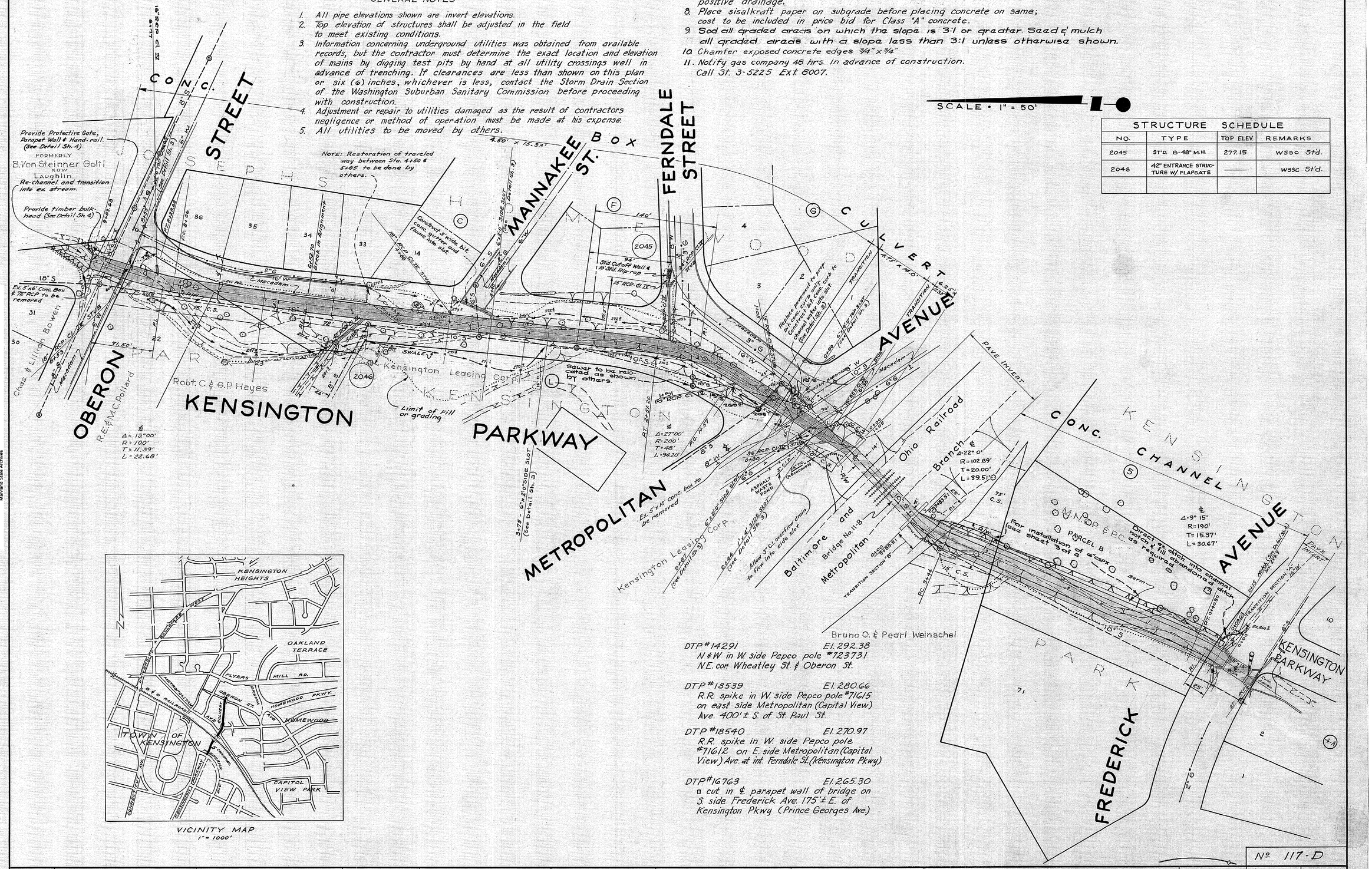
GENERAL NOTES

1. All pipe elevations shown are invert elevations.
2. Top elevation of structures shall be adjusted in the field to meet existing conditions.
3. Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of mains by digging test pits by hand at all utility crossings well in advance of trenching. If clearances are less than shown on this plan or six (6) inches, whichever is less, contact the Storm Drain Section of the Washington Suburban Sanitary Commission before proceeding with construction.
4. Adjustment or repair to utilities damaged as the result of contractors negligence or method of operation must be made at his expense.
5. All utilities to be moved by others.
6. All artificial fill under new construction shall be selected and approved gravel.
7. Fill shall be placed in abandoned sections of the stream and graded to provide positive drainage.
8. Place sisalkraft paper on subgrade before placing concrete on same; cost to be included in price bid for Class "A" concrete.
9. Sod all graded areas on which the slope is 3:1 or greater. Seed & mulch all graded areas with a slope less than 3:1 unless otherwise shown.
10. Chamfer exposed concrete edges ¾" x ¾"
11. Notify gas company 48 hrs. in advance of construction. Call St. 3-5225 Ext 6007.

