suite 105 McLean VA 22101 703.903.9100 703.903.2752 Fax

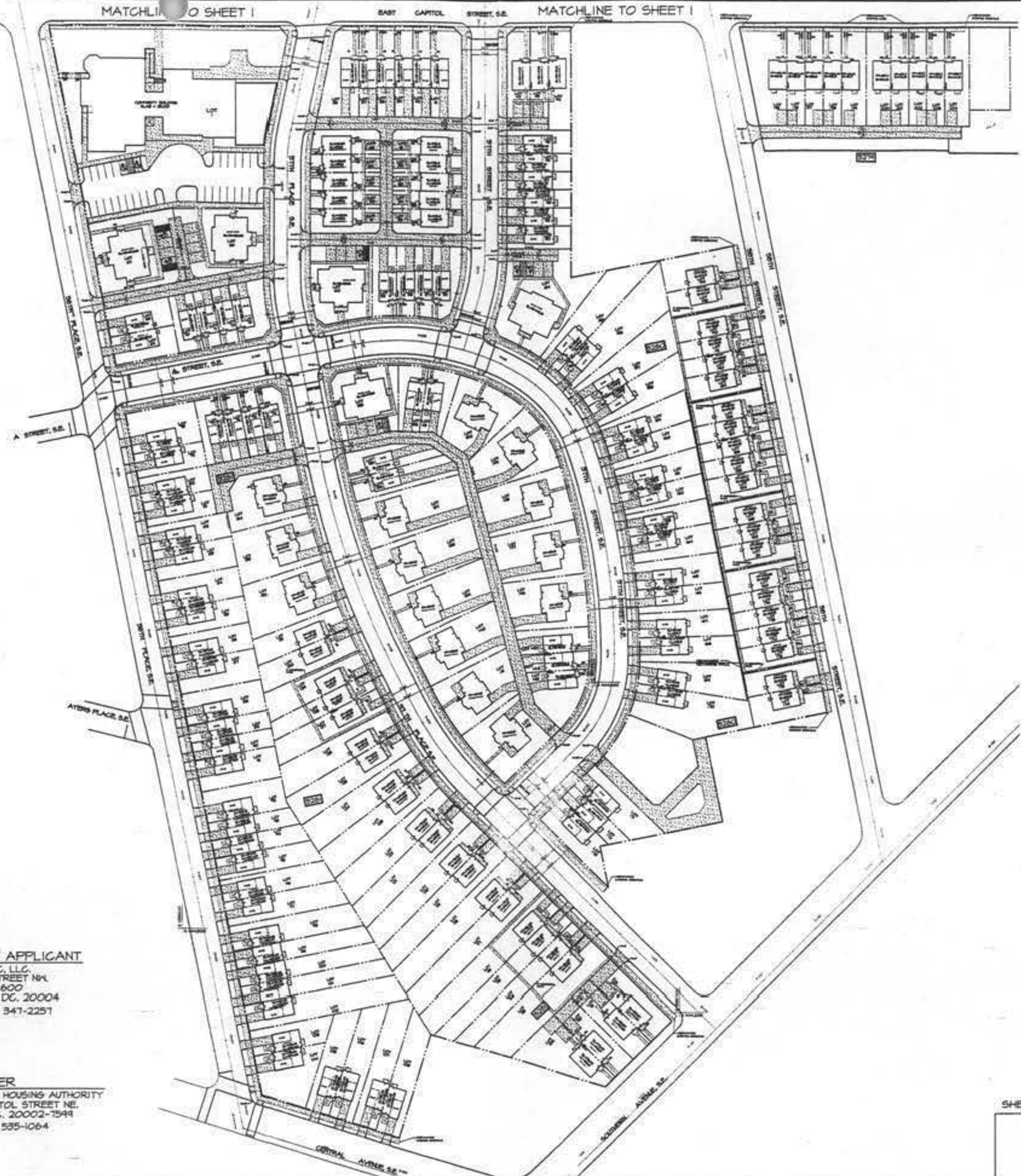
COMPOSITE SITE PLAN
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE DESCRIPTION
REVISIONS

BY DATE 1" = 50'
NOVEMBER, 2002

C-A

ZONING COMMISSION
District of Columbia
CASE NO.03-03
EXHIBIT NO.33





VICINITY MAP
SCALE: 1" = 2000'

DEVELOPER / APPLICANT
A&R/THC, LLC.
514 10TH STREET NW.
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2257

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

COMPOSITE SITE PLAN

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'

SHEET 2 of 2

DATE	DESCRIPTION	BY
	REVISIONS	

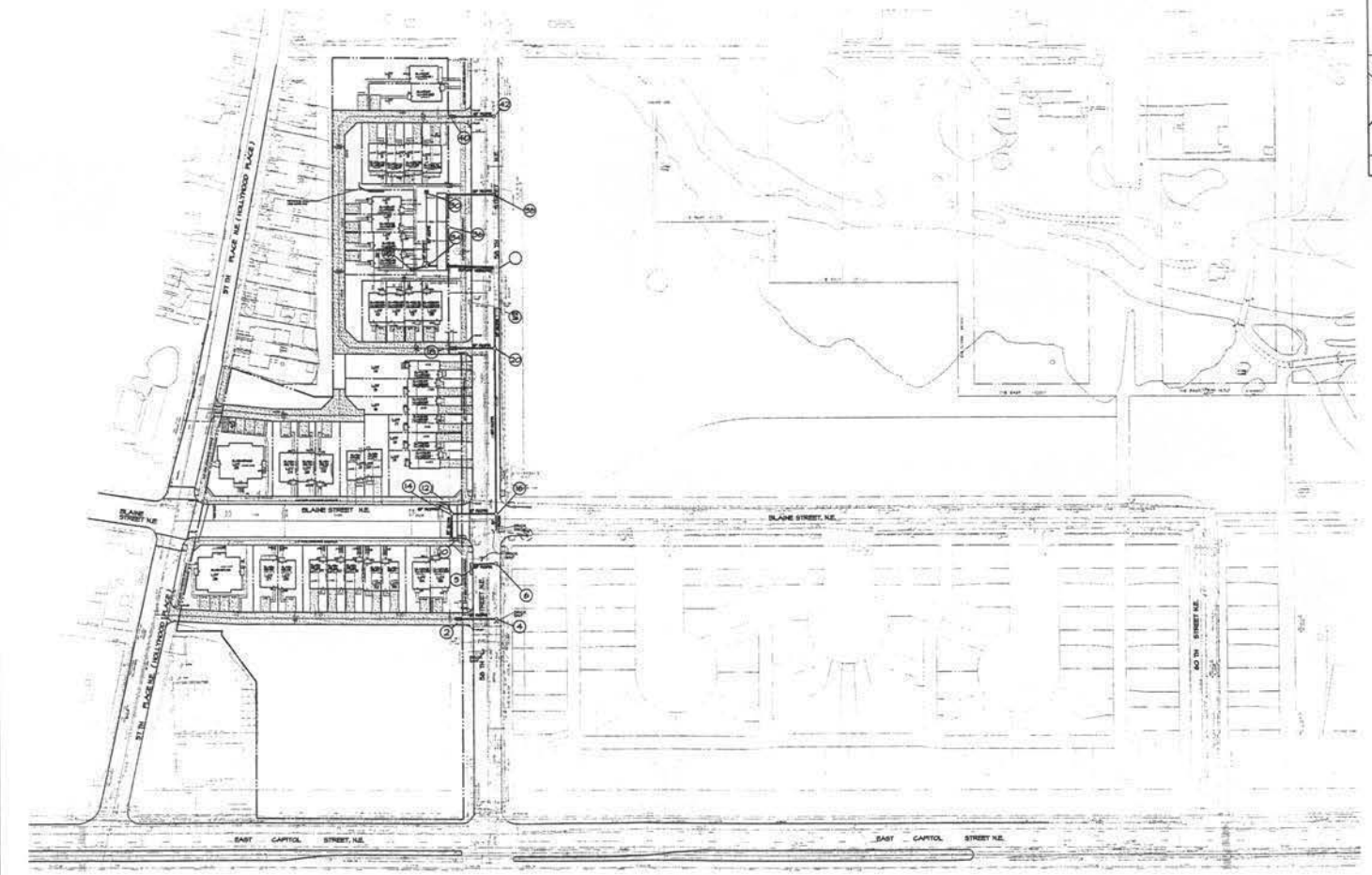
BEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
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SCALE 1" = 50'
J-4930
FEBRUARY, 2004

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11785 Beltsville Drive, Suite 1400, Calverton MD 20705, 301.595.1000, 301.595.0089 Fax
1355 Beverly Road, Suite 105, McLean VA 22101, 703.903.9100, 703.903.9755 Fax

COMPOSITE SITE PLAN
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION

C-B





COMPOSITE SITE PLAN

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'

50' 0 50' 100' 150'

SHEET 1 of 2

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
A&R/THC, LLC.
514 10TH STREET NW,
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2251

DATE	DESCRIPTION
	REVISIONS

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J-#4130

BY: BAR 1" = 50' SHEET: 1

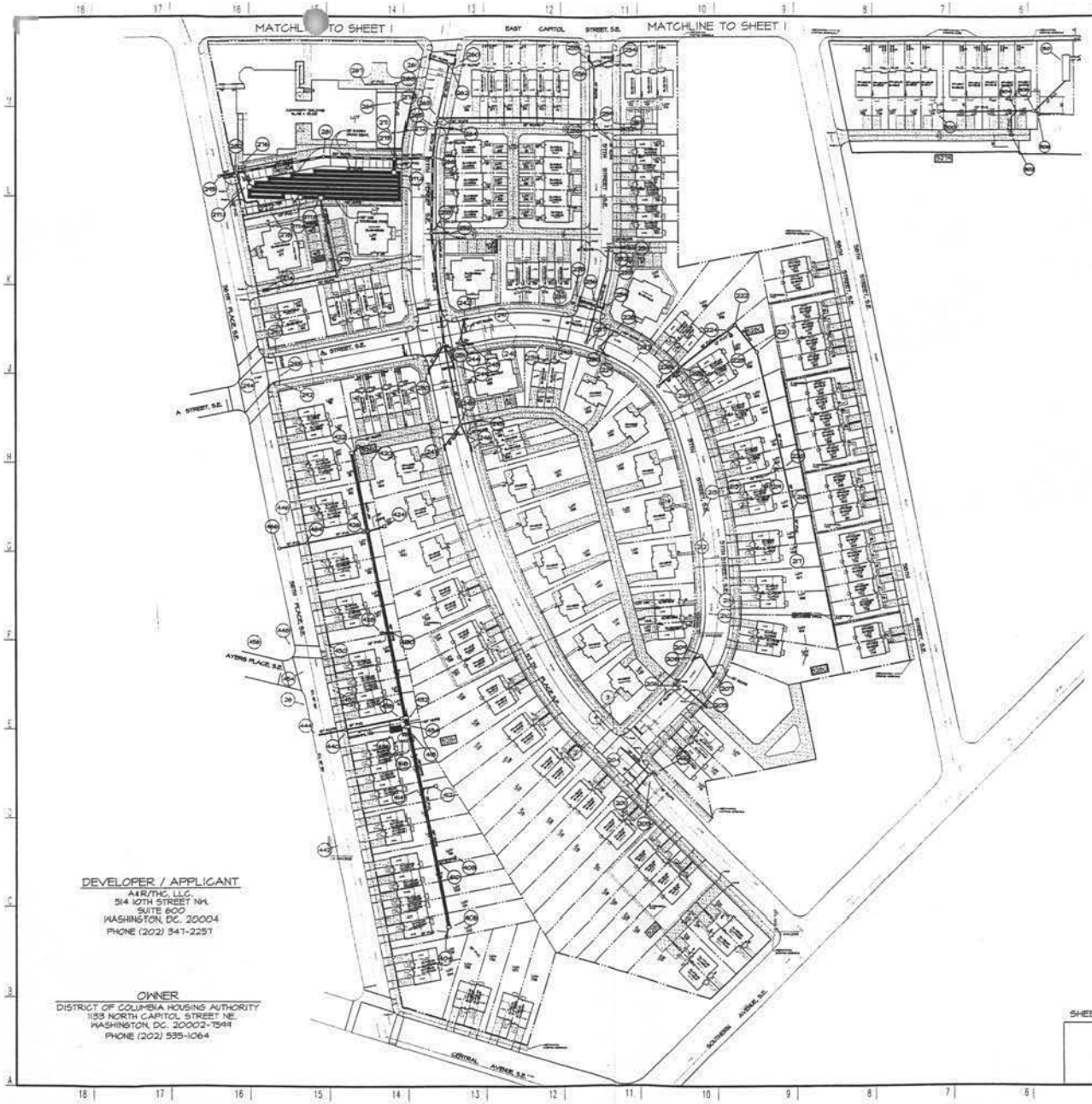
DATE: FEBRUARY, 2004

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11785 Beltsville Drive Suite 1400 Calverton MD 20705 301.595.1000 301.595.0088 Fax
1355 Beverly Road Suite 105 McLean VA 22101 703.903.9100 703.903.9705 Fax

COMPOSITE SITE PLAN
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE 2/23/04

C-A





DEVELOPER / APPLICANT
A&R/TMC, LLC.
514 10TH STREET NW.
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2251

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

COMPOSITE SITE PLAN

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'
50' 0 50' 100' 150'

SHEET 2 of 2

Grimm and Parker Architects
11785 Beltsville Drive
Suite 1400
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301.595.0085 Fax
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McLean VA 22101
703.903.9100
703.903.9750 Fax

