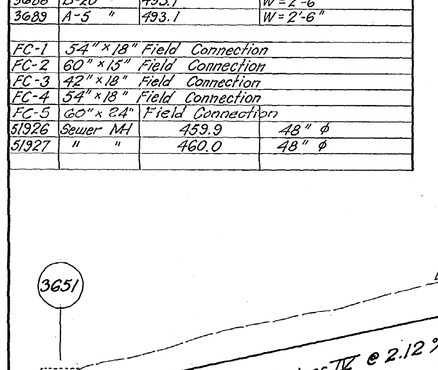
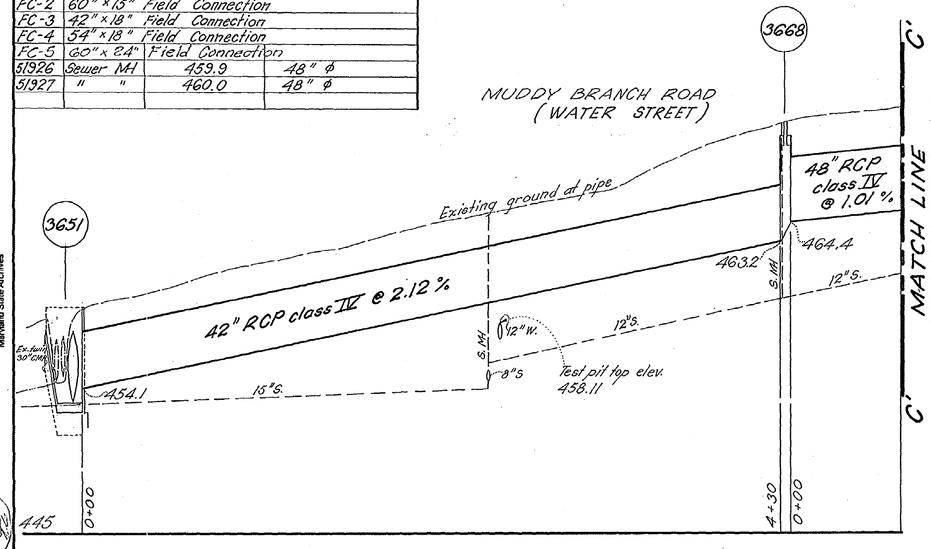
STRUCTURE SCHEDULE