SCALE • 1" = 50'

STRUCTURE SCHEDULE			
NO.	TYPE	TOP ELEV.	REMARKS
2045	ST'D. B-48" M.H.	277.15	WSSC Std.
2046	42" ENTRANCE STRUCTURE W/ FLAPGATE	——	WSSC Std.



VICINITY MAP
1" = 1000'

DRAWN	WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED September 11, 1961 (DATE) Robert J. McLeod (CHIEF ENGINEER)	STORM SEWER	SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR		A. Morton Thomas & Assoc. Inc. 7939 NORFOLK AVE. BETHESDA, MD.	CONTRACT Nº 117-D	KENSINGTON DISTRICT STORM DRAINS KENSINGTON PARKWAY	DRAWING NO. 1 OF 4	SCALE AS SHOWN	213NW3 5811175 Y 25NW61,26NW63
TRACED			AUTHOR 1-30-58		WATER & SEWERS	8/11/61					
CHECKED			JOB NO. 58D2612		R/W REQ'D	8/15/61					
EXAMINED					OTHER UTILITIES	9/16/61					
STARTED											

Nº 117-D

SD FILE NO. 144

CE487-143-1

RELEASED 9-12-61

Maryland State Archives

Channel to ex. stream per plan & details.
Construct & install protective gate.
at entrance. (See Detail Sh.4)
Provide parapet wall & pipe handrail.
(See Detail Sh.4)
Remove ex. concrete & pipe culvert

OBERON ST.

Construct timber bulk-head (See Detail Sh.4)

Provide for expansion joint in bottom & sides but not top slab

Box STA. 8+53 (Stub) 8+55 (Conv.)

6"x 4'-0" TOP SLOT (N) (See Detail Sh.3)

Fin. gr. @ 8155

Fin. gr. @ 8153

Ex. gr.

18" RCP. Cl. IV Stub (N) @ 0.8%

273.97

18"S.

277.49

Construct bit. conc. flume and warp into re-pavement to provide positive drainage (See Detail Sh.3)

Box STA. 8+27

Fin. gr.

Ex. gr.

2"S

18" RCP. Cl. IV S Stub (E) @ 4.5%

16"W.

274.02

2046

Box STA. 5+85

Fin. gr.

42" RCP. Cl. III @ 2.5%

269.57

269.41

18"S. (Encased)

TOP 268.04

Construct 2' low cradle each side of encasement.

0+42

0+00

Box STA. 4+88

Fin. gr.

18" RCP. Cl. IV S Stub (E) @ 0.5%

270.61

Ex. gr.

Box STA. 4+40

6"x 2'-0" SIDE SLOT (E) (See Detail Sh.3)

Form 6"x 3'-0" bit. conc. gutter with 2" depression across end of ex. pavement and flume into slot.

Fin. gr.

Ex. conc. cut.

270.70

Ex. gr.

Box STA. 3+75

6"x 2'-0" SIDE SLOT (W) (See Detail Sh. 3)

Fin. gr.

270.69

Ex. gr.

2045

Box STA. 2+40

Std. Cutoff Wall & 10' Riprap

24" RCP. Cl. IV Stub (SE) @ 2.0% INV. 272.40

15" RCP. Cl. IV Stub (E) @ 0.5%

275.72

15" S.F.

Fin. gr.

274.10

Fut. 16'W

274.13

24" RCP. Cl. IV @ 2.5%

267.73

Ex. gr.

266.15

0+68

0+00

0+08

Provide granite block paved invert.

Box STA. 1+51

Fin. gr.

Ex. gr.

18" RCP. Cl. IV Stub (W)

@ 1.0%

267.66

Box STA. 1+05

Fin. gr.

15" RCP. Cl. IV Stub (E)

@ 2.5%

16"W.

267.43

Ex. gr.

267.92

Box STA. 0+87

6"x 2'-0" SIDE SLOT (W) (See Detail Sh. 3)

Fin. gr.

Prop. Bit. conc. curb

Ex. mac.

Ex. gr.

267.92

Son. MH to be relocated by others.

280
275
270
265
260

LEGEND

- Ex. gr. @ ℄ structure
- Top east stream bank
- Top west stream bank
- ∘ 75' east of ℄ structure
- △ 75' west of ℄ structure

Box STA. 0+80

6"x 4'-6" TOP SLOT (E) (See Detail Sh. 3)

Fin. gr.

Ex. gr.

Ex. mac.

