

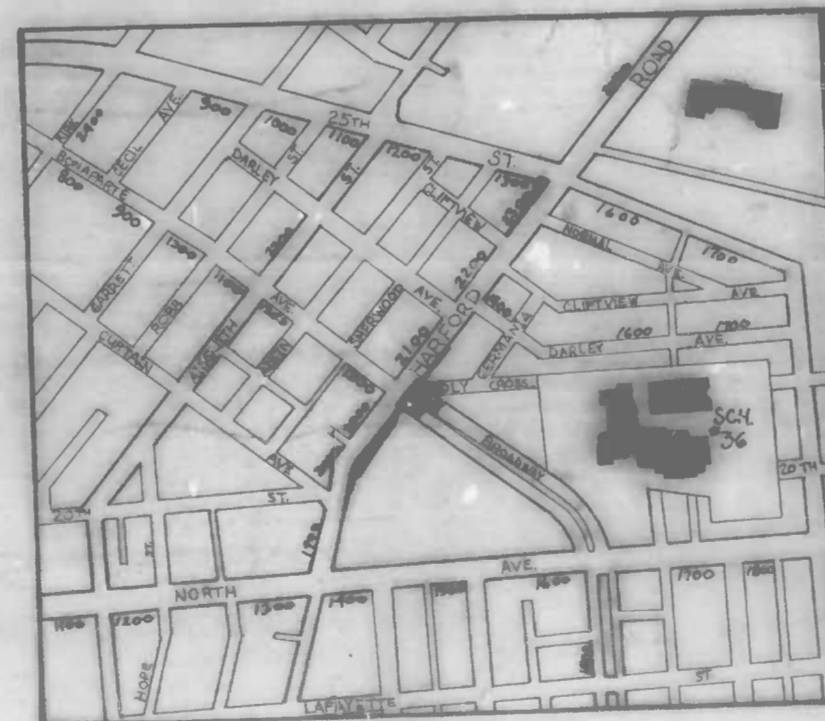
**CITY OF BALTIMORE**  
**DEPARTMENT OF TRANSPORTATION**  
**HIGHWAY AND BRIDGE ENGINEERING**  
 GRADING, CURBING, PAVING, DRAINAGE, AND UTILITY ADJUSTMENTS  
**HARFORD ROAD.**  
 20 TH STREET ~250' ± N. OF BROADWAY.  
 CLIFTVIEW AVE. ~25 TH STREET



CITY OF BALTIMORE HIGHWAY ENGINEERING CONTRACT NO. 3095

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Revision No 1 See Sheet No's 18, 20 & 21 of 27	2-1-88	J.C.B.
2	Revision No 2 See Sheet No's 18, 20 & 21 of 27	2-10-88	J.C.B.
3	Revision No 3 See Sheet No. 18 of 27	3-2-88	J.C.B.
4	Revision No 4 See Sheet No's 6, 10 & 23 of 27	4-29-88	K.B.

INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS (20th ST. TO 250' ± N. OF BROADWAY)
3	TYPICAL SECTIONS & DETAILS (20th ST. TO 250' ± N. OF BROADWAY)
4	TYPICAL SECTIONS & DETAILS (20th ST. TO 250' ± N. OF BROADWAY & CLIFTVIEW AVE. TO 25th ST.)
5	PLAN & PROFILE (20th ST. TO STA. 4+50)
6	PLAN & PROFILE (STA. 4+50 TO STA. 9+00)
7	PLAN & PROFILE (STA. 9+00 TO 250' ± N. OF BROADWAY)
8	PLAN & PROFILE (CLIFTVIEW AVE. TO 25th ST.)
9	LANE POUR LAYOUT (20th ST. TO 250' ± N. OF BROADWAY)
10	TRAFFIC CONTROL PLAN PHASE I NON-PEAK HOURS
11	TRAFFIC CONTROL PLAN PHASE I PEAK HOURS
12	TRAFFIC CONTROL PLAN PHASE II A & II B
13	TRAFFIC CONTROL PLAN PHASE II A
14	TRAFFIC CONTROL PLAN PHASE II B & II C
15	UTILITY PLAN (20th ST. TO STA. 4+50)
16	UTILITY PLAN (STA. 4+50 TO STA. 9+00)
17	UTILITY PLAN (STA. 9+00 TO 250' ± N. OF BROADWAY)
18	UTILITY PLAN (CLIFTVIEW AVE. TO 25th ST.)
19	STORM DRAIN PLAN & PROFILE (20th ST. TO 250' ± N. OF BROADWAY)
20	CONDUIT PLAN, PROFILE, & VARIOUS DETAILS (20th ST. TO 250' ± N. OF BROADWAY)
21	STREET LIGHTING, & TRANSIT & TRAFFIC (20th ST. TO 250' ± N. OF BROADWAY & CLIFTVIEW AVE. TO 25th ST.)
22	SOIL EROSION & SEDIMENT CONTROL (20th ST. TO STA. 4+50)
23	SOIL EROSION & SEDIMENT CONTROL (STA. 4+50 TO STA. 9+00)
24	SOIL EROSION & SEDIMENT CONTROL (STA. 9+00 TO 250' ± N. OF BROADWAY)
25	SOIL EROSION & SEDIMENT CONTROL (CLIFTVIEW AVE. TO 25th ST.)
26	SOIL EROSION & SEDIMENT CONTROL DETAILS
27	SOIL EROSION & SEDIMENT CONTROL NOTES



0 500 1000  
SITE PLAN  
Scale: 1" = 500.0'

FIELD BOOK		
NO.	TITLE	DESCRIPTION
X-860	HARFORD ROAD	CROSS SECTIONS, LOCATIONS
X-892	HARFORD ROAD	CROSS SECTIONS, LOCATIONS

DEPARTMENT OF PUBLIC WORKS

BUREAU OF HIGHWAYS

APPROVED: *[Signature]*  
CHIEF, HIGHWAY ENGINEERING DIVISION

APPROVED: *[Signature]*  
CHIEF, ENVIRONMENTAL SERVICES DIVISION

OFFICE OF TRANSPORTATION

APPROVED: *[Signature]*  
DEPT. DIRECTOR OF OFFICE OF TRANSPORTATION

APPROVED: *[Signature]*  
DIRECTOR OF PUBLIC WORKS

APPROVED: *[Signature]*  
HEAD, BUREAU OF HIGHWAYS

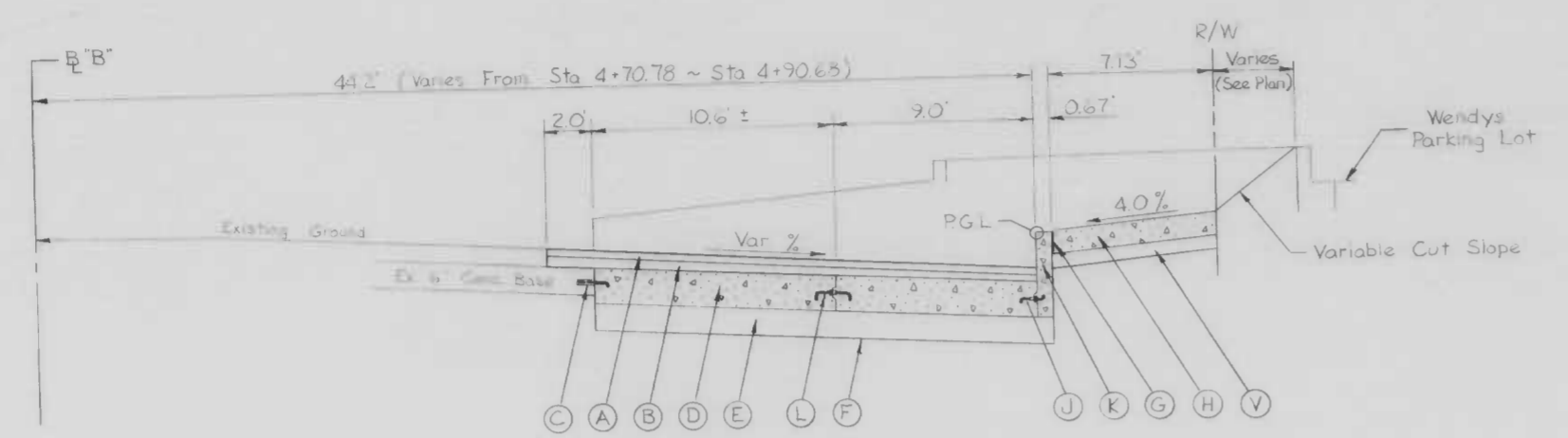
NO. OF REVIEW	W/W RELEASE	GRADE EST'D	HIGHWAY DESIGN	STRUCTURAL	PAVING	LIGHTING	TRAFFIC	SEWERAGE	OFFICE OF TRANSPORTATION	WASTE WATER ENGINEERING	WATER ENGINEERING
BY	RE-24	1-1-88	WES			DDK	DDK		DDK	4/2/88	4/2/88
DATE	9/25/86	9/24/86	1-7-86			9/30/86	9/25/86	7/25/86	7/26/86	4/5/86	9/25/86

CONT. 3095

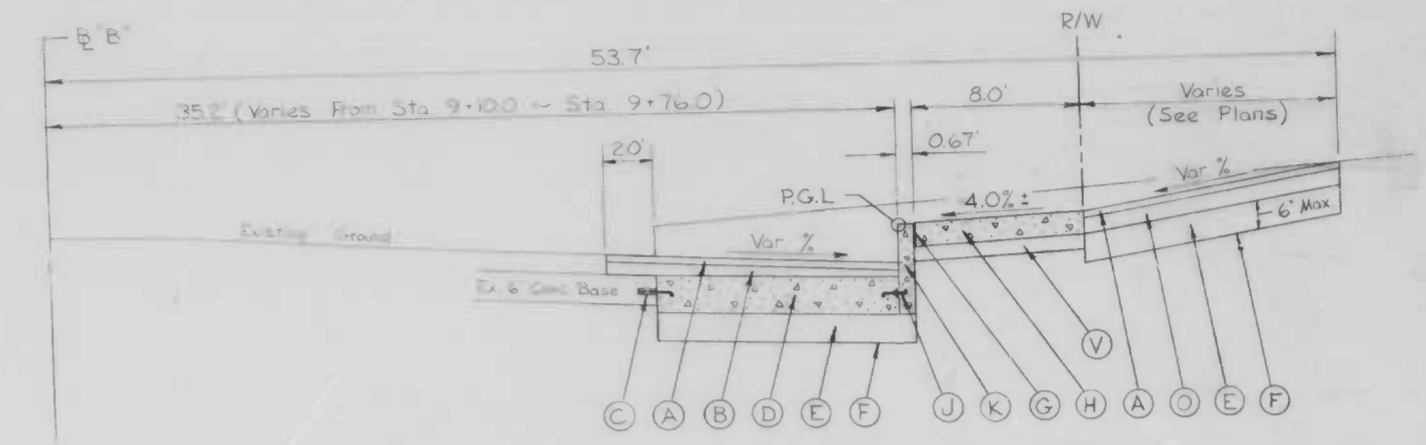


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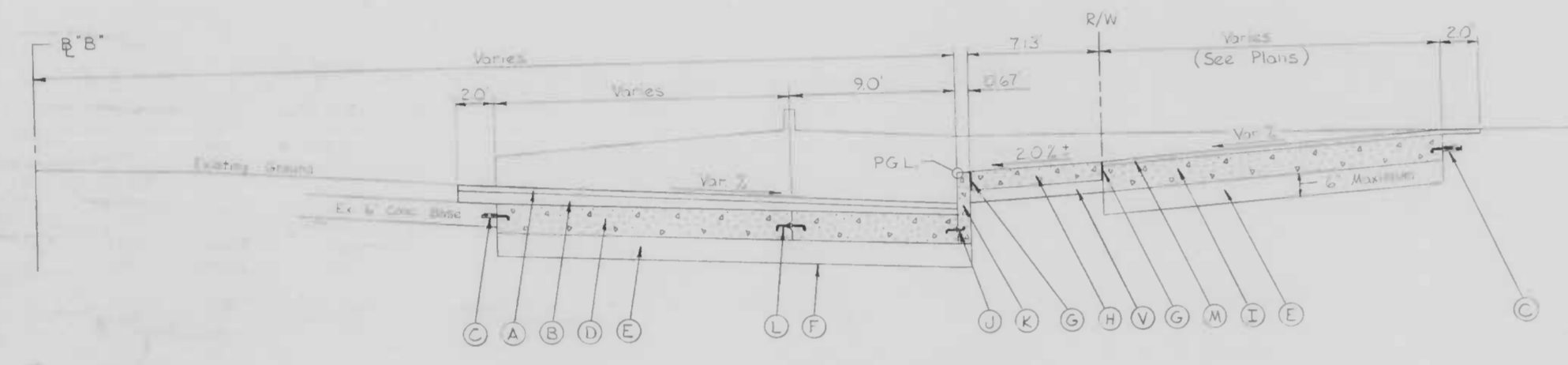
REVISIONS			
NO.	DESCRIPTION	DATE	BY



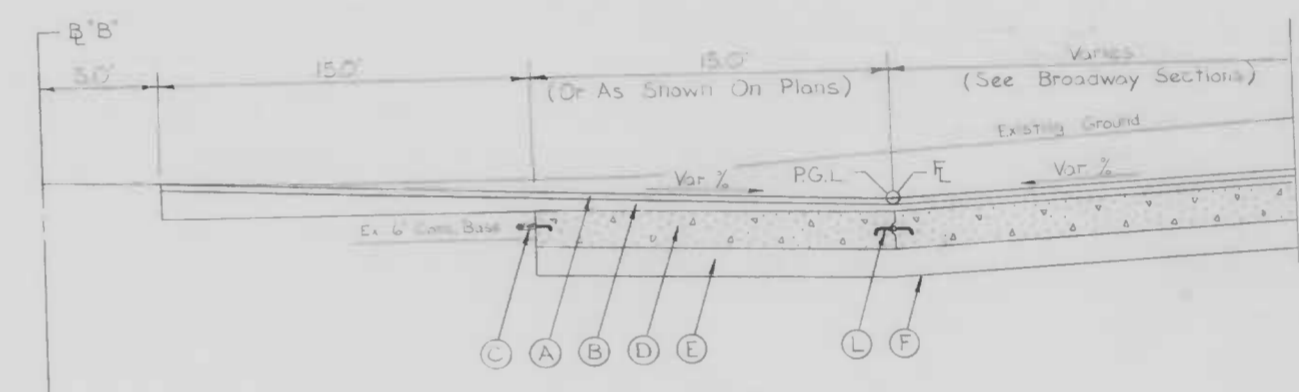
TYPICAL SECTION  
Sta 4+70.78 ~ Sta 6+22.6



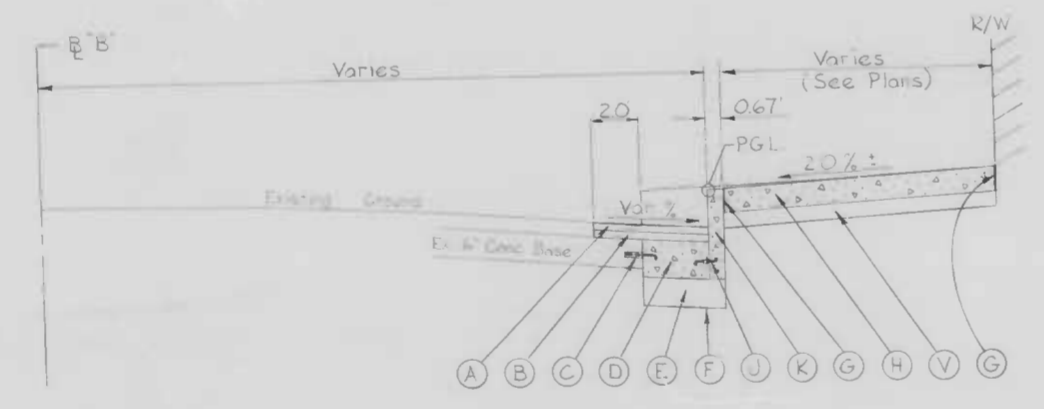
TYPICAL SECTION  
Sta 8+45.54 ~ Sta 9+76.0



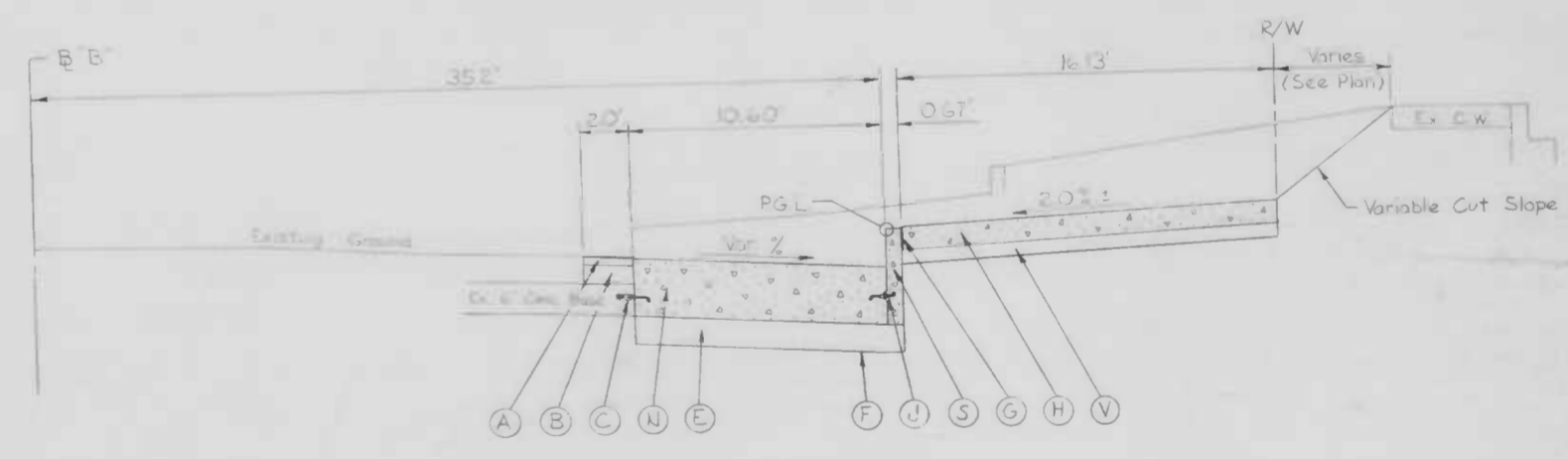
TYPICAL SECTION  
Sta 2+42.5 ~ Sta 4+70.78



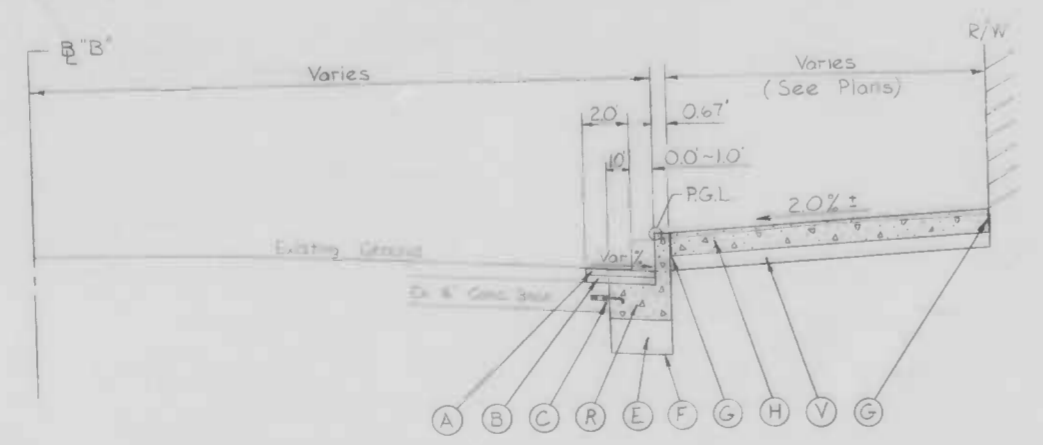
TYPICAL SECTION  
Sta 6+87.14 ~ Sta 8+45.54  
(See Spot Grade Detail Sh. 3 of 27)



TYPICAL SECTION  
Sta 1+75.0 ~ Sta 2+42.5  
Sta 9+76.0 ~ Sta 10+15.0



TYPICAL SECTION  
Sta 6+32.4 ~ Sta 6+87.14



TYPICAL SECTION  
Sta 1+35.0 ~ Sta 1+75.0  
Sta 10+15.0 ~ Sta 10+50.0

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH ST ~ 250' N OF BROADWAY  
TYPICAL SECTIONS

SCALE: None DATE: July 17, 1936  
HIGHWAY ENGINEERING DIVISION SHEET 2 OF 27

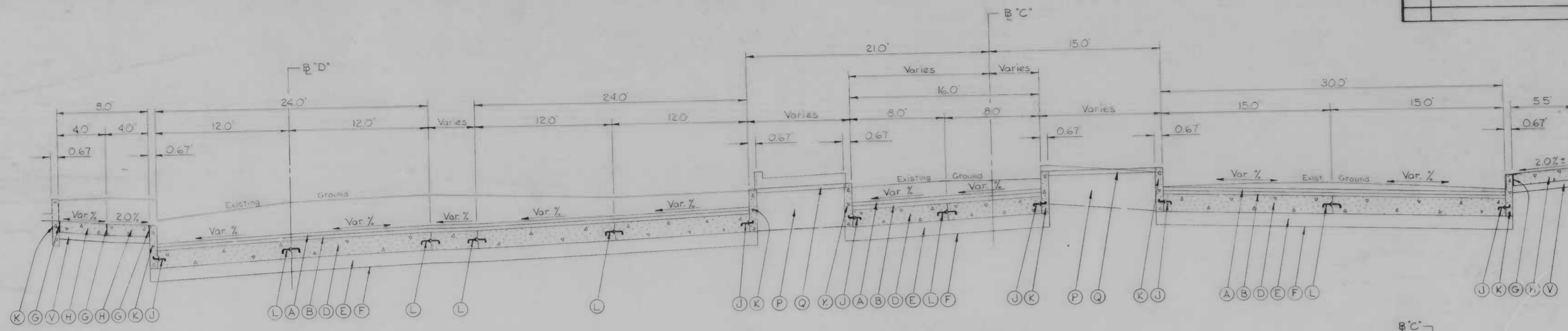
BOOK NO'S 9-240 & 9-292  
DRAWN BY JOHN K. BURKE JR.  
EXAMINED BY W.M.F. Crompton

FILE REF.