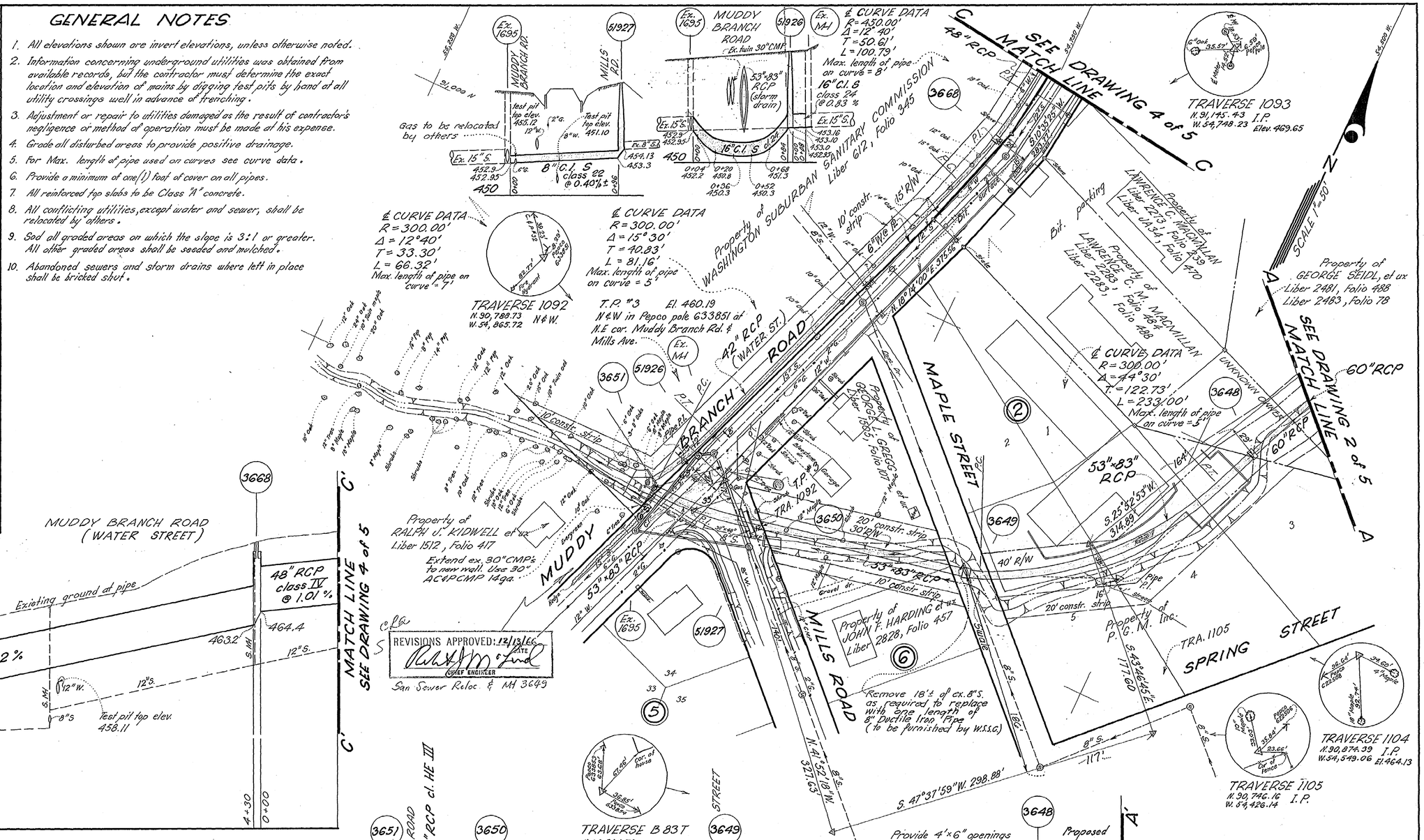
Nº	TYPE	TOP ELEVATIONS Upper	Lower	REMARKS
3640	'B' Manhole	504.0		78" × 48"
3641	'B" "	495.9		66" × 48"
3642	'B" "	493.6		60" ϕ
3643	'B" "	492.9		GG" Modified
3644	'B" "	488.5		72" × 48"
3645	Spec. Inlet	485.8		See Drawing # 5
3646	A-10 "	485.6		W = 2'-6"
3647	'B" Manhole	477.5		72" × 48"
3648	'B" "	467.5		96" × 48"
3649	'B" "	463.7		96" × 48"
3650	A-20 Inlet	460.4		W = 3'-0"
3651	Special Endwall			See Drawing # 5
3652	B-20 Inlet	497.9		W = 2'-6"
3653	E "	496.8		S.R.C.
3654	'B" Manhole	496.7		48" ϕ
3655	'A" "	498.1		48" ϕ
3656	S Inlet	496.6		S.R.C.
3657	'B" Manhole	496.7		72" × 48"
3658	S Inlet	496.4		S.R.C. double
3659	'A" Manhole	493.5		48" ϕ
3660	— — —			
3661	'B" "	486.9		54" ϕ
3662	'B" "	482.0		54" ϕ
3663	'B" "	499.0		48" ϕ
3664	'B" "	475.6		60" ϕ
3665	'B" "	474.8		60" ϕ
3666	B-10 Inlet	475.8		W = 2'-6"
3667	B-10 "	475.1		W = 2'-6"
3668	'B" Manhole	470.5		60" ϕ
3669	'D" Inlet	468.0		
3686	B-10 Inlet	493.3		W = 2'-6"
3687	B-20 "	493.6		W = 2'-6"
3688	B-20 "	493.1		W = 2'-6"
3689	A-5 "	493.1		W = 2'-6"
FC-1	54" × 18" Field Connection			
FC-2	60" × 15" Field Connection			
FC-3	42" × 18" Field Connection			
FC-4	54" × 18" Field Connection			
FC-5	60" × 24" Field Connection			
51926	Sewer M-1	459.9		48" ϕ
51927	" "	460.0		48" ϕ