COMPOSITE SITE PLAN
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

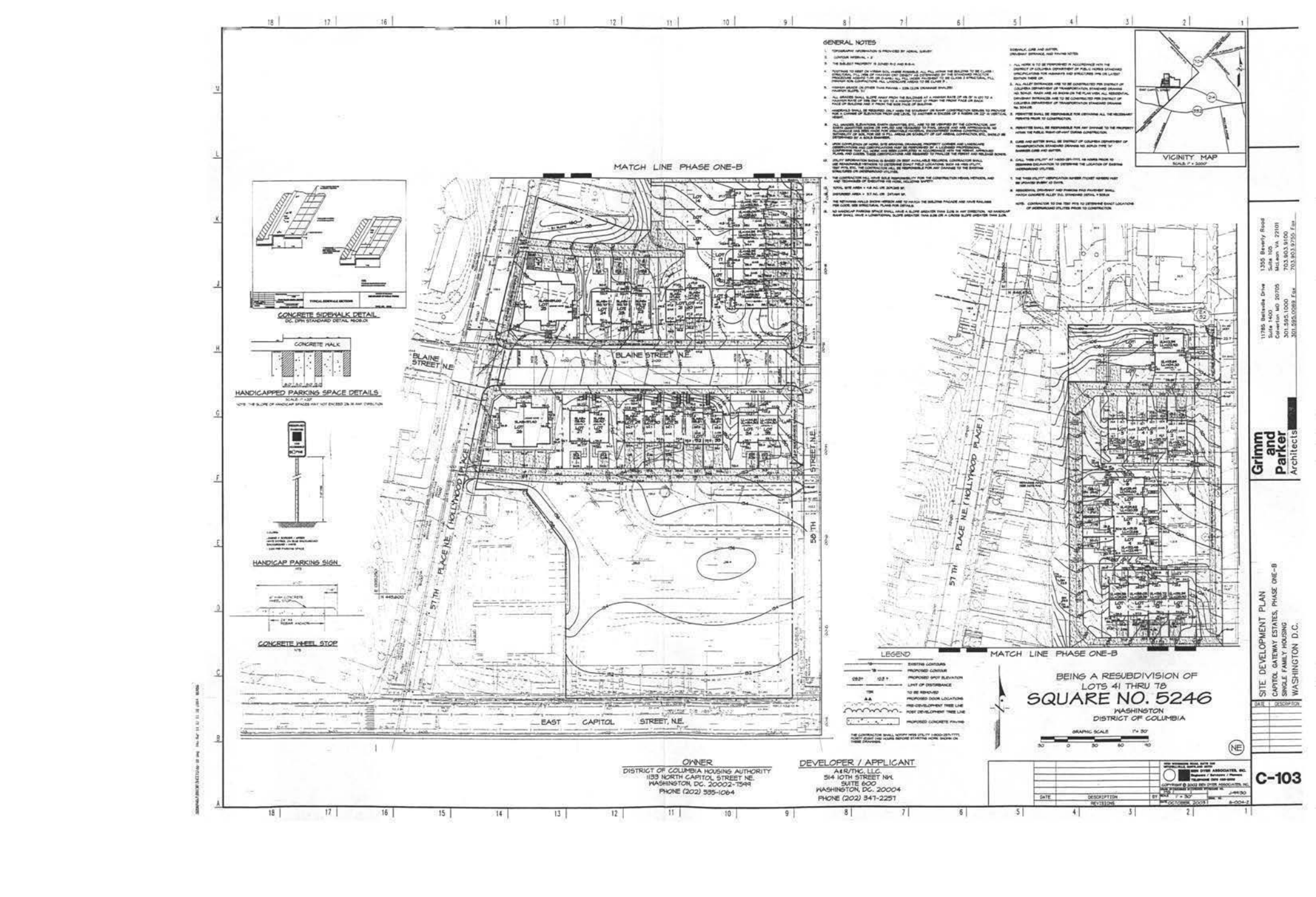
DATE DESCRIPTION
REVISIONS

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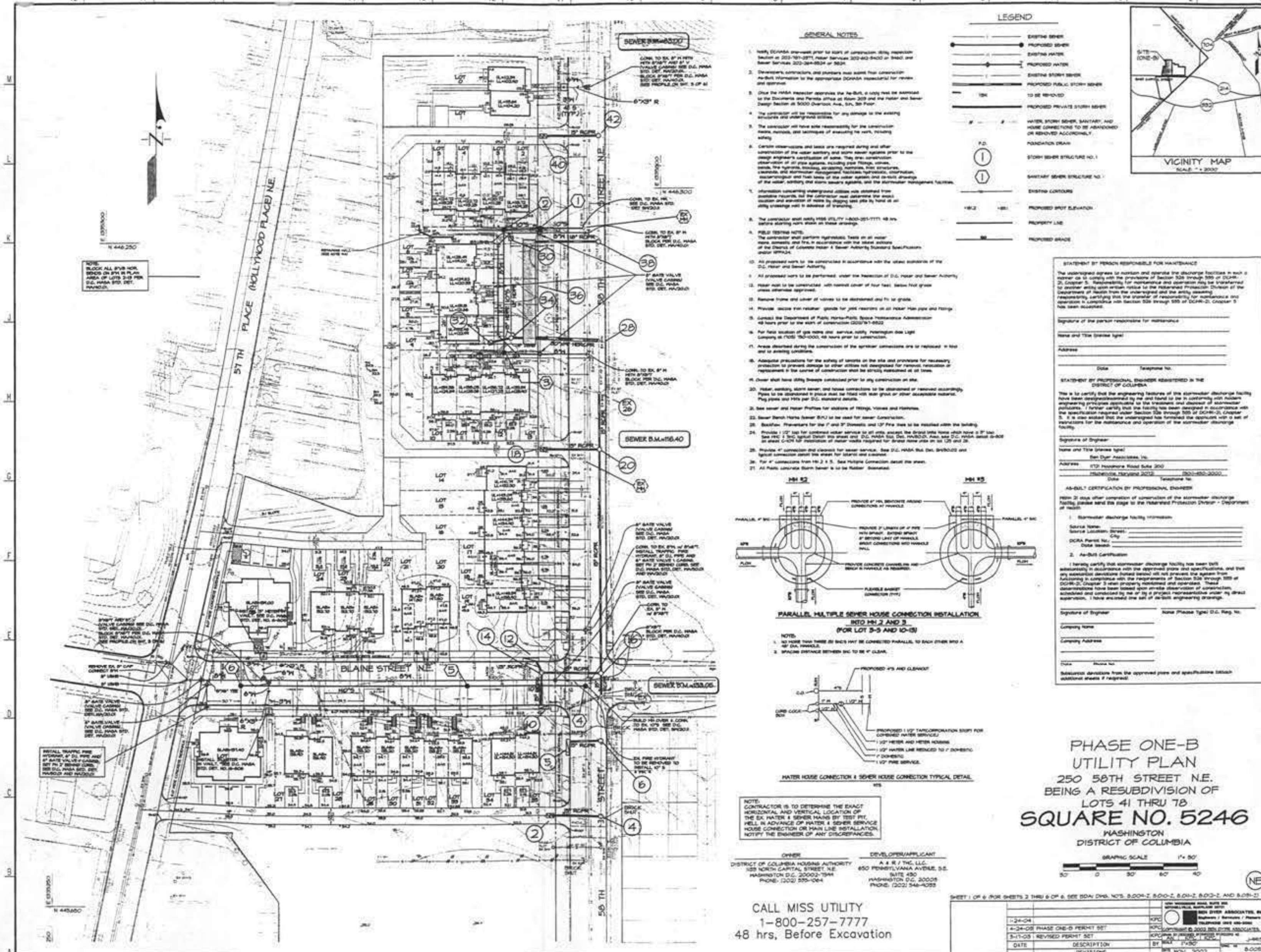
SCALE 1" = 50'
DATE FEBRUARY 2004

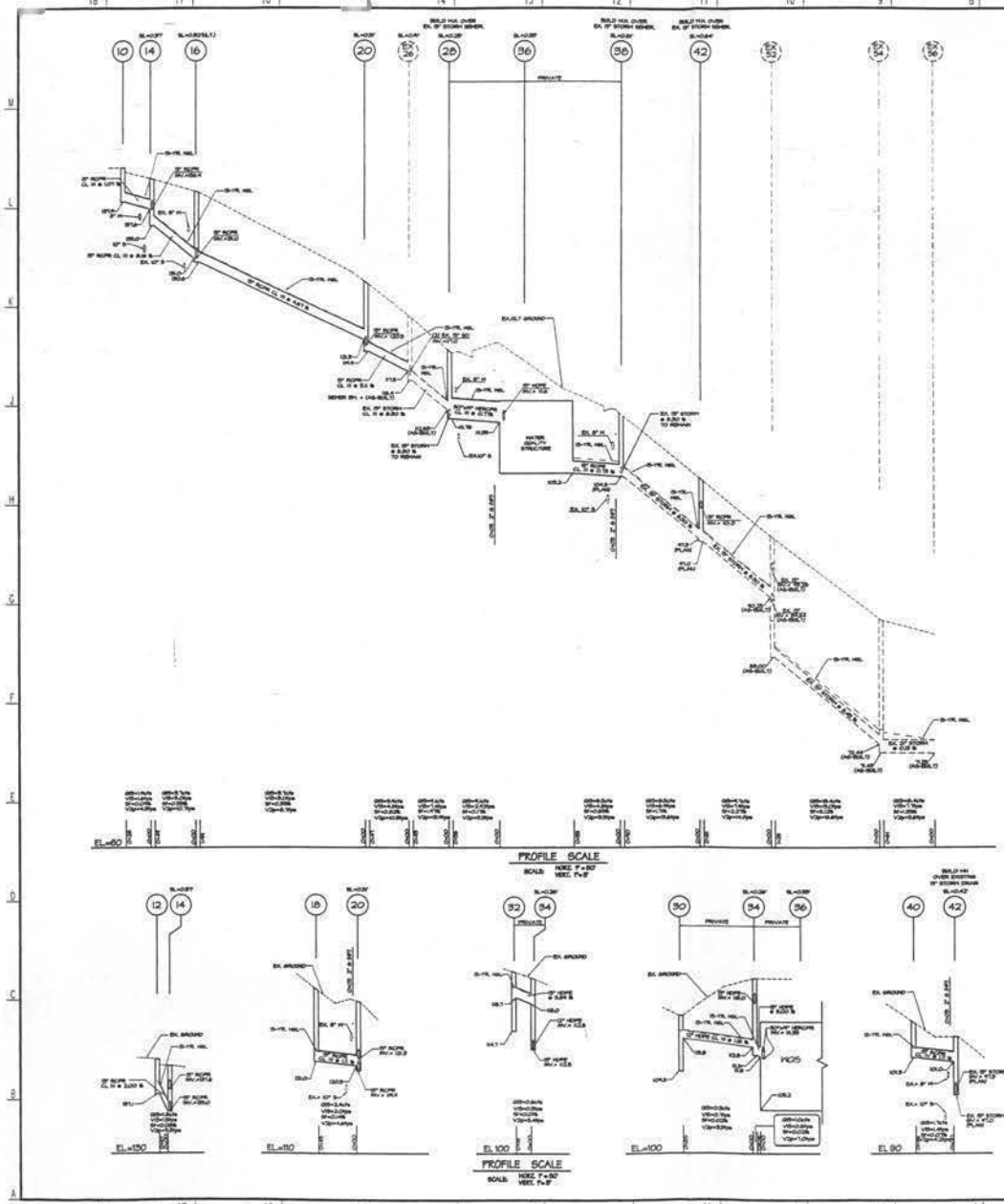
C-B

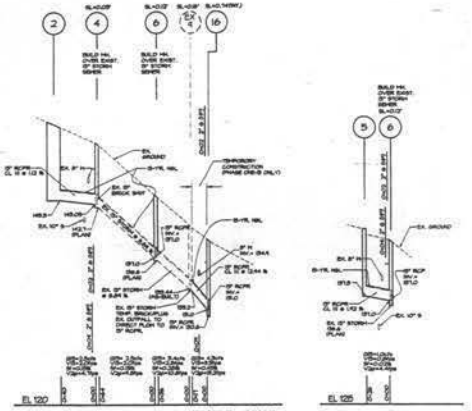


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1355 Beverly Road Suite 105 McLean VA 22101 703.903.9100 703.903.9795 Fax

SITE DEVELOPMENT PLAN
CAPITOL GATEWAY ESTATES, PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.


GENERAL NOTES
LEGEND
VICINITY MAP
57TH PLACE (HOLLYWOOD PLACE) N.E.
58TH STREET N.E.
BLAINE STREET N.E.
SEWER B.M.=116.40
PARALLEL MULTIPLE SEWER HOUSE CONNECTION INSTALLATION INTO MH 2 AND 5 (FOR LOT 3-5 AND 10-13)
WATER HOUSE CONNECTION & SEWER HOUSE CONNECTION TYPICAL DETAIL
NOTE: CONTRACTOR IS TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THE EX. WATER & SEWER MAINS BY TEST PIT, HELL IN ADVANCE OF WATER & SEWER SERVICE HOUSE CONNECTION OR MAIN LINE INSTALLATION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
DEVELOPER/APPLICANT
A & R / THC, LLC.
CALL MISS UTILITY
1-800-257-7777
48 hrs. Before Excavation
PHASE ONE-B
UTILITY PLAN
250 58TH STREET N.E.
BEING A RESUBDIVISION OF
LOTS 41 THRU 78
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA
GRAPHIC SCALE 1" = 30'
NE
1-24-04
4-24-03 PHASE ONE-B PERMIT SET
5-17-03 REVISED PERMIT SET
DATE
DESCRIPTION
REVISIONS
BY
BEN DYER ASSOCIATES, INC.
NOV. 2002
B.005-Z
11785 Beltsville Drive
Suite 1400
Calverton, MD 20705
301.595.1000
301.595.0989 Fax
1355 Beverly Road
Suite 105
McLean, VA 22101
703.903.9100
703.903.9755 Fax
Grimm and Parker Architects
UTILITY PLAN
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.
DATE
DESCRIPTION
PERMIT SET
C-104





PUBLIC PIPE SCHEDULE

Drawing #	FROM	TO	SIZE	TYPE	LENGTH
	2	4	15"	RCPIII CL. III	40'
	5	6	15"	RCPIII CL. III	28'
	10	14	15"	RCPIII CL. III	38'
	12	14	15"	RCPIII CL. III	10'
	14	16	15"	RCPIII CL. III	44'
	18	20	15"	RCPIII CL. III	44'
	19	20	15"	RCPIII CL. III	45'
	20	EX 28	15"	RCPIII CL. III	47'
	40	42	15"	RCPIII CL. IV	45'
				TOTAL:	484'

Remarks:

PUBLIC STRUCTURE SCHEDULE

Drawing #	NO.	TYPE	WIDTH (MIN.)	INV. ELEV.	TOP ELEV. (UPPER)	TOP ELEV. (LOWER)	INV ELEV. (UPPER)	INV ELEV. (LOWER)	STANDARD DETAIL
	1	Inlets Type Catch Basin	1'-0"	143.8	150.38/150.14				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.01-1*
	4	Std. Precast MH.	4'-0"	142.1	150				DC MABA STD. # 3G.01-2
	11	Std. Triple Catch Basin	2'-0"	139.8	146.50/146.00				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	8	Std. Precast MH.	4'-0"	138.6 *	144.00				DC MABA STD. # 3G.01-2
	10	Std. Double Catch Basin	2'-0"	137.4	143.0				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	7	Std. Double Catch Basin	2'-0"	137.1	143.18	142.78			DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	14	Std. Precast MH.	4'-0"	135.0	140.62				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	9	Std. Precast MH.	4'-0"	134.0	139.41				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	16	Inlets Type Catch Basin	1'-0"	133.0	139.50/139.06				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.01-1*
	30	Std. Precast MH.	4'-0"	134.9	139.37				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	28	Std. Precast MH.	4'-0"	131.76					DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	38	Std. Precast MH.	4'-0"	129.8 *	135.3				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.02-2
	40	Inlets Type Catch Basin	1'-0"	129.5	135.42/135.48				DC DPW Dwg. # 3G.01 x MABA STD. # 3G.01-1*
	42	Std. Precast MH.	4'-0"	412.7 *	134.00				DC MABA STD. # 3G.01-2

Remarks:
* DOUBLE GRATE
† PLAN ELEVATION CONTRACTOR TO VERIFY.

PRIVATE PIPE SCHEDULE

Drawing #	FROM	TO	SIZE	TYPE	LENGTH
	30	34	12"	HDPE	85'
	32	34	12"	HDPE	15'
	34	36	12"	HDPE	4'
	28	36	24"x19"	HERCUPE CL. III	36'
	36	EX. 38	24"x19"	RCPIII CL. III	59'
				TOTAL:	218'

Remarks: HDPE= High Density Polyethylene Pipe With Smooth Lined Holes (+) = 2x200 at Diameter ⌀

PRIVATE STRUCTURE SCHEDULE

Drawing #	NO.	TYPE	WIDTH (MIN.)	INV. ELEV.	TOP ELEV. (UPPER)	TOP ELEV. (LOWER)	INV ELEV. (UPPER)	INV ELEV. (LOWER)	STANDARD DETAIL
	32	Hvy. Single Catch Basin	2'-6"	134.9	139.50				DC DPW Dwg. # 3G.02 x MABA STD. #3G.02-3
	30	Hvy. Single Catch Basin	2'-6"	134.7 *	139.8				DC DPW Dwg. # 3G.02 x MABA STD. #3G.02-3
	34	Std. Precast MH.	4'-0"	133.9	139.8				DC DPW Dwg. # 3G.01 x MABA STD. #3G.02-2
	36	Yard Filter		129.0					SEE DETAILS ON 3-9

Remarks:
* OUTGOING INVERT=135.8
† OUTGOING INVERT=135.7

PUBLIC PIPE SUMMARY

SIZE	TYPE	LENGTH
15"	RCPIII CL. III	444'
15"	RCPIII CL. IV	45'
	TOTAL:	484'

Remarks: ALL PIPE TO BE RUBBER GASKETED PER D.C. MABA SPECIFICATIONS.