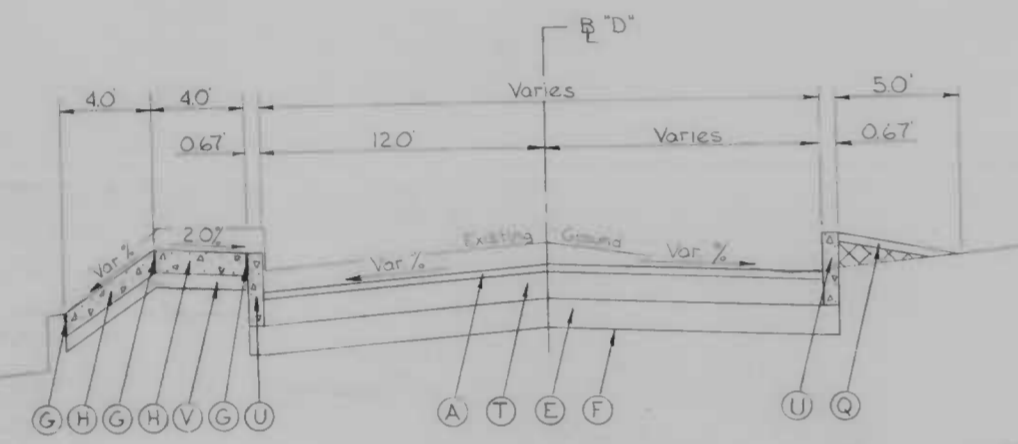


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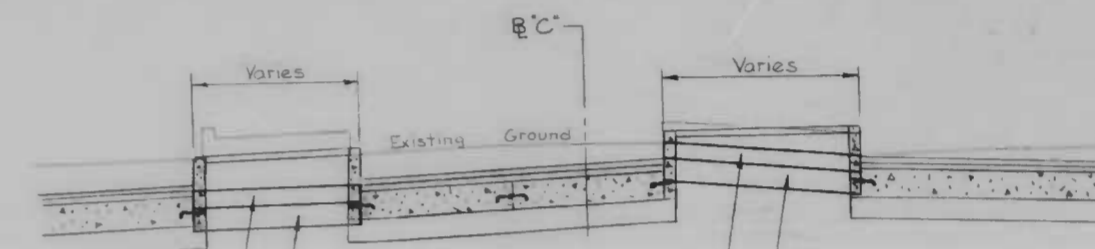
REVISIONS		
NO.	DESCRIPTION	DATE BY



TYPICAL SECTION  
BROADWAY / HOLY CROSS LANE  
Sta 0+750 / SECTION A-A  
Scale: None

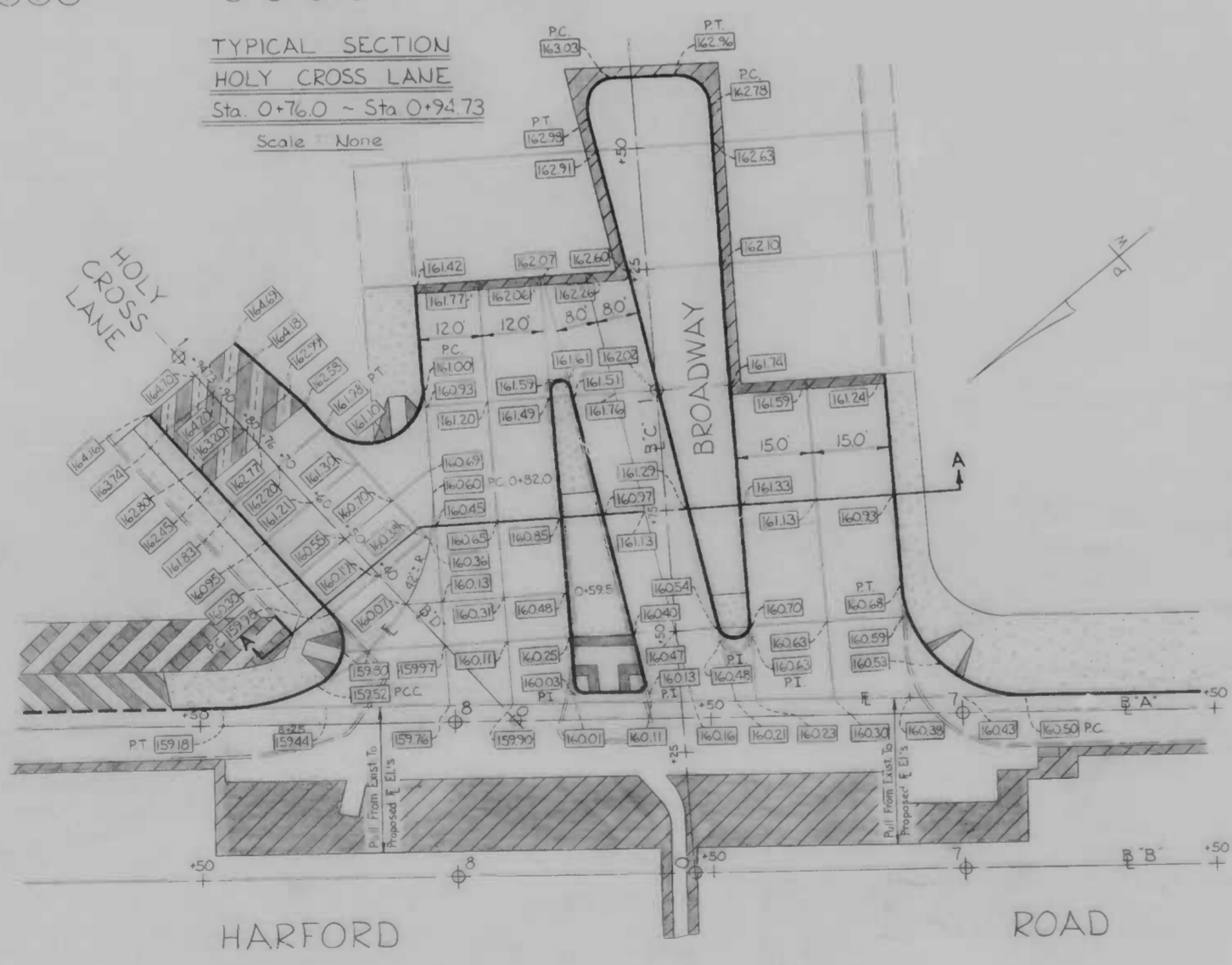


TYPICAL SECTION  
HOLY CROSS LANE  
Sta 0+76.0 - Sta 0+94.73  
Scale: None



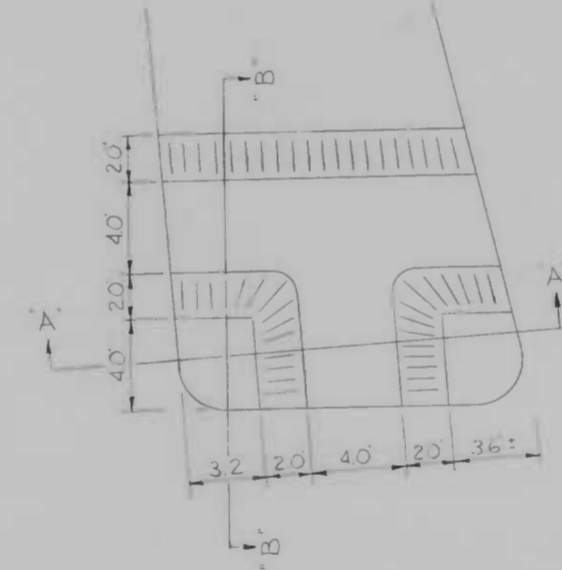
TEMPORARY ISLAND  
PAVING DETAIL  
Scale: None

NOTE  
Islands to be removed, graded and paved as called for on T.C.P. plans, phases II A, II B and II C. Upon completion of temporary paving phases the islands shall be permanently paved according to typical section shown above.

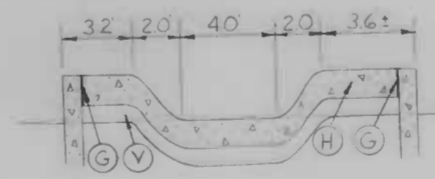


SPOT GRADE LAYOUT AT  
HARFORD ROAD & BROADWAY  
Scale: 1" = 20.0'

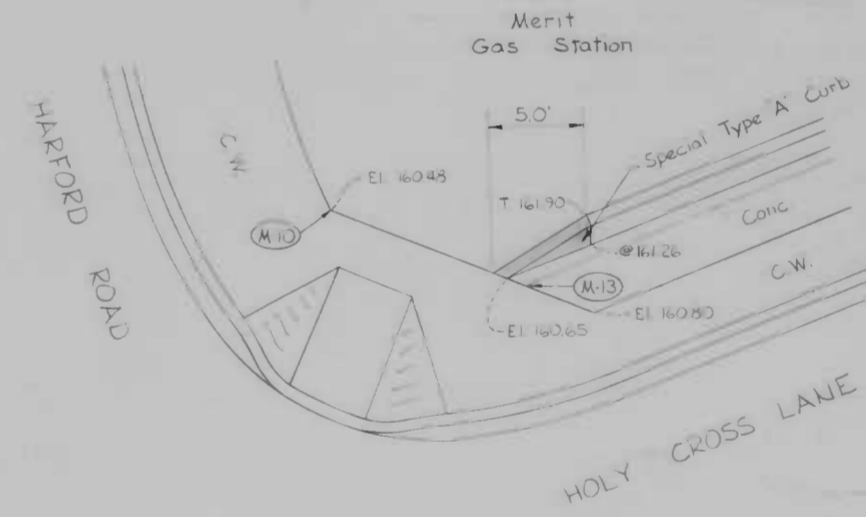
All Elevations Shown Are Flowline Or Finished Surface Elevations To Top Of Flexible Overlay.



SECTION A-A



SPECIAL PEDESTRIAN RAMP  
Located On Median  
At Harford Rd & Broadway  
Scale: None



SPECIAL TYPE A CURB  
AND C.W. ELEVATIONS  
AT NE CORNER OF HARFORD  
RD & HOLY CROSS LANE  
Scale: None

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20 TH ST - 250' N. OF BROADWAY  
TYPICAL SECTIONS & DETAILS

SCALE: As Noted DATE: July 17, 1936  
HIGHWAY ENGINEERING DIVISION SHEET 3 OF 27

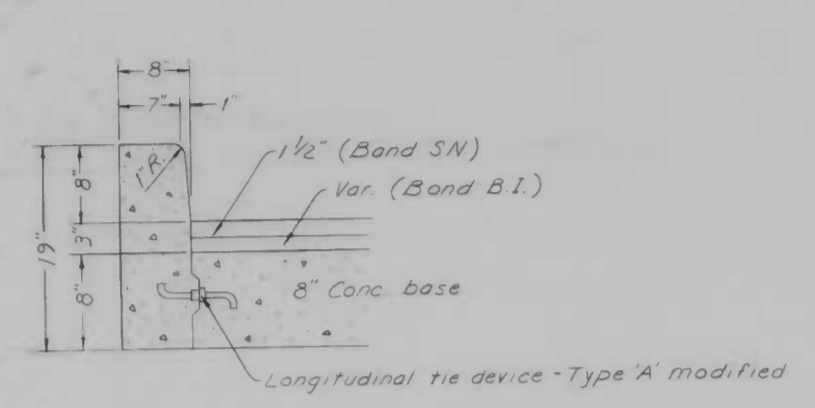
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BOOK No. 5 X-360 & X-892  
DRAWN BY John K. Burke, Jr.  
EXAMINED BY Wm. F. Camp, Jr.

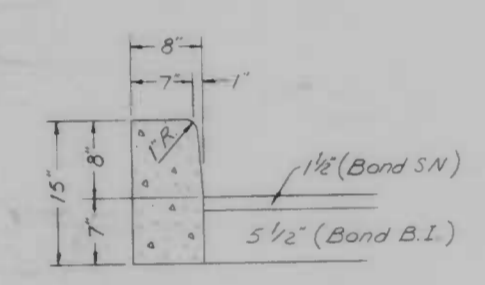


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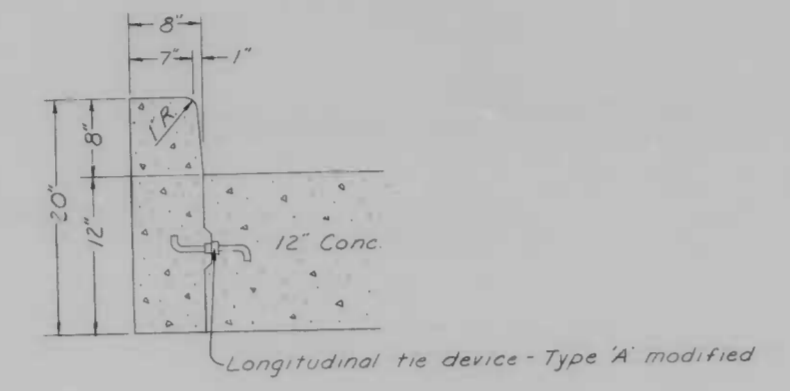
REVISIONS		
NO.	DESCRIPTION	DATE BY



SPECIAL TYPE 'A' CURB  
(15")



SPECIAL TYPE 'A' CURB  
(20")



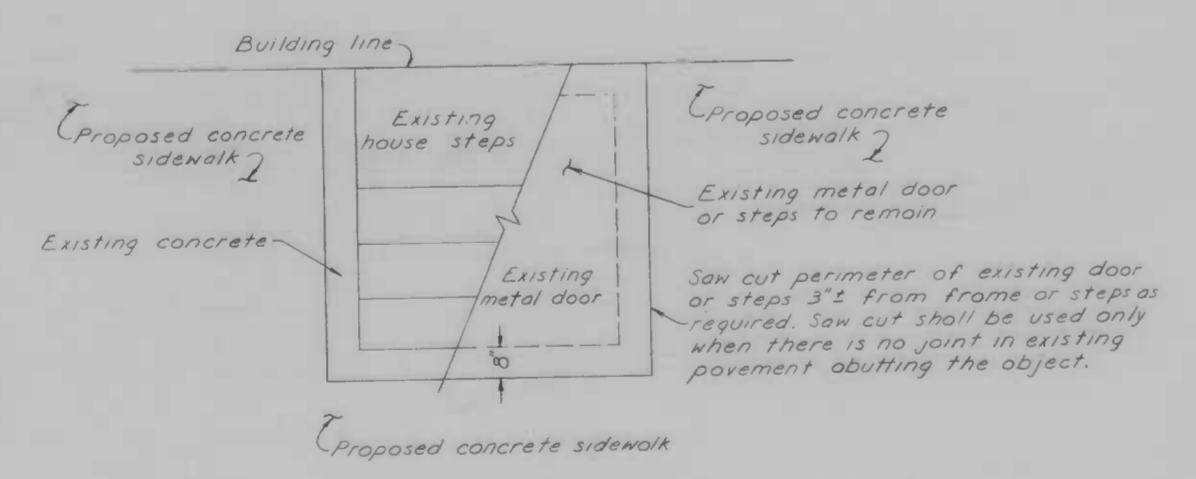
SPECIAL TYPE 'A' COMBINATION CURB & GUTTER  
Sta. 1+35.0 ~ Sta. 1+75.0 and Sta. 10+15.0 ~ Sta. 10+50.0  
and Sta. 15+60.0 ~ Sta. 15+95.0

LEGEND

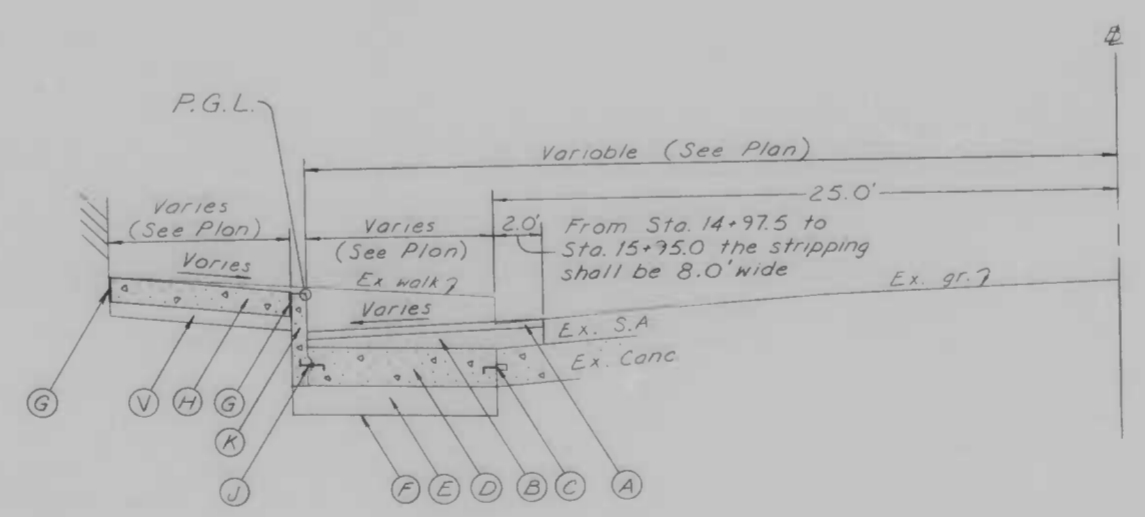
- (A) 1 1/2" Bituminous concrete surface course (Band S.N.)
- \* (B) Variable depth bituminous concrete binder course (Band B.I.)
- (C) Special longitudinal tie device - B.C. 572.61
- (D) 8" Reinforced cement concrete (Mix No. G)
- (E) 6" Crusher run aggregate (CR-6)
- (F) Limit of class 'I' excavation
- (G) 1/2" Preformed expansion joint
- (H) Cement concrete walk (5" in depth)
- (I) 7" Reinforced cement concrete (Mix No. G)
- (J) Longitudinal tie device - Type 'A' modified - B.C. 572.61
- (K) Special Type 'A' curb
- (L) Longitudinal tie device - Type 'A' - B.C. 572.61
- (M) 1" Bituminous concrete surface course (Band S.N.)
- (N) 12" Reinforced cement concrete (Mix No. G)
- (O) 3 1/2" Bituminous concrete binder course (Band B.I.)
- (P) Area of temporary paving to be graded & backfilled
- (Q) 2" Topsoil and sod
- (R) Special Type 'A' combination curb and gutter (variable pan)
- (S) Special Type 'A' curb (20")
- (T) 5 1/2" Bituminous concrete binder course (Band B.I.) to be compacted in two 2 3/4" layers
- (U) Special Type 'A' curb (15")
- \* Variable depth bituminous concrete binder course (Band B.I.) shall vary as shown on the detail cross-sections, but in no case be any less than 1 1/2" min.
- (V) 5" Crusher run aggregate (CR-6)

SYMBOLS

- [Symbol] Approx. limit of proposed paving
- [Symbol] Approx. limit of cement concrete walk (5" in depth)
- [Symbol] Area to be stripped to the existing concrete base and resurfaced with a variable depth bituminous concrete binder course (Band B.I.) and 1 1/2" bituminous concrete surface course (Band S.N.)
- [Symbol] Area to be stripped to the existing concrete base and resurfaced with 1" bituminous concrete surface course (Band S.N.)
- [Symbol] Area to be paved with 6" crusher run aggregate (CR-6), 3 1/2" bituminous concrete binder course (Band B.I.) and 1 1/2" bituminous concrete surface course (Band S.N.)
- [Symbol] Areas of proposed driveways to be paved with 8" reinforced cement concrete (Mix No. G) on 6" crusher run aggregate (CR-6)
- [Symbol] Approx. limit of proposed bus stop pad, to be paved with 12" reinforced cement concrete (Mix No. G)
- [Symbol] Area to be paved with 6" crusher run aggregate (CR-6), 5 1/2" bituminous concrete binder course (Band B.I.) (rolled in two 2 3/4" layers) and 1 1/2" bituminous concrete surface course (Band S.N.)
- [Symbol] Area to be paved with 6" crusher run aggregate (CR-6), 7" reinforced cement concrete (Mix No. G) and 1" bituminous concrete surface course (Band S.N.)
- [Symbol] Approx. limit of proposed "Flat Fill" area
- [Symbol] Approx. limit of proposed "Variable Cut" area



TYPICAL SIDEWALK AT DOOR OR STEPS



DETAIL SECTION  
CLIFTVIEW AVE. ~ 25<sup>TH</sup> ST.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20<sup>TH</sup> ST. ~ 250' N. OF BROADWAY  
CLIFTVIEW AVE. ~ 25<sup>TH</sup> ST.

