PLAN — SURVEYED / PLOTTED / NOTE BOOK / NO. — ALIGNMENT CHECKED / RT. OF WAY CHECKED — CY / DATE
PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / STRUCTURE NOTATNS CHKD / NOTE BOOK / NO. — BY / DATE
Maryland State Archives

① ℄ tan = 25'
Δ = 10°20' ±
℄ R = 141.28 ±
L = 47.68'

② ℄ tan = 25'
Δ = 09°00' ±
℄ R = 317.66'
L = 49.9'

③ ℄ tan = 25'
Δ = 10°15' ±
℄ R = 278.75 ±
L = 49.87'

④ ℄ tan = 30'
Δ = 16°00' ±
℄ R = 358.77 ±
L = 99.85

⑤ ℄ tan. = 25'
Δ = 09°45' ±
℄ R = 293.12 ±
L = 49.88

S.D. #5-17, 57.5x-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED December 16, 57
FOR STORM DRAINS ONLY
SUBJECT TO PRIOR INSTALLATION OF WATER & SEWER AND PAYMENT FOR MOVING ANY W.S.S.C STRUCTURES AFFECTED.
THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO OWNERS DOWNSTREAM, BY REASON OF THE INSTALLATION OF THE DRAINAGE STRUCTURES SHOWN HEREON.
James A. Stapp
SENIOR DEVELOPMENT ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

STORM DRAIN STREAM IMPROVEMENT

Vicinity Block "P"

GARRETT PARK ESTATES

Montgomery County, Maryland

Scales plan: 1"=30' details: 1"=5'
profile V: 1"=5'
h: 1"=50'

SEYBOLT & GEORGE, INC
CIVIL ENGINEERS & LAND SURVEYORS
8404 RAMSEY AVE.
SILVER SPRING, MD.

FLANDERS AVE.

20' channel transition - widen 4' to 5' between sta 3+00 and 5+20

top of conc. relocated channel

℄ existing stream

top of bank

ex. 15" RCP - see detail this sheet for connection to structure.

see drain conn. detail this sht.

approved 18" RCP see S.D. #57-056-AV

match line A-A

Note: Stream, and top of fill along stream located by survey 8/9 1956 & 5/22 1957

Note: See SD "P" 20-54 SHT 4 for 50"x60" pipe arch & flap structure details.

top of West bank existing stream

top of East bank existing stream

approx. ground over ℄ proposed & existing stream

0.85 %

0.35 %

see sheet 6 of 7 for structure detail

ex. 15" RCP invert = 283.44

Note: Structure S-1 is special cut-off wall with flap gate. See detail sheet 7 of 7 (S.S.G. 716-308).

12" thick grouted rip-rap 4'-6" wide with 3' cut-off on 3 sides. Place as shown.

W.S.S.C. std. rip rap "section" carry rip rap to slope intersection

STRUCTURE S-1
DETAIL
Drain Connection at C414
1"=5'

STRUCTURE S-1
SECTION A-A
1"=5'

channel elev. = 288.26
Station 5100

see additional detail sheet 6 of 7

Seybolt & George
FILE No. 436-406-1

sheet 1 of 7

PLATE I-PLAN-PROFILE S. F. R. STANDARD
EUGENE DIETZGEN CO., Chicago-New York

Printed in U.S.A.
On DIETZGEN DRAFTEX MOISTURE PROOF Cloth

CE487-321-1

SD FILE NO. 325

PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M.'S NOTED
STRUCTURE NOTATIONS CHKD
BY
DATE

⑥ ℄ tan = 50'
Δ = 21°00' ±
℄ R = 262.78' ±
L = 92.88'

⑦ ℄ tan = 20'
Δ = 22°42' ±
℄ R = 248.53' ±
L = 98.68'

② ℄ tan = 25'
Δ = 16°30' ±
℄ R = 172.42' ±
L = 49.65'

line A

match line A

7+34 BK.

7+84 AH.

8+33.88 AT.

9+64 AH.

10+42.68 AT.

10+92 AH.

11+44.65 AT.

11+76 AH.