263.86

Construct bit. conc. curb to control water into slot. (See Detail Sh. 3)

Box STA. 0+44

Allow 3' C.I. overflow drain to flow into side slot.

1'x 4'-0" SIDE SLOT (W) (See Detail Sh. 3)

Fin. gr.

Ex. gr.

Ex. 3' C.I.

267.04

6' ø To be moved by others

Box STA. 0+30

Fin. gr.

Ex. gr.

36" RCP. Cl. III Stub (W)

@ 1.42%

263.30

15" RCP. Cl. IV S Stub (E) @ 1.0%

266.67

280
275
270
265
260

PROFILES

SCALE: 1" = 50' HOR.
1" = 5' VERT.

R.O.W. — KENSINGTON PARKWAY

REINFORCED CONCRETE BOX CULVERT

4.50' x 15.33'

4.75' x 14.0'

6.25' x 11.33'

B. & O. R.R.

Estab. grade & Appr'd. M.N.C.P. & P.C. (Tent) 8-26-60

Ex. Macadam

Est. ℄ grade

1' min. Fill over box.

Slot (E) 270.76 4+40

San. MH to be relocated by others

Remove ex. conc. culvert

METROPOLITAN AVE.

Ex. 3' C.I. overflow drain

Allow 3' C.I. overflow drain to flow into side slot

15" (E) 266.67

B. & O. R.R. Bridge No. 11-B (Stone Culvert)

Top of Arch

Extend concrete box 2'-0" inside face of arch and close arch opening with 12" reinf. conc. wall. (See Detail Sh. 4)

See Detail "B" Transition

CONCRETE TRAPEZOIDAL CHANNEL

Spring Line

R.O.W. — M.N.C.P. & P.C.

See Detail Transition "A"

FREDERICK AVE.

Ex. 15' WIDE BRIDGE

Ex. 255.20

Remove such stone and loose rubble from bottom of ex. culvert to allow 6" min. pavement. Pave invert with Class 'A' conc. providing wire mesh as in ∪ channel.

Pave invert with 6" min. Class 'A' conc. providing wire mesh as in ∪ channel.

Elevations: 275.5, 271.85, 269.52, 268.85, 266.14, 265.87, 264.82, 264.29, 263.71, 262.01, 262.21, 261.16, 257.21, 256.62

Stations: 9+03.68, 8, 7, 6, 5+90, +85, 5+80, 5, 4, 3, 2+45, +40, 2+35, 2, 1+10, 1+05, 1+00, 0+80, 0+45, 0+35, +30, 0+25, 0+00, 1+05, 0+00, 3+88.51, 3+63.30, 3, 2, 0+00, 0+35

280
275
270
265
260
250

DRAWN	WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED September 11, 1961 (DATE) Chief Engineer	STORM SEWER AUTHOR 1-30-58 JOB NO. 58 D 2612	SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR WATER & SEWER, R/W REQ'D, OTHER UTILITIES	A. Morton Thomas & Assoc. 7939 NORFOLK AVE. BETHESDA, MD.	CONTRACT No. 117-D
TRACED							
CHECKED JWM							
EXAMINED							
STARTED							

KENSINGTON DISTRICT
STORM DRAINS
KENSINGTON PARKWAY

DRAWING NO. 2 OF 4

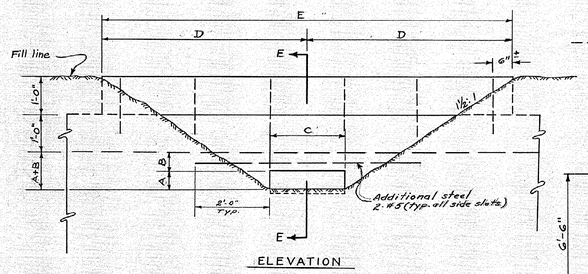
SCALE AS SHOWN

5811176 Y 213 NW3

No 117-D

CE 487-143-2

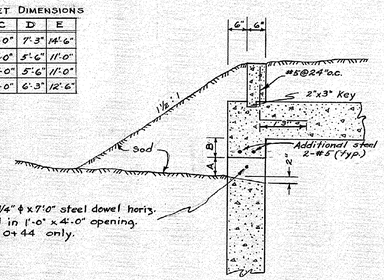
SD FILE NO. 144



ELEVATION

SIDE SLOT INLET DIMENSIONS

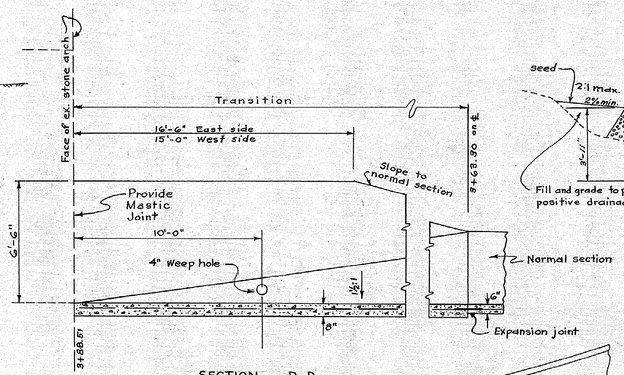
STA.	A	B	C	D	E
0+44	1'-0"*	6"	4'-0"	1'-3"	14'-6"
0+87	6"	6"	2'-0"	5'-6"	11'-0"
3+75	6"	6"	2'-0"	5'-6"	11'-0"
4+40	6"	1'-0"	2'-0"	6'-3"	12'-6"