DETAIL SECTION & DETAILS

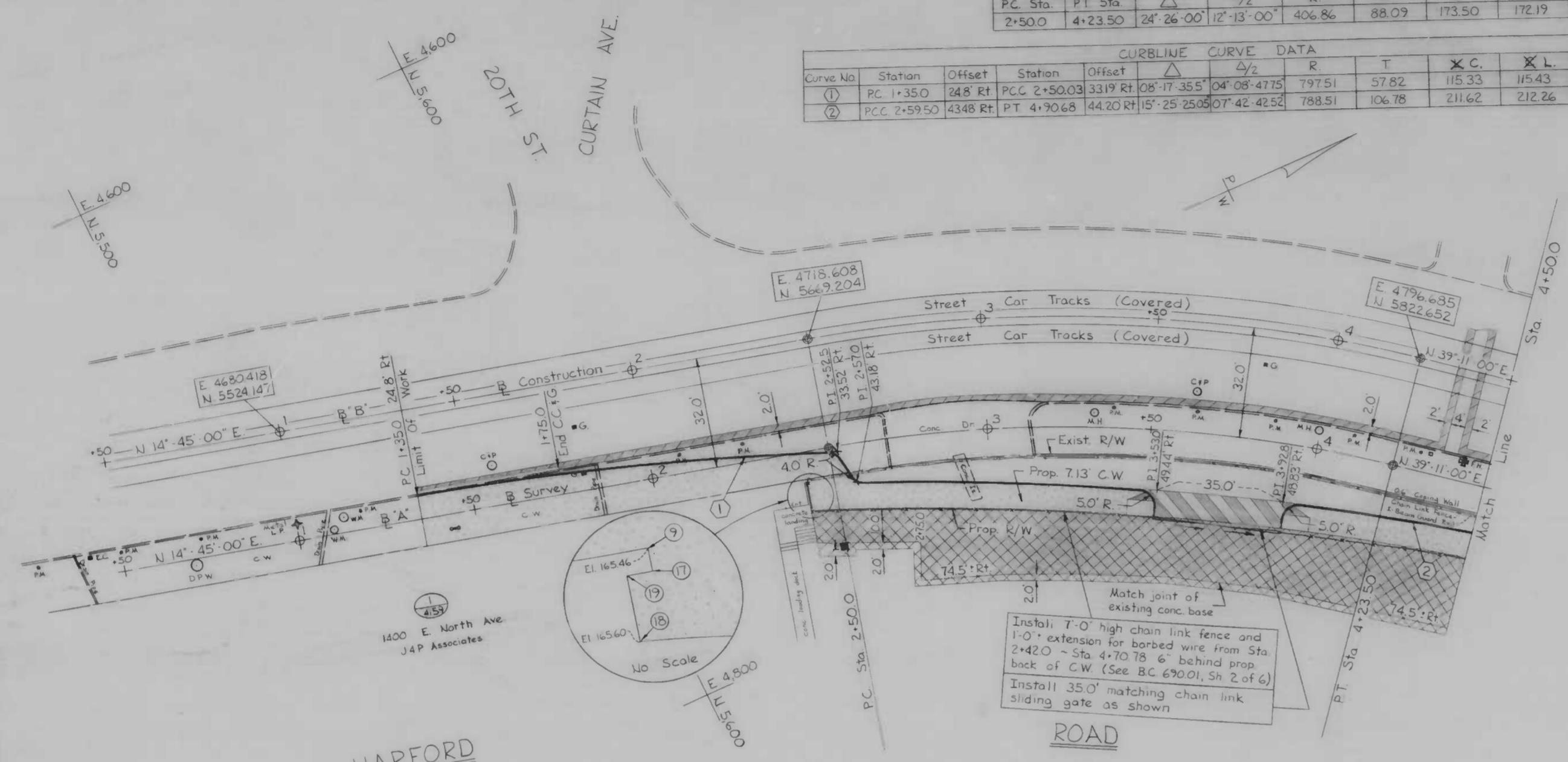
SCALE: NONE DATE: July 17, 1936  
HIGHWAY ENGINEERING DIVISION SHEET 4 OF 27

Book Nos. : X-892, X-860  
DRAWN BY S. Vosburg  
EXAMINED BY Wm. F. Crampton

FILE REF.



FILE REF.



B CONSTRUCTION CURVE DATA

PC Sta	PT Sta	$\Delta$	$\Delta/2$	R	T	L	C	"d"
2+50.0	4+23.50	24° 26' 00"	12° 13' 00"	406.86	88.09	173.50	172.19	4.224729341

CURBLINE CURVE DATA

Curve No	Station	Offset	Station	Offset	$\Delta$	$\Delta/2$	R	T	X.C.	X.L.	"d"
1	PC 1+35.0	24.8 RT	PCC 2+50.03	33.19 RT	08° 17' 35.5"	04° 08' 47.75"	797.51	57.82	115.33	115.43	2.155300096
2	PCC 2+59.50	43.48 RT	PT 4+70.68	44.20 RT	15° 25' 25.05"	07° 42' 42.52"	788.51	106.78	211.62	212.26	2.179000546

REVISIONS

NO.	DESCRIPTION	DATE	BY

NOTE OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

Right of Way Co-Ordinates

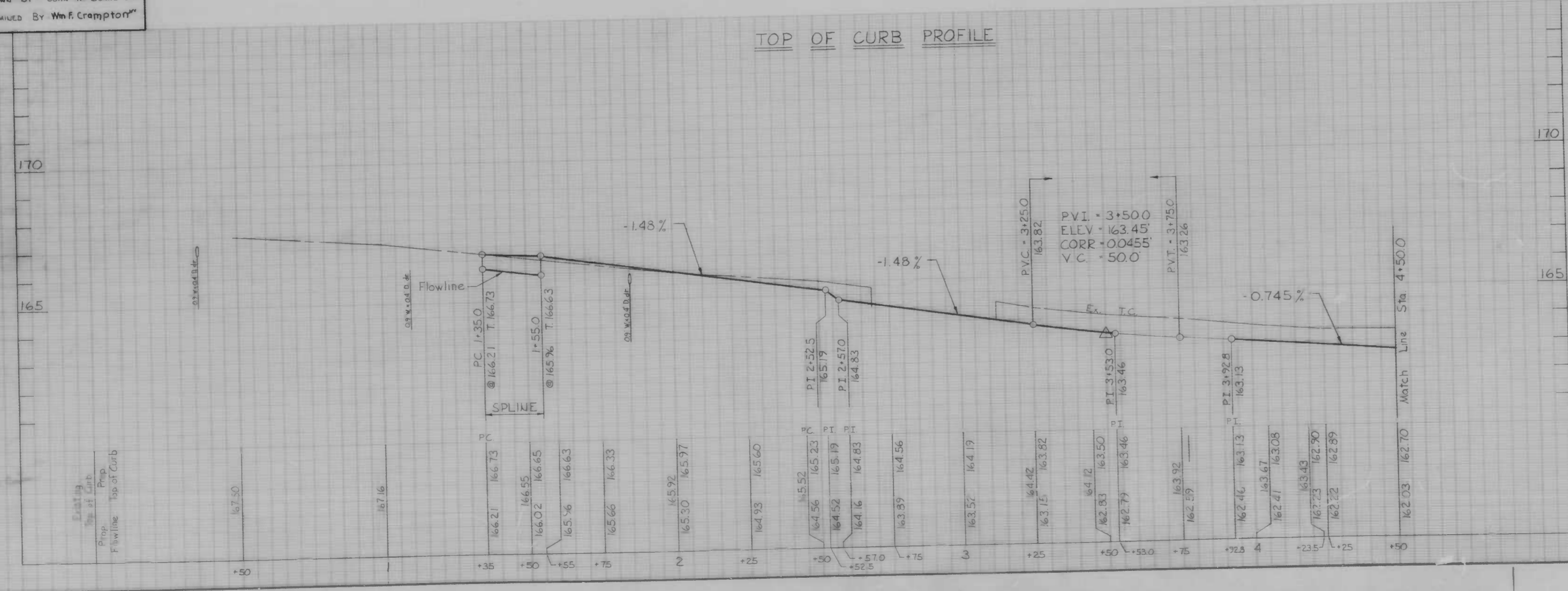
Description	Station	Offset	East	North
①	2+32.52	40.0 RT	4755.39	5651.79
②	2+42.53	41.05 RT	4756.40	5651.53
③	2+41.99	41.04 RT	4756.26	5651.01
④	2+41.99	49.02 RT	4763.97	5648.98

Ⓜ Pedestrian Ramp at Alley Type 3 BC655-22

Book No. X-860 + X-892  
 Drawn By JOHN K BURKE JR  
 Examined By Wm F. Crampton

HARFORD ROAD

TOP OF CURB PROFILE



No.	Bench Mark	Elevation
6473	"L" cut in S.E. corner of 6' granite stone supporting iron fence in rear of #1227 E. North Ave at Hope St and first alley south of E. North Ave.	154.24

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO 3095

HARFORD ROAD  
 20TH ST ~ 250' N OF BROADWAY  
 PLAN & PROFILE  
 20TH ST ~ Sta 4+500

SCALE Hor 1" = 200' Vert 1" = 20' DATE July 17, 1936  
 HIGHWAY ENGINEERING DIVISION SHEET 5 OF 27

FILE REF.



FILE REF.

CURBLINE		CURVE DATA		CURVE DATA		CURVE DATA		CURVE DATA		CURVE DATA		CURVE DATA		CURVE DATA	
Curve No	Station	Offset	Station	Offset	Δ	R	T	C	L	d	East	C/C	North		
③	PC 6+87.4	35.2 Rt	PT 0+56.38	45.0 Rt	86° 48' 10"	25.0	23.64	34.36	37.87	68.75493520	5,009.91	5988.97			
④	PC 1+035.2	45.0 Lt	PT 0+97.8	12.0 Rt	142° 45' 05"	11.3	33.53	21.42	28.15	152.11268495	5,122.28	6063.47			
⑤	PC 0+40.46	12.0 Lt	PCC 8+26.67	39.7 Rt	77° 56' 23"	10.0	8.09	12.58	13.60	171.88738000	5,092.02	6108.15			
⑥	PCC 8+26.67	39.7 Rt	PT 8+45.54	32.0 Rt	28° 08' 20.3"	40.0	10.02	19.45	19.64	42.97183450	5,121.46	6102.40			

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Change Ramps At Drive To Std Ped Ramp Type 1 BC 655-20	4-28-88	J.K.B.

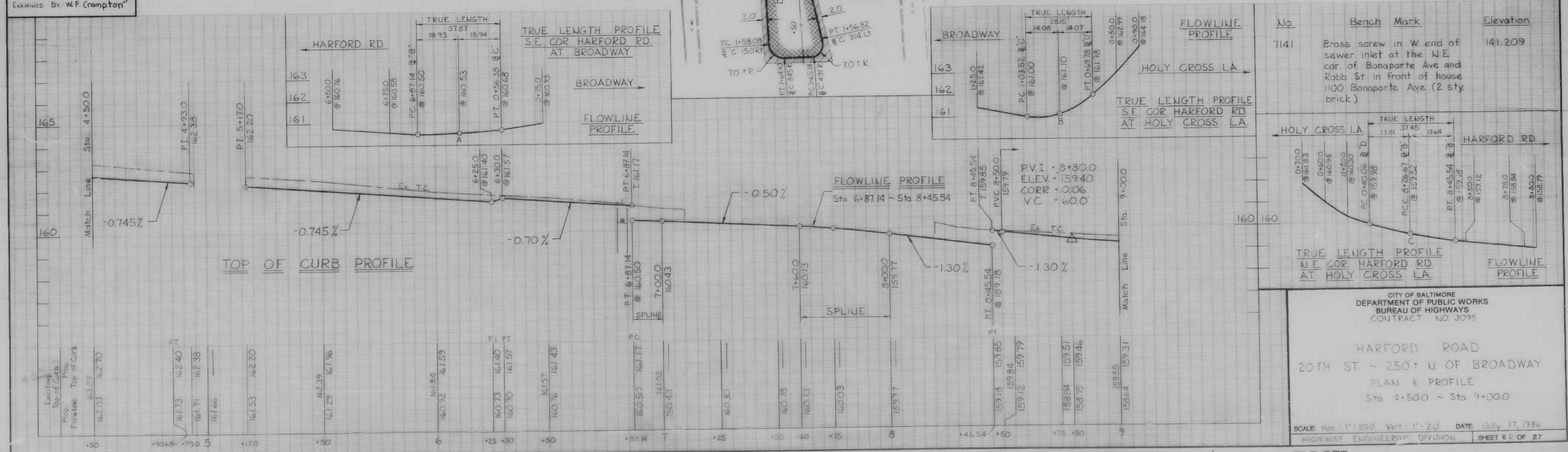
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Description	Station	Offset	East	North
(M)	4+20.68	52.00 Rt	4879.44	5841.87
(M)	6+91.45	51.99 Rt	5006.28	5997.50
(M)	8+30.95	51.76 Rt	5094.231	6105.710
(M)	5+33.42	46.11 Rt	5091.413	6111.256
(M)	5+45.54	43.67 Rt	5097.181	6122.196

- ▲ Standard Pedestrian Ramp Type 1 BC 655-20
- ▲ Modified Pedestrian Ramp Type 2 BC 655-21
- ▲ Special Pedestrian Ramp Type 6 BC 655-22
- ▲ Special Pedestrian Ramp (See Detail Sh. 3 of 27) At Median

Note: The sign at sta 8+27.0 42.0 Rt @ B is to be relocated by others.

Book No X-860 + X-892  
 DRAWN BY JOHN K BURKE JR  
 EXAMINED BY W.F. CRAMPTON



CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO 3095

HARFORD ROAD  
 20TH ST ~ 250' N OF BROADWAY  
 PLAN & PROFILE  
 Sta 4+50.0 ~ Sta 9+00.0

SCALE: Horz 1" = 20' Vert 1" = 2.0' DATE July 17, 1986  
 HIGHWAY ENGINEERING DIVISION SHEET 6 OF 27

FILE REF.



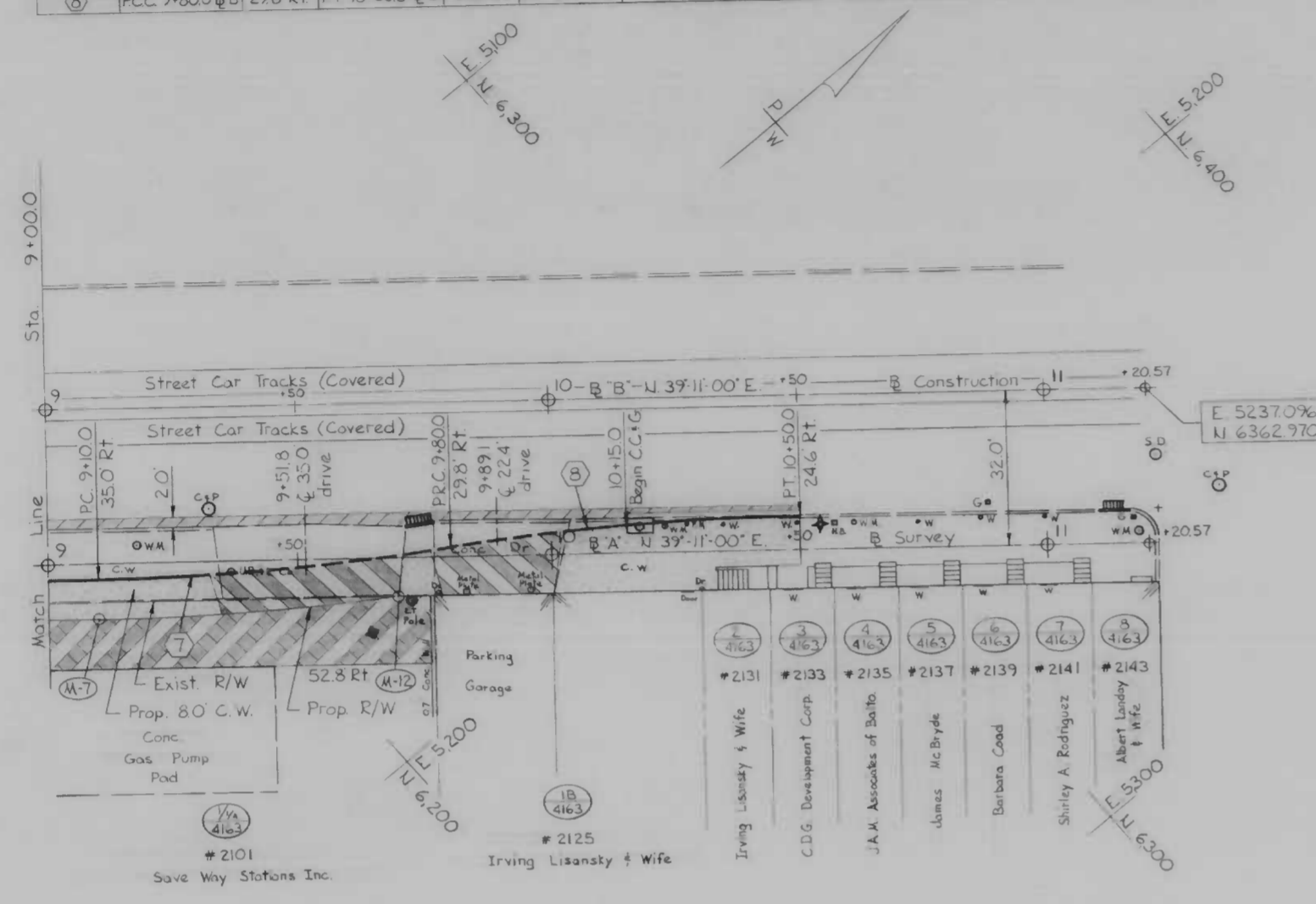
FILE REF.