GENERAL NOTES

1. All elevations shown are invert elevations, unless otherwise noted.
2. 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.
3. Adjustment or repair to utilities damaged as the result of contractor's negligence or method of operation must be made at his expense.
4. Grade all disturbed areas to provide positive drainage.
5. For Max. length of pipe used on curves see curve data.
6. Provide a minimum of one(1) foot of cover on all pipes.
7. All reinforced top slabs to be Class 'A' concrete.
8. All conflicting utilities, except water and sewer, shall be relocated by others.
9. Sod all graded areas on which the slope is 3:1 or greater. All other graded areas shall be seeded and mulched.
10. Abandoned sewers and storm drains where left in place shall be bricked shut.







REVISIONS APPROVED: 12/13/66 DATE
CHIEF ENGINEER
San Sewer Reloc & Mt 3649

DATE	DESCRIPTION
12/13/66	M1 3649 & San. Sewer Relocation
10/19/66	Corrected Job Number

REVISIONS
CONTRACT NO. 0279-D W

DESIGNED V.J.P.
TRACED
CHECKED R.M.
EXAMINED
STARTED DEC. '62

WASHINGTON SUBURBAN SANITARY COMMISSION

APPROVED September 16, 1966 DATE
CHIEF ENGINEER

STORM DRAIN
AUTHOR 11-1-62
JOB NO. 62 DW 1170

SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.

EXAMINED FOR		
WATER — SEWER		9/19/66
R/W REQ'D		9/19/66
OTHER UTILITIES		9/19/66

Ben Dyer Associates, Inc. 779-6500
ENGINEERS — SURVEYORS
4703 QUEENSBURY ROAD
RIVERDALE, MARYLAND

CONTRACT NO. 0279-D W

GAITHERSBURG DISTRICT, MONTGOMERY COUNTY, MD.
STORM DRAINAGE
VICINITY OF FREDERICK AVE. AT B. & O. R-R GAITHERSBURG

DRAWING NO. 1 OF 5

223 NW-10
63035
Y

CE 487-234-1

SD FILE NO. 235

TRAVERSE 1103
N. 91,157.70 I.P. El. 469.28
W. 54,411.59

TRAVERSE 1102
N. 91,431.47 I.P.
W. 54,056.25

T.P. #4 El. 478.66
N. & W. in Pepco pole 67194
20'± E. of Trav. Station 1102

TRAVERSE 1101
N. 91,547.65 I.P. El. 485.61
W. 53,840.50

N. 62°16'59" W. 463.57'

S. 52°23'05" W. 448.55'

40' R/W for storm drainage

7½' construction strip

60" RCP

7½' construction strip

60" RCP

Grade swale to provide positive drainage into "B" MH = 3647

℄ CURVE DATA
R = 400.00'
Δ = 9°00'
T = 31.48'
L = 62.83'
Max. length of pipe on curve = 8'

60" RCP

60" RCP

24" RCP

Ex. conc. c & g

Remove plug from existing 24" RCP and connect to proposed 24" RCP

Property of O. W. ANDERSON, ENTERPRISES Liber 693, Folio 65

FREDERICK AVENUE

SCALE 1" = 50'

N

MATCH LINE SEE DRAWING 3 of 5

B — B

℄ CURVE DATA
R = 685.00'
Δ = 16° 30'
T = 99.32'
L = 197.27'
Max. length of pipe on curve = 8'

Field Conn #5 & 24' of 24" RCP

LIGHTLY WOODED

LIGHTLY WOODED

S. 25°52'55" W. 314.89

P.I.