PRIVATE PIPE SUMMARY

SIZE	TYPE	LENGTH
12"	HDPE	85'
15"	HDPE	23'
19"	RCPIII	59'
24"x19"	HERCUPE	36'
	TOTAL:	218'

Remarks: HDPE=High Density Polyethylene Pipe with smooth lined holes (+) = 2x200 at Diameter ⌀

PHASE ONE-B
UTILITY PLAN

250 58TH STREET NE
BEING A RESUBDIVISION OF
LOTS 41 THRU 78
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1"= 50'
50' 0 50' 100' 150'

SHEET 7 OF 8 (FOR SHEETS 1,2,4,5 AND 8 OF 8, SEE BOA ZHG NO'S. B.006-Z, B.010-Z, B.011-Z, B.012-Z, AND B.015-Z)

DATE	DESCRIPTION
11-24-04	
4-24-05	PHASE ONE-B PERMIT SET
5-11-05	REVISED PERMIT SET
DATE	DESCRIPTION
	REVISIONS

KPC
KPC
KPC
BY

MAY NOV., 2003

1"=50'

B.006-Z

11785 Beltsville Drive
Suite 1400
Calverton MD 20705
301.595.1000
301.595.0068 Fax

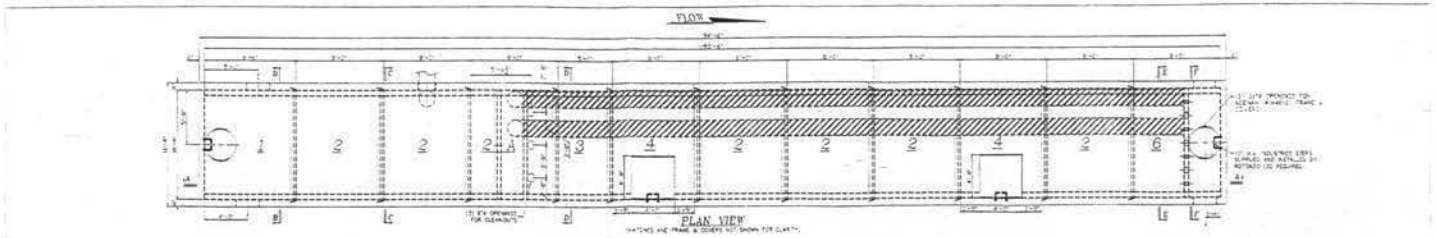
1350 Beverly Road
Suite 100
McLean VA 22101
703.903.9700
703.903.9708 Fax

Grimm and Parker Architects

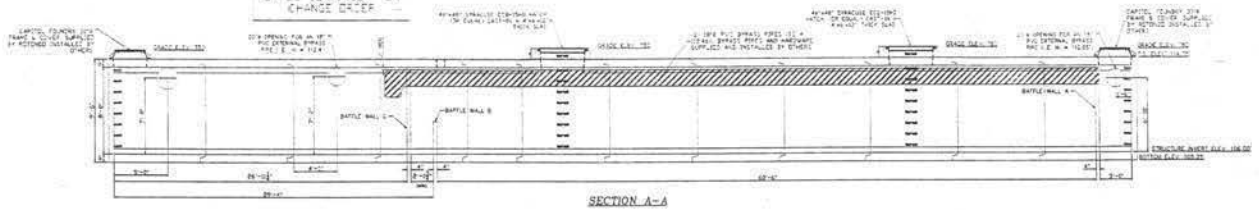
UTILITY PLAN—PROFILES
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.

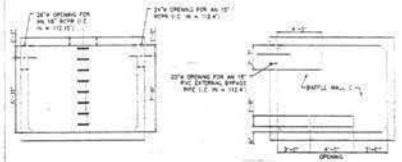
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10/18/02	PERMIT SET

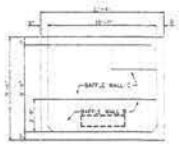
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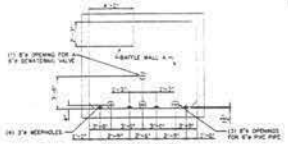


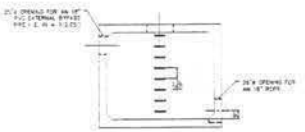
COLLARS AND RISERS TO GRADE CONTINGENT ON CHANGE ORDER











CONTRACTOR TO VERIFY ALL ELEVATIONS

INSTALLATION INSTRUCTIONS

UNDER TO "WATERTIGHT BOX CULVERT INSTALLATION PROCEDURES" FOR PROPER INSTALLATION INSTRUCTIONS.

BACKFILL INSTRUCTIONS

TYPE EXCAVATION MUST BE DEWATERED UNTIL THE CHAMBER HAS BEEN COMPLETELY BACKFILLED TO ELIMINATE ANY POSSIBILITY OF FLOATATION.

TYPE TWO SHORT WALLS MUST BE COMPLETELY BACKFILLED AND COMPACTED PRIOR TO THE LONG WALLS TO PROPERLY COMPRESS THE JOINTS AND TO ASSURE A GOOD TIGHT SEAL.

TYPE TANK MUST BE COMPLETELY BACKFILLED PRIOR TO FILLING WITH WATER (WATER TEST) TO PREVENT POTENTIAL JOINT SEPERATION.

DESIGN NOTES:

-HS 20 DESIGN LOADING
-28 DAY CONCRETE STRENGTH = 5000 PSI MIN.
-COVER TO STEEL = 1" UNLESS OTHERWISE NOTED

ANCHORS:

8 TON BURKE SPREAD ANCHORS TO BE PLACED IN STANDARD LOCATIONS

SECTION SCHEDULE

SECTION	REQ'D.	QTY.	TOTAL LG.	WT. TONS	CU. YDS.
1	1	8'-6"	8'-6"	21.2	10.44
2	3	8'-6"	25'-6"	18.85	8.37
3	1	5'-0"	5'-0"	10.55	5.36
4	1	8'-0"	16'-0"	19.28	9.04
5	2	8'-0"	17'-0"	19.95	8.37
6	1	8'-0"	8'-6"	21.2	10.44
TOTAL	9		93'-6"		

NOTES:
1) ALL WEIGHTS SUPPLIED ARE APPROXIMATE.
2) ALL WEIGHTS ARE BASED ON 4 CONCRETE UNIT WEIGHT OF 150 #/CU. FT.
3) ALL WEIGHTS & CU. YDS. ARE CALCULATED INCLUDING THE BAFFLE WALLS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS, AND TO SUPPLY LOCATIONS AND SIZES OF ANY ADD'L OPENINGS REQ'D. STRUCTURE(S) WILL BE MANUFACTURED IN ACCORDANCE WITH RETURNED DRAWING(S), AND ANY OMISSIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ROTONDO PRECAST
MANUFACTURERS OF QUALITY PRE-CAST CONCRETE PRODUCTS
5113 WASSAPONAX CHURCH RD.
FREDERICKSBURG, VA. 22407
A DIVISION OF OLDCASTLE PRECAST

DATE: 12/12/02 | 10'-0" x 8'-0" x 93'-6" | DRAWN BY: R.A.H.
SCALE: 1/4"=1'-0" | PRECAST CONCRETE WET SAND/FILTER STRUCTURE | JOB NO.: N/A
PROJECT: EAST CAPITOL SINGLE FAMILY HOUSING PHASE 1B / WASHINGTON D.C.
SUBMITTED: BEN DYER ASSOCIATES | DWG NO.: 1B 10x8

1	1/14/03	ADDED EXTERNAL BYPASS OPENINGS RTD
2		
3		

10'-0" x 8'-0" x 93'-6" WATERTIGHT WET SAND FILTER STRUCTURE 1B

*SEE DRAWING "STANDARD STEEL DRAWING" FOR STRUCTURAL REINFORCING DETAILS *

(1 STRUCTURE REQUIRED)

NOTES:
1) Sand Filter Water Quality Structure to be pre-cast as a D.C. Department of Public Works approved pre-caster.
2) Contact D.C. Department of Health, Environmental Health Administration, Watershed Protection Division Stormwater Technical Services Branch for a list of approved suppliers (1-202-535-2240)
3) All Sand Filter Water Quality Structures to be designed to meet H-20 loading.
4) Cast-in-Place sand filters should be as per section 02720.01 to 02728.06 of the D.D.O.T. Water and Sewer Specification and detailed drawing in the office manual.
5) Shop drawings for both pre-cast and cast-in-place structures must be submitted to the design engineer and local officials of the Watershed Protection Division's Sediment and Stormwater Technical Services Branch for approval prior to fabrication.

PHASE ONE-B
UTILITY PLAN-DETAILS
BEING A RESUBDIVISION OF
LOTS 41 THRU 78
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA

SHEET 5 OF 6 (FOR SHEETS 1,2,4,5 AND 6 OF 6, SEE RDAI DWG. NO'S. 8,000-Z, 8,004-Z, 8,010-Z, 8,010-Z AND 8,011-Z)

DATE	DESCRIPTION
4-24-03	PHASE ONE-B PERMIT SET
5-13-03	REVISED PERMIT SET

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Engineers / Surveyors / Planners
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JOB NO.: J-1430
BY: BDAI | SCALE: AS SHOWN
DATE: DEC. 2002 | DRWG. NO.: 8,010-Z

Grimm and Parker Architects
11785 Beltsville Drive, Suite 1400, Calverton MD 20705, 301.595.1000, 301.595.0089 Fax
1355 Beverly Road, Suite 105, McLean VA 22101, 703.903.9100, 703.903.9295 Fax

UTILITY PLAN-DETAILS
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.

C-106


DISTRICT OF COLUMBIA SAND FILTER WATER QUALITY STRUCTURE

East Capitol - Phase 1B

P-99138

Assumptions & Site Data

Storm Frequency =			15 yr
Storm Duration =			24 hr
Time of Concentration (Tc) =			5 min
Runoff Coefficient (C) =			1
Infiltration Rate for Sand =			1.18 ft/hr
Void Ratio for Sand, Gravel & Pipe (Vv)			0.6
Sand Permeability (K) =			0.6 ft/hr

Pre-existing Conditions

Rainfall Intensity (2I) =			5.28 in/hr
Land Use	Acres	C	A * C
Meadow	5.698	0.35	1.795
Qpe = Q2I =	9.83 cfs		

Proposed Conditions

Rainfall Intensity (15) =			7.06 in/hr	
Land Use By Areas	Acres	C	A * C	Qf
Surface Parking	1.446	0.9	0.969	0.9
Other Impervious	0.161	0.9	0.135	0.4
Rooftop	0.459	1.0	0.689	0.3
Grass	3.174	0.35	1.111	
Totals		0.57 weighted		
Qpa = Q15 =	21.60 cfs			

WQ Structure Dimensions

L1 =	13.17 ft	
L2 =	79.50 ft	97.00 Overall
L3 =	4.00 ft	
W =	16.00 ft	

1 Determine Design Invert Elevations

Dt = (Inv. in - Inv. Out)	
Inv In =	113.08 ft
Inv Out =	106.00 ft
Dt =	6.00 ft

2 Determine Area of Sand Filter

Af = 50 + (Dt - 6.0) * 167	
Ia =	1,576 Imperv. Area, acres
Af = A2 =	347 sq ft
Use A2 = L2 * W =	768 sq ft
	OK

ECap-182.xls WQS 1B Ult 1 1/21/02 8:13 AM


3a Determine Storage Volume for Quantity Control

Vqc = (Q * Tc) - (F * T * A)

A =	81,719 Imperv. Area, sq ft
F =	1.18 Final Infiltration Rate for Filter, ft/hr
T =	1 Filling Time (1 hr per SCS practice)
Vqc =	3,480 cu ft

3b Determine Storage Volume for Quantity Control

Vqc = (1.25 * Qpa - Qex) * (Tc * 60 * C-f)

Vqc =	4,833 cu ft

4 Determine Storage Volume Required

Use Largest Value of 3a and 3b

Vw =	4,833 cu ft, required

5 Calculate Bottom Storage Volume in Second Chamber

Vb = Af * d * Vv

d =	3.66 Depth of Filter Layer, ft
Vv =	0.6 Void Ratio of Filter Media
Vbs =	1,415 Bottom Volume of Filter Chamber, cu ft

5 Calculate Bottom Storage Volume in First Chamber

Vb = A1 * d

A1 =	132 sq ft
Vfb =	1990 cu ft

7a Calculate Storage Volume Required in First & Second Chambers

Vfs = Vqc + Vw - (Vqb + Vfb)

Vfs =	2915 cu ft

7b Calculate Storage Volume Provided in First & Second Chambers

Vfs = Vfb - (L1 + L2) * Af * D

Vfs =	4,990 cu ft

7c Calculate Total Storage Provided

Vwp = Vfb + Vfs + Vfs

Vwp =	4,990 cu ft, provided
	OK

8 Size Overflow Pipe in First Chamber

Pipe Diameter	18 in
Number of Pipes	3 ea
Top of pipe	113.08
Area of Pipes	5.30 sq ft
Assumed % clogged	50 %
Assumed Open Area	2.65 sq ft
Co =	0.6 Weir Coefficient

Imax = (Qpa / Co / Ao)^2 / 2g

Imax =	0.33 ft
HGL =	113.22

ECap-182.xls WQS 1B Ult 2 11/21/02 8:13 AM


1 Size Submerged Weir in First Chamber

Lo =	7.33 ft
Hg =	7.33 ft
Co =	0.6 Weir Coefficient
Area =	7.00 sq ft
Assumed % clogged	50 %
Assumed Open Area	3.50 sq ft
hmax = D - 0.5 - (Ho / 2)	
hmax =	5.13 ft
Q = Co * Ao * (2g * hmax)^0.5	
Q =	38.34 cfs

Orifice Large Enough

10 Determine Average Flow Through Filter

Hmax = D - 0.5 * Perf Pipe Diameter

Perforated Pipe Diameter =	6 in
Hmax =	5.9 ft
I = Hmax / (2 * d)	
I =	0.98
Qf = K * Af * I	
Qf =	463.15 cu ft/ hr

11 Determine the Detention Time

Tk = Vw / Qf

Vwp =	4990 cu ft
Qf =	463.15 cu ft/ hr
Td =	10.14 hr

12 Compute Peak Outflow Time

1 If (Tc * Qpa) < (2 * Vwp) then T = (2 * Tc - (2 * Tc^2 - 2 * Vw * Tc / Qpa)^ 0.5)

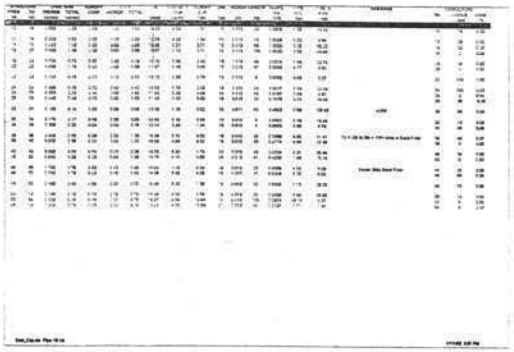
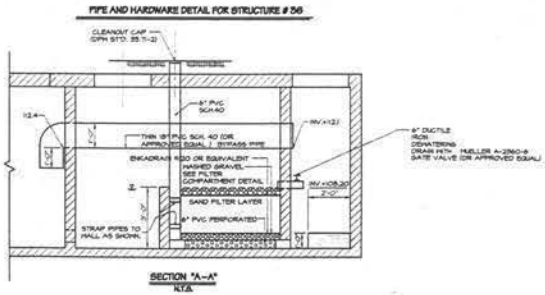
2 If (Tc * Qpa) > (2 * Vwp) then T = (Tc / 2) + (Vw / Qpa)

3 If (Tc * Qpa) < (2 * Vwp) then T = (2 * Vw * Tc / (Qpa)^1.5

Tc * Qpa =

2 * Vwp =	9981.41
T =	977 sec
T =	0.28 hrs

ECap-182.xls WQS 1B Ult 3 11/21/02 8:13 AM




PIPE AND HARDWARE DETAIL FOR STRUCTURE # 5A

CLEANOUT CAP (OPH STD. 35.1-2)

6" PVC SCH.40

THIN WALL PVC SCH. 40 OR APPROVED EQUAL BYPASS PIPE

ENKADRAIN 9120 OR EQUIVALENT WRAPPED GRAVEL SEE FILTER COMPARTMENT DETAIL

SAND FILTER LAYER

6" PVC PERFORATED

STRAP PIPES TO WALL AS SHOWN

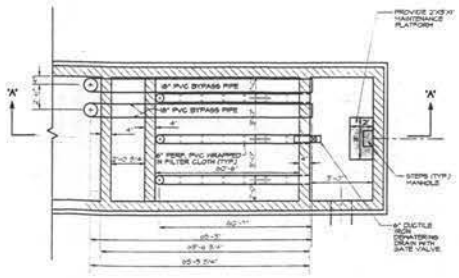
INV.=123

INV.=108.20

6" DUCTILE IRON DEWATERING DRAIN PATH. MUELLER A-2360-6 GATE VALVE (OR APPROVED EQUAL)

SECTION "A--A"

N.T.S.