13+43 AH.

approx. 1.5' cover

approx. 1.5' cover

approx. 1.5' cover

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
CY
ALIGNMENT CHECKED
PROFILE CHECKED
BY
DATE
STRUCTURE NOTATIONS CHKD

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
PROFILE CHECKED
B.M.'s NOTED.
STRUCTURE NOTATIONS CHKD

Plan Scale 1"=80'

Profile Scale 1"=40'

ex. 27" RCP - see detail this sheet for connection to structure

connect to existing pipe

36" RCCPX

Armco 5'-9" x 8'-2" Multi-Plate pipe arch - 10 ga. See sheet 4 of 7 for detail & pipe connection.

connect to ex. pipe

ex. pipe

Armco 5'-9" x 8'-2" Multi-Plate pipe arch - 10 ga. See sheet 5 of 7 for detail & pipe connections.

BANGOR DRIVE

Note: Stream and top of fill along stream located by survey 8/7 1956 & 5/22/57

existing 60" RCP culvert

remove 7' ex. pipe

see additional detail sheet 6 of 7.

STREAM IMPROVEMENT
VICINITY BLOCK P & Q
GARRETT PARK ESTATES
MONTGOMERY COUNTY, MD.
Scales: Plan - 1" = 30' Nov 1956
Profile - Hor. 1" = 50', Vert. 1" = 5'

SEYBOLT & GEORGE, INC.
CIVIL ENGINEERS & LAND SURVEYORS
8204 RANSEY AVENUE
SILVER SPRING, MD.

S.D. # 30-17 5715-3

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James A. Stapp
SENIOR DESIGNING ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

SEYBOLT AND GEORGE
Proj. No. 136.246-3

sheet 3 of 7

Printed in U.S.A.
On DIETZGEN DRAFTEX MOISTURE PROOF Cloth

PLATE I-PLAN-PROFILE B. P. R. STANDARD
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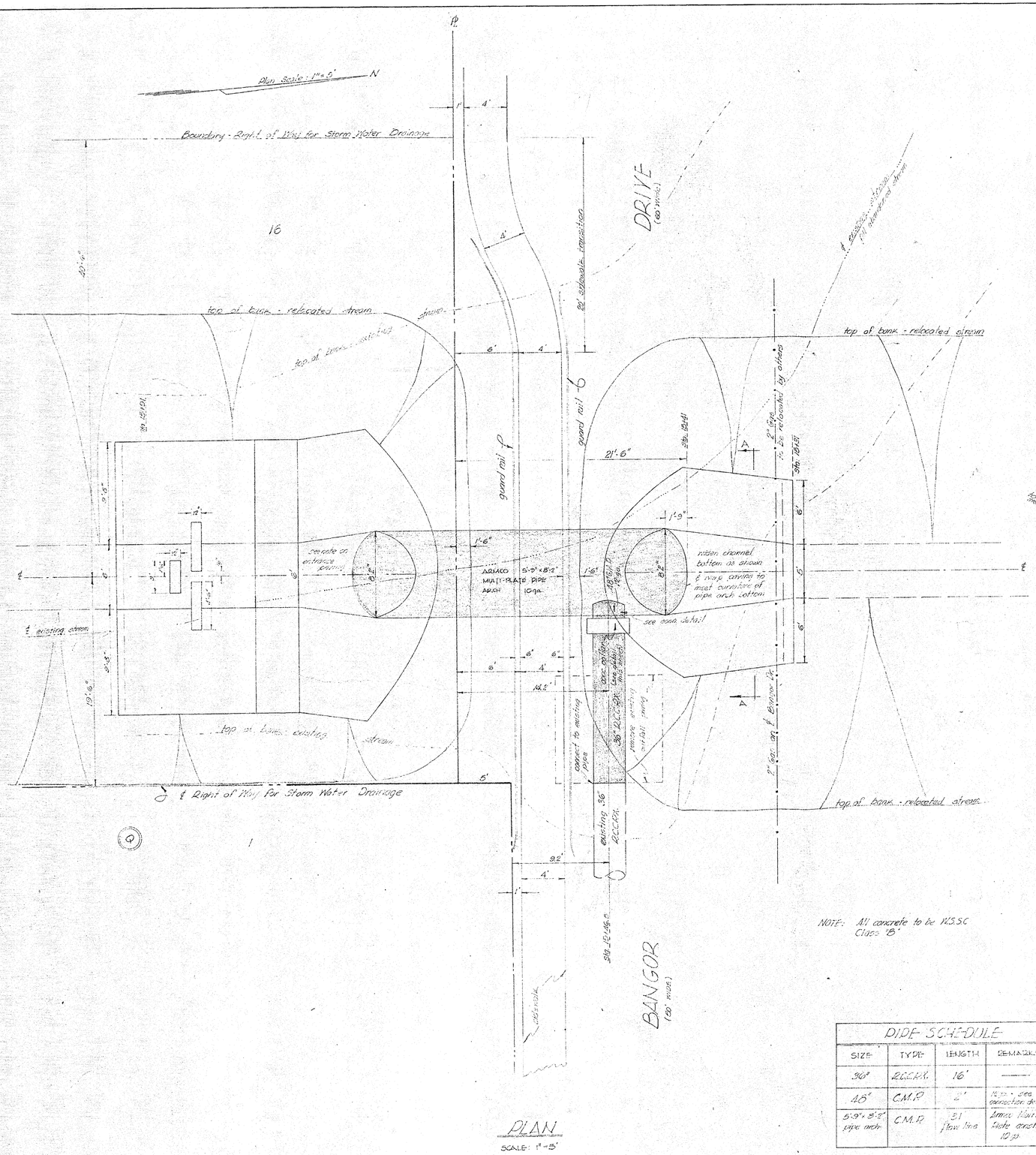
SD FILE NO. 323