Property of ALICE D. TRUNDLE & ANNIE M. TRUNDLE Liber EPB 17, Folio 144

℄ CURVE DATA
R = 400.00'
Δ = 44°30'
T = 163.64'
L = 310.67'
Max. length of pipe on curve = 8'

MATCH LINE SEE DRAWING 1 of 5

A — A

Bluestone drive

20" Tree

24" Tree

Valley

Original ground

1' min. cover

Proposed grade

RCP

TYPICAL FILL SECTION
SCALE 1" = 5'

Provide openings in NE & SW sides

Proposed grade over pipe

Original ground

Ex. 1' ditch

15" RCP class III @ 1.11 %

60" RCP

464.6

464.5

455

0+00

0+69

Provide openings in N.W. & S.E. sides. See detail Drwg. No. 5.

Proposed grade over pipes

Top of curb south of pipe

Ex. 18" RCP to be bricked shut

Invert of stream

Ex. 3'x4' Conc. box @ 2.08 %

60" RCP class III @ 0.86 %

4:1

Ex. 42" RCP

Ex. 24" RCP

24" RCP Cl. IV @ 1.04 %

482.0

481.75

479.7

477.2

474.8

473.9

474.6

60" RCP class III @ 1.00 %

1+20 Grade break

2+75 60"x24" Fld. Conn.

0+84

0+00

475

470

FREDERICK AVE. (Service Drive)

Bluestone drive

3647

Provide 5'x6" opening in S.E. side. Set frame in slab.

North bank

South bank

Remove

24" C.I.P.

Invert of stream

Proposed grade over pipes

60" RCP class II @ 1.41 %

@ 1.50 %

60" RCP class II @ 1.18 %

470.7

469.1

471.6

0+60 Grade break

6+08

0+00

455

1+12=60"x15"

Field Connection

2+55

0+00

0+20

0+00

MATCH LINE SEE DRAWING 3 of 5

PROFILE SCALE
Hor. 1" = 50'
Vert. 1" = 5'

STATE OF MARYLAND — CHARLES J. CARDEW — REGISTERED PROFESSIONAL ENGINEER

C. J. Cardew 8-25-66

DATE	DESCRIPTION
	REVISIONS
12/14/66	Addition of Fld. Conn. 5 & 24' of 24" RCP
10/19/66	Corrected Job Number

CONTRACT NO. 0279-DW

DESIGNED	V.J.P.
TRACED	
CHECKED	
EXAMINED	
STARTED	DEC. '62

WASHINGTON SUBURBAN SANITARY COMMISSION

APPROVED September 16, 1966 (DATE)
CHIEF ENGINEER

STORM DRAIN
AUTHOR
11-1-62
JOB NO.
62 DW 1170

SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.

EXAMINED FOR		
WATER – SEWER		
R/W REQ'D		
OTHER UTILITIES		

Ben Dyer Associates, Inc. 779-8500
ENGINEERS – SURVEYORS
4703 QUEENSBURY ROAD
RIVERDALE, MARYLAND

CONTRACT NO. 0279-DW

GAITHERSBURG DISTRICT
STORM DRAINAGE
VICINITY OF FREDERICK AVE. AT B. & O. R-R
GAITHERSBURG

DRAWING NO. 2 OF 5

223 NW 9 & 10
63036
Y
46 NW 18-1
46 NW 19-2
D 62186

CE 487-234-2

SD FILE NO. 235

Maryland State Archives

T.P. #5 El. 490.03
N. & W. in Pepco pole at int. of Frederick Ave. & Route 124

MATCH LINE B SEE DRAWING 2 of 5

FREDERICK AVENUE (Md. Rt. 355)

℄ CURVE DATA
R = 270.00'
Δ = 29° 30'
T = 71.09'
L = 139.02
Max. length of pipe on curve = 6

℄ CURVE DATA
R = 685.00'
Δ = 16.30'
T = 99.32'
L = 197.27'
Max length of pipe on curve = 8

TRAVERSE 1100
T.P.

TRAVERSE 1098
N. 91,303.76
W. 52,907.47 El. 495.36

TRAVERSE 1097
N. 91,250.45 I.P.
W. 52,409.30

TRAVERSE 1099
N. 91,116.33 I.P. El. 493.14
W. 53,133.47

OAK AVE.