CURBLINE CURVE DATA											
Curve No.	Station	Offset	Station	Offset	$\Delta/2$	R	T	L	C	P	
①	PC 9+100.8 B	35.0 RT	PT 9+800.8 B	298 RT	08°-29'-48.8"	04°-14'-54.4"	473.76	35.19	70.26	70.19	3.628152186
②	PCC 9+800.8 B	29.8 RT	PT 10+500.8 B	246 RT	08°-29'-48.8"	04°-14'-54.4"	473.76	35.19	70.26	70.19	3.628152186

REVISIONS			
NO.	DESCRIPTION	DATE	BY

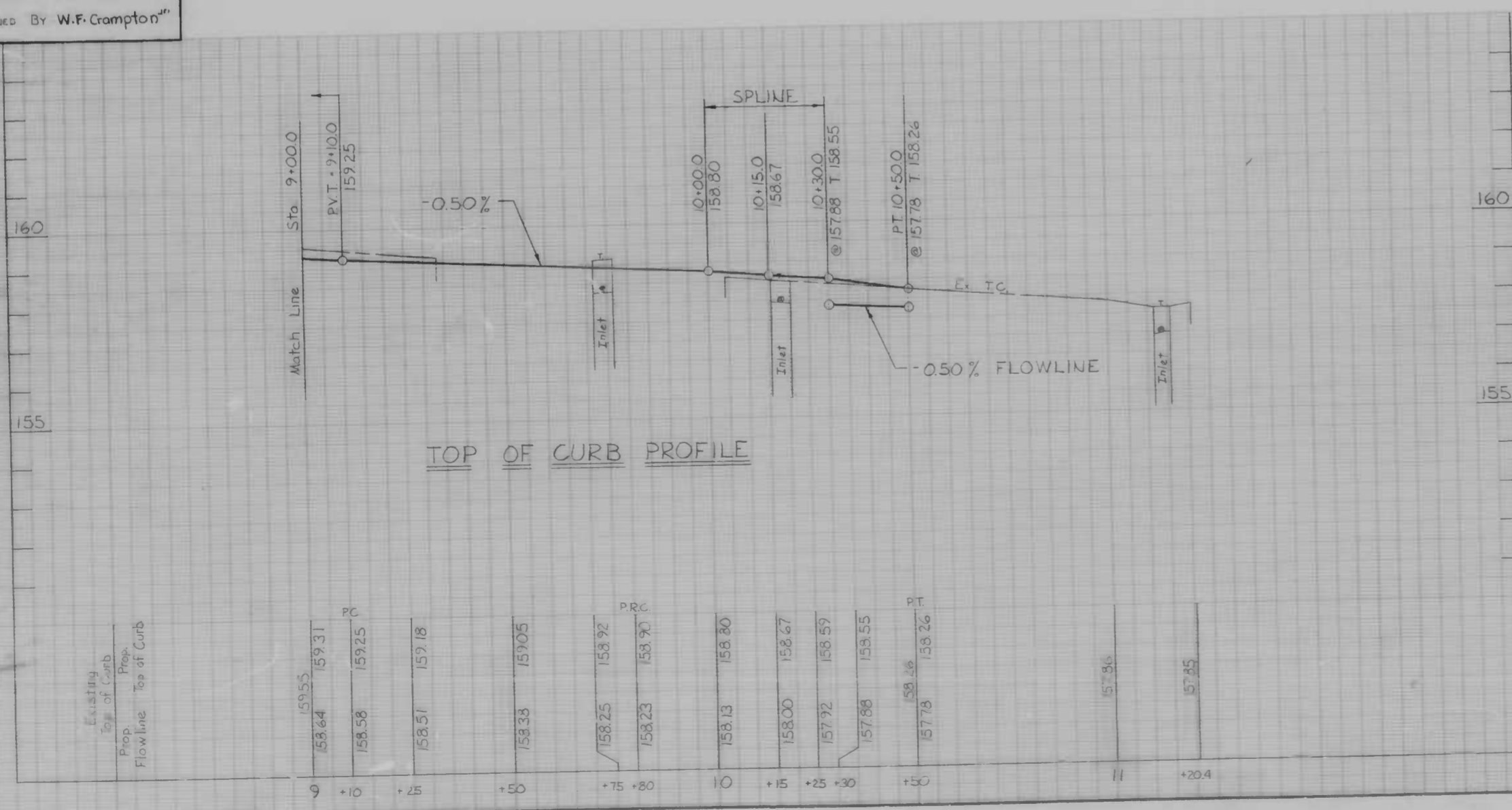
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Description	Right Of Way Co-Ordinates		
	Station	Offset	North
(M-7)	9+10.00	43.67 RT	5137.907
(M-10)	9+69.40	40.00 RT	5172.589



HARFORD ROAD

Book No. X-860 + X-892  
 Drawn By John K. Bueck Jr.  
 Examined By W.F. Crampton



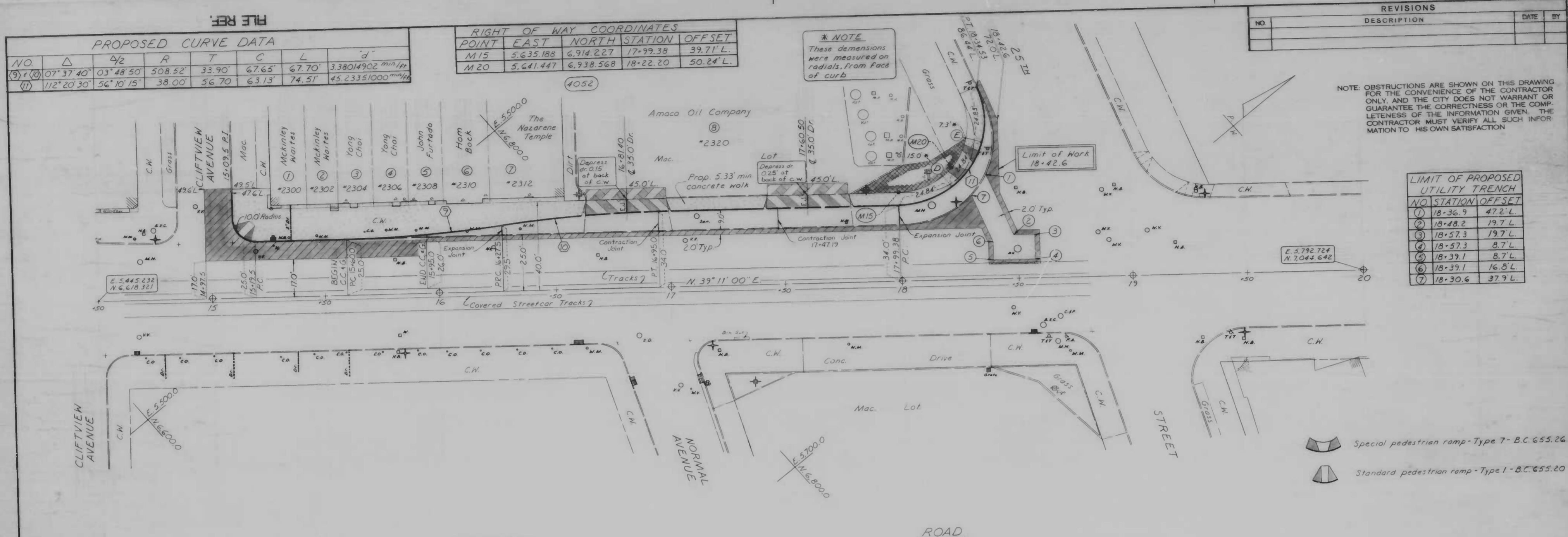
CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3095

HARFORD ROAD  
 20TH ST ~ 250' N OF BROADWAY  
 PLAN & PROFILE  
 Sta 9+000 - 250' N OF BROADWAY

SCALE: Hor. 1" = 20.0' Vert. 1" = 2.0' DATE: July 17, 1986  
 HIGHWAY ENGINEERING DIVISION SHEET 7 OF 27

FILE REF.





FILE REF.

PROPOSED CURVE DATA							
NO	Δ	R	T	C	L	d	
(9)	07° 37' 40"	42	508.52	33.90'	67.65'	67.70'	3.38014902 min/ft
(10)	03° 48' 50"	508.52	33.90'	67.65'	67.70'	3.38014902 min/ft	
(11)	112° 20' 30"	56° 10' 15"	38.00'	56.70'	63.13'	74.51'	45.23351000 min/ft

RIGHT OF WAY COORDINATES			
POINT	EAST	NORTH	STATION OFFSET
M15	5.635.188	6.914.227	17+99.38 39.71'L
M20	5.641.447	6.938.568	18+22.20 50.24'L

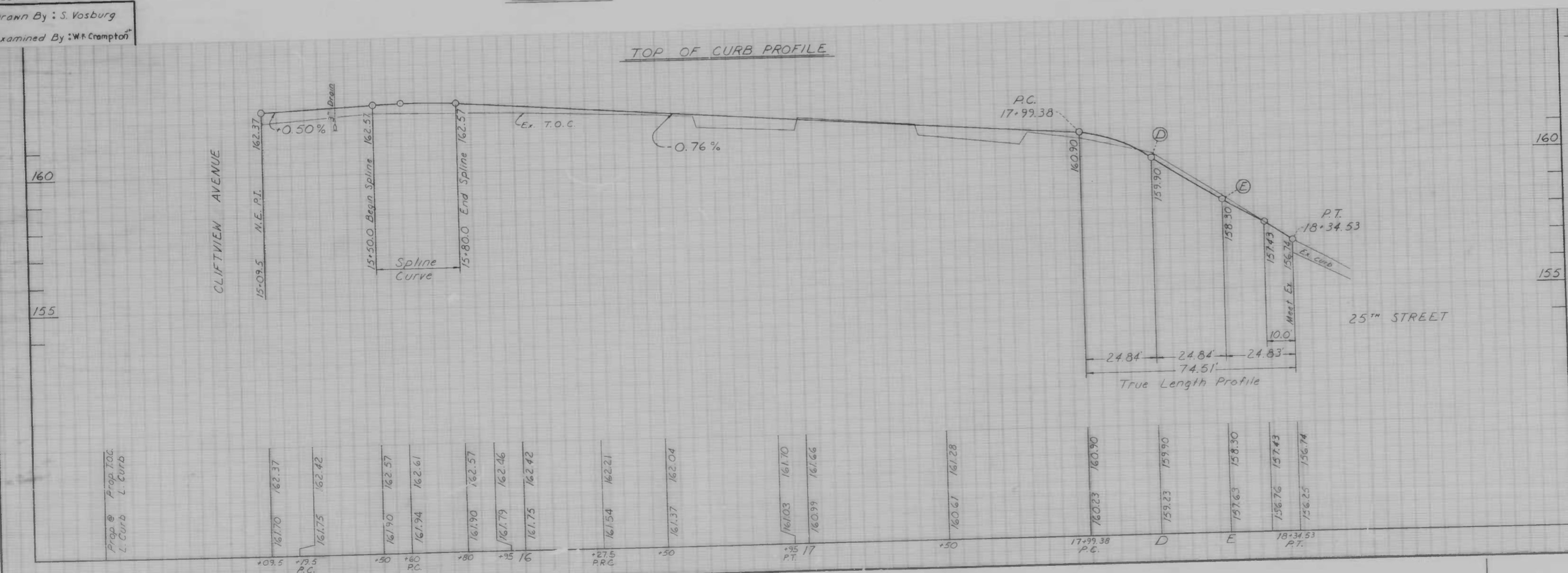
REVISIONS		
NO	DESCRIPTION	DATE BY

\* NOTE  
These dimensions were measured on radials, from Face of curb

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION

LIMIT OF PROPOSED UTILITY TRENCH		
NO	STATION	OFFSET
1	18+36.9	47.2'L
2	18+48.2	19.7'L
3	18+57.3	19.7'L
4	18+57.3	8.7'L
5	18+39.1	8.7'L
6	18+39.1	16.8'L
7	18+30.6	37.9'L

Book No: X-892  
Drawn By: S. Vosburg  
Examined By: W.H. Crampton



Bench Mark  
4353 --- Elev. 154.56  
Box cut on the N. side of the entrance to Friends Burial Ground on Harford Rd. opposite the S.W. corner of Clifton Park, about 200' N. of bridge over B&O R.R. Box cut is near the S.E. foundation of the N. gate post-154.56

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

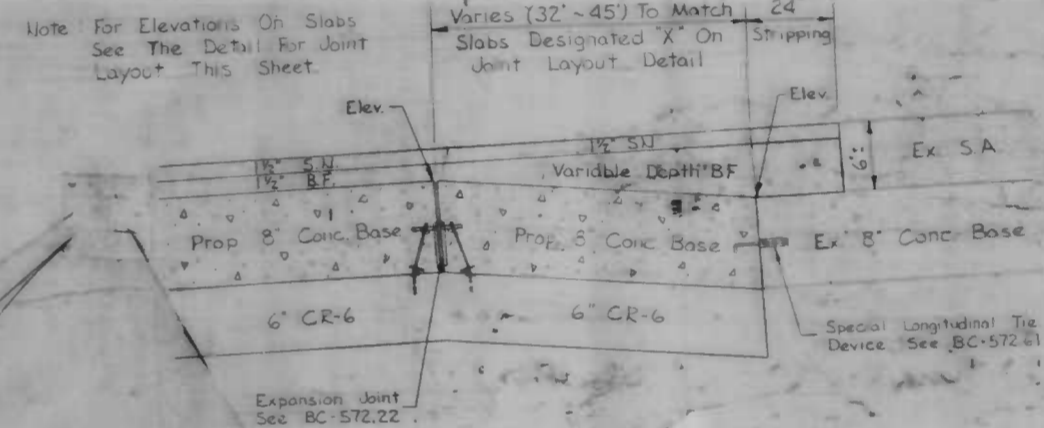
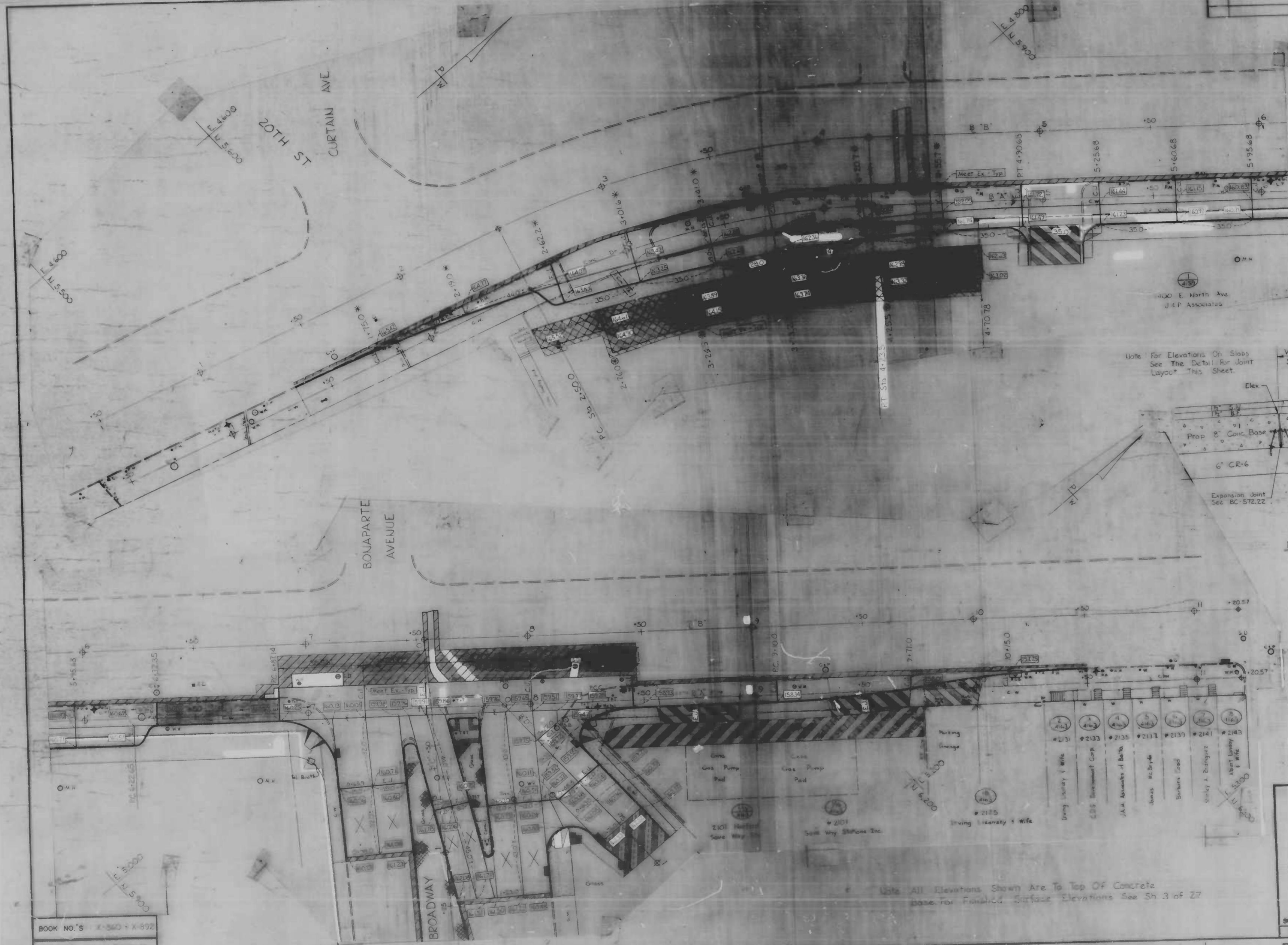
HARFORD ROAD  
CLIFTVIEW AVE ~ 25<sup>TH</sup> ST.  
PLAN & PROFILE

SCALE 1" = 20.0' HORIZ., 2.0' VERT. DATE: July 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 8 OF 27



FILE REF.

NO.	DESCRIPTION	DATE	BY



**SPECIAL SLAB DETAIL FOR SLABS DESIGNATED X**  
Scale: None

- \* Stations Shown Are At Face Of Proposed Curb Taken Radially To The  $\perp$
- ⊙ Stations Shown Are At Back Of Proposed C/W Taken Radially To The  $\perp$

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

**HARFORD ROAD**  
20TH ST. - 250' N. OF BROADWAY  
LANE POUR LAYOUT & DETAIL

SCALE: As Shown or As Noted DATE: July 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 9 OF 27

FILE REF.

BOOK NO.'S X-360 + X-692  
DRAWN BY John K. Burke, Jr.  
EXAMINED BY Wm. F. Crompton

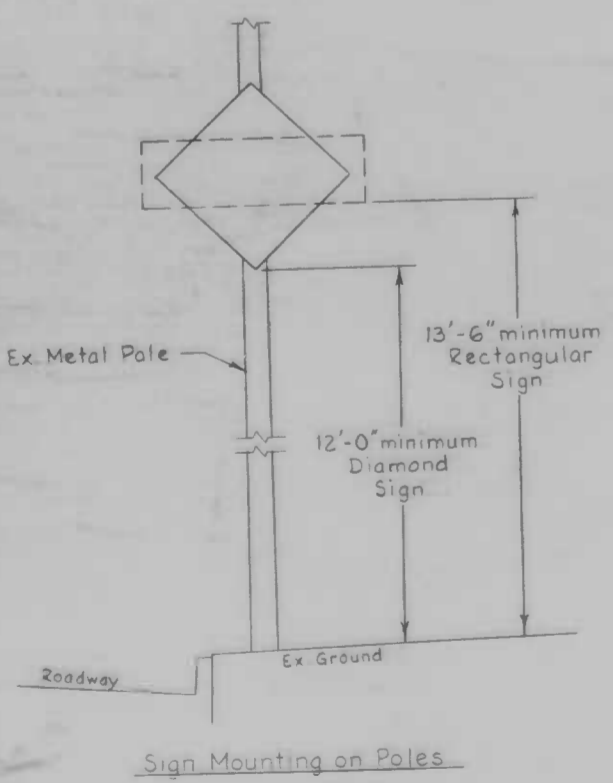
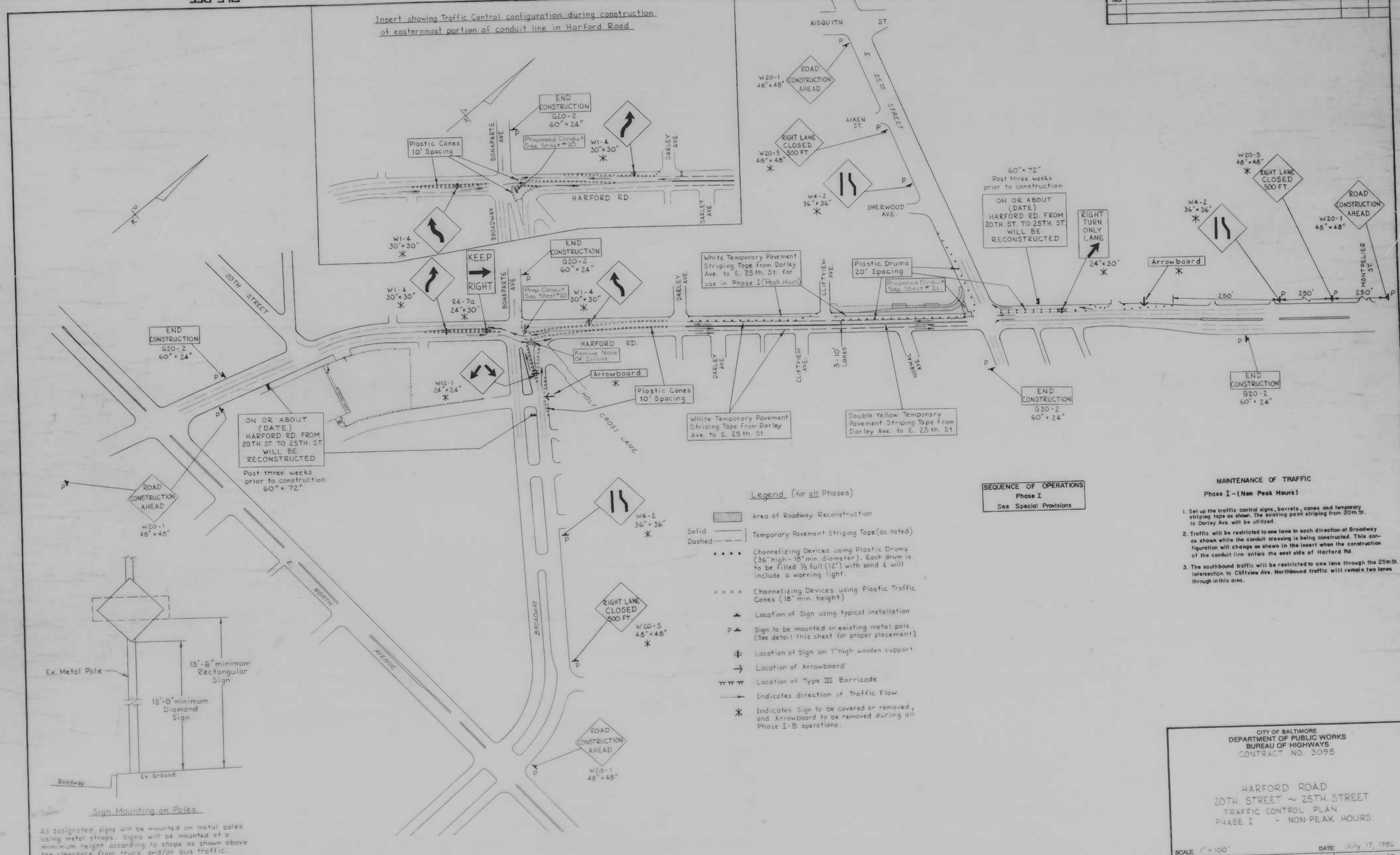
Note: All Elevations Shown Are To Top Of Concrete base for Finished Surface Elevations See SH 3 of 27



FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

Insert showing Traffic Control configuration during construction of easternmost portion of conduit line in Harford Road



As designated, signs will be mounted on metal poles using metal straps. Signs will be mounted at a minimum height according to shape as shown above for clearance from truck and/or bus traffic.