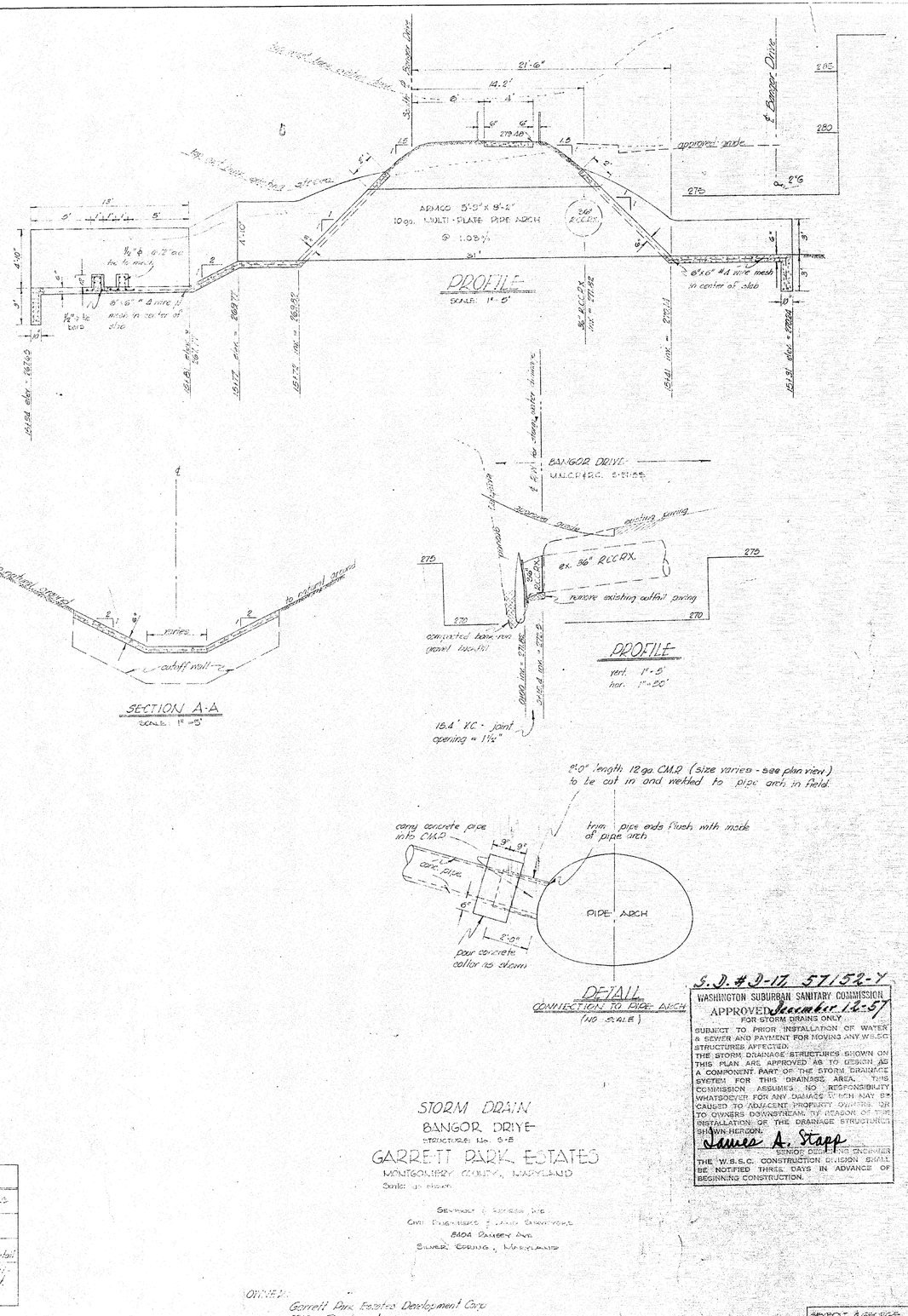
CE 487-321-3

Maryland State Archives



PLAN

SCALE: 1"=5'