CEDAR AVENUE

SUMMIT AVENUE

N. 83°53'28" W. 500.98'

Property of O. W. ANDERSON, ENTERPRISES Liber 693 Folio 65

Property of E. LEE GARTNER

Property of Wm. E. NORMAN et ux

Property of B. & O. R-R

Property of BAKER

Property of HAROLD C. MORRIS et ux

Remove ex. paving, gate & endwall as required and build manhole over end of ex. 43" × 68" RCP.

Transition sleeve
Existing 6" or 8" water main
R.C.P. Storm Drain
Test pit top elev. shown
6" or 8" ⅛ V.B.'s
Provide 0.5' minimum clearance

For details of welding & painting the steel pipe see standard detail # G51239-L

WATER MAIN LOWERING
SCALE 1" = 5'

SCALE 1" = 50'

18" RCP cl. V @ 5.45 %
Ex. 18" G.I.P.
Conduit

24" RCP cl. IV @ 1.71 %
21" RCP cl. V @ 1.29 %
18" RCP cl. V @ 1.25 %
Provide 2' of low cradle 9" each side of PEPCO conduit. Cradle to extend to bottom of conduit.
Telephone conduit
PEPCO conduit Relocated
Test pit top elev. 488.17

15" RCP cl. IV @ 3.33 %

54" RCP class IV @ 0.99 % To be lowered
54" RCP class IV @ 0.92 %
54" RCP class IV @ 1.01 %
48" RCP class IV @ 0.88 %

Existing ground
Finish grade
Invert of stream @ pipe ℄
North bank
South bank

Set MH frame in slab 4" × 6" openings in S.E. & N.W. sides. Use 5'-0" × 4" × 4" × ¼" JL lintels.

Provide 1" expansion joint material between top of pipe and bottom of curb and gutter.

Telephone conduit to be relocated by others.

Pepco conduit to be relocated by others.

Gas to be relocated by others

8"W. test pit top elev. 487.84 To be lowered, see detail this drawing.

test pit top elev. 484.33

8"S.HC. test pit top elev. 482.22

Provide 2' of low cradle 9" each side of 8"S.HC. Cradle to extend to bottom of S.HC.

1+16 54"×18" field connection

Ex. 53"RCP

Ex. 68"×43" RCP

PROFILE SCALE
Hor. 1" = 50'
Vert. 1" = 5'

STATE OF MARYLAND — CHARLES VERNON PHILLIPS — No. 4139 — REGISTERED PROFESSIONAL ENGINEER

C. V. Crocker 8-23-66

8/9	10/9/66 Corrected Job Number
DATE	DESCRIPTION
REVISIONS	
CONTRACT NO. 0279-DW	

DESIGNED	V.J.P.
TRACED	
CHECKED	
EXAMINED	
STARTED	DEC. '62

WASHINGTON SUBURBAN SANITARY COMMISSION

APPROVED September 16, 1966 (DATE)
CHIEF ENGINEER

STORM DRAIN
AUTHOR
11-1-62
JOB NO.
62 DW 1170

SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.

EXAMINED FOR		
WATER	SEWER	
R/W REQ'D		
OTHER UTILITIES		

Ben Dyer Associates, Inc.
779-8500
ENGINEERS – SURVEYORS
6705 QUEENSBURY ROAD
RIVERDALE, MARYLAND

CONTRACT NO. 0279-DW

GAITHERSBURG DISTRICT
STORM DRAINAGE
VICINITY OF FREDERICK AVE. AT B. & O. R-R
GAITHERSBURG

DRAWING NO. 3 OF 5

223 NW-9
63037
Y
46 NW 18-142

D 62186

CE 487-234-3

SD FILE NO. 235

Maryland State Archives

SCALE 1" = 50'

N

Property of WASHINGTON SUBURBAN SANITARY COMMISSION Liber 612, Folio 345

Property of THOMAS FOODS CORP. Des. Liber 262, Folio 398

Property of WILSON S. CLAGGETT, et ux Liber 3009, Folio 557

Property of FRED G. BABER, et ux Liber 922, Folio 149

Property of JAMES A. FEDERLINE Inc. Liber 2726, Folio 393

Property of MARIAN JACOBS et vir

Property of W. LAWSON KING Liber 1498 Folio 401

Property of State of Maryland

MEEM AVE.