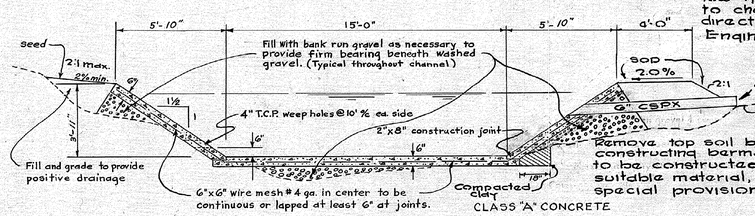


* Install ¾" ϕ x 7'-0" steel dowel horiz. centered in 1'-0" x 4'-0" opening. at Sta. 0+44 only.

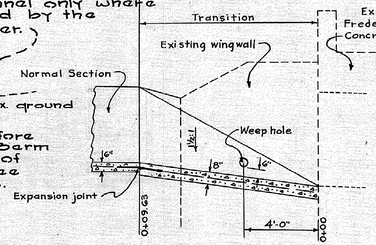
SECTION E-E

DETAILS - SIDE SLOT INLETS
SCALE: None

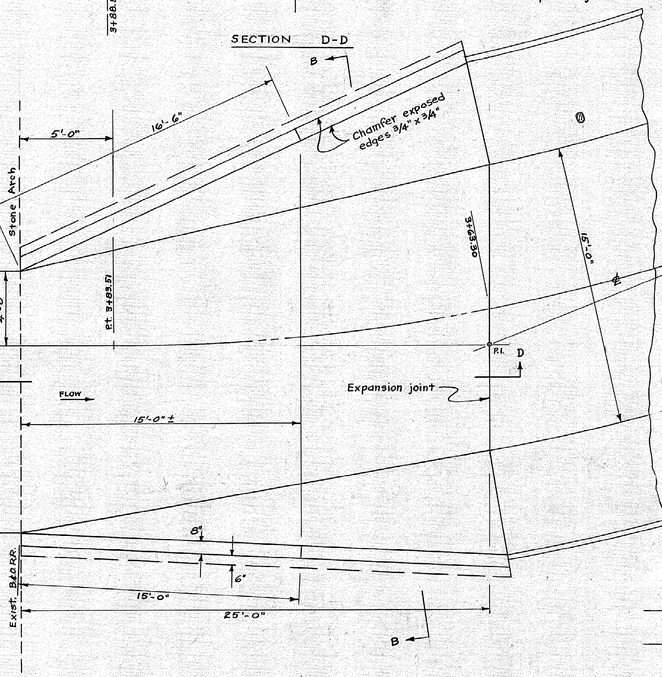


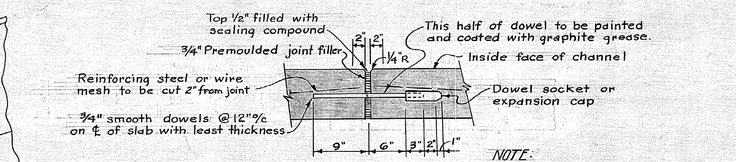


TYPICAL CROSS-SECTION FOR TRAPEZOIDAL CONCRETE OPEN CHANNEL STA. 0+09.63 to 3+63.30
SCALE: ¼" = 1'-0"



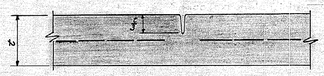
SECTION C-C



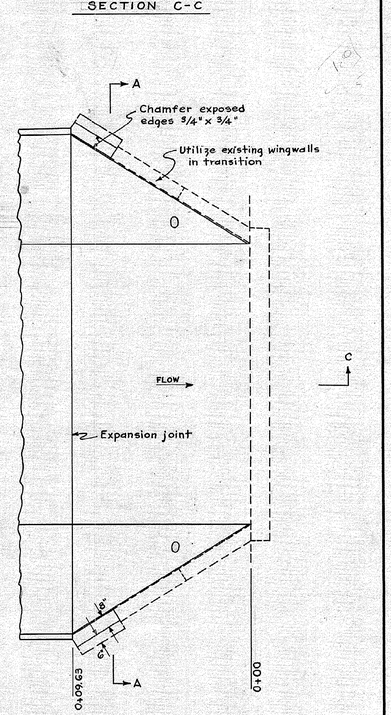


CHANNEL EXPANSION JOINT DETAIL
SCALE: 1"=1'-0"