DRAWN BY Mike Farish, Jr.  
EXAMINED BY Wm. F. Grampston

- Legend (for all Phases)**
- Area of Roadway Reconstruction
  - Temporary Pavement Striping Tape (as noted)
  - Temporary Pavement Striping Tape (as noted)
  - Channelizing Devices using Plastic Drums (36" high - 18" min. diameter). Each drum is to be filled 1/2 full (12") with sand & will include a warning light.
  - o o o o Channelizing Devices using Plastic Traffic Cones (18" min. height)
  - ▲ Location of Sign using typical installation
  - P ▲ Sign to be mounted on existing metal pole. (See detail this sheet for proper placement)
  - ⊕ Location of Sign on 7' high wooden support
  - Location of Arrowboard
  - ⊞⊞⊞⊞ Location of Type III Barricade
  - Indicates direction of Traffic Flow
  - \* Indicates Sign to be covered or removed, and Arrowboard to be removed during all Phase I-B operations.

**SEQUENCE OF OPERATIONS**  
Phase I  
See Special Provisions

- MAINTENANCE OF TRAFFIC**  
Phase I - (Non Peak Hours)
1. Set up the traffic control signs, barrels, cones and temporary striping tape as shown. The existing paint striping from 20th St. to Darley Ave. will be utilized.
  2. Traffic will be restricted to one lane in each direction at Broadway as shown while the conduit crossing is being constructed. This configuration will change as shown in the insert when the construction of the conduit line enters the east side of Harford Rd.
  3. The southbound traffic will be restricted to one lane through the 25th St. intersection to Cliffview Ave. Northbound traffic will remain two lanes through in this area.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH STREET ~ 25TH STREET  
TRAFFIC CONTROL PLAN  
PHASE I - NON-PEAK HOURS

SCALE 1" = 100'  
HIGHWAY ENGINEERING DIVISION

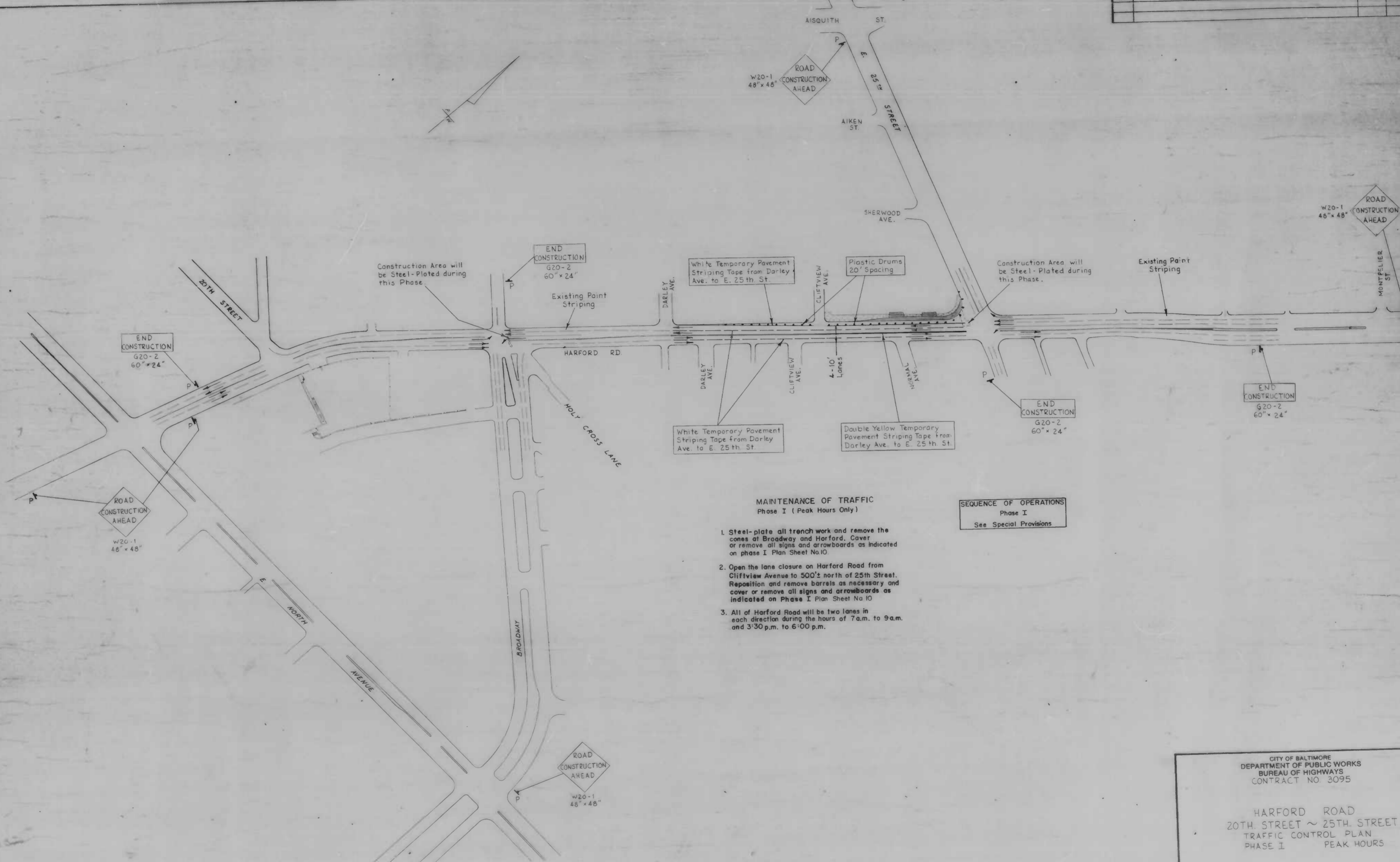
DATE July 17, 1956  
SHEET 10 OF 27

FILE REF.



FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



**MAINTENANCE OF TRAFFIC**  
Phase I (Peak Hours Only)

1. Steel-plate all trench work and remove the cones at Broadway and Harford. Cover or remove all signs and arrowboards as indicated on phase I Plan Sheet No. 10.
2. Open the lane closure on Harford Road from Cliffview Avenue to 500' north of 25th Street. Reposition and remove barrels as necessary and cover or remove all signs and arrowboards as indicated on Phase I Plan Sheet No. 10.
3. All of Harford Road will be two lanes in each direction during the hours of 7 a.m. to 9 a.m. and 3:30 p.m. to 6:00 p.m.

**SEQUENCE OF OPERATIONS**  
Phase I  
See Special Provisions

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH STREET ~ 25TH STREET  
TRAFFIC CONTROL PLAN  
PHASE I PEAK HOURS

SCALE: 1" = 100'      DATE: July 17, 1986  
HIGHWAY ENGINEERING DIVISION      SHEET 11 OF 27

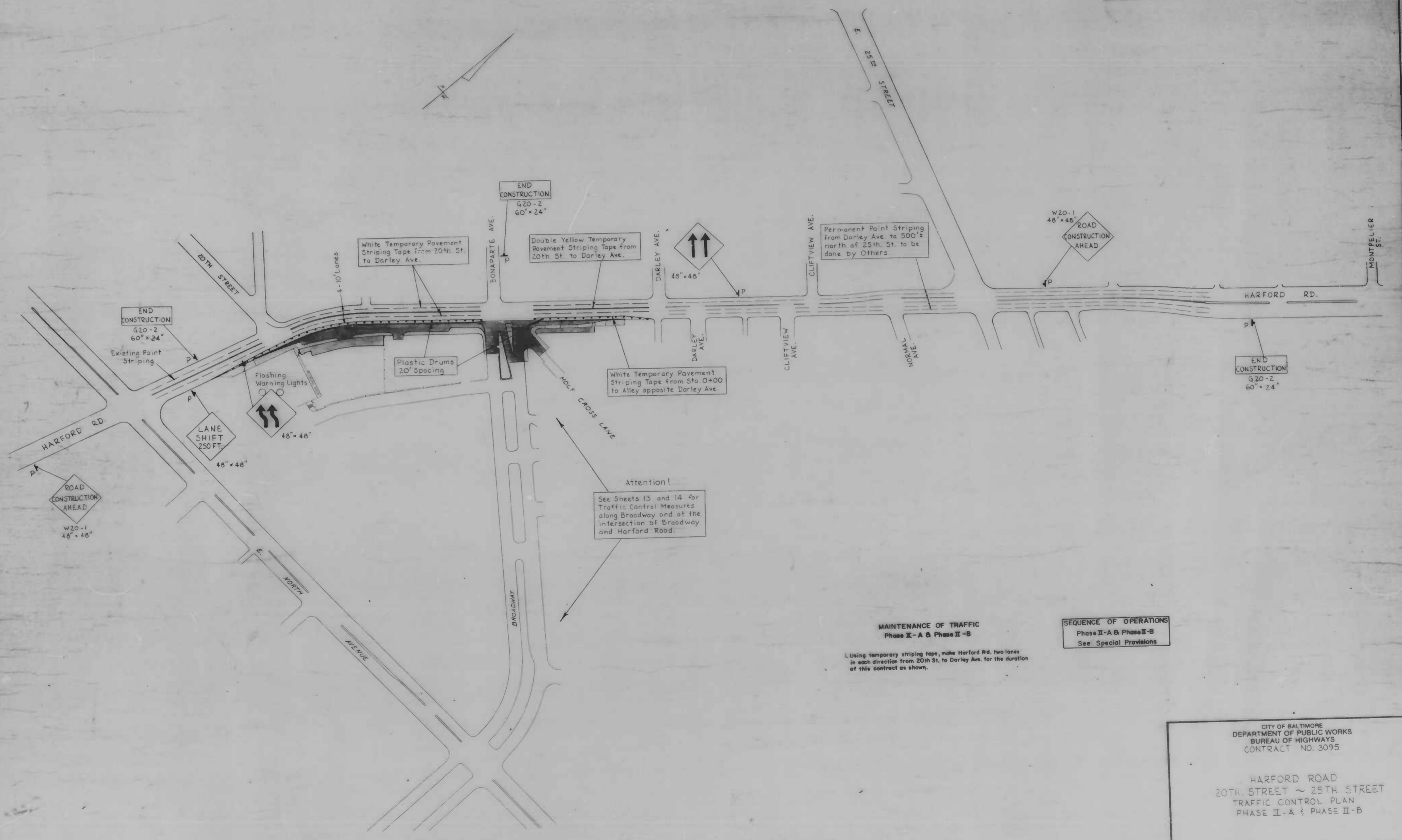
DRAWN BY Mike Forish, Jr.  
EXAMINED BY Wm. F. Campy, Jr.

FILE REF.



FILE REF.

REVISIONS		
NO.	DESCRIPTION	DATE



**MAINTENANCE OF TRAFFIC**  
Phase II - A & Phase II - B

1. Using temporary striping tape, make Harford Rd. two lanes in each direction from 20th St. to Darley Ave. for the duration of this contract as shown.

**SEQUENCE OF OPERATIONS**  
Phase II - A & Phase II - B  
See Special Provisions

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH STREET ~ 25TH STREET  
TRAFFIC CONTROL PLAN  
PHASE II - A & PHASE II - B

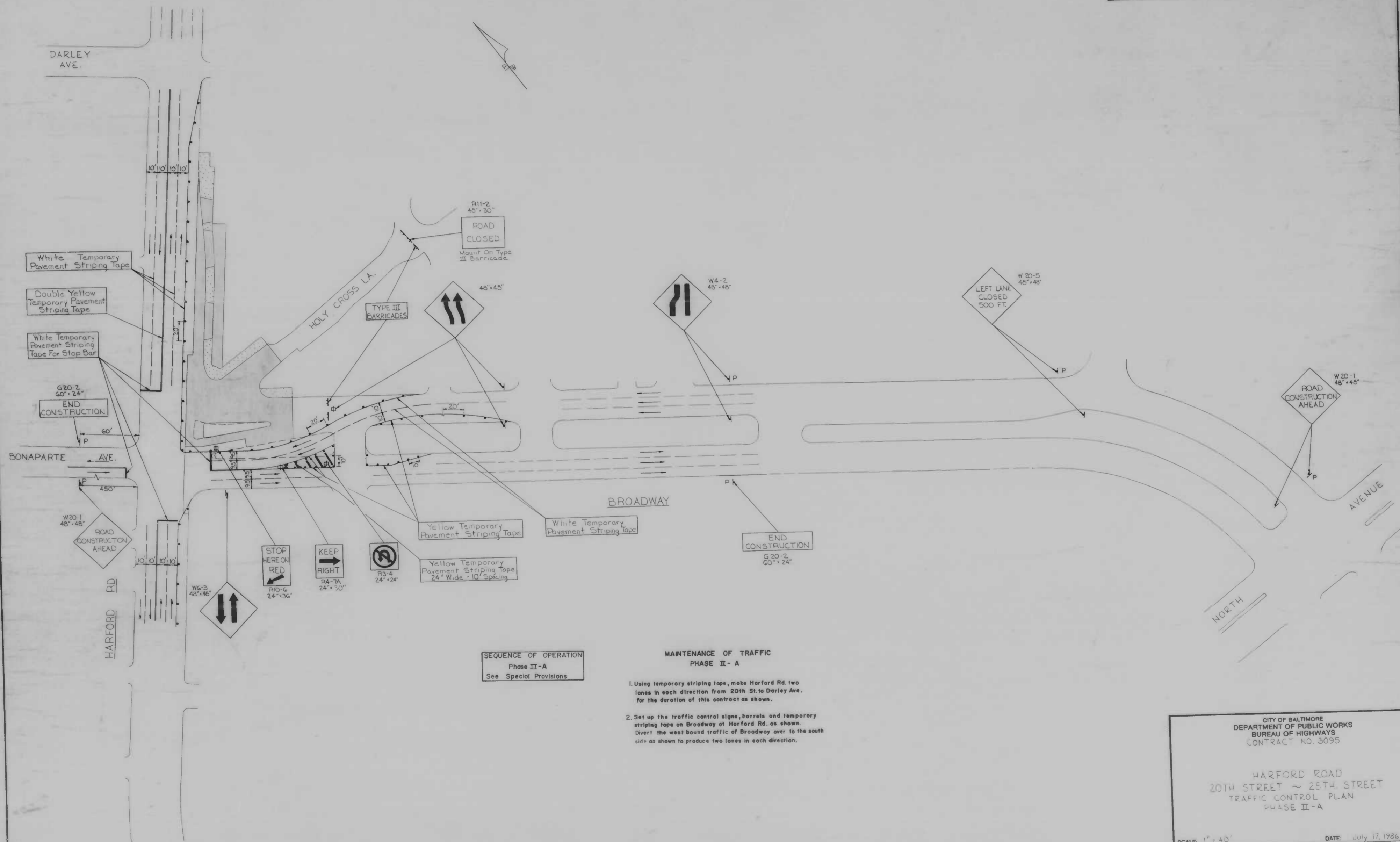
SCALE: 1" = 100'  
DATE: July, 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 12 OF 27

DRAWN BY Mike Foran, Jr.  
EXAMINED BY Wm. F. Crump

FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY



SEQUENCE OF OPERATION  
Phase II - A  
See Special Provisions

MAINTENANCE OF TRAFFIC  
PHASE II - A

1. Using temporary striping tape, make Harford Rd. two lanes in each direction from 20th St. to Darley Ave. for the duration of this contract as shown.
2. Set up the traffic control signs, barrels and temporary striping tape on Broadway of Harford Rd. as shown. Divert the west bound traffic of Broadway over to the south side as shown to produce two lanes in each direction.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH STREET ~ 25TH STREET  
TRAFFIC CONTROL PLAN  
PHASE II - A

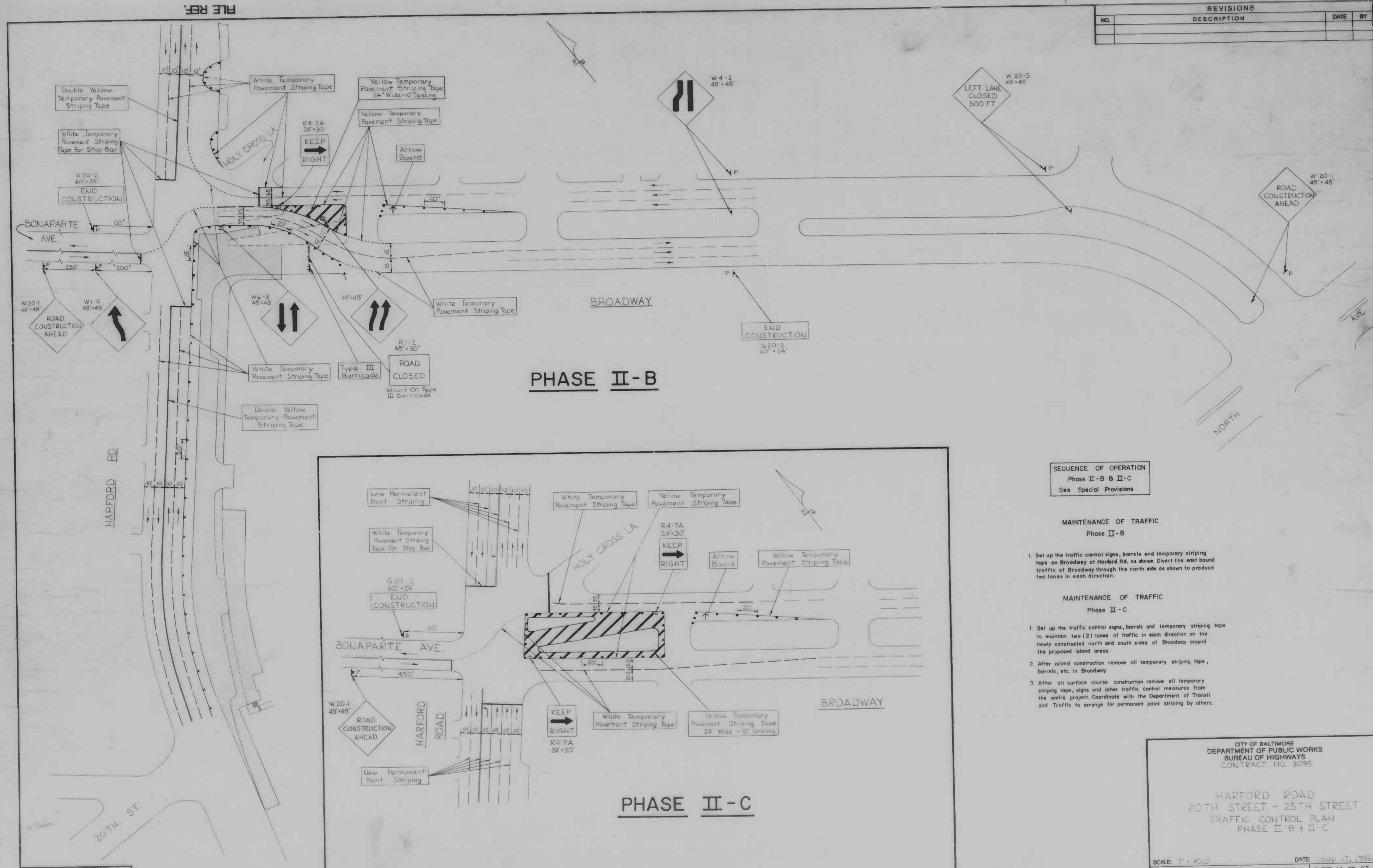
SCALE 1" = 40'  
DATE July 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 13 OF 27

DRAWN BY J.R. Hudgins  
EXAMINED BY Wm. F. Crampton

FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY



**PHASE II-B**

**PHASE II-C**

SEQUENCE OF OPERATION  
Phase II - B & II - C  
See Special Provisions

MAINTENANCE OF TRAFFIC  
Phase II - B

1. Set up the traffic control signs, barriers and temporary striping tape on Broadway at Harford Rd. as shown. Divert the east bound traffic of Broadway through the north side as shown to produce two lanes in each direction.