PROVIDE 2'X3'6" MAINTENANCE PLATFORM

6" PVC BYPASS PIPE

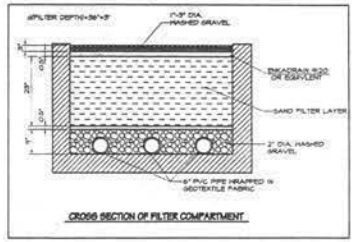
6" PERF. PVC WRAPPED IN FILTER CLOTH (TYP.)

STEPS (TYP.) MANHOLE

6" DUCTILE IRON DEWATERING DRAIN PATH GATE VALVE

PLAN VIEW (TOP SLAB REMOVED)

N.T.S.


6"FILTER DEPTH+36"+3"

1"-3/8" DIA. WASHED GRAVEL

ENKADRAIN 9120 OR EQUIVALENT

SAND FILTER LAYER

2" DIA. WASHED GRAVEL

6" PVC PIPE WRAPPED IN GEOTEXTILE FABRIC

CROSS SECTION OF FILTER COMPARTMENT

NOTES:

1.) Sand Filter Water Quality Structure to be pre-cast by a D.C. Department of Public Works approved pre-caster.

2.) Contact D.C. Department of Health, Environmental Health Administration, Watershed Protection Division Stormwater Technical Services Branch for a list of approved suppliers (1-202-535-2240).

3.) All Sand Filter Water Quality Structures to be designed to meet H-20 loading.

4.) Cast-in-Place sand filters should be as per section 02720.01 to 02726.06 of the D.D.O.T. Water and Sewer Specification and detailed drawing in the office manual.

5.) Shop drawings for both pre-cast and cast-in-place structures must be submitted to the design engineer and case officials of the Watershed Protection Division's Sediment and Stormwater Technical Services Branch for approval prior to fabrication.

250 58TH STREET N.E.
BEING A RESUBDIVISION OF
LOTS 41 THRU 78
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA

SHEET 4 OF 5 (FOR SHEETS 1,2,3,5 AND 6 OF 6, SEE BOA DWG. NO'S. 8.006-Z, 8.006-Z, 8.006-Z, 8.002-Z AND 8.005-Z)

DATE	DESCRIPTION	BY
1-24-04		KPC
4-24-05	PHASE ONE-B PERMIT SET	KPC

REVISIONS

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Engineers / Surveyors / Planners
TELEPHONE (301) 495-0001

KPC CHK. LDR. KPC J-4450

SCALE: AS SHOWN

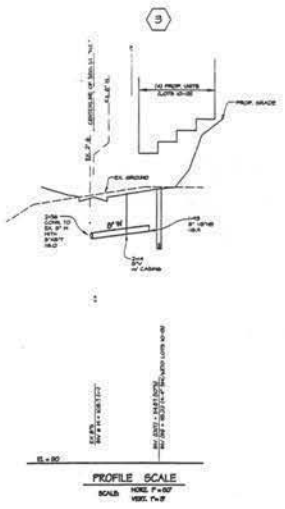
DATE: FEB. 2003 8.01-Z

Grimm and Parker Architects
11785 Beltsville Drive, Suite 1000, Calverton, MD 20705, 301.595.1000
1355 Beverly Road, Suite 100, McLean, Va 22101, 703.903.9100, 703.903.9229 Fax

UTILITY PLAN-DETAILS
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.

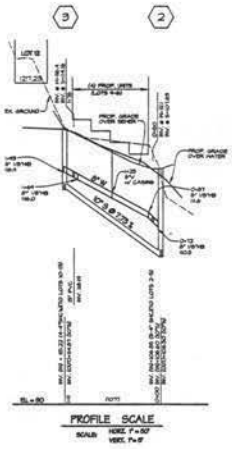
DATE 03/26/04

C-107

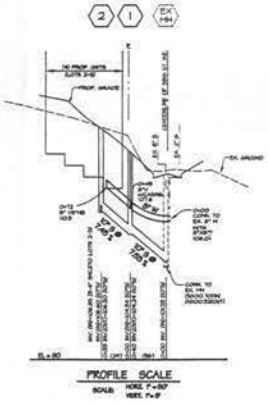


PROFILE SCALE
SCALE: HORZ. 1"=50'
VERT. 1"=5'

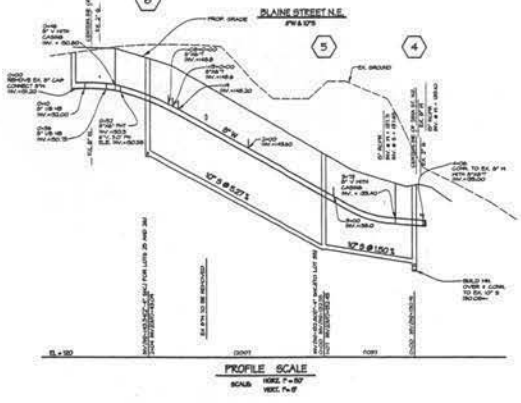
56th STREET N.E. UNITS



PROFILE SCALE
SCALE: HORZ. 1"=50'
VERT. 1"=5'



PROFILE SCALE
SCALE: HORZ. 1"=50'
VERT. 1"=5'



PROFILE SCALE
SCALE: HORZ. 1"=50'
VERT. 1"=5'

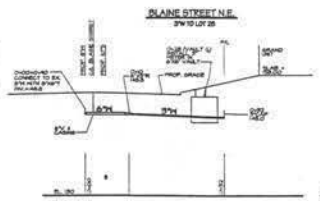
EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (50TH STREET N.E.)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5246	1	B	92.31
5246	2	B-1	108.46
5246	3	B-2	108.93
5246	4	B-1	107.39
5246	5	B-1	107.01
5246	6	C-1	108.88
5246	7	C-1	110.54
5246	8	C-1	111.93
5246	9	C-1	113.65
5246	10	C-1	116.30
5246	11	C-1	115.84
5246	12	C-1	115.46
5246	13	C-1	115.47
5246	14	C-1	121.16
5246	15	C-1	122.11
5246	16	C-1	129.40
5246	17	C-1	124.63
5246	18	J-1	128.14

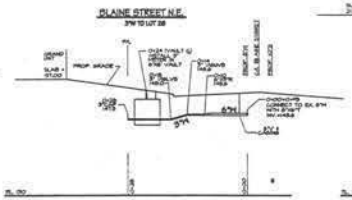
EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (BLAINE STREET N.E.)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5246	19	C-1	126.74
5246	20	J-H1	134.71
5246	21	J-1V	135.67
5246	22	C-H	131.65
5246	23	C-H	138.68
5246	24	C-H	134.44
5246	25	B	140.84
5246	26	B	143.99
5246	27	J-H1	141.87
5246	28	J-1V	140.14
5246	29	C-H	136.51
5246	30	C-H	131.35
5246	31	C-H	136.14
5246	32	C-H	134.11
5246	33	C-H	133.45
5246	34	J-1	132.81
5246	35	J-H	132.62

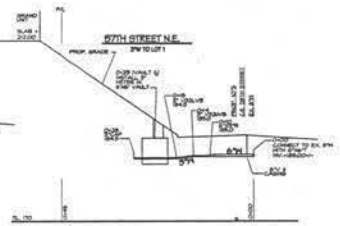
NOTE:
ALL 8" WATER PIPE & FITTINGS TO BE D.I. AND RESTRAINED WITH RETAINER GLANDS.



PROFILE SCALES
HOR. 1" = 10'
VERT. 1" = 5'



PROFILE SCALES
HOR. 1" = 10'
VERT. 1" = 5'



PROFILE SCALES
HOR. 1" = 10'
VERT. 1" = 5'

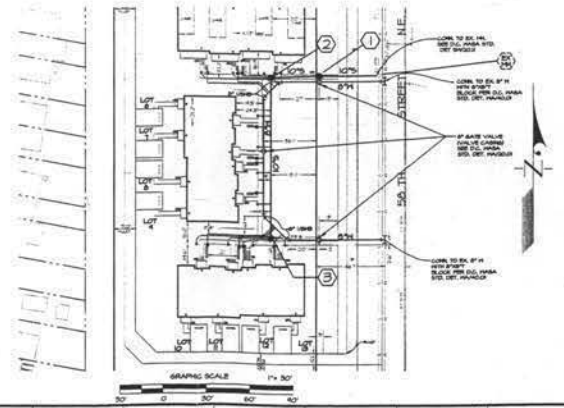
MATERIAL LIST (WATER)	
ITEM	NUMBER
6"x6" TEE	3
6" VALVE (w/ CASING)	3
6" UB HOR. BEND	4
8" 1/32 HOR. BEND	1
8"x6"T	3
8" CAP	1
8" GATE VALVE (w/ CASING)	8
8"x8" CROSS	1
8" GATE VALVE (w/ CASING)	2
TRAFFIC FIRE HYDRANT	2
1 1/2" METER & METER BOX	52
CURB STOP & BOX	70
CORPORATION STOP	52
8"X3" REDUCER	3
3" METER AND 8'X6' VAULT	3
1 1/2"X1" REDUCER	52

MATERIAL LIST (WATER)	
TYPE	LENGTH
8" M (D.C. CL. 50)	678'
6" M (D.C. CL. 50)	40'
1" M (COPPER)	500'
1 1/2"M (COPPER)	300'
3" M (COPPER)	100'

MATERIAL LIST (SEWER)	
TYPE	LENGTH
10" SEWER (PVC)	475'
4" SEWER (PVC)	782'

MATERIAL LIST (SEWER)	
ITEM	NUMBER
MANHOLES	6
4" CLEANOUT (C.O.)	35
4" UB HOR. BEND	14
10"x4" T	28
4"x4" WYE (FOR C.O)	35

NOTE:
CONTRACTOR IS TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THE EX. WATER & SEWER MAINS BY TEST PIT, WELL IN ADVANCE OF WATER & SEWER SERVICE HOUSE CONNECTION OR WATER & SEWER MAIN INSTALLATION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.



GRAPHIC SCALE
1" = 50'

UTILITY PLAN-PROFILES

BEING A RESUBDIVISION OF
LOTS 41 THRU 78
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA

SHEET 5 OF 6 (FOR SHEETS 1,2,3,4 AND 6 OF 6, SEE BOAI DWG NO'S. 8.008-Z, 8.009-Z, 8.010-Z, 8.011-Z AND 8.012-Z)

DATE	DESCRIPTION
	REVISIONS
4-24-08	PHASE ONE-B PERMIT SET
5-7-09	REVISED PERMIT SET

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JOB NO.	J-9950
SCALE	AS SHOWN
DATE	NOV. 2002
DWG. NO.	8.012-Z

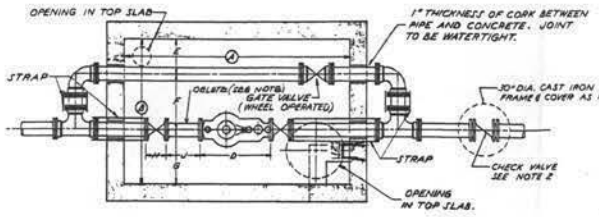
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Engineers / Surveyors / Planners
11785 Beltsville Drive, Suite 1400, Calverton MD 20705, 301 595 1000 / Fax 301 595 1060
1355 Beverly Road, Suite 105, McLean VA 22101, 703 903 9100 / Fax 703 903 9729

Grimm and Parker Architects

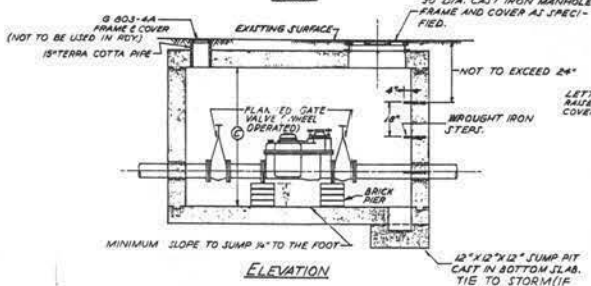
UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING
WASHINGTON D.C.

C-108

G-808



PLAN

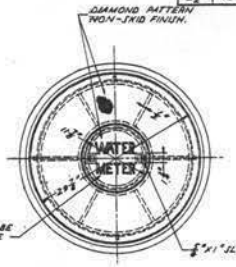


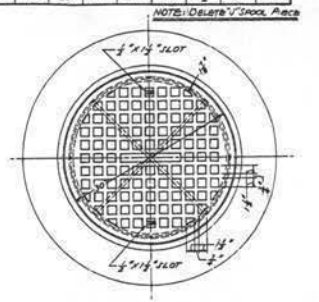
ELEVATION

NOTE-
1. REINFORCING STEEL AND CONCRETE WALL AND SLAB THICKNESS AS SPECIFIED BY OTHERS.
2. CHECK VALVE & CASING AS SPECIFIED IS REQUIRED IF METER IS INSTALLED ON INTERCONNECTED SERVICE PIPE OR SUBJECTED TO BACKFLOW.

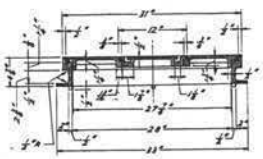
NOTE-
USE 24" FRAME AND COVER FOR 2½" DISC METER.

-COMPOUND METER-										
SIZE	Ⓐ	Ⓑ	Ⓒ	(BELL)	E	F	G	H	J	—
3"	72"	72"	72"	17"	10"	26"	24"	8"	18"	—
4"	72"	72"	72"	20"	10"	26"	24"	9"	18"	—
6"	120"	72"	72"	24"	12"	29"	24"	10½"	18"	—
-DISC METER-										
2½"	72"	60"	72"	20"	11"	24"	25"	7½"	18"	—

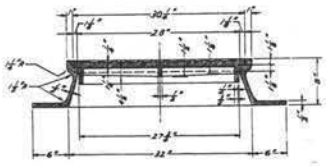




NOTE-
FRAME AND COVER NOT TO BE USED IN ROADWAY



G-803-4



S-C-11

NOTE-
-ALL MACHINE FINISH TO BE A.S.A. SPECIFICATION -"ROUGHNESS SYMBOL 250." TOLERANCE:-0"+⅛".

CAST IRON FRAME & COVER DETAILS
½"=1'-0"

DISTRICT OF COLUMBIA
DEPARTMENT OF SANITARY ENGINEERING
DAVID V. AIRD, DIRECTOR
METER INSTALLATION LAYOUT COMPOUND METER
SCALE AS NOTED — DRAWN R.H.L.
DISTRICT — CHECKED J.E.S.
SYSTEM — Submitted J.E.S.
SURVEYED — DATE MAY 2, 1958 — RECOMMENDED
DRAWING NO. G-808

APPROVED-
CHIEF, DIVISION OF PLANNING AND DEVELOPMENT

APPROVED-
CHIEF, WATER & SEWER OPERATIONS DIVISION

-REVISED-
2-1-52 B.L.S.
6-1-65 B.L.S.
9-26-62 R.L.C.
1-11-63 R.L.C.
3-22-63 R.M.
6-27-66 R.M.