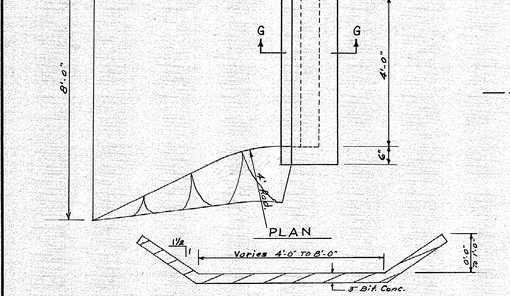
NOTE:
Space expansion joints 60' o.c. with dummy grooves between at 20' o.c.



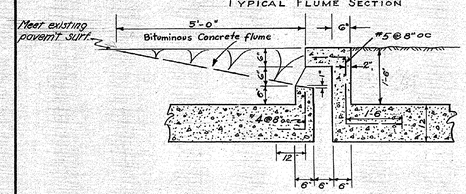
DUMMY GROOVE DETAIL
NO SCALE



PLAN

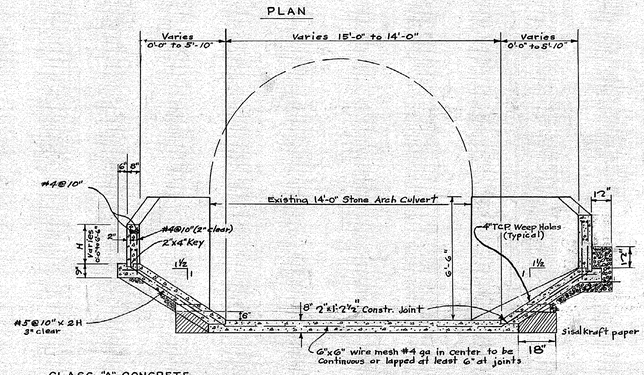


TYPICAL FLUME SECTION

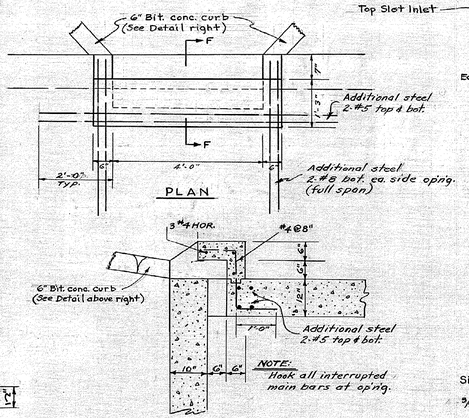


SECTION G-G

DETAILS - TOP SLOT INLET STA. 8+55
SCALE: ½" = 1'-0"

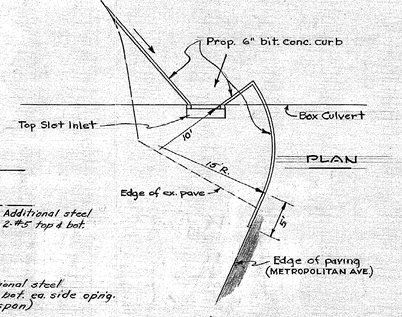


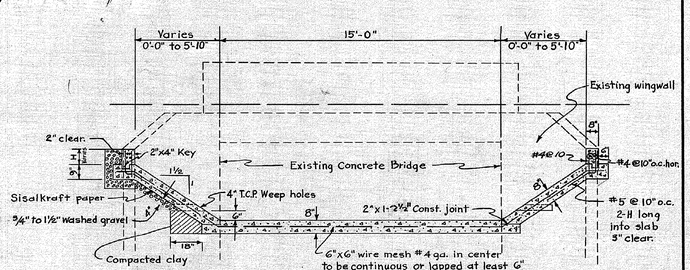
DETAILS - TRANSITION "B"
STA. 3+63.30 TO 3+88.51



SECTION F-F

DETAILS - TOP SLOT INLET STA. 0+80
SCALE: ½" = 1'-0"±





DETAILS - TRANSITION "A"
STA. 0+00 TO 0+09.63
SCALE: ¼" = 1'-0"