DIAMOND AVE.

MUDDY BRANCH (WATER ST.)

ROAD

AVENUE (Md. Rt. 355)

FREDERICK AVE.

BROOK AVE.

RAILROAD

B. & O. R.R. tracks

Tracks

ICE PLANT

Paved parking

Bit. surface parking

Ex. paving

Frame building

Brick garage

Cinder block building

Frame house

Ex. Inlet

Ex. Tel. Pole

Ex. Gas line

Ex. Water line

Ex. Sewer line

Ex. Storm drain

Ex. Gas valve

Ex. Water valve

Ex. Tel. manhole

Ex. Sewer manhole

Ex. Storm manhole

Ex. Tel. booth

Ex. Tank

Ex. Pump

Ex. Fire hydrant

Ex. Water meter

Ex. Gas meter

Ex. Tel. pedestal

Ex. Light pole

Ex. Guy wire

Ex. Power pole

Ex. Concrete walk

Ex. Curb & gutter

Ex. Bit. curb & gutter

Ex. Bit. parking

Ex. Conc. curb

Ex. Conc. gutter

Ex. Conc. curb & gutter

Ex. Conc. apron

Ex. Conc. steps

Ex. Conc. block wall

Ex. Cinder block wall

Ex. Brick wall

Ex. Stone wall

Ex. Frame wall

Ex. Chain link fence

Ex. Wire fence

Ex. Post & wire fence

Ex. Rail fence

Ex. Hedge

Ex. Shrubs

Ex. Trees

Ex. Deciduous tree

Ex. Evergreen tree

Ex. Stump

Ex. Flower bed

Ex. Vegetable garden

Ex. Lawn

Ex. Grass

Ex. Weeds

Ex. Cultivated field

Ex. Woods

Ex. Orchard

Ex. Ground

Ex. Ground over pipe

Ex. Ground over pipes

Ex. Paved surface

Ex. Gravel surface

Ex. Dirt surface

Ex. Dirt road

Ex. Gravel road

Ex. Paved road

Ex. Bridge

Ex. Culvert

Ex. Stream

Ex. Ditch

Ex. Dry ditch

Ex. Dry stream

Ex. Pond

Ex. Spring

Ex. Well

Ex. Cellar

Ex. Basement

Ex. Garage

Ex. Shed

Ex. Barn

Ex. Silo

Ex. Greenhouse

Ex. Tennis court

Ex. Swimming pool

Ex. Pump house

Ex. Gate house

Ex. Gate

Ex. Fence

Ex. Sign

Ex. Mail box

Ex. Flag pole

Ex. Light

Ex. Hydrant

Ex. Valve

Ex. Meter

Ex. Manhole

Ex. Inlet

Ex. Catch basin

Ex. Curb inlet

Ex. Area inlet

Ex. Grease trap

Ex. Oil trap

Ex. Sand trap

Ex. Septic tank