DETAIL
CONNECTION TO PIPE ARCH
(NO SCALE)

NOTE: All concrete to be W.S.S.C. Class 'B'

PIPE SCHEDULE

SIZE	TYPE	LENGTH	REMARKS
36"	RCCPX.	16'	———
48"	C.M.P.	2'	14 pc. - see connection detail
5'-9" x 8'-2" pipe arch	C.M.P.	31' flow line	Armco Multi-Plate arch 10 ga.

S.D. # 2-17, 57152-X

WASHINGTON SUBURBAN SANITARY COMMISSION
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James A. Stapp
SENIOR DESIGNING ENGINEER

THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

STORM DRAIN
BANGOR DRIVE
STRUCTURE No. S-5
GARRETT PARK ESTATES
MONTGOMERY COUNTY, MARYLAND
Scale: as shown

SEYBOLT & ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
8404 Ramsey Ave.
Silver Spring, Maryland

OWNER:
Garrett Park Estates Development Corp.
5212 Flanders Avenue
Kensington, Maryland

SEYBOLT & ASSOCIATES
File No. A20-306-4

sheet 4 of 7

SD FILE NO. 325

CE487-321-4

Maryland State Archives

S.D. # D-17 57152-Y

WASHINGTON SUBURBAN SANITARY COMMISSION

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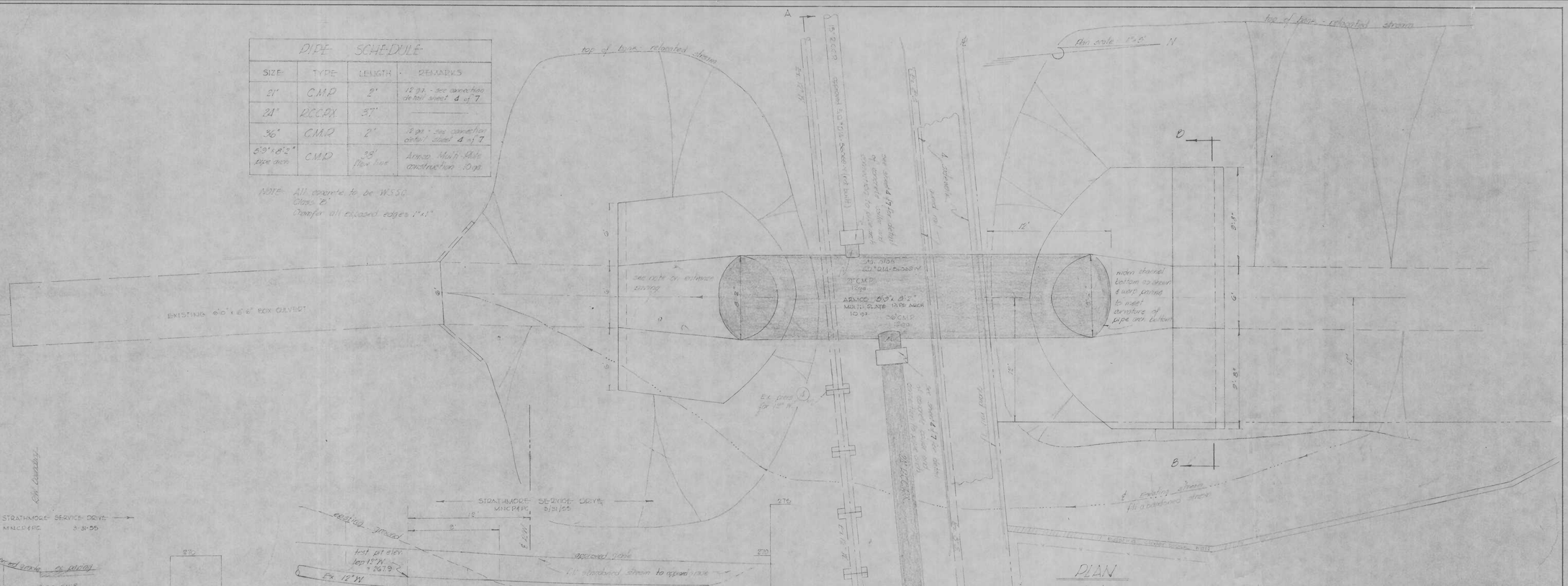
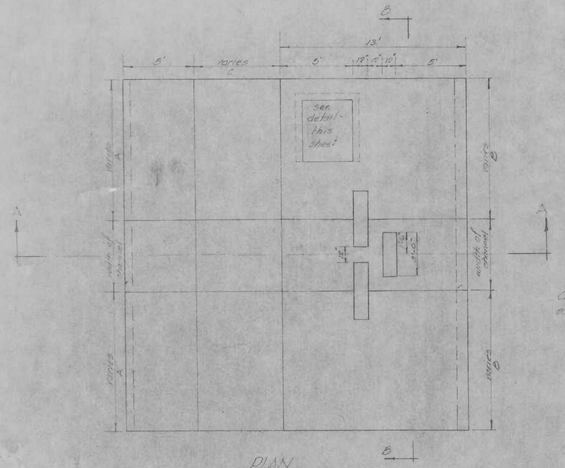
James A. Stapp
CHIEF ENGINEER

THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

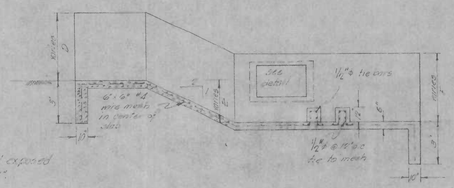
PIPE SCHEDULE			
SIZE	TYPE	LENGTH	REMARKS
21"	C.M.P.	2'	12 ga. - see connection detail sheet 4 of 7
24"	R.C.C.P.X.	37'	
36"	C.M.P.	2'	8 ga. - see connection detail sheet 4 of 7
5'9"x8'2" pipe arch	C.M.P.	28' Plus Ins.	Armco Multi-Plate construction 10 ga.

NOTE: All concrete to be W.S.S.C. Class 'B' Trowel all exposed edges 1"x1"


top of bank - reforested stream
thin scale 1"=8' N
EXISTING 6'0" x 6'6" BOX CULVERT
see note on entrance section
21" CMP 12 ga
ARMCO 5'9" x 8'2" MULTI-PLATE PIPE ARCH 10 ga
36" CMP 8 ga
riprap channel bottom as shown & wire pinned to inlet aperture of pipe inlet below
Ex. pipe for 12" W.
12"
6'
8'
A
B
D
PLAN
1"=8'
STRATHMORE SERVICE DRIVE
MNCP&PC
S-31-55
existing ground
test pit elev. top 12" W. = 267.9
Ex 12" W.
approved grade
6" abandoned stream to approximate
Ex. pipe @ o.c.
Ex. stream
5'9" x 8'2" Pipe Arch
do not disturb existing piers
10' conc. encasement
existing concrete encasement
SECTION A-A
1"=8'
NOTE
Contact Mr Cabry, W.S.S.C. 301 7720, before excavating in vicinity of existing 12"W & 8"S. Excavation & backfill shall be made as directed by W.S.S.C. M.O. Inspector. Sheeting & bracing, if necessary may be required. 10' concrete encasement of sewer to be placed by the Contractor under supervision of the W.S.S.C. M.O. Division
30" DIP
CL 50 DI4-51068-W
21" CMP 12ga
ARMCO 5'9" x 8'2" MULTI-PLATE PIPE ARCH 10 ga
36" CMP 8ga
Ex. pipe for 12" W.
Ex. 12" W.
Ex. 8" S.
Ex. 8" S. to be abandoned
Ex. 12" W. to be abandoned



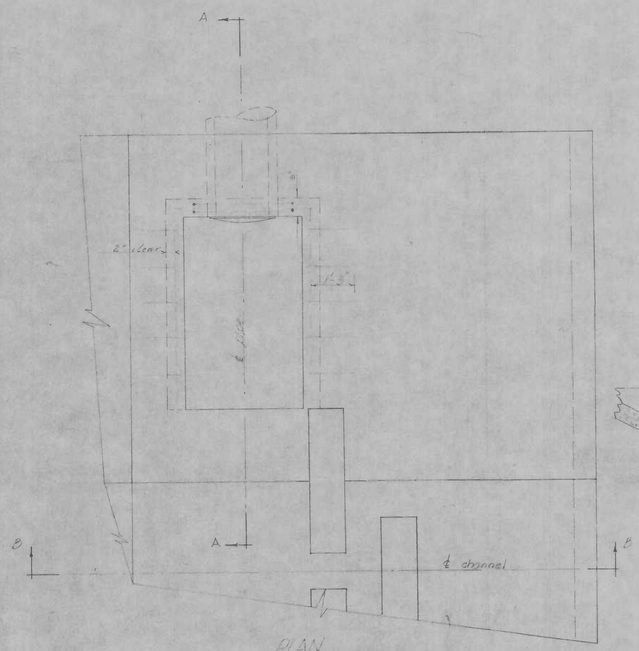
PLAN
TYPICAL D.D.D. STRUCTURE
SCALE 1"=5'