MAINTENANCE OF TRAFFIC  
Phase II - C

1. Set up the traffic control signs, barriers and temporary striping tape to maintain two (2) lanes of traffic in each direction on the newly constructed north and south sides of Broadway around the proposed island areas.
2. After island construction remove all temporary striping tape, barrels, etc. in Broadway.
3. After all surface course construction remove all temporary striping tape, signs and other traffic control measures from the entire project. Coordinate with the Department of Transit and Traffic to arrange for permanent paint striping by others.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH STREET ~ 25TH STREET  
TRAFFIC CONTROL PLAN  
PHASE II - B & II - C

SCALE 1" = 40'  
DATE July 17, 1956  
HIGHWAY ENGINEERING DIVISION SHEET 14 OF 27

DRAWN BY John K. Burke, Jr.  
EXAMINED BY Wm. P. Cramperton

FILE REF.



Note: All Test Pit Offsets (Except #) Are Taken From The  $\frac{1}{2}$ " Construction

Note: All Core Samples Are To Be Taken 10' West of The Existing Curb Unless Shown Otherwise

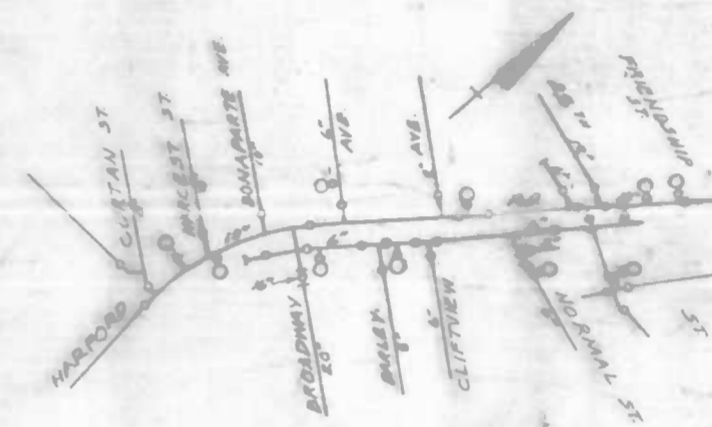
REVISIONS	
NO.	DESCRIPTION

NOTE: CONSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION

NOTE: Baltimore Gas & Electric Co., C & P Telephone Co. Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities

NOTE: U.R.E. Co. Conduit Removal  
The existing U.R.E. Co. conduit shall be removed, backfilled and backfilled from Sta. 2+42 to Sta. 4+37. The cost for this work shall be covered under item no. 302.

Remove existing storm water manhole



See Section 17 Plan Notes  
WATER CONSTRUCTION DIVISION

DESIGNED BY: J. J. ...  
CHECKED BY: ...  
DATE: ...

Book No. X-840 + X-892  
DESIGNED BY: JOHN K. BOREK JR.  
CHECKED BY: Wm. F. Crump

NEW 6" DIA. 20' DEPT. ...  
E.H. PROFILES  
SCALE: HORIZ. 1"=20' VERT. 1"=20'  
WORKING PRESSURE - 8.33 PSI  
TEST PRESSURE - 150 PSI

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3075

HARFORD ROAD  
20TH ST - 250' N OF BROADWAY

20TH ST - STA. 4+50.0

SCALE: HORIZ. 1"=20' VERT. 1"=20' DATE: ...  
HIGHWAY ENGINEERING DIVISION SHEET 15 OF 27

FILE REF.



FILE REF.

COMBINE CURVE DATA											
Curve No.	Station	Offset	Station	Offset	Δ	S <sub>c</sub>	E	T	C	L	B
1	PC 4+87.4	8.75	PT 5+44.2	36.0	54° 46' 10"	48' 34.00	28.0	23.04	34.36	31.87	52' 00.00
2	PC 1+03.52	0	PT 1+03.52	0	180°	0	0	0	0	0	0
3	PC 0+40.44	0	PT 0+40.44	0	180°	0	0	0	0	0	0
4	PC 8+26.71	0	PT 8+26.71	0	180°	0	0	0	0	0	0

NOTE: Sta 7+25.7 B B  
 Sta 0+000 B B  
 Sta 7+38.56 B B  
 Sta 0+000 B B

REVISIONS	
NO.	DESCRIPTION
1	Change Center Line to 20' from Top of 12" Sewer

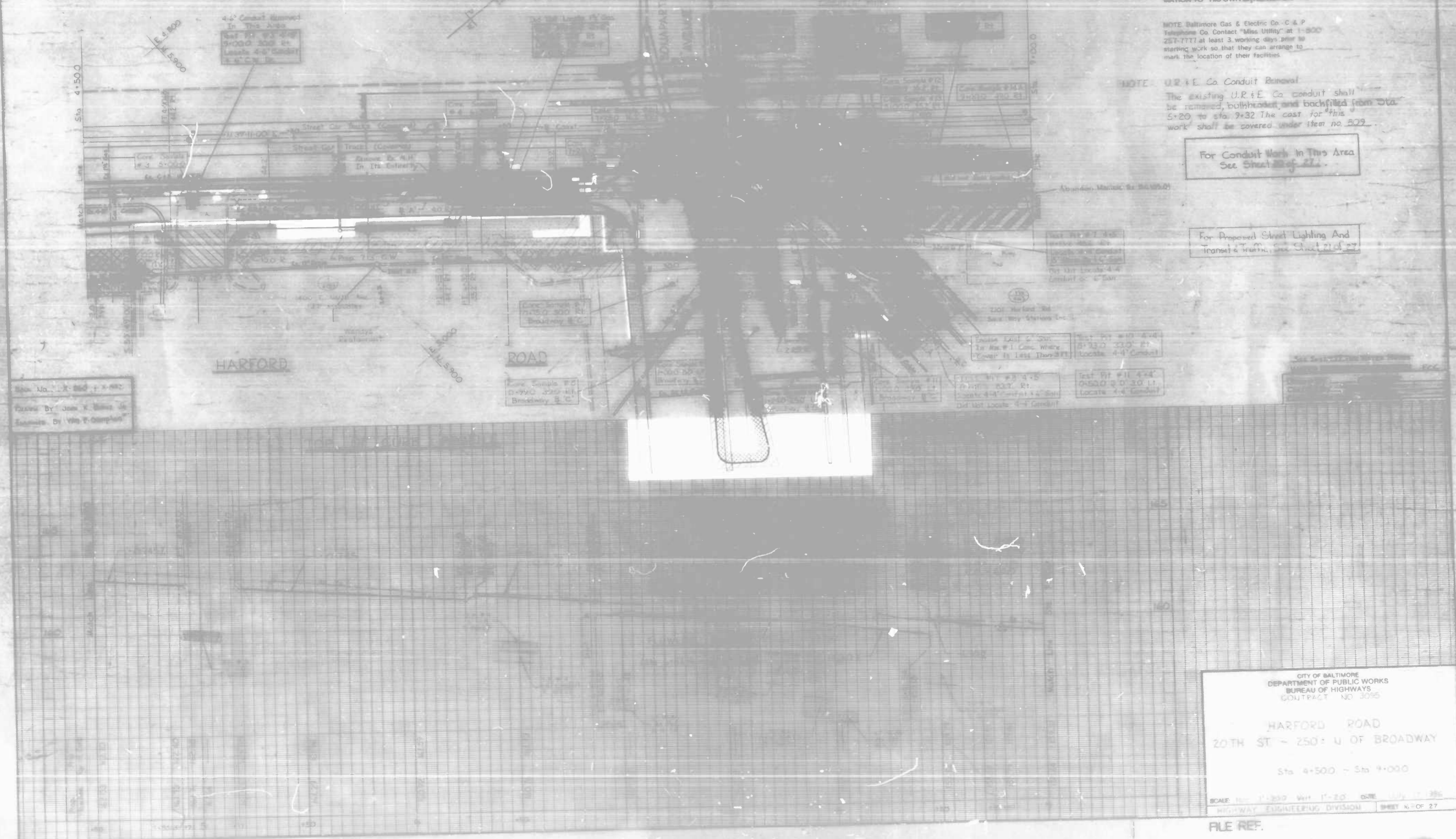
NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE: Baltimore Gas & Electric Co. C & P Telephone Co Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

NOTE: U.R.I.E. Co Conduit Removal  
 The existing U.R.I.E. Co conduit shall be removed, bulkheaded and backfilled from Sta. 5+20 to Sta. 9+32. The cost for this work shall be covered under item no. 529.

For Conduit Work in This Area See Sheet 26 of 27.

For Proposed Street Lighting And Transit & Traffic See Sheet 27 of 27.



Scale: 1" = 20' - 1" = 40'  
 Drawn By: John X. Baker, Jr.  
 Checked By: Wm. T. Campbell

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3045

**HARFORD ROAD**  
 20TH ST. - 250' N. OF BROADWAY

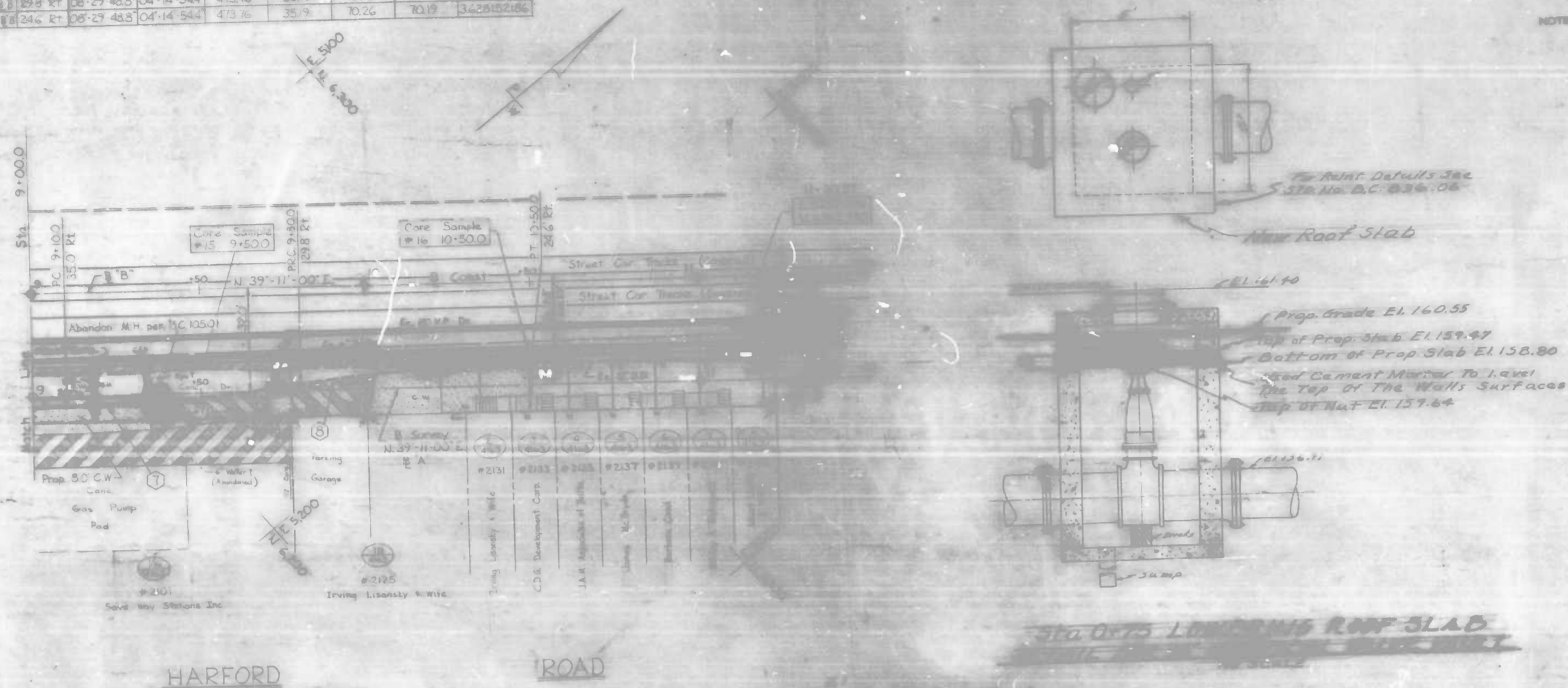
Sta 4+500 - Sta 9+000

SCALE: HORIZ. 1" = 20' VERT. 1" = 40' DATE: JULY 7, 1960  
 HIGHWAY ENGINEERING DIVISION SHEET 6 OF 27

FILE REF.



Curve No.	Station	Offset	Station	Offset	CURVE DATA				C	d	
					PC	PT	Δ	g			
1	PC 9+00.0	15.0	PT 9+80.0	29.4	06°29'48.5"	04°14'54.4"	473.76	35.19	70.26	70.19	3428152.86
2	PC 9+800	29.4	PT 10+500	24.6	06°29'48.5"	04°14'54.4"	473.76	35.19	70.26	70.19	3428152.86



NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE: Baltimore Gas & Electric Co. - G & P Telephone Co. Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

- REVISION NOTES**
1. Verify The Bureau of Water & Waste Water Maintenance Division At 326-0245 One Week Before Starting Work.
  2. All Existing Water Lines Shall Be Connected By The Bureau Of Water & Waste Water Maintenance Division Forces Only.
  3. All Water Supply Services And/or Meters, Fire Hydrant Locations, That Are Done In Accordance With The Contract Uncertainty And The Book Of Standards.
  4. Contractor Shall Assume Full Responsibility For Working Near Or Over Existing Utility Facilities.
  5. Existing Water Supply Services And/or Meters Shall Relocate In Harford Rd.
    - A) Relocation of (1) One 3" Single Setting Water Main - 801
    - B) Relocation of (1) Two Single Setting 3" Water Main - 802
    - C) Relocation of (1) One Single Setting 3" Water Main - 803
    - D) Relocation of (1) One 1" Water Service, 55' Meter Item - 804
    - E) Relocation of (1) One 3/4" Water Service, 56' Meter Item - 805
    - F) Relocation of (2) Two 3/4" Water Service, 54' Meter Item - 806

Book No. 17260 X-592  
 Drawn By: John E. Butler Jr.  
 Checked By: Wm. F. Campbell

Drawn By: C. J. ...  
 Checked By: ...

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3095

HARFORD ROAD  
 20TH ST. - 250' N OF BROADWAY  
 55+000 - 250' N OF BROADWAY

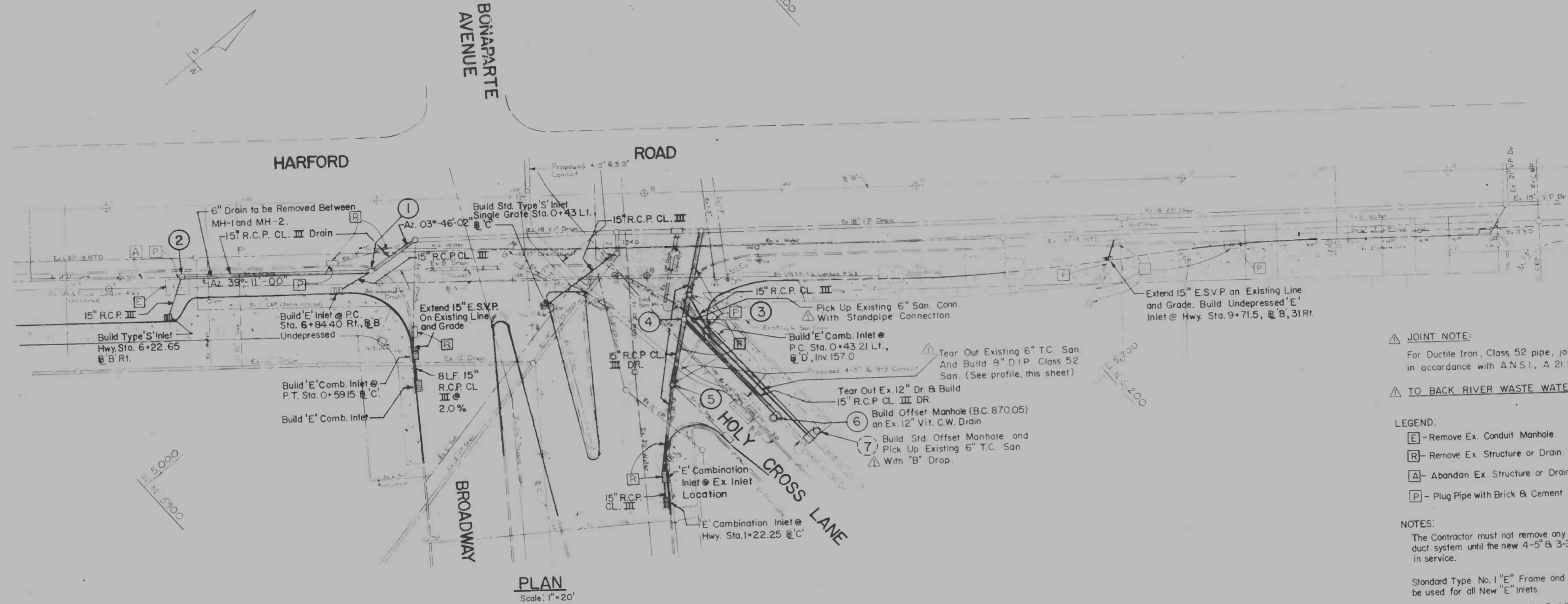
SCALE: HORIZ. 1" = 20' VERT. 1" = 2' DATE: July 17, 1956  
 HIGHWAY ENGINEERING DIVISION SHEET 17 OF 27

FILE REF.



FILE REF. ESD 80 305

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Added Plan Profile & Notes for MH-1 and 2	2/17/86	DLD
2	Profile - S Inlet To Existing Manhole	4/24/88	WSB



PLAN  
Scale: 1"=20'

**JOINT NOTE:**  
For Ductile Iron, Class 52 pipe, joints shall be push on in accordance with ANSI, A 21.11 (AWWA C III-72)

**TO BACK RIVER WASTE WATER TREATMENT PLANT**

- LEGEND:**
- [E] - Remove Ex. Conduit Manhole
  - [R] - Remove Ex. Structure or Drain
  - [A] - Abandon Ex. Structure or Drain
  - [P] - Plug Pipe with Brick & Cement Mortar

**NOTES:**  
The Contractor must not remove any portion of the existing 4-4" duct system until the new 4-5" & 3-3" ducts are installed and in service.

Standard Type No. 1 "E" Frame and Grates (B.C. 376.01) shall be used for all New "E" Inlets.

All inlets are to be depressed 2-1/2" unless noted.

**BEFORE DOING ANY DIGGING NOTIFY THE FOLLOWING**  
(Miss Utility) 1-800-257-7777  
Bureau of Highways, Street Lighting Section 396-1311, Conduit Section 396-3658

All channels in manholes must be constructed to conform as close as possible to the standard channel called for on the profiles. Gravel Crotch is required under all pipe except inlet connections. All backfill shall be mechanically tamped. For standard details see Baltimore City Book of Standards.

Obstructions shown on these drawings are for the convenience of the contractor only, and the City does not warrant or guarantee the correctness or the completeness of the information given. The contractor must verify all such information to his own satisfaction.