G-808

UTILITY PLAN-DETAIL
BEING A RESUBDIVISION OF
LOTS THRU
SQUARE NO. 5246
WASHINGTON
DISTRICT OF COLUMBIA

SHEET 6 OF 6 (FOR SHEETS 1 THRU 5 OF 6, SEE SOAI DWG. NO'S. B-008-E, B-009-E, B-009-E, B-010-E, B-011-E AND B-012-E)

DATE	DESCRIPTION
4-24-03	PHASE ONE-B PERMIT SET
3-17-03	REVISED PERMIT SET

REVISIONS

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KPC FILE # PHASE1B_PERMITSET_REVISED.DWG
SCALE: AS SHOWN
BY: RMR
DATE: NOV. 2002
J-99150
DRW. NO. B-009-E

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UTILITY PLAN-DETAIL
CAPITOL GATEWAY ESTATES PHASE ONE-B
SINGLE FAMILY HOUSING

DATE	DESCRIPTION
12/18/02	PERMIT SET

C-109



OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
A&R/THC, LLC.
514 10TH STREET NW.
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2257

DATE	DESCRIPTION
	REVISIONS

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BY
SCALE 1" = 50'
DATE
J-99150

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11785 Beltsville Drive, Suite 1105, Calverton MD 20705, 301.595.1000
1355 Beverly Road, Suite 105, McLean VA 22101, 703.903.9150, 703.903.9755 Fax, 301.595.0089 Fax

SITE DEVELOPMENT PLAN–PHASE TWO
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION

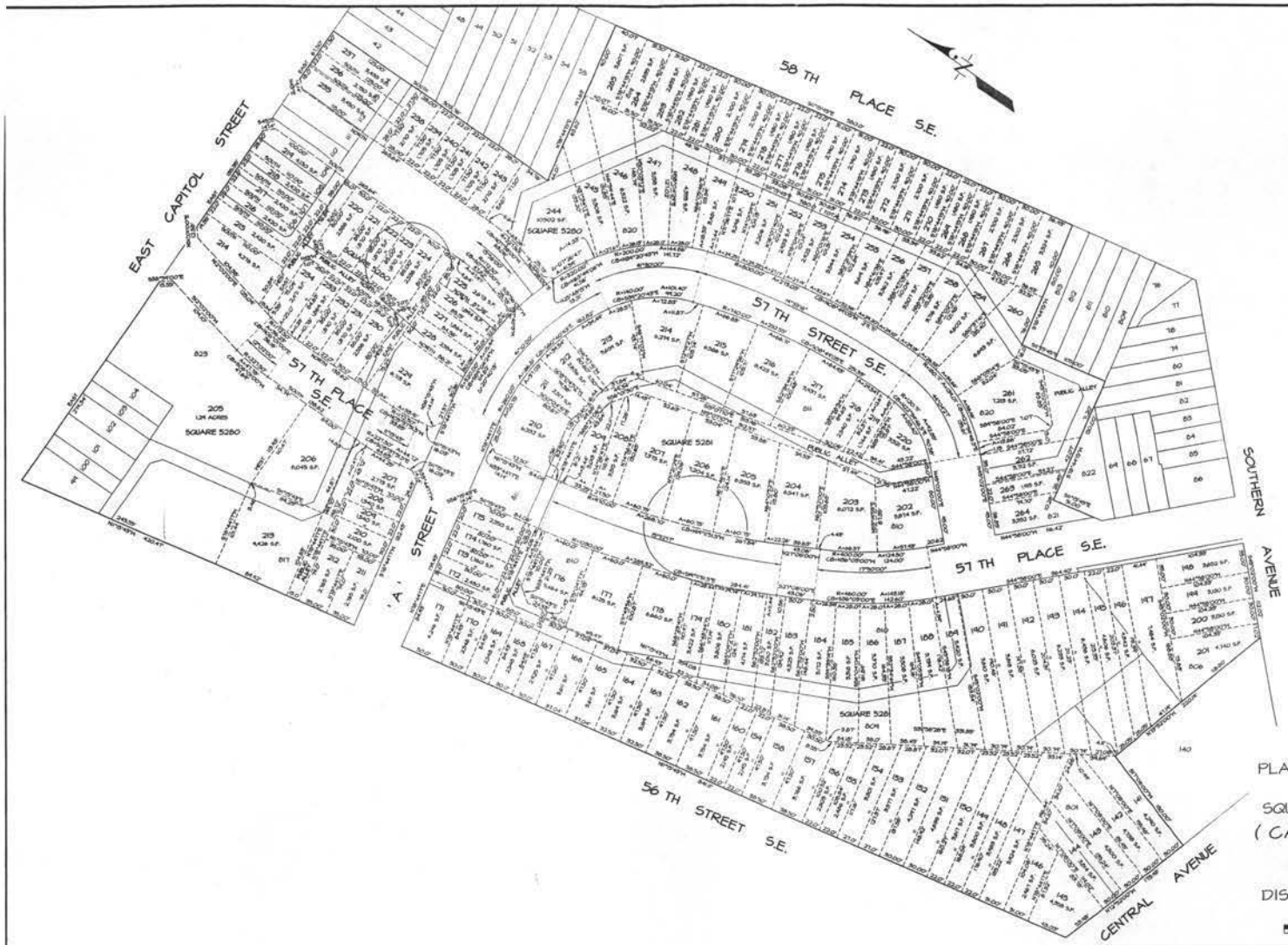
C-207



REVISED
PLAT OF COMPUTATION
PART OF
SQUARE 5246
(SHOWING EXISTING AND PROPOSED LOTS)
(CAPITOL GATEWAY ESTATES)
WASHINGTON
DISTRICT OF COLUMBIA

DATE	DESCRIPTION	BY
2-18-04	REVISE LOTS	

J-4950
PLAT
OCTOBER 2003
30,000-1



REVISED
PLAT OF COMPUTATION
PARTS OF
SQUARES 5280 AND 5281
(CAPITOL GATEWAY ESTATES)
WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1"= 50'
0 50 100 150

SE

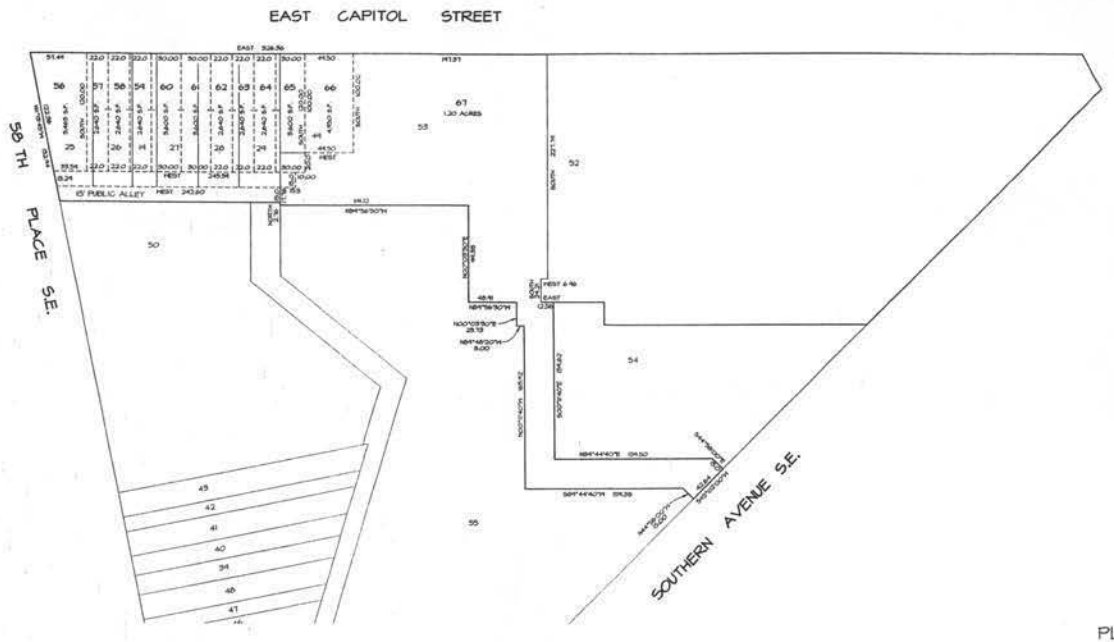
DATE	DESCRIPTION	BY
1-5-2004	NEW LOT LAYOUT	HEB

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TELEPHONE (202) 630-6004

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DRAWN BY HEB CHECKED BY JOB NO. J-04130
SCALE 1"=50' SHEET NO.
DATE FEBRUARY 2003 30.001-Y



PLAT OF COMPUTATION
PART OF
SQUARE 5279
(CAPITOL GATEWAY ESTATES)
WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'
0 50 100 150

DATE	DESCRIPTION	BY
	REVISIONS	

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SCALE 1"=50'
DATE FEBRUARY 2004
J-4850
30.0012-Y

SQUARE NO'S. 5280 & 5281

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 30'

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
A&R/THC, LLC.
514 10TH STREET NW.
SUITE 600
WASHINGTON DC, 20004
PHONE (202) 347-2257

DATE | DESCRIPTION
REVISIONS

BEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
TELEPHONE (301) 498-8000
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SCALE 1" = 30'
DATE FEB. 2004

Grimm and Parker Architects
11785 Beltsville Drive, Suite 1000, Calverton MD 20705
301.595.1000 703.903.9100
202.293.0088 Fax 703.903.9755 Fax
1355 Beverly Road, Suite 250, McLean VA 22101

DATE | DESCRIPTION

UTILITY PLAN
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

C-209

PHASE II SITE
SQUARE NO. 5280&5281

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 50'

50' 0 50' 80' 40'

SITE DEVELOPMENT PLAN–PHASE TWO
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION

Grimm and Parker Architects
11785 Beltsville Drive Suite 1400 Calverton, MD 20705 301.595.1000 301.595.0089 Fax
1305 Beverly Road Suite 100 McLean, VA 22101 703.903.9100 703.903.9755 Fax

C-208

Grimm and Parker Architects

11785 Beltsville Drive, Suite 1400, Calverton, MD 20705, 301.595.1000, 301.595.0088 Fax
1355 Beverly Road, Suite 100, McLean, VA 22101, 703.903.9100, 703.903.9755 Fax

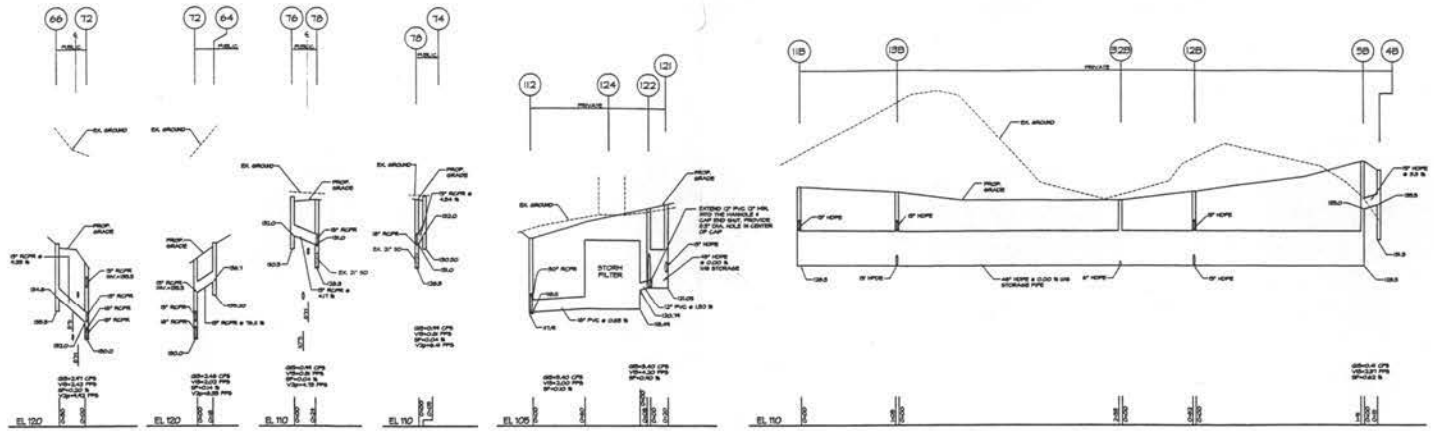
UTILITY PLAN
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

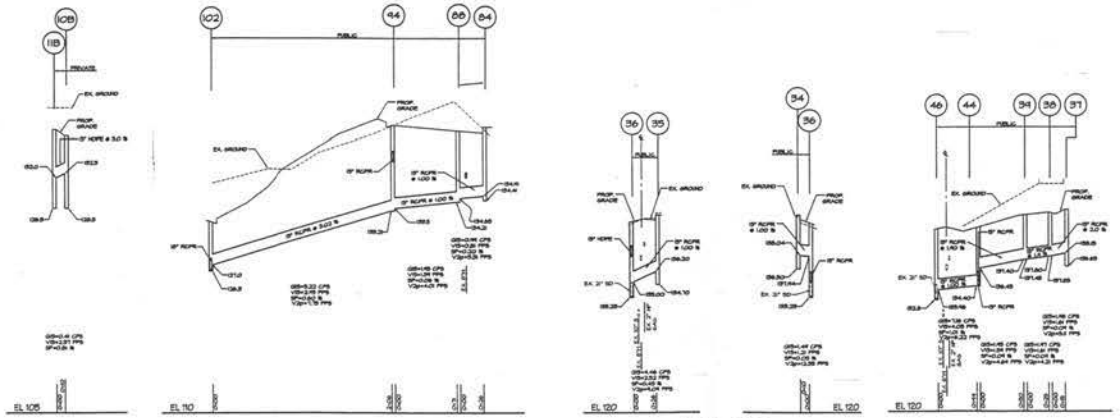
DATE	DESCRIPTION
12/16/02	PERMIT SET

DATE	DESCRIPTION
	REVISIONS

BY
SCALE 1" = 30'
DATE DEC. 2002

C-210





UTILITY PLAN-PROFILES

BEING A RESUBDIVISION OF
LOTS THRU

SQUARE NO. 5280 & 5281

WASHINGTON
DISTRICT OF COLUMBIA

11785 Beltsville Drive
Suite 1400
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301.595.1900
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Grimm and Parker Architects

UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

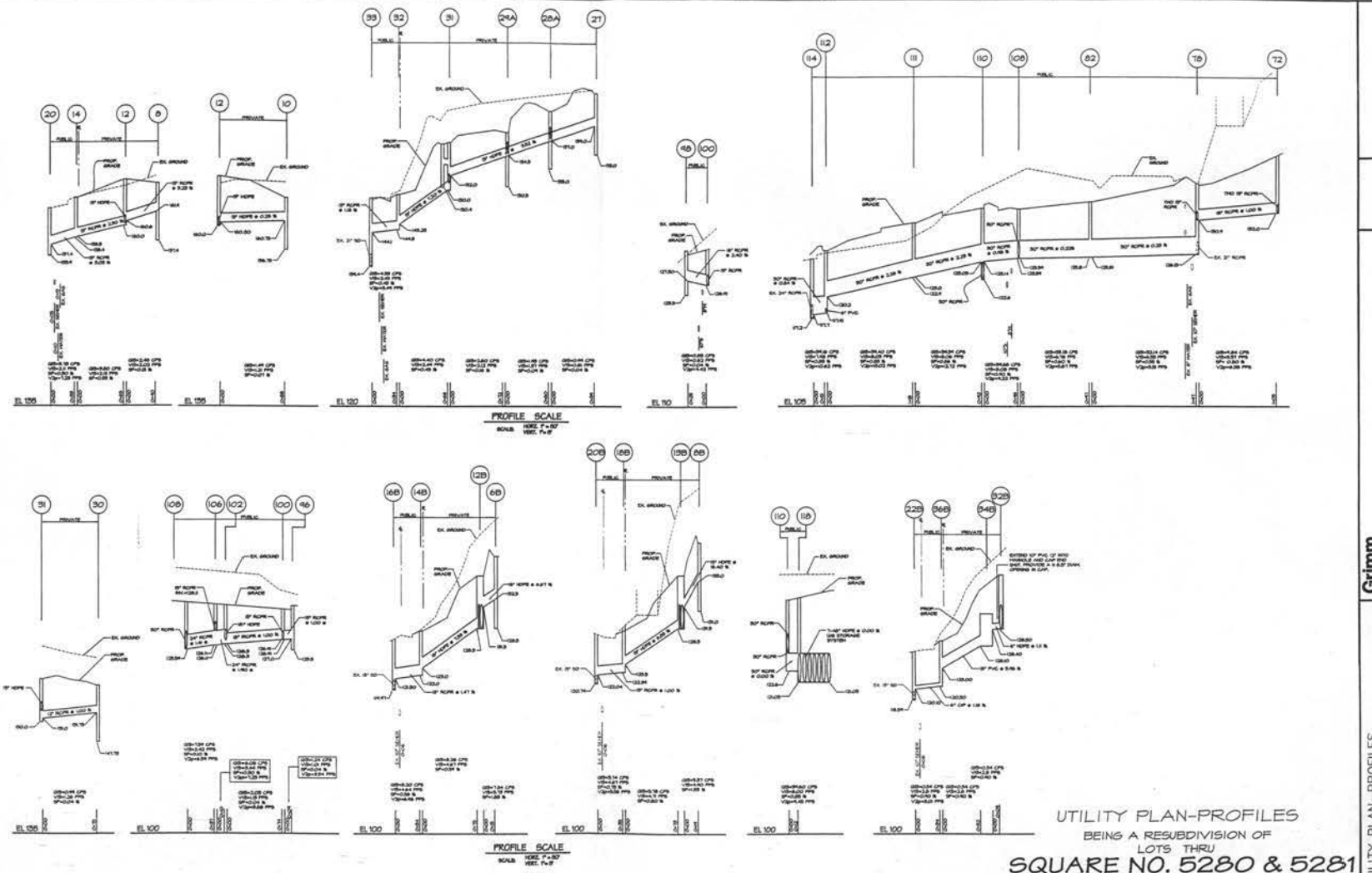
DATE	DESCRIPTION
10/16/02	PERMIT SET

DATE	DESCRIPTION	BY
	REVISIONS	

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BEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
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SCALE 1"=50'
DATE NOV. 2002
J-99130
DRWG. NO. xx002-2

C-212



UTILITY PLAN-PROFILES

BEING A RESUBDIVISION OF
LOTS THRU

SQUARE NO. 5280 & 5281

WASHINGTON
DISTRICT OF COLUMBIA

DATE	DESCRIPTION	BY
	REVISIONS	

DATE NOV. 2002

11785 Beltsville Drive
Suite 1400
Calverton, MD 20705
301.595.1000
301.595.0082 Fax

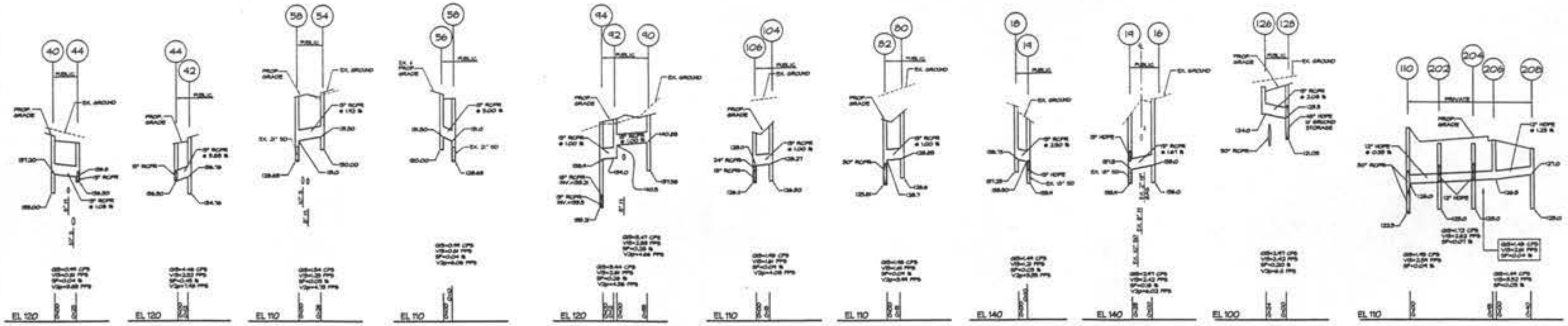
1355 Beverly Road
Suite 100
McLean, VA 22101
703.903.9100
703.903.9755 Fax

Grimm and Parker Architects

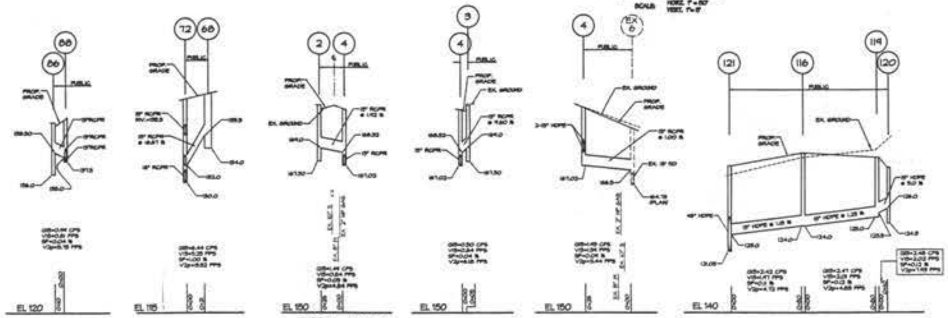
UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION
12/16/02	PERMIT SET

C-211



PROFILE SCALE
SCALE: HORIZ. 1"=50' VERT. 1"=5'



PROFILE SCALE
SCALE: HORIZ. 1"=50' VERT. 1"=5'

PRIVATE STRUCTURE SCHEDULE

NO.	TYPE	NOMINAL DIAM.	INV. ELEV.	AS BUILT INV. ELEV.	TOP ELEV. UPPER	TOP ELEV. LOWER	AS BUILT TOP ELEV. UPPER	AS BUILT TOP ELEV. LOWER	STANDARD DETAIL
48	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
58	PRECAST MH	72"Ø	[illegible]		[illegible]				WASA STD * [illegible]
68	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
88	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
108	[illegible]	7'-0"	[illegible]		[illegible]				WASA STD * [illegible]
118	PRECAST MH	72"Ø	[illegible]		[illegible]				WASA STD * [illegible]
128	CONTROL STRUCTURE	4'x4'	[illegible]		[illegible]				SEE DETAIL ON SHEET C-50
138	CONTROL STRUCTURE	4'x4'	[illegible]		[illegible]				SEE DETAIL ON SHEET C-50
328	HDD. PRECAST MH	72"Ø	[illegible]		[illegible]				WASA STD * [illegible]
348	STORM FILTER	[illegible]	[illegible]		[illegible]				SEE DETAIL ON SHEET C-50
8	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
10	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
12	STANDARD MH	48"Ø	[illegible]		[illegible]				WASA STD * [illegible]
21	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
28A	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
24A	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
30	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
31B	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
31	STANDARD MH	48"Ø	[illegible]		[illegible]				WASA STD * [illegible]
202	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
204	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]
206	STANDARD MH	48"Ø	[illegible]		[illegible]				WASA STD * [illegible]
208	[illegible]	2'-6"	[illegible]		[illegible]				WASA STD * [illegible]

Remarks:
* SINGLE GRATE TYPE CATCH BASIN
** DOUBLE GRATE TYPE CATCH BASIN
*** TRIPLE GRATE TYPE CATCH BASIN
NOTE: FOR ALL THE ABOVE INLETS, PROVIDE DRAIN-DOWN DEVICE. SEE DETAIL ON SHEET C-50
+ INVERTS TAKEN FROM D.C. WASA RECORDS. CONTRACTOR IS TO VERIFY INVERT ELEVATION. NOTIFY [illegible] OF ANY DISCREPANCIES

PRIVATE PIPE SCHEDULE

FROM	TO	SIZE	TYPE	LENGTH
48	58	15"	HDPE	15'
58	128	48"	HDPE**	141'
68	128	15"	HDPE	15'
88	138	15"	HDPE	14'
108	118	10"	HDPE	10'
118	138	48"	HDPE	108'
138	328	48"	HDPE**	259'
328	128	48"	HDPE**	62'
128	148	15"	HDPE	19'
138	188	15"	HDPE	13'
328	348	6"	HDPE	4'
348	568	6"	HDPE	52'
8	12	15"	HDPE	40'
10	12	15"	HDPE	68'
12	14	15"	HDPE	39'
21	28	15"	HDPE	59'
28	24	15"	HDPE	60'
24	31	15"	HDPE	72'
30	31	15"	HDPE	75'
31	31A	18"	HDPE	5'
31A	32	18"	HDPE	6'
31B	31A	12"	HDPE	5'
28A	28	12"	HDPE	6'
24A	24	12"	HDPE	5'
118	112	48"	HDPE**	652'
208	206	12"	HDPE	40'
206	204	12"	HDPE	22'
204	202	12"	HDPE	35'
202	110	12"	HDPE	30'
			TOTAL	2166'

Remarks:
HDPE=HIGH DENSITY POLYETHYLENE PIPE. ALL HDPE PIPE SHALL HAVE SMOOTH INTERIOR [illegible] OR BETTER. FOR MORE INFORMATION CALL [illegible] [illegible] REINFORCED CONCRETE PIPE [illegible] ARE APPROVED SUBSTITUTES FOR HDPE.
** [illegible] HIGH DENSITY POLYETHYLENE PIPE IS NOT [illegible] FOR THE UNDERGROUND STORAGE PIPE SYSTEMS. USE [illegible] PIPE OR EQUIVALENT.

PRIVATE PIPE SUMMARY

SIZE	TYPE	LENGTH
6"	HDPE	61
15"	RCPR	684
18"	HDPE	86
48"	HDPE	1288
12"	HDPE	125
	TOTAL	2166

Remarks:
HDPE: HIGH DENSITY POLYETHYLENE [illegible]
[illegible] OR EQUIVALENT

PUBLIC STRUCTURE SCHEDULE

NO.	TYPE	NOMINAL DIAM.	INV. ELEV.	AS BUILT INV. ELEV.	TOP ELEV. UPPER	TOP ELEV. LOWER	AS BUILT TOP ELEV. UPPER	AS BUILT TOP ELEV. LOWER	STANDARD DETAIL
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]				WASA STD * [illegible]

Remarks:
* SINGLE GRATE TYPE CATCH BASIN
** DOUBLE GRATE TYPE CATCH BASIN
*** TRIPLE CATCH BASIN

PUBLIC PIPE SCHEDULE

FROM	TO	SIZE	TYPE	LENGTH
2	4	15"	RCPR	29'
3	4	15"	RCPR	5'
4	EX6	15"	RCPR	52'
14	20	15"	RCPR	55'
16	20	15"	RCPR	28'
18	20	15"	RCPR	10'
32	38	18"	RCPR	28'
34	36	15"	RCPR	10'
35	36	15"	RCPR	28'
37	38	15"	RCPR	15'
38	39	15"	RCPR	29'
39	44	15"	RCPR	60'
40	44	15"	RCPR	30'
42	44	15"	RCPR	12'
44	48	18"	RCPR	54'
54	58	15"	RCPR	26'
56	58	15"	RCPR	10'
66	72	15"	RCPR	30'
64	72	15"	RCPR	18'
68	72	15"	RCPR	2'
72	78	15"	RCPR	108'
76	78	15"	RCPR	39'
74	78	15"	RCPR	89'
78	82	30"	RCPR	147'
80	82	15"	RCPR	15'
82	108	30"	RCPR	47'
84	88	15"	RCPR	26'
86	88	15"	RCPR	10'
88	94	15"	RCPR	7'
90	92	15"	RCPR	59'
92	94	15"	RCPR	12'
94	102	18"	RCPR	209'
98	100	15"	RCPR	4'
98	100	15"	RCPR	29'
102	106	18"	RCPR	14'
106	108	24"	RCPR	37'
108	110	30"	RCPR	46'
110	112	30"	RCPR	43'
112	114	30"	RCPR	15'
148	146	18"	RCPR	34'
568	228	6"	CIP	54'
188	208	15"	RCPR	35'
120	114	15"	RCPR	10'
114	116	15"	RCPR	80'
116	121	15"	RCPR	65'
126	128	15"	RCPR	25'
			TOTAL	1881'

Remarks:
HDPE=HIGH DENSITY POLYETHYLENE PIPE. ALL HDPE PIPE SHALL HAVE SMOOTH INTERIOR [illegible] OR BETTER. FOR MORE INFORMATION [illegible] REINFORCED CONCRETE PIPE [illegible] ARE APPROVED SUBSTITUTES FOR HDPE.

PUBLIC PIPE SUMMARY

SIZE	TYPE	LENGTH
6"	CIP	54'
15"	RCPR	1098'
18"	RCPR	334'
24"	RCPR	37'
30"	RCPR	367'
	TOTAL	1881'

Remarks:
CIP=CAST IRON PIPE
RCPR=REINFORCED CONCRETE PIPE [illegible]

UTILITY PLAN-PROFILES

BEING A RESUBDIVISION OF
LOTS THRU

SQUARE NO. 5280 & 5281

WASHINGTON
DISTRICT OF COLUMBIA

DATE	DESCRIPTION	BY
	REVISIONS	

BEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
TELEPHONE [illegible]

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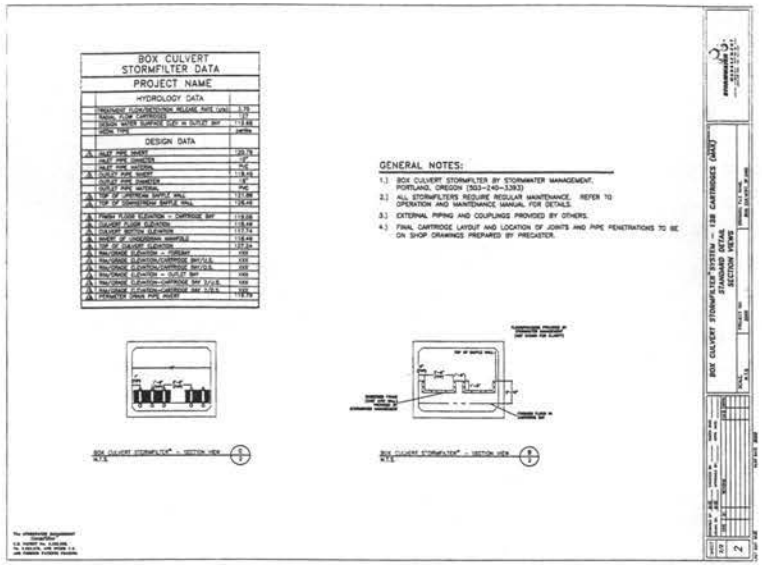
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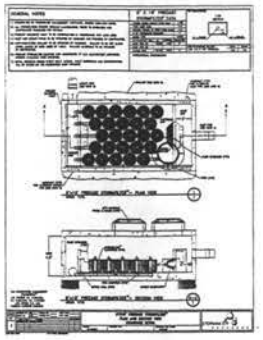
Grimm and Parker Architects
11785 Beltsville Drive, Suite 1400, Calverton MD 20705, 301.595.1000, 301.595.0089 Fax
1355 Beverly Road, Suite 105, McLean VA 22101, 703.903.9100, 703.903.9750 Fax

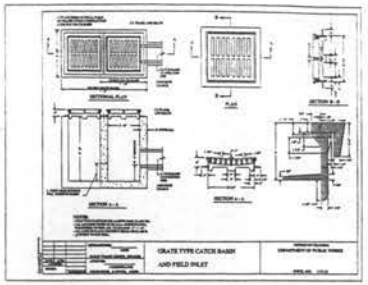
UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION
12/18/02	PERMIT SET