Nº 117-D

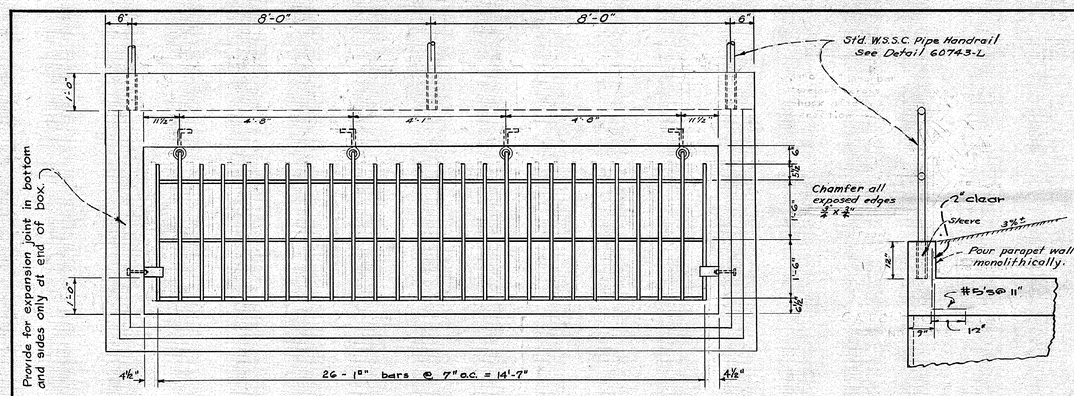
DRAWN / TRACED / CHECKED / EXAMINED / STARTED	WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED September 11, 1961 DATE — Robert J. McLeod CHIEF ENGINEER	STORM / SEWER — AUTHOR. 1-30-58 — JOB NO. 58 D 2612	SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR: WATER & SEWER, R/W REQ'D, OTHER UTILITIES	A. Morton Thomas & Assoc. 7939 NORFOLK AVENUE BETHESDA, MD.	CONTRACT Nº 117-D	KENSINGTON DISTRICT STORM DRAINS KENSINGTON PARKWAY	DRAWING NO. 3 OF 4 — SCALE AS SHOWN — 581177 Y

E-11 2-57 SC

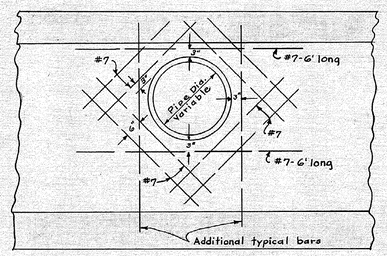
CE487-143-3

SD FILE NO. 144

Maryland State Archives



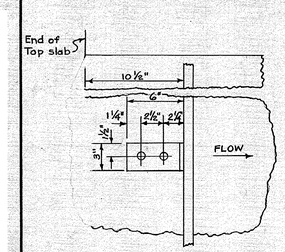
PROTECTIVE GATE — PARAPET WALL AND HANDRAIL DETAILS
SCALE: ½" = 1'-0"



NOTE: All cut and additional bars shall be hooked.

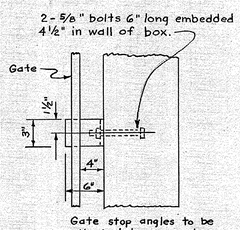
TYPICAL ADDITIONAL REINFORCEMENT AT PIPE CONNECTIONS INTO BOX CULVERT
NO SCALE

NOTES:
1. All welds to be ⅜" fillet welds. Bars to be welded together at all points of contact.
2. All bars shall be 1" □ intermediate grade plain steel bars.
3. Gate shall be given one shop coat of red lead after fabrication.
4. Gate shall be given two coats of bituminous paint after erection.

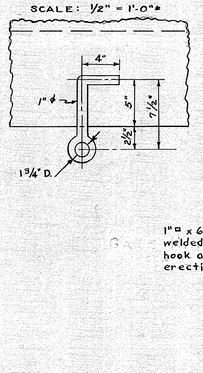


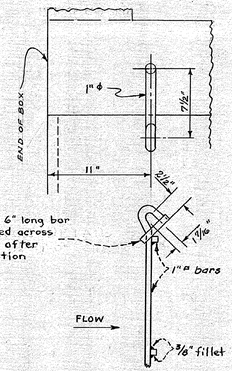
Gate stops to be made from 6" x 6" x ⅜" ∠ - 3" long

GATE STOP DETAIL
NO SCALE



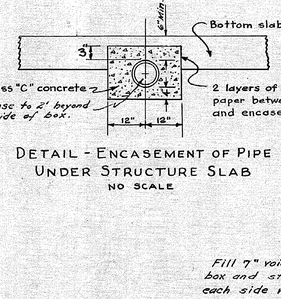
Gate stop angles to be attached to concrete walls on the upstream side of the gate only.