Ex. Drain field

Ex. Sump

Ex. Cistern

Ex. Water tank

Ex. Water tower

Ex. Gas tank

Ex. Oil tank

Ex. Gasoline tank

Ex. Propane tank

Ex. Gas pump

Ex. Oil pump

Ex. Gasoline pump

Ex. Air pump

Ex. Water pump

Ex. Hand pump

Ex. Well pump

Ex. Sump pump

Ex. Pump

Ex. Compressor

Ex. Generator

Ex. Transformer

Ex. Switch

Ex. Circuit breaker

Ex. Fuse

Ex. Relay

Ex. Capacitor

Ex. Resistor

Ex. Inductor

Ex. Coil

Ex. Motor

Ex. Starter

Ex. Contactor

Ex. Overload

Ex. Thermostat

Ex. Pressure switch

Ex. Flow switch

Ex. Level switch

Ex. Temperature switch

Ex. Humidity switch

Ex. Timer

Ex. Clock

Ex. Counter

Ex. Meter

Ex. Gauge

Ex. Thermometer

Ex. Barometer

Ex. Hygrometer

Ex. Anemometer

Ex. Weather vane

Ex. Rain gauge

Ex. Snow gauge

Ex. Wind sock

Ex. Flag

Ex. Banner

Ex. Sign

Ex. Billboard

Ex. Poster

Ex. Bulletin board

Ex. Mail box

Ex. Newspaper box

Ex. Vending machine

Ex. Pay phone

Ex. Fire alarm box

Ex. Police call box

Ex. Emergency phone

Ex. Intercom

Ex. Loudspeaker

Ex. Microphone

Ex. Camera

Ex. Video camera

Ex. Security camera

Ex. Motion detector

Ex. Door

Ex. Window

Ex. Skylight

Ex. Vent

Ex. Louver

Ex. Grille

Ex. Duct

Ex. Pipe

Ex. Conduit

Ex. Cable

Ex. Wire

Ex. Antenna

Ex. Mast

Ex. Tower

Ex. Guy wire

Ex. Anchor

Ex. Foundation

Ex. Footing

Ex. Pier

Ex. Abutment

Ex. Retaining wall

Ex. Bulkhead

Ex. Seawall

Ex. Jetty

Ex. Breakwater

Ex. Groin

Ex. Dock

Ex. Pier

Ex. Wharf

Ex. Boat ramp

Ex. Boat slip

Ex. Mooring

Ex. Buoy

Ex. Channel marker

Ex. Navigation light

Ex. Fog horn

Ex. Radar

Ex. Sonar

Ex. Depth finder

Ex. Speed indicator

Ex. Compass

Ex. Chronometer

Ex. Sextant

Ex. Chart

Ex. Logbook

Ex. Radio

Ex. Telephone

Ex. Telegraph

Ex. Teletype

Ex. Fax machine

Ex. Computer

Ex. Printer

Ex. Scanner

Ex. Modem