Chamfer all exposed edges 1"x1".

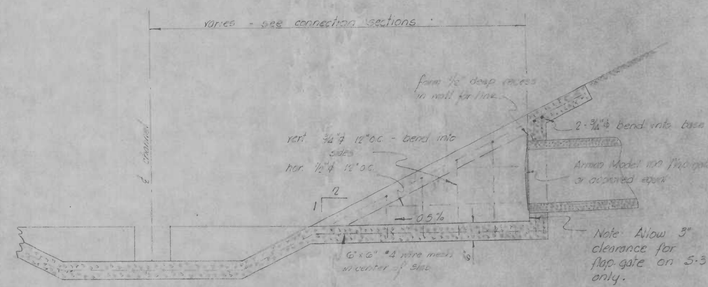
SECTION A-A
SCALE 1"=5'

NOTE: All concrete to be W.S.S.C. Class "B"



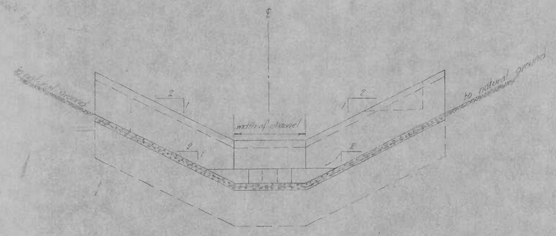
PLAN
DETAIL OF TYPICAL PIPE CONNECTION AT D.D.D.
SCALE ½"=1'

FLAPGATE SCHEDULE		
D.D.D. STRUCTURE	PIPE SIZE	FLAPGATE SIZE
S-1	15"	15"
S-2	15"	15"
S-3	27"	30"
S-4, S-5 & S-6	none	none
S-7 & S-8	15"	15"

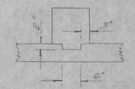


SECTION A-A
SCALE ½"=1'

Note
For further detail of flapgate attachment see W.S.S.C. Plan No. 30B (Special Detail #3 dtl. with flapgate). Sheet 7 of 7.
Chamfer all exposed edges 1"x1".



SECTION B-B
SCALE 1"=5'



KEYWAY DETAIL
SCALE 1½"=1'

to be used if velocity checks & slab are poured separately

D.D.D. STRUCTURE DIMENSION SCHEDULE						
Structure	A	B	C	D	E	F
S-1	9'-8"	9'-8"	3'-0"	1'-10"	1'-6"	1'-10"
S-2	9'-8"	13'-0"	7'-0"	1'-10"	3'-6"	1'-10"
S-3	9'-8"	12'-0"	6'-0"	1'-10"	3'-0"	1'-10"
S-4	9'-8"	9'-8"	1'-7½"	1'-10"	2'-1"	1'-10"
S-5	See detail of culvert			6. Pumpkin Dr. - Sheet 2 of 7		
S-6	See detail of culvert			6. Strathmore - Sheet 2 of 7		

S.D. # D-17 57152-Y
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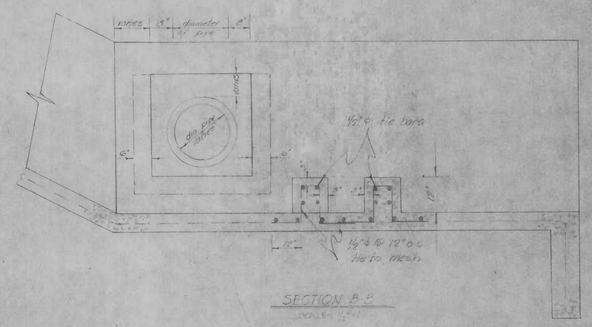
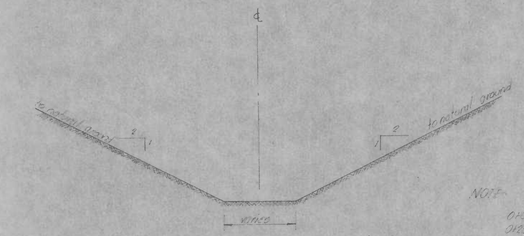
James A. Stapp
CHIEF ENGINEER
THE W.S.S.C. CONSTRUCTION DIVISION SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.