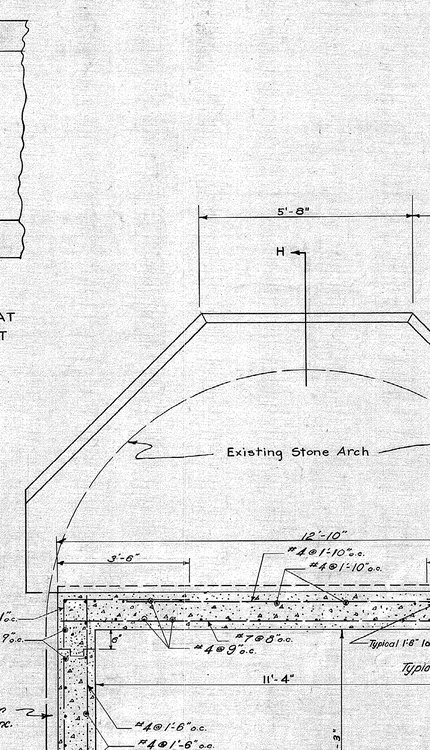


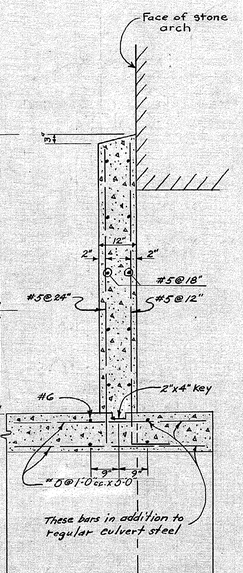
1" □ x 6" long bar welded across hook after erection

GATE HINGE AND HOOK DETAILS
NO SCALE



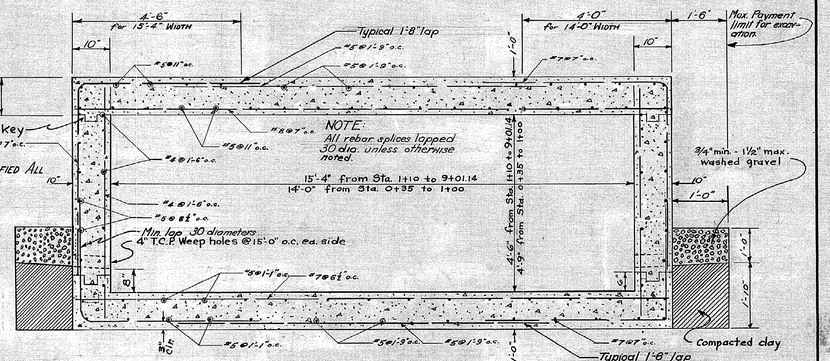
DETAIL - ENCASEMENT OF PIPE UNDER STRUCTURE SLAB
NO SCALE





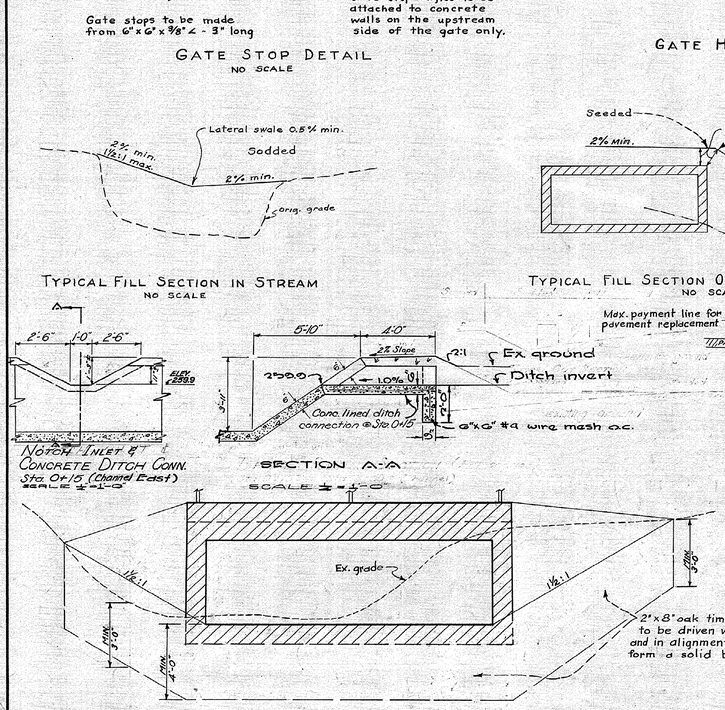
SECTION H-H

TYPICAL SECTION BOX CULVERT STA. 0-02 TO 0+35 AND DETAIL OF CONCRETE RETAINING WALL IN FRONT OF EXISTING STONE ARCH
SCALE: ½" = 1'-0"



NOTE:
UNLESS OTHERWISE SPECIFIED ALL BARS TO HAVE 2" COVER
CLASS 'A' CONCRETE

TYPICAL SECTION BOX CULVERT STA. 0+35 TO 9+01.14
SCALE: ½" = 1'-0"



TYPICAL FILL SECTION IN STREAM
NO SCALE

NOTCH, INLET & CONCRETE DITCH CONN. Sta. 0+15 (Channel East)
SCALE: 1" = 1'-0"