Ex. Router

Ex. Switch

Ex. Hub

Ex. Server

Ex. Workstation

Ex. Terminal

Ex. Keyboard

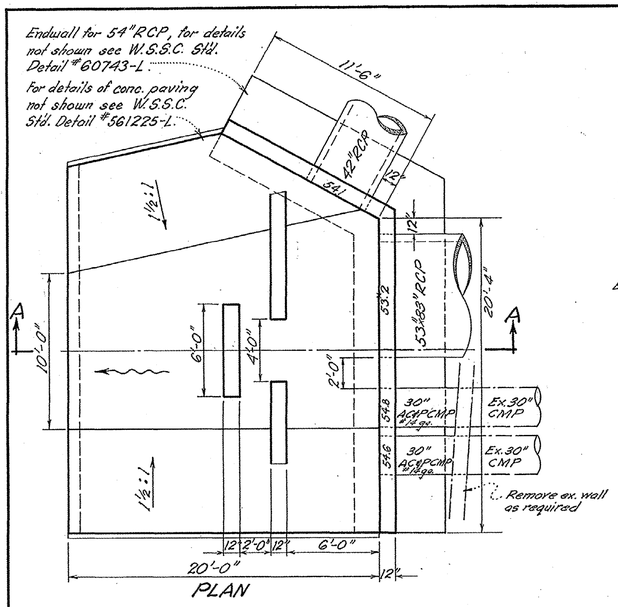
Ex. Mouse

Ex. Monitor

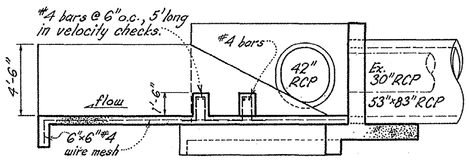
Ex. Screen

Ex. Speaker

Ex. Headset



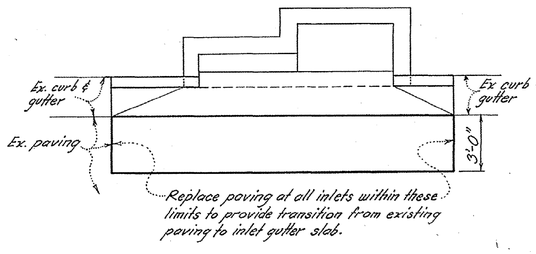
PLAN



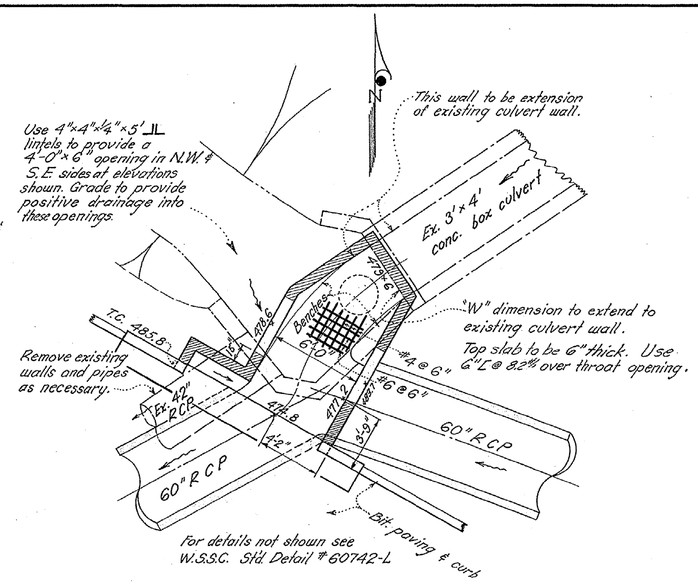
SECTION A-A

DETAIL OF ENDWALL #3651

SCALE 1"=5'

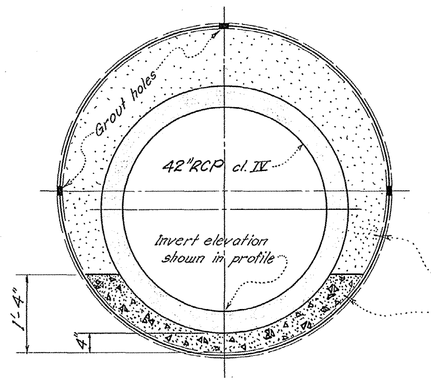


PAVING REPLACEMENT



DETAIL OF #3645 Modified B-10

SCALE 1"=5'



NOTE:

68" diameter tunnel liner plate. Provide grouting plugs in assembled ring. Position of plugs in assembled rings to be left side, top side, right side, etc. at maximum spacing of 4'-6".

Use temporary wooden bulkheads to retain sand in tunnel during backfilling.

Fill space between tunnel liner plate & earth with 1:3 cement grout applied under pressure.

Backfill with sand.

Class 'C" concrete.

68" neutral axis metal tunnel liner, Armco 12 gage or Truscon 3/16" or Commercial 3/16" or approved equivalent.

DETAIL OF TUNNEL LINER UNDER B.&O. R-R TRACKS

SCALE 3/4"=1'-0"

C.T. Cochran 8-23-66

DATE	DESCRIPTION
	REVISIONS
10/19/66	Corrected Job Number

CONTRACT NO. 0279-DW

DRAWN / TRACED / CHECKED / EXAMINED / STARTED	WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED September 16, 1966 (DATE) Chief Engineer	STORM DRAINAGE / AUTHOR / 11-1-62 / JOB NO. / 62-DW-1170	SUPERVISION FOR MAIN LINES ONLY REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR: WATER SEWER; R/W REQ'D; OTHER UTILITIES	Bess Dyes Associates, Inc. 779-8500 ENGINEERS – SURVEYORS 4705 QUEENSBURY ROAD RIVERDALE, MARYLAND	CONTRACT #0279-DW	GAITHERSBURG DISTRICT STORM DRAINAGE VICINITY OF FREDERICK AVE. AT B. & O. R-R GAITHERSBURG	DRAWING NO. 5 OF 5	63039 Y

CE487-234-5

SD FILE NO. 235

D-62186

Maryland State Archives