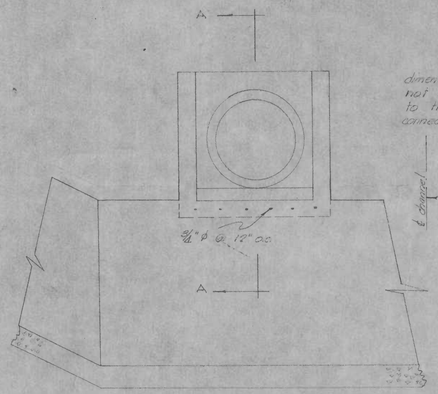


SECTION B-B
SCALE ½"=1'



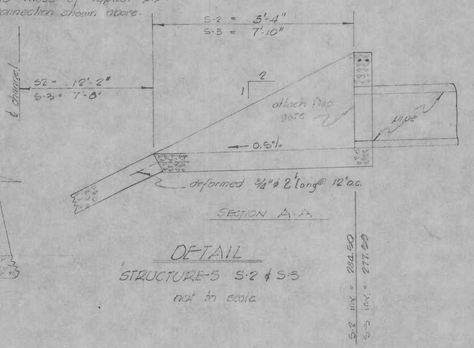
TYPICAL STORM SECTION
SCALE 1"=5'

NOTE: Width of channel bottom:
0+00 to 0+50 - transition 4' to 5'
0+50 to 10+81 (entrance to entry Bridge culvert) - 5'
10+81 to 10+91 (see culvert detail Bridge Dr.)
10+91 to 20+06 - 6'
20+06 to 20+65 (see culvert detail Strathmore service drive)
20+65 to 21+02 (entrance ending culvert) - 6'



ELEVATION

dimensions & reinforcement not shown are identical to those of typical pipe connection shown above.



SECTION A-A

DETAIL
STRUCTURES S-2 & S-3
not to scale

STORM DRAIN
STRUCTURE DETAILS
GARRETT PARK ESTATES
MONTGOMERY COUNTY, MARYLAND
SCALE AS SHOWN JULY 1957

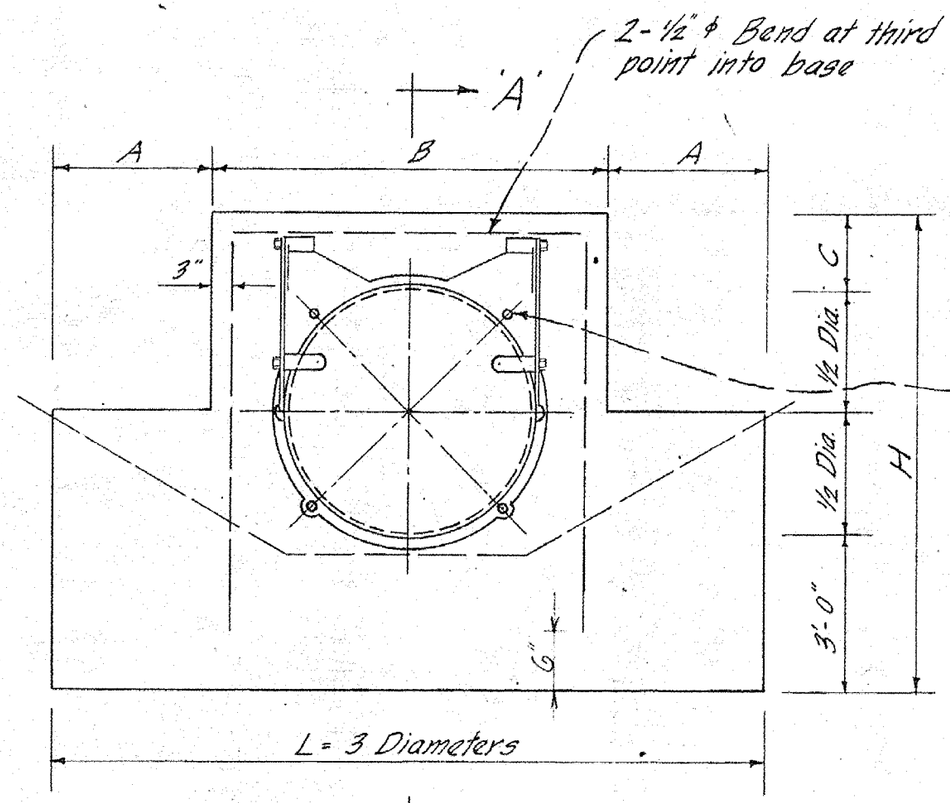
SEYDOLT & GEORGE, INC.
CIVIL ENGINEERS & LAND SURVEYORS
8604 RAMSEY AVE.
SILVER SPRING, MD.