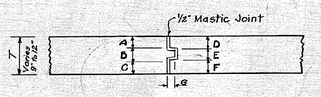
TYPICAL FILL SECTION OVER BOX CULVERT
NO SCALE

SECTION A-A
SCALE: 1" = 1'-0"

TYPICAL SECTION FROM 5+80± TO 7+90±
NO SCALE

TIMBER BULK-HEAD AT ENTRANCE TO BOX
SCALE: ¼" = 1'-0"

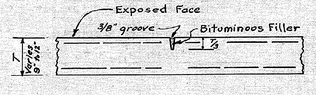
TYPICAL SECTION - RECHANNEL TO BOX NORTH OF OBERON STREET
NO SCALE



CULVERT EXPANSION JOINT

NOTE: Space expansion joints 60' o.c. with dummy joint grooves

NOTE: Between at 20' o.c. Longitudinal Rebar Clearance 2" Min. At Transverse Joint.



CULVERT DUMMY GROOVE

EXPANSION JOINT DIMENSIONS (See Detail)							
T	A	B	C	D	E	F	G
9'	2⅜	3½	2⅜	3"	3"	3"	2"
10'	3"	3½	3½	3½	3½	3½	2"
11'	3½	4"	3½	3½	3½	3½	2"
12'	4"	4"	4"	4½	3½	4½	2"

NOTE: UNLESS OTHERWISE SPECIFIED ALL BARS TO HAVE 2" COVER CLASS 'A' CONCRETE

DRAWN	WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED September 11, 1961 (DATE) Robert J. McFarland (CHIEF ENGINEER)	STORM / SEWER	SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR	R. Morton Thomas & Assoc. 7939 NORFOLK AVENUE BETHESDA, MD.	CONTRACT Nº 117 - D
TRACED			AUTHOR. 1-30-58		WATER & SEWER		
CHECKED			JOB NO. 58 D 2612		R/W REQ'D		
EXAMINED					OTHER UTILITIES		
STARTED							

KENSINGTON DISTRICT
STORM DRAINS
KENSINGTON PARKWAY

DRAWING NO. 4 OF 4 | SCALE AS SHOWN | 581178 Y

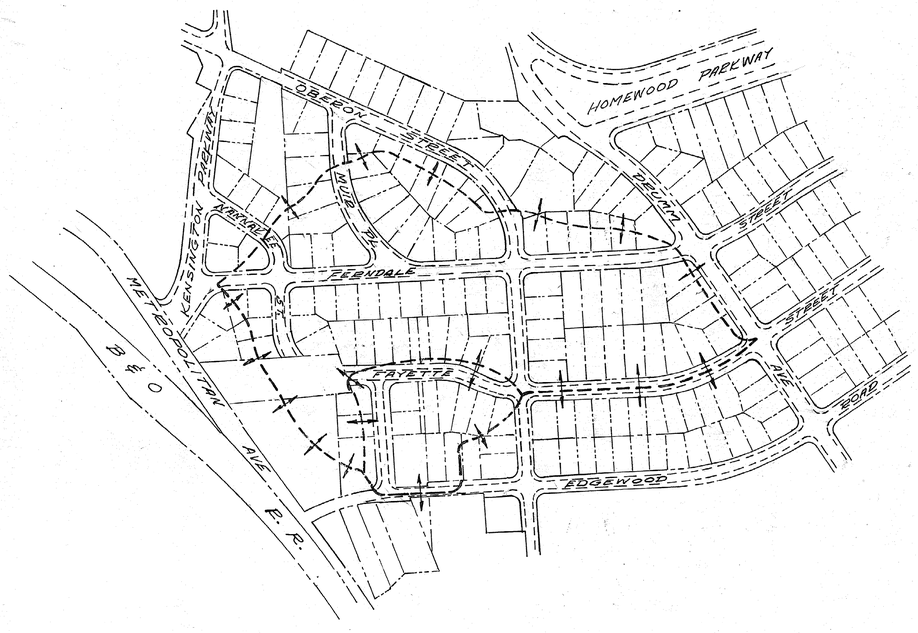
Nº 117-D

E-11 2-57 SC

CE487-143-4

SD FILE NO. 144

Maryland State Archives



Maryland State Archives

NUMBER	REVISION	DATE

DES.
DR. HARR 2/76
CHK.
REVISIONS

MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MD.

FERNDALE ST.
DRAINAGE DIVIDE
INCLUDES
MUIR PL. OBERON ST.
MANNAKEE ST. FAYETTE ST.

APPROVED

CHIEF, DIV. OF TRANS. ENG'G. — DIRECTOR, DEP'T. OF TRANS.

PROJECT: — DWG: OF

CE487-143-5

144

SD FILE # 144