**TYPE OF JOINT FOR PIPE**

TYPE PIPE	TYPE JOINT
Reinforced Concrete Pipe Drain	"O" Ring Rubber Gasket
Reinforced Concrete Pipe Inlet Conn	Cement Mortar or "O" Ring Rubber Gasket

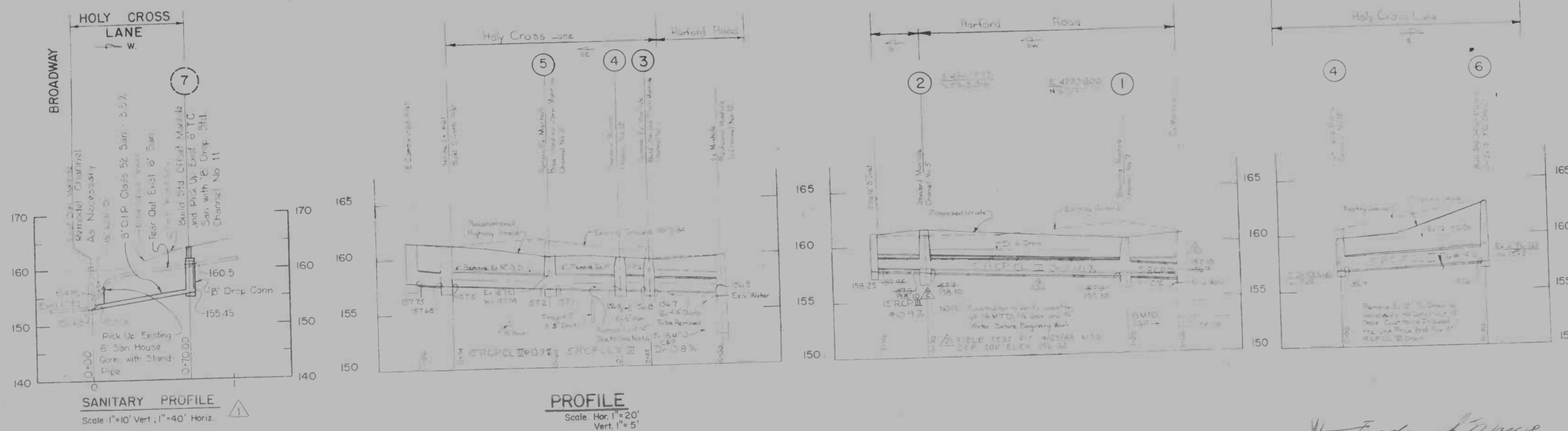
SURVEY BOOK X-860 RECORD PLATS MM 41  
B.M. 7141 ELEV 141.209 DRAINAGE DISTRICT 34-G  
RELEASED BY RIGHT OF WAY DIVISION

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

**HARFORD ROAD**  
**20 TH ST. 250' N. OF BROADWAY**  
**STORM DRAIN PLAN**  
**& PROFILE**

SCALE AS SHOWN DATE April 1986  
ENVIRONMENTAL SERVICES DIVISION SHEET 19 OF 27

FILE REF. ESD 80-305



SANITARY PROFILE  
Scale: 1"=10' Vert., 1"=40' Horiz.

PROFILE  
Scale: Hor. 1"=20',  
Vert. 1"=5'

DRAWN BY David B. Thomas  
EXAMINED BY William Phillips

*Frederick M. Jones*  
ENVIRONMENTAL SERVICES DIVISION



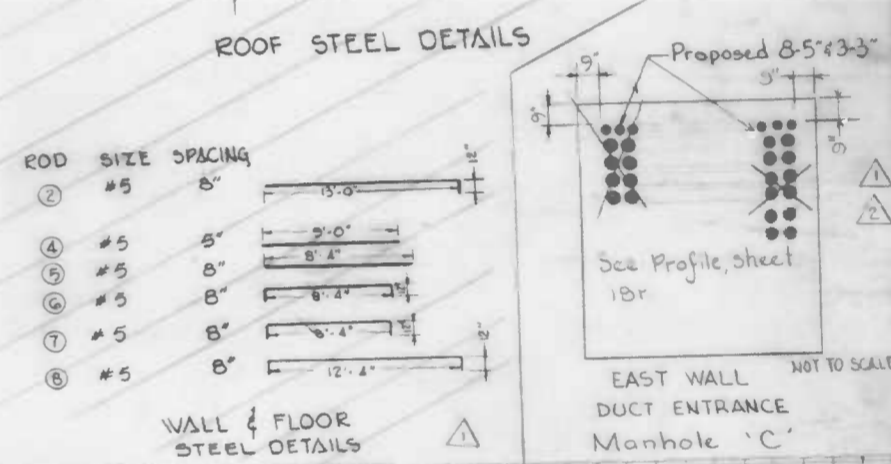
FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Delete Details Of Manhole C. Revise Profile & Duct Entrance Into East Wall of Manhole C	2.1.86	JCB
2	Alter Duct Entrance Into Manhole C (Detail) New Profile	2.10.86	JCB

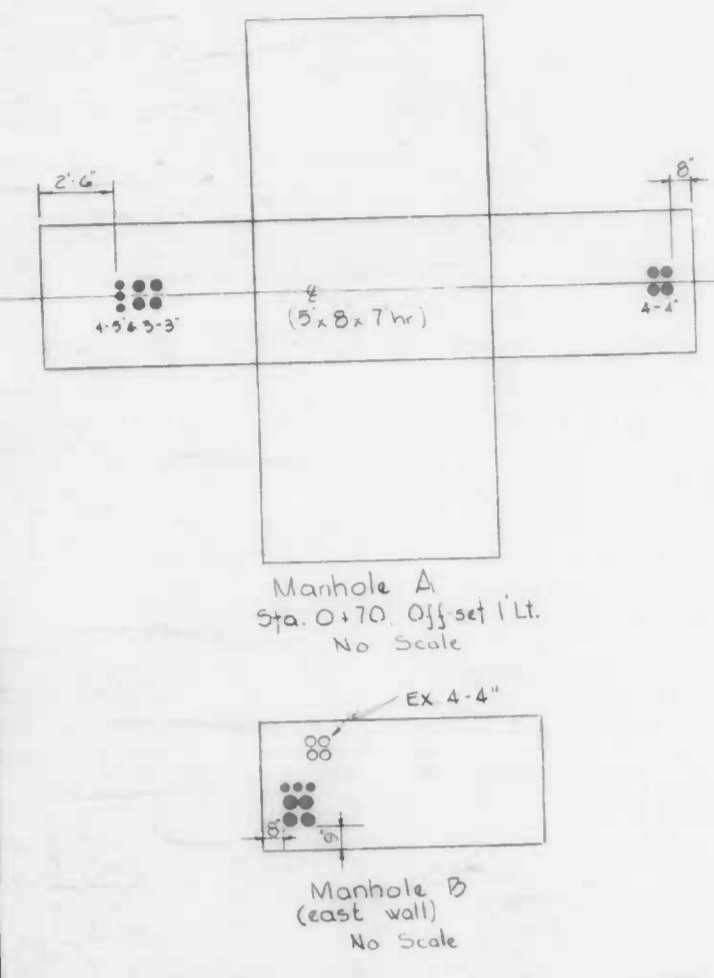
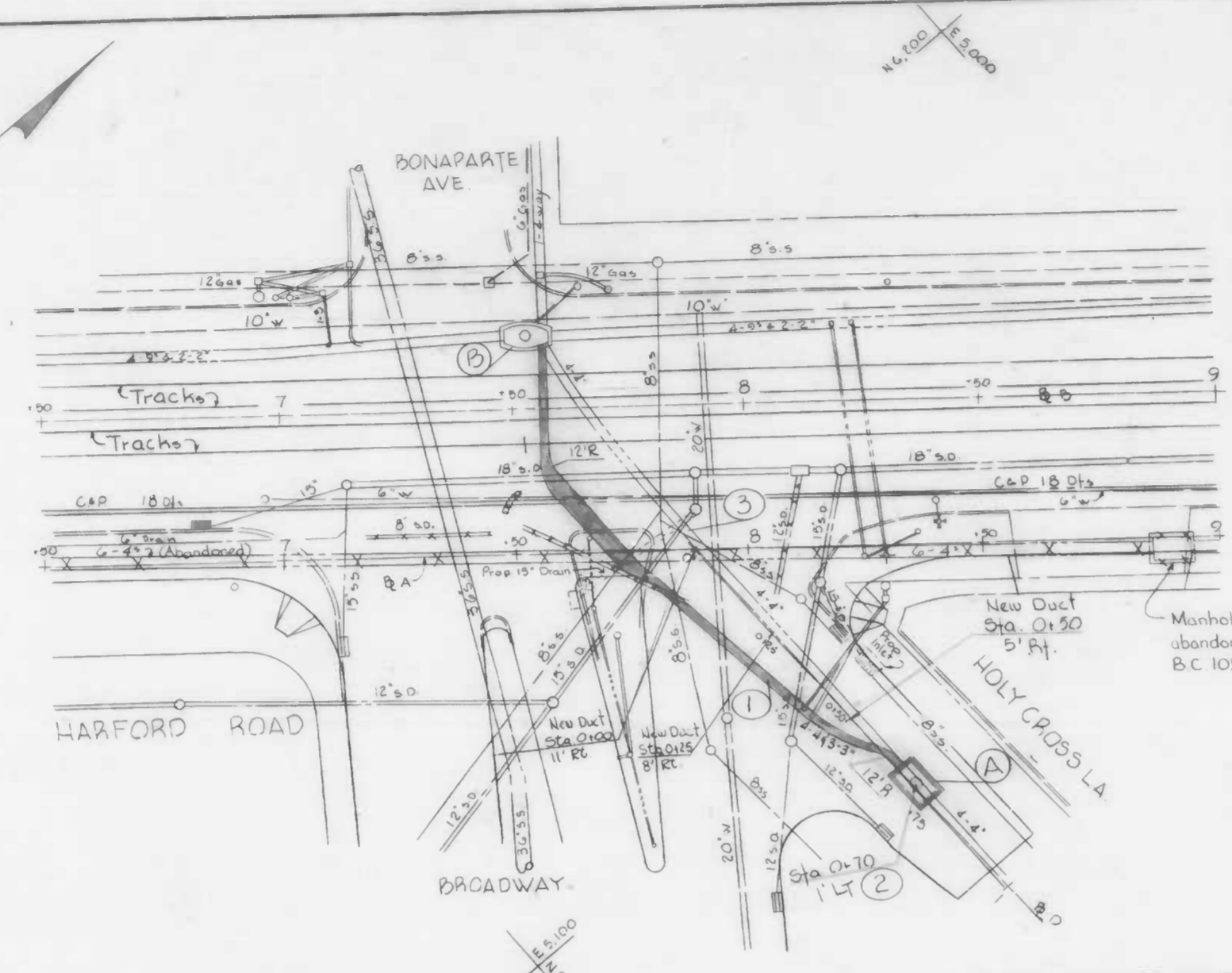
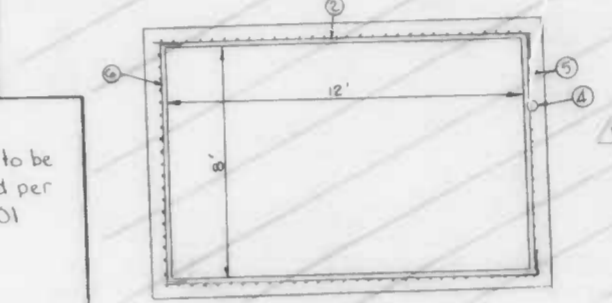
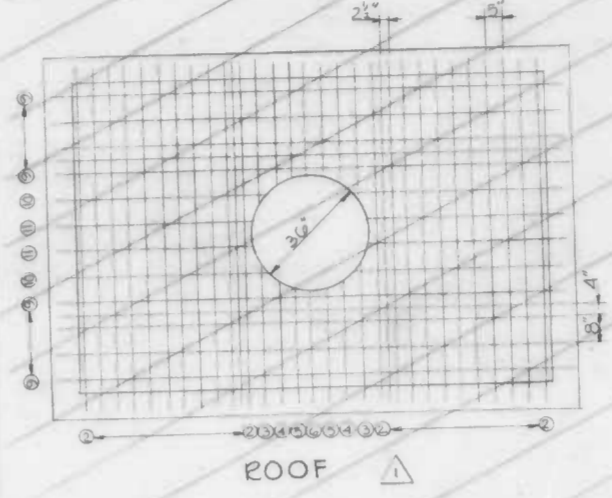
**CONDUIT NOTES**

- Install 4'-5" x 3'-3" ducts from existing manhole B to new manhole A as shown.
- Install 5' x 8' x 7" hr. manhole intersecting existing ducts at location shown. Lower existing ducts into new manhole as required. See detail and profile, this sheet.
- Existing 4'-4" ducts to be abandoned between manholes A & B after new duct line is in service.

ROD SIZE	ROD SIZE
2 #6	5 #5
3 #6	6 #5
4 #6	7 #5
5 #6	8 #5
6 #6	9 #5



MANHOLE 'C' 8'-12" x 9" HR  
Sta 18+21.5 @ 75' Lt



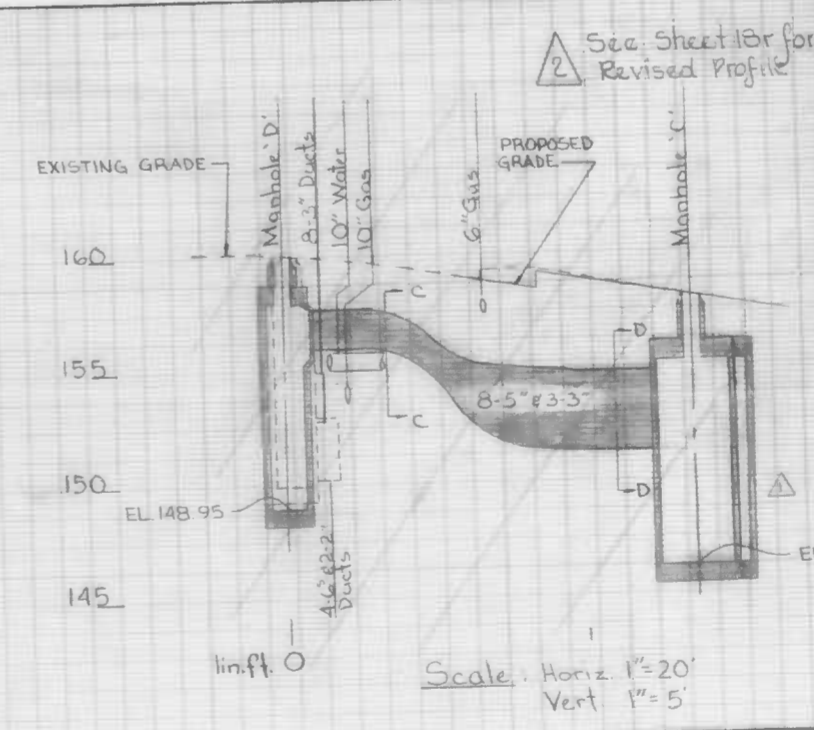
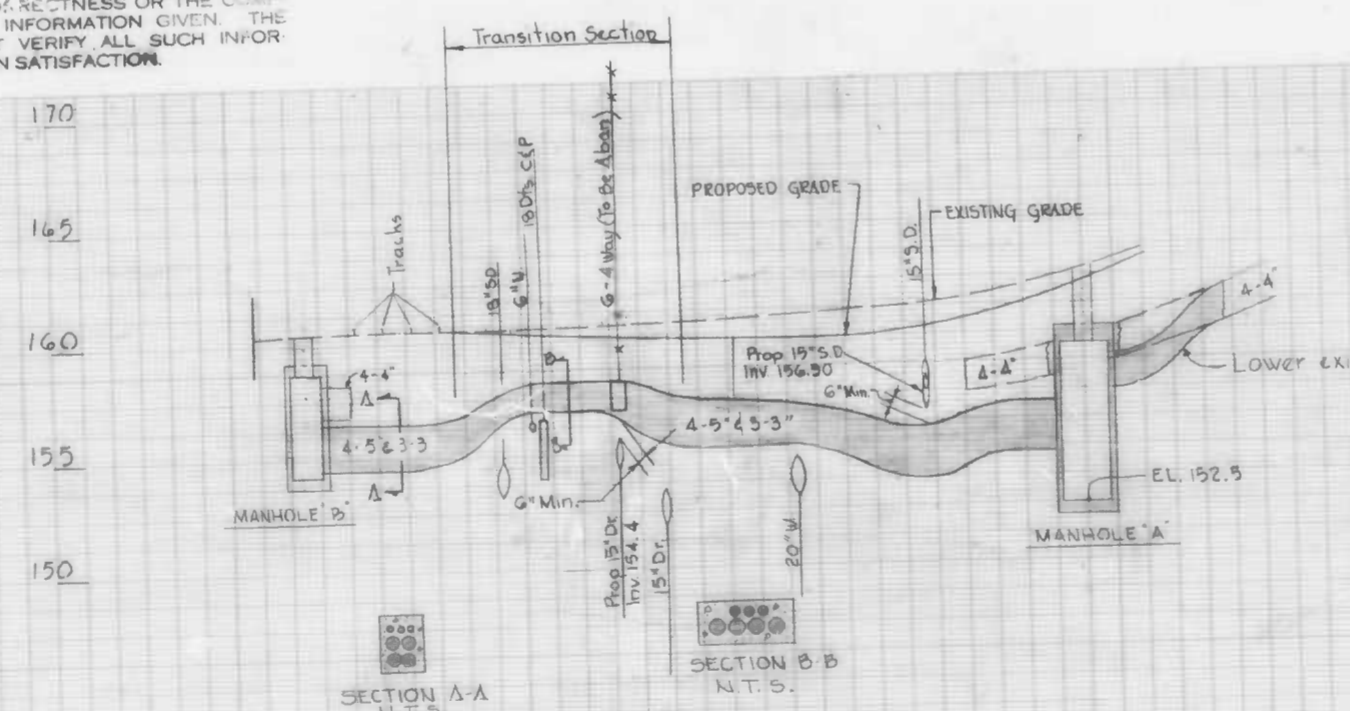
**NOTE: "INLET PROTECTION"**  
ALL CURBS AND PROPOSED INLETS SHALL BE PROTECTED USING BATH CITY STANDARD NO. 8 C 306-81.

**NOTE: SOIL EROSION & SEDIMENT CONTROL**  
WHEREVER POSSIBLE, LIMIT GRADE TO EXISTING GRADE TO MINIMIZE THE EXPOSURE OF EROSION CONTROL MEASURES. EXPOSURE OF EROSION CONTROL MEASURES SHALL BE LIMITED TO THE MINIMUM NECESSARY TO PERFORM THE WORK. TEMPORARY OR PERMANENT STABILIZATION OF THESE AREAS AT THE EARLIEST OPPORTUNITY.

**NOTE: Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.**

**NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.**

For Proposed Street Lighting And Transit & Traffic. See Sheet 21 of 27.



**Note:**  
For duct sections C-C and D-D and duct numbering, see sheet 18 of 27

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

**HARFORD ROAD**  
20th STREET - 250' N of BROADWAY  
CONDUIT PLAN, PROFILE, & VARIOUS DETAILS

SCALE AS NOTED DATE July 17, 1986  
ENVIRONMENTAL SERVICE DIVISION SHEET 20 OF 27

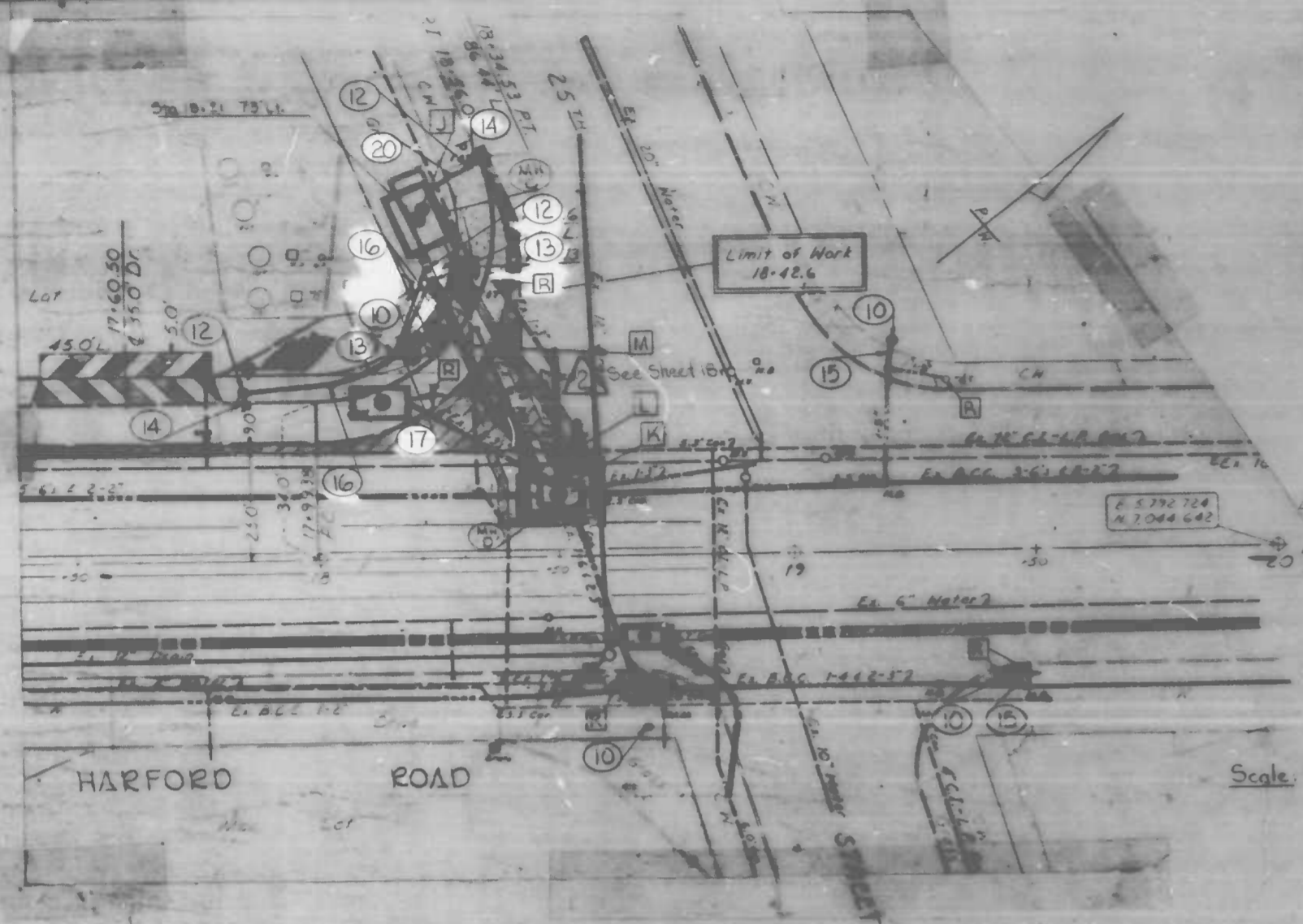
DRAWN BY L. ADDISON  
EXAMINED BY [Signature]

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REVISIONS		
NO.	DESCRIPTION	DATE BY
1	Revise Hand Box Locations	2-1-86 SCB
2	Reference Revision 2, Sheet 18	2-10-86 SCB



Pole Bases	
Station	Offset
18+20	44' LT
18+68	57' RT
19+10	35' LT
19+45	27.2' RT

Hand Boxes			
Type	Station	Offset	On Duct
D.P.W.	17+74	52.5' LT	
D.P.W.	18+22	57' LT	No 9
D.P.W.	18+22	57' LT	
D.P.W.	18+22	57' LT	No 10

See sheet 18 of 27 for duct details.