SEYDOLT & GEORGE
File No. ABE-1149-G

sheet 6 of 7

CE 487-321-6

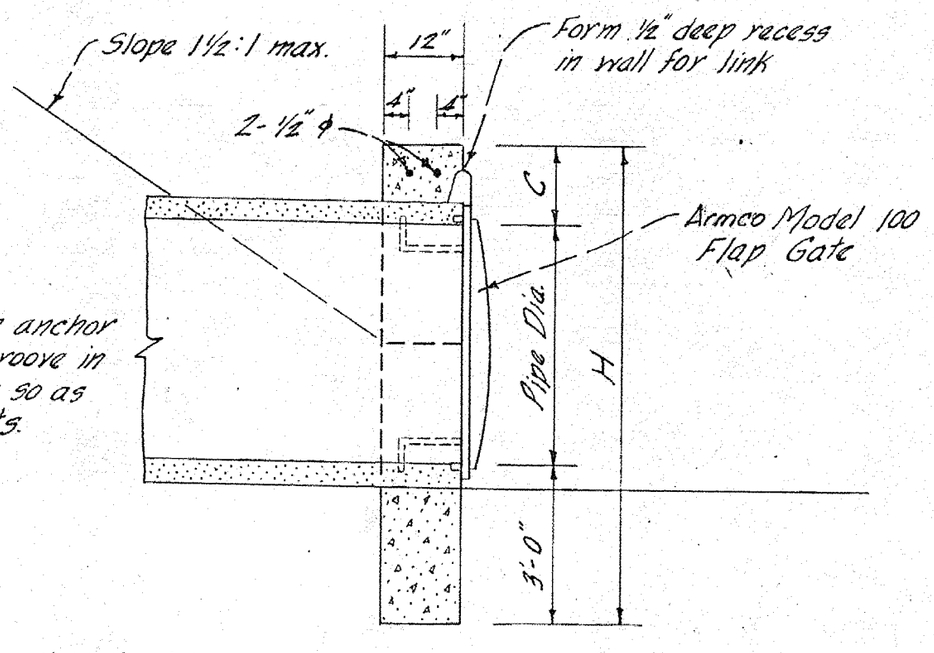
SD FILE NO. 325



All exposed edges to be chamfered 1"x1"

ELEVATION

Pipe Diameter	L	H	A	B	C	Cu. yds Conc.	D
15"	3'-9"	4'-11"	8"	2'-5"	8"	0.58	¼"
18"	4'-6"	5'-2"	10"	2'-10"	8"	0.70	⅝"
21"	5'-3"	5'-5"	13"	3'-1"	8"	0.94	⅝"
24"	6'-0"	5'-8"	15"	3'-6"	8"	1.14	⅝"
30"	7'-6"	6'-2"	21"	4'-0"	8"	1.49	⅝"
36"	9'-0"	6'-8"	27"	4'-6"	8"	1.97	¾"
42"	10'-6"	7'-2"	30"	5'-0"	8"	2.41	¾"



Flap gate shall be furnished with brass studs, bushings & nuts and bronze cotter pins.

Class B Concrete

SECTION 'A'-'A'
No Scale

STRUCTURES S-7 & S-8
STORM DRAIN
GARRETT PARK ESTATES
MONTGOMERY COUNTY, MARYLAND

not to scale

S.D. # D-17, 57152-7

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED December 12-57
FOR STORM DRAIN ONLY
James A. Stapp
SENIOR DESIGN ENGINEER

sheet 7 of 7

SEYBOLT AND GEORGE INC.
CIVIL ENGINEERS & LAND SURVEYORS
8404 RAMSEY AVENUE
SILVER SPRING, MD.

STORM DRAIN DETAIL
SPECIAL CUTOFF WALL WITH FLAP GATE

S & G INC. FILE NO.
116-308

CE 487-321-7

Maryland State Archives