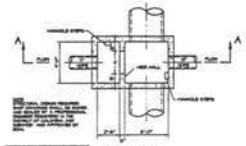
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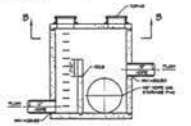


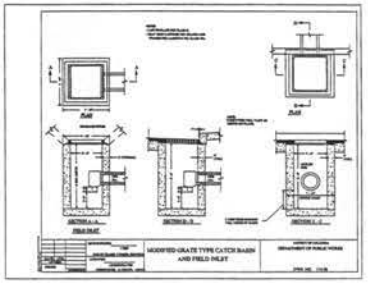


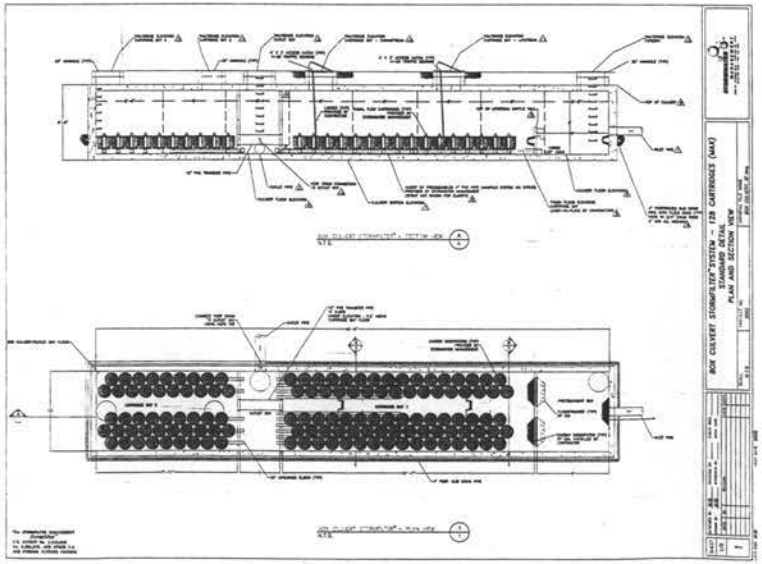


CONTROL STRUCTURE DETAIL FOR STR. #320 & 330









UTILITY PLAN-DETAILS
BEING A RESUBDIVISION OF
LOTS THRU
SQUARE NO. 5280 & 5281
WASHINGTON
DISTRICT OF COLUMBIA

Grimm and Parker Architects
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UTILITY PLAN-DETAILS
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING

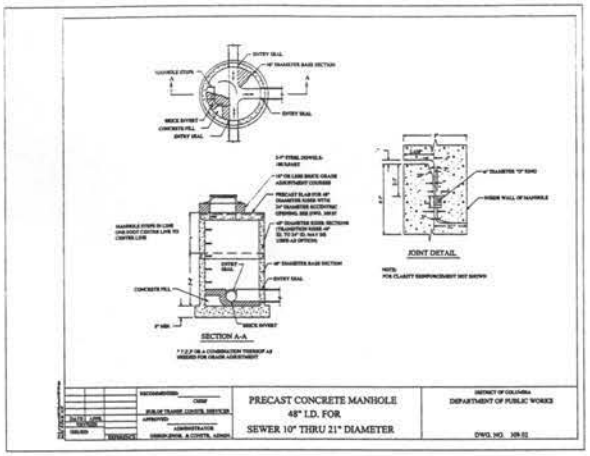
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12/18/02	PERMIT SET

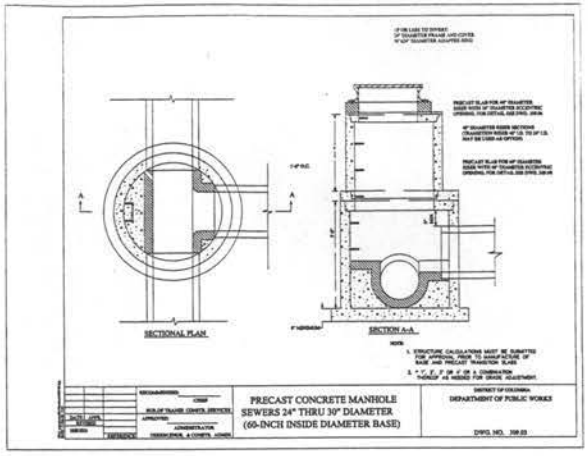
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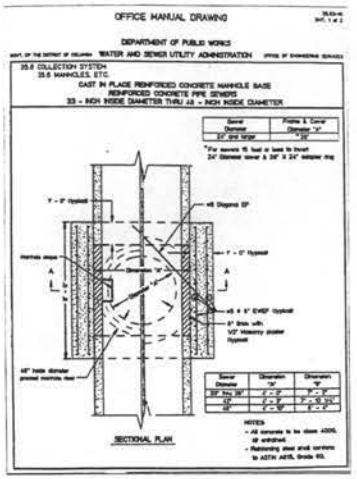
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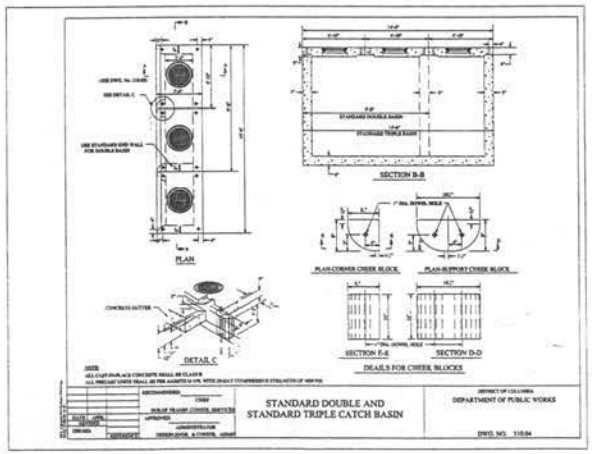
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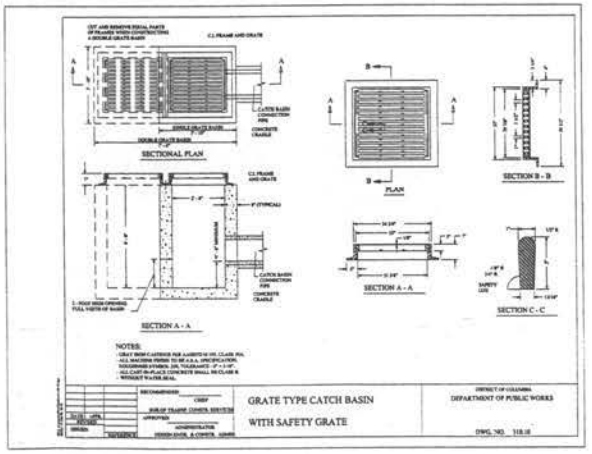
BY: M.T.S.
DATE: NOV. 2002
J-4950

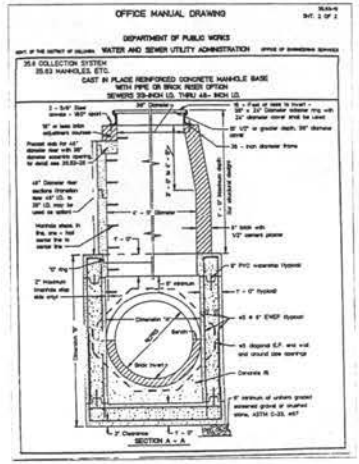












UTILITY PLAN-DETAILS

BEING A RESUBDIVISION OF

LOTS THRU

SQUARE NO. 5280 & 5281

WASHINGTON

DISTRICT OF COLUMBIA

DATE	DESCRIPTION
10/16/02	PERMIT SET

Grimm and Parker Architects

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301.595.0088 fax

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McLean VA 22101
703.903.9100
703.903.9795 fax

UTILITY PLAN-DETAILS
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

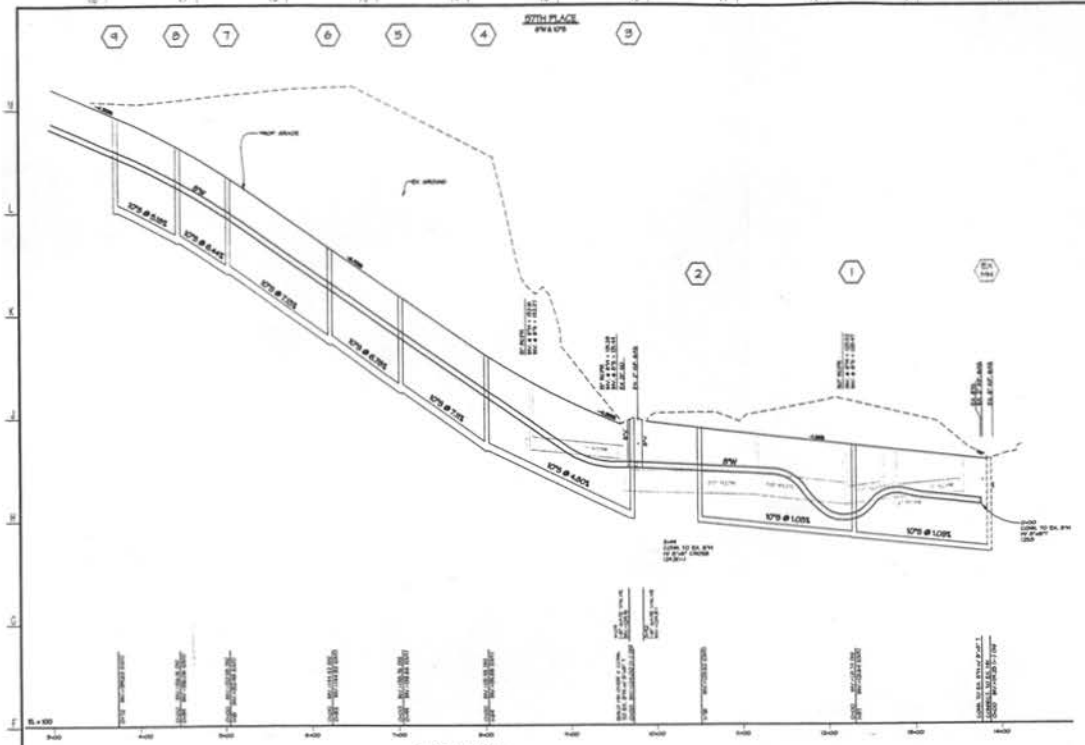
SEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
TELEPHONE (301) 498-0999

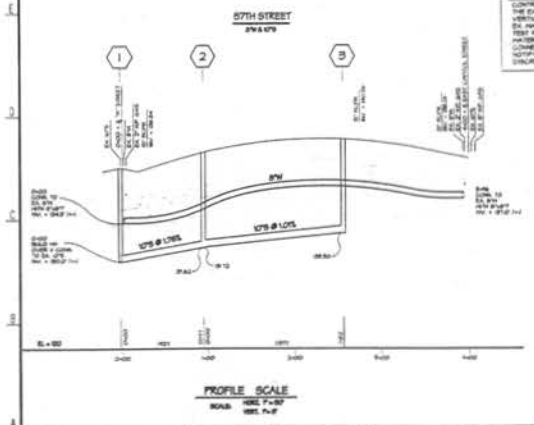
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DATE	DESCRIPTION
	REVISIONS

SCALE: N.T.S.
DATE: NOV. 2002
JOB NO. xx.000-Z

C-215





NOTE:
CONTRACTOR IS TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THE EX. WATER & SEWER MAINS BY TEST PIT (HELL IN ADVANCE OF MAKING A SEWER SERVICE HOUSE CONNECTION LINE INSTALLATION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

NOTE:
ALL 4" & 8" WATER PIPE & FITTINGS TO BE D.I. CL. 51 AND RESTRAINED WITH RETAINER GLANDS.

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (57TH PLACE)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5280	2	N	?
5280	1	B	?
5280	18	B	?
5280	19	B	?
5280	20	B	?
5280	21	B	?
5281	13	SF-K	?
5281	14	G	?
5281	15	G	?
5281	16	SF-K	?
5281	17	SF-K	?
5281	18	SF-K	?
5281	19	SF-K	?
5281	35	SF-	?
5281	36	SF-	?
5281	37	SF-	?
5281	38	F	?
5281	39	F	?
5281	40	F	?
5281	41	F	?
5281	42	F	?
5281	43	F	?
5281	44	F	?
5281	45	F	?
5281	46	F	?
5281	47	F	?
5281	48	F	?
5281	49	F	?
5281	50	F	?
5281	51	F	?
5281	52	A	?
5281	53	A	?
5281	54	A	?
5281	55	A	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE STREET NAME

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5280	16	A	?
5280	17	A	?
5280	18	A	?
5280	19	A	?
5280	20	A	?
5280	34	B	?
5280	35	B	?
5280	36	B	?
5280	37	B	?
5280	38	B	?
5280	39	B	?
5280	40	N	?
5280	41	H	?
5280	56	H	?
5280	57	G	?
5280	58	G	?
5280	59	H	?
5280	60	H	?
5280	61	G	?
5280	62	G	?
5280	63	H	?
5280	64	H	?
5280	65	G	?
5280	66	G	?
5280	68	SF-J	?
5280	84	SF-J	?
5280	10	SF-J	?
5281	83	H	?
5281	84	H	?
5281	85	H	?
5281	86	H	?
5281	87	SF-J	?
5281	88	SF-J	?
5281	89	H	?
5281	70	H	?
5281	71	SF-J	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE ("A" STREET)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5280	3	B	?
5280	4	B	?
5280	5	B	?
5280	6	HC	?
5280	21	A	?
5280	22	A	?
5280	23	A	?
5280	24	A	?
5281	80	H	?
5281	81	H	?
5281	82	H	?
5281	30	A	?
5281	31	A	?
5281	32	A	?
5281	33	A	?
5281	34	A	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (SOUTHERN AVENUE)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5281	56	G	?
5281	57	G	?
5281	58	H	?
5281	59	H	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (CENTRAL AVENUE)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5281	1	G	?
5281	2	G	?
5281	3	H	?
5281	4	H	?
5281	5	G	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (56TH STREET)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5281	6	G	?
5281	7	H	?
5281	8	H	?
5281	9	G	?
5281	10	G	?
5281	11	H	?
5281	12	H	?
5281	13	G	?
5281	14	G	?
5281	15	G	?
5281	16	G	?
5281	17	G	?
5281	18	G	?
5281	19	G	?
5281	20	G	?
5281	21	G	?
5281	22	H	?
5281	23	H	?
5281	24	G	?
5281	25	G	?
5281	26	H	?
5281	27	H	?
5281	28	G	?
5281	29	G	?
5280	7	G	?
5280	8	G	?
5280	9	H	?

EAST CAPITOL SEWER INVERT ELEVATION AT PROPERTY LINE (EAST CAPITOL STREET)

SQUARE NO.	LOT NO.	UNIT TYPE	CLEAN OUT INV. ELEVATION
5280	10	B	?
5280	11	B	?
5280	12	B	?
5280	13	B	?
5280	14	B	?
5280	15	B	?
5280	31	B	?
5280	32	B	?
5280	33	B	?

UTILITY PLAN-PROFILES

BEING A RESUBDIVISION OF
LOTS THRU
SQUARE NO.
WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1"= 30'

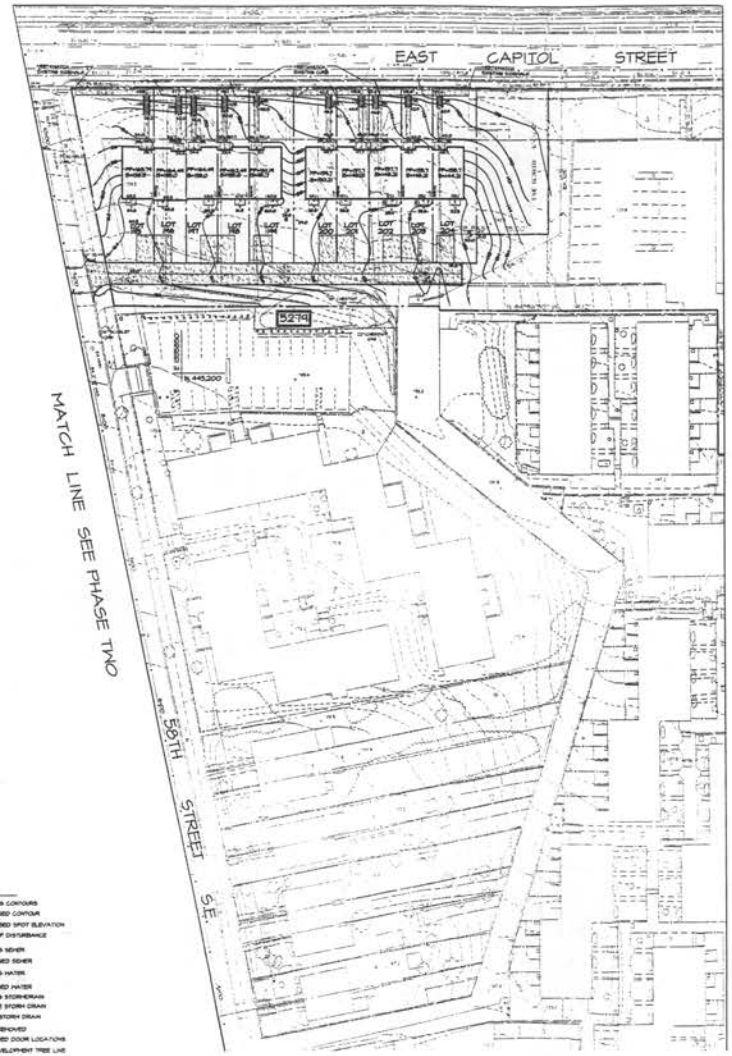
DATE	DESCRIPTION	BY
	REVISIONS	

Grimm and Parker Architects
11785 Beltsville Drive, Suite 1000, Calverton MD 20705, 301.595.1000
1350 Beverly Road, Suite 105, McLean VA 22101, 703.903.9100, 703.903.9705 Fax
301.595.1000, 301.595.0089 Fax

UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE TWO-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	SCALE	BY
12/6/07	AS NOT SET	

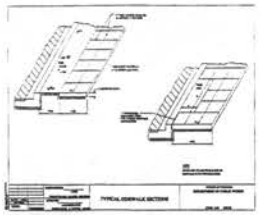
C-216



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- LIMIT OF DISTURBANCE
- EXISTING SEWER
- PROPOSED SEWER
- EXISTING WATER
- PROPOSED WATER
- EXISTING STORMDRAIN
- PRIVATE STORM DRAIN
- PUBLIC STORM DRAIN
- TO BE REMOVED
- PROPOSED DOOR LOCATIONS
- PRE-DEVELOPMENT TREE LINE
- POST DEVELOPMENT TREE LINE
- LIMITS OF CLASS 1 FILL
- PROPOSED CONCRETE PAVING

THE CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-257-7777 FORTY-EIGHT (48) HOURS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.



CONCRETE SIDEWALK DETAIL
DC DPW STANDARD DETAIL 403.01



GENERAL NOTES

1. TOPOGRAPHY INFORMATION IS PROVIDED BY AERIAL SURVEY.
2. CONTOUR INTERVAL = 2'
3. THE SUBJECT PROPERTY IS ZONED
4. POSITIONS TO KEEP ON HAND SOIL WHERE POSSIBLE. ALL FILL WITHIN THE BUILDING TO BE CLASS 1 STRUCTURAL FILL FREE OF WASHERS DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR PROCEDURE ASSTM D 698 OR D 4959. ALL FILL UNDER PAVEMENT TO BE CLASS 2 STRUCTURAL FILL PLACED BY CONTRACTOR. ALL LANDSCAPE AREAS TO BE CLASS 3.
5. MINIMUM GRADE ON OTHER THAN PAVING = 2.0% CLOS DRAINAGE SWALES. MAXIMUM SLOPE 3:1
6. ALL GRADES SHALL SLOPE AWAY FROM THE BUILDING AT A MINIMUM RATE OF 6" @ 10' TO A MINIMUM RATE OF 3/8" (1%) @ 10' TO A MINIMUM POINT OF FROM THE FRONT FACE OR BACK FACE OF BUILDING AND 3' FROM THE SIDE FACE OF BUILDING.
7. HANDRAILS SHALL BE REQUIRED ONLY WHEN THE STAIRWAY OR RAMP CONSTRUCTION SERVES TO PROVIDE FOR A CHANGE OF ELEVATION FROM ONE LEVEL TO ANOTHER IN EXCESS OF 3 RISERS OR 22" IN VERTICAL HEIGHT.
8. ALL GRADES, ELEVATIONS, EARTH QUANTITIES, ETC. ARE TO BE VERIFIED BY THE CONTRACTOR, ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE ANY WORK IS PERFORMED. NO ALLOWANCE HAS BEEN MADE FOR UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION. SUITABILITY OF SOIL FOR USE IS FILL AREAS OR STABILITY OF CUT AREAS, COMPACTION, ETC., SHOULD BE DETERMINED BY A SOILS ENGINEER.
9. UPON COMPLETION OF WORK, SITE GRADING, DRAINAGE, PROPERTY CORNERS AND LANDSCAPE OBSERVATIONS AND CERTIFICATIONS MUST BE PERFORMED BY A LICENSED PROFESSIONAL, CONFIRMING THAT ALL WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE PERMIT, APPROVED PLANS, AND CODES. THESE CERTIFICATIONS ARE REQUIRED TO FINALIZE THE PERMIT AND RELEASE BONDS.
10. UTILITY INFORMATION SHOWN IS BASED ON BEST AVAILABLE RECORDS. CONTRACTOR SHALL USE RESPONSIBLE METHODS TO DETERMINE EXACT FIELD LOCATIONS. SUCH AS HIS UTILITY TEST PITS, ETC. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURES OR UNDERGROUND UTILITIES.
11. THE CONTRACTOR WILL HAVE SOLE RESPONSIBILITY FOR THE CONSTRUCTION MEANS, METHODS, AND AND TECHNIQUES OF EXECUTIVE HIS WORK, INCLUDING SAFETY.
12. TOTAL SITE AREA = AC. OR SF.
13. DISTURBED AREA = AC. OR SQFT.

DRIVEWAY ENTRANCE NOTES

1. ALL DRIVEWAY ENTRANCES ARE TO BE CONSTRUCTED PER DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION, STANDARD DRAWING NO. 924.01, 924.04 ARE AS SHOWN ON THE PLAN VIEW.
2. PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING ALL THE NECESSARY PERMITS PRIOR TO CONSTRUCTION.
3. PERMITTEE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY WITHIN THE PUBLIC RIGHT-OF-WAY DURING CONSTRUCTION.
4. CURB AND GUTTER SHALL BE DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION, STANDARD DRAWING NO. 600.01, TYPE "A" BARRIER CURB AND GUTTER.
5. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
6. THE "MISS UTILITY" VERIFICATION NUMBER (TICKET NUMBER) MUST BE BE UPDATED EVERY 10 DAYS.

NOTE: CONTRACTOR TO DIG TEST PITS TO DETERMINE EXACT LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

SQUARE NO. 5279

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1" = 30'
30' 0 30' 60' 90'

OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
1133 NORTH CAPITOL STREET NE.
WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
A&R/THG, LLC.
514 10TH STREET NW
SUITE 600
WASHINGTON, DC. 20004
PHONE (202) 347-2257

DATE	DESCRIPTION BY
	REVISIONS

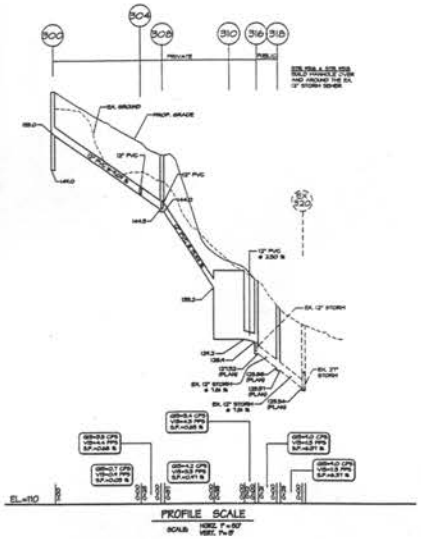
BEN DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
TELEPHONE (202) 659-0200
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SCALE 1" = 30' DRW. NO.
DATE FEBRUARY 2004

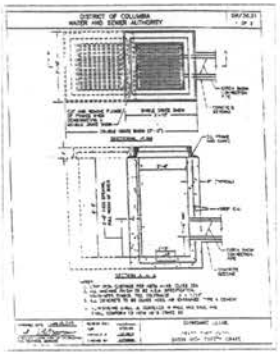
Grimm and Parker Architects
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301.595.0099 Fax
1355 Beverly Road
Suite 150
McLean, VA 22101
703.903.9100
703.903.9755 Fax

SITE DEVELOPMENT PLAN–PHASE THREE–A
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

DATE	DESCRIPTION

C-301





PUBLIC PIPE SCHEDULE					
Standard Detail No.	FROM	TO	SIZE	TYPE	LENGTH
	302	304	12"	PVC SCH 40	35'
				TOTAL:	35'

Remarks:

PUBLIC STRUCTURE SCHEDULE						
Standard Detail No.	NO.	TYPE	WIDTH (Dia.)	INV. ELEV.	TOP ELEV. AS BUILT UPPER	TOP ELEV. AS BUILT LOWER
	302	DOUBLE GRATE TYPE CURB INLET	2'-6"	144.0	150.5	

Remarks:
1. PLAN ELEVATION, CONTRACTOR TO VERIFY. IF ELEVATION IN THE FIELD VARIES WITH THIS PLAN CONTRACTOR IS TO NOTIFY SEAN JOHNSON P.E.
2. SEE DETAIL ON SHEET C-304

PRIVATE PIPE SCHEDULE					
Standard Detail No.	FROM	TO	SIZE	TYPE	LENGTH
	306	308	12"	PVC	129'
	308	309	12"	PVC	5'
	308	310	12"	PVC	31'
	310	316	12"	PVC	12'
				TOTAL:	187'

PRIVATE STRUCTURE SCHEDULE						
Standard Detail No.	NO.	TYPE	WIDTH (Dia.)	INV. ELEV.	TOP ELEV. AS BUILT UPPER	TOP ELEV. AS BUILT LOWER
	306	DOUBLE GRATE TYPE CURB INLET	2'-6"	150.0		
	308	DOUBLE GRATE TYPE CURB INLET	2'-6"	144.3		
	309	STD PRECAST YARD	48"	144.0		
	310	STD PRECAST YARD	48"	143.8		
	316	STD PRECAST YARD	48"	137.9		
	317	SAND FILTER		134.2		

Remarks:
1. PLAN ELEVATION, CONTRACTOR TO VERIFY. IF ELEVATION IN THE FIELD VARIES WITH THIS PLAN CONTRACTOR IS TO NOTIFY SEAN JOHNSON P.E.
2. SEE DETAIL ON SHEET C-304

NOTE:
CONTRACTOR TO VERIFY LOCATION/ ROUTING OF EX. STORM SYSTEM PRIOR TO UTILITY INSTALLATION. NOTIFY ENGINEER OF ANY CONFLICTS.

PUBLIC PIPE SUMMARY		
SIZE	TYPE	LENGTH
12"	PVC SCH 40	35'
	TOTAL	35'

PRIVATE PIPE SUMMARY		
SIZE	TYPE	LENGTH
12"	PVC	187'
	TOTAL	187'

PHASE THREE-A
UTILITY PLAN

BEING A RESUBDIVISION OF
LOTS THRU
SQUARE NO. 5279
WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1"= 50'
50' 0 50' 100' 150'
N.E.

SHEET OF PLAN SHEETS AND OF SIDE ROAD PLANS.)

DATE	DESCRIPTION
	REVISIONS

BY

HOWE WOODSIDE ROAD SUITE 220
MECHANICSVILLE, MARYLAND 20659
HOWE DYER ASSOCIATES, INC.
Engineers / Surveyors / Planners
TELEPHONE (301) 490-0660

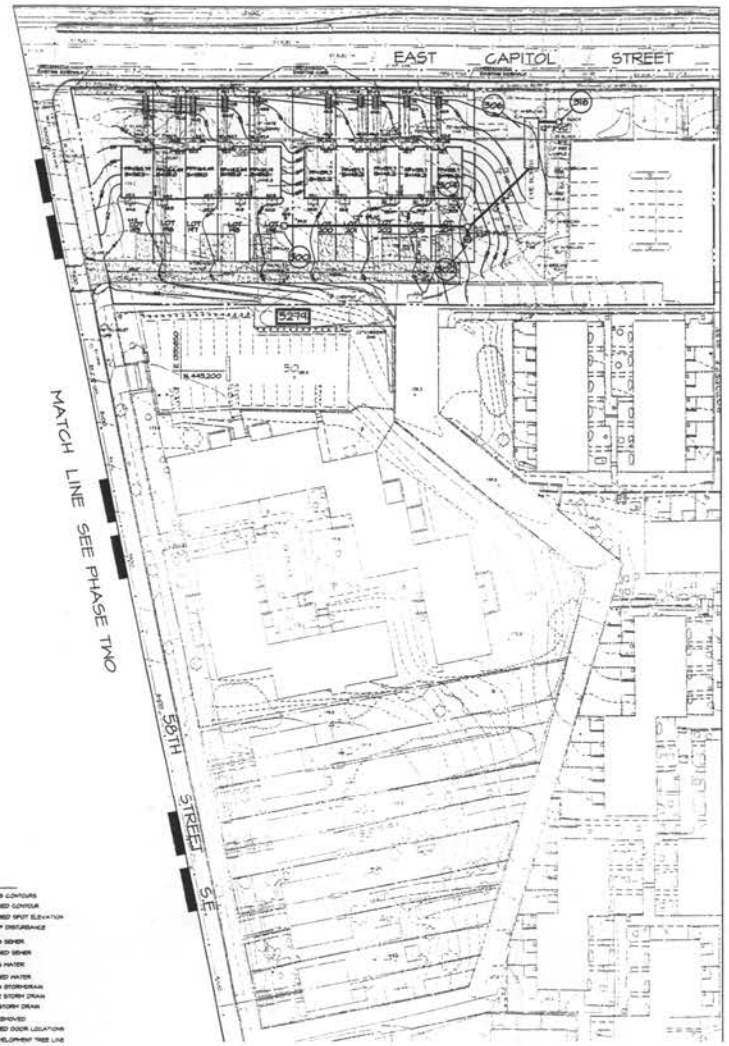
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SCALE: AS SHOWN
DATE: FEB. 2004
JOB NO. 5.009-2

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UTILITY PLAN-PROFILES
CAPITOL GATEWAY ESTATES PHASE THREE-A
SINGLE FAMILY HOUSING
WASHINGTON D.C.

C-303





OWNER
DISTRICT OF COLUMBIA HOUSING AUTHORITY
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WASHINGTON, DC. 20002-7599
PHONE (202) 535-1064

DEVELOPER / APPLICANT
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SUITE 600
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PHONE (202) 347-2251

SQUARE NO. 5279

WASHINGTON
DISTRICT OF COLUMBIA

GRAPHIC SCALE 1"= 30'

DATE	DESCRIPTION
	REVISIONS

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SCALE: 1" = 30'
DATE: FEBRUARY, 2004

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Grimm and Parker

UTILITY PLAN-PHASE THREE-A
CAPITOL GATEWAY ESTATES, SINGLE FAMILY HOUSING
WASHINGTON D.C.

C-30