Scale: 1"=20'

NOTES

- 10 Install joint use pole base per B.C. 88507, sheet 2 of 3. See chart for location.
- 11 DELETE
- 12 Install new D.T.T. hand box per B.C. 804.01. See chart for location.
- 13 Install new D.P.W. hand box per B.C. 804.01. See chart for location.
- 14 Install 1-3" stub out of hand box. See detail this sheet.
- 15 Install 1-3" duct from existing hand box to new pole base, as shown.
- 16 Install 1-3" duct from new hand box to new hand box, as shown.
- 17 Install 1-4" duct from new hand box to new pole base, as shown.
- 18 Install 1-3" duct from existing hand box to new hand box, as shown.
- 19 Install 1-3" duct from new hand box to new pole base, as shown.
- 20 Install 1-3" duct from new manhole to new hand box, as shown.
- 21 Install new light pole base per B.C. 801.01, at location shown on chart.

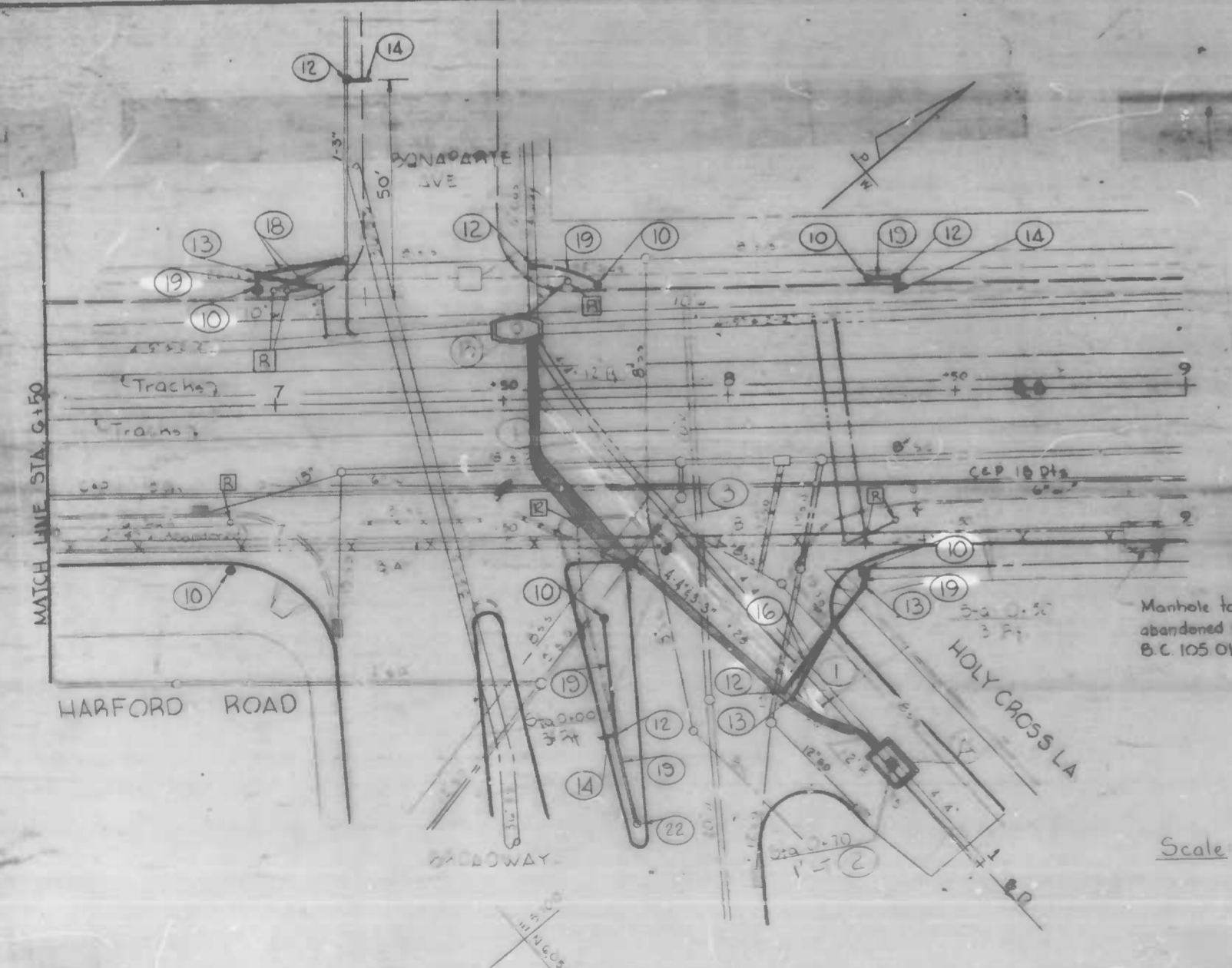
NOTE: INSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE: CON. DESIGN & SCREEN IT CONSOLE. REVISIONS SHOULD BE MADE TO THIS DRAWING AND THE LOCATION OF THIS DRAWING OF THE CONTRACTOR'S RECORDS. ACCORDING TO THE CITY'S REGULATIONS OF THE CITY OF BALTIMORE.

NOTE: Contact "ECHO CITY" at 1-800-557-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

NOTE: "UTILITY MARKING" ALL UTILITIES AND MANHOLES SHALL BE MARKED PRIOR TO ANY CONSTRUCTION WORK.

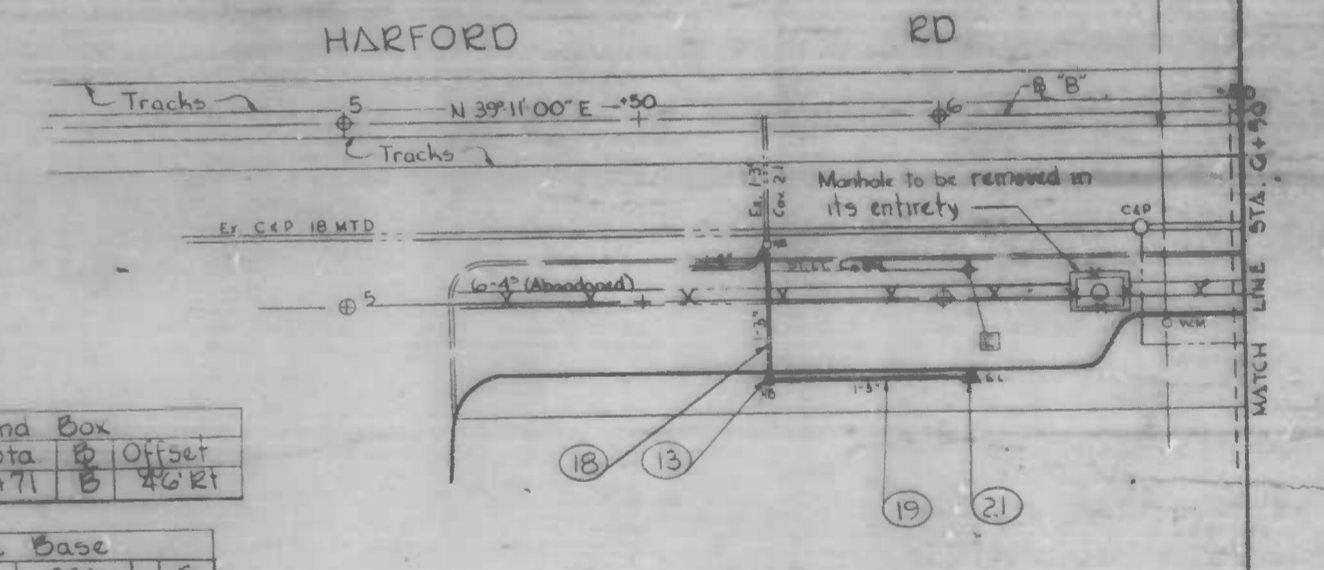
- 22 Install base for 11' pedestal at location shown on chart. See B.C. 885.01 for details.



Pole Bases		
Station	Offset	B
6+96	278' LT	B
7+72	270' LT	B
8+32	275' LT	B
8+30	415' RT	B
7+71	510' RT	B
6+90	380' RT	B
0+42	50.5' RT	D

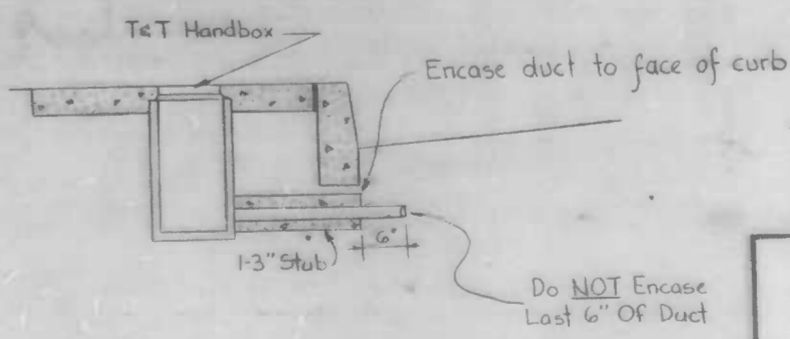
Hand Boxes				
Type	Sta.	B	Offset	On Duct
D.P.W.	6+96	B	20' LT	
D.T.T.	7+57	B	30.5' LT	No 3
D.P.W.	0+42	D	6' RT	No 6
D.P.W.	0+44	D	5' RT	No 7
D.P.W.	8+30	B	44' RT	
D.T.T.	0+43	D	50.5' RT	
D.T.T.	7+16	B	74' LT	
D.T.T.	8+37	B	26' LT	

Scale: 1"=20'



Hand Box			
Type	Sta.	B	Offset
D.P.W.	9+71	B	46' RT

Pole Base		
Station	Offset	B
6+05	46' RT	B



- KEY
- Joint Use Pole Base
  - 28' Strain Pole (to be set on joint use pole base)
  - Hand Box
  - [R] Remove Existing Pole Base
  - ▲ Street Light Base
  - 11' Pedestal Base

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3035

HARFORD ROAD  
CLIFTVIEW AVE ~ 25<sup>TH</sup> ST AND  
20<sup>TH</sup> ST ~ 250'± N. OF BROADWAY

STREET LIGHTING AND TRANSIT & TRAFFIC

SCALE As NOTED DATE July 17, 1986  
ENVIRONMENTAL SERVICES DIVISION SHEET 211 OF 27

FILE REF.

DRAWN BY D.A. Wolinski  
EXAMINED BY



FILE REF.

Note: All Test Pit Offsets (Except H) Are Taken From The Construction

Note: All Core Samples Are To Be Taken 1.0 West of The Existing Curb Unless Shown Otherwise

PC Sta	PT Sta	$\Delta$	$\Delta/2$	R	T	L	C	d
2+50.0	4+23.50	24°26'00"	12°13'00"	406.56	88.09	173.50	172.19	4.224729341

Curve No.	Station / Offset	Station / Offset	$\Delta$	$\Delta/2$	R	T	X.C.	X.L.	d
1	PC 1+35.0 / 24.0	PCC 2+50.03 / 33.19	05°17'35.5"	04°08'47.75"	797.51	57.82	115.33	115.43	2.155300096
2	PCC 2+59.5 / 43.40	PT 4+23.50 / 34.20	25°25'05.07"	12°42'27.53"	165.51	106.78	211.62	212.26	2.179900546

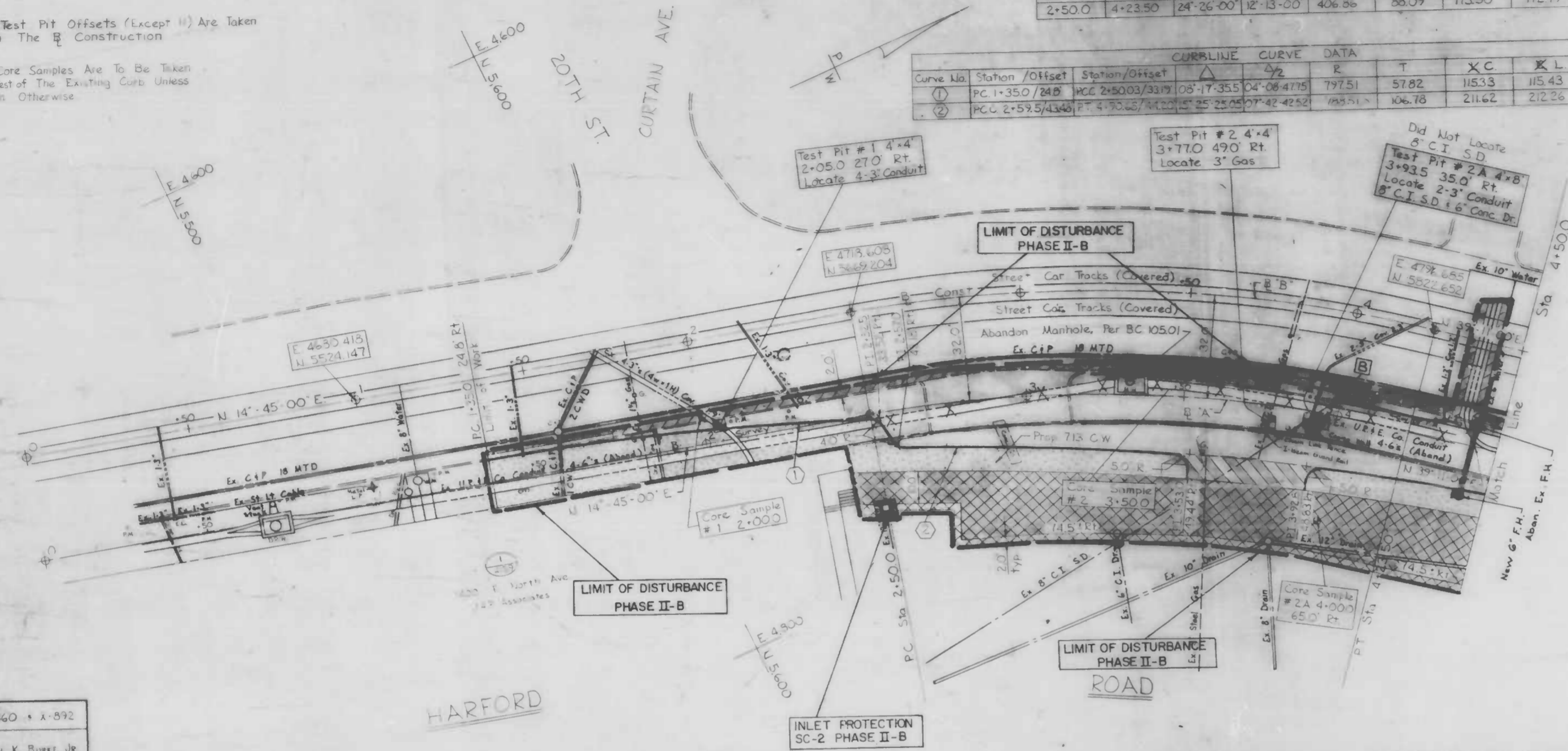
NO.	DESCRIPTION	DATE	BY

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE: Baltimore Gas & Electric Co. & Telephone Co. Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

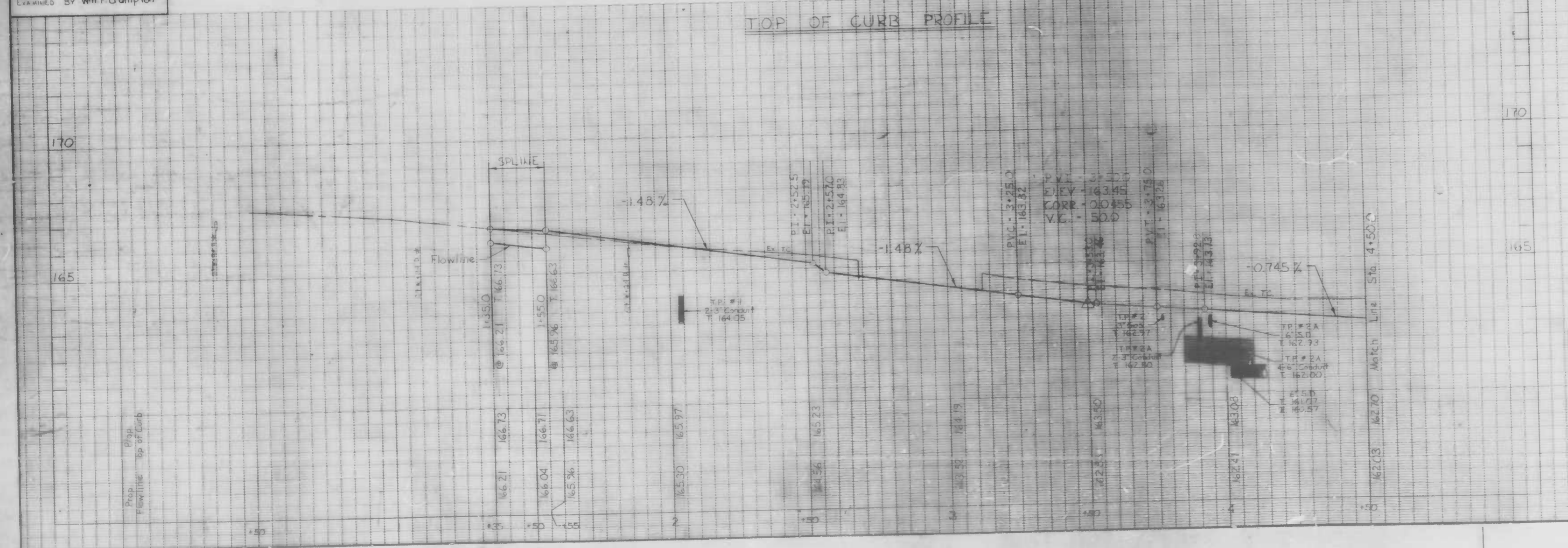
NOTE: U.R. & E. Co. Conduit Removal  
The existing U.R. & E. Co. conduit shall be removed and backfilled from sta. 2+42 to sta. 4+37. The cost for this work shall be covered under item no.

Remove existing storm water manhole



Book No. X-860 + X-892  
 DRAWN BY: John K. Burrel Jr.  
 EXAMINED BY: Wm. F. Crampton Jr.

SEE SHEET 17 FOR WATER NOTES  
 WATER ENGINEERING DIVISION  
 DRAWN BY: C.T. Curtis  
 CHECKED BY: Wm. Walker  
 CHIEF, WATER ENG. SECT.



CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3075

HARFORD ROAD  
 20TH ST - 250' N OF BROADWAY  
 SOIL EROSION & SEDIMENT CONTROL PLAN  
 20TH ST - Sta. 4+50.0

SCALE: HORIZ. 1"=30.0' VERT. 1"=2.0' DATE: July 17, 1986  
 HIGHWAY ENGINEERING DIVISION SHEET 22 OF 27

FILE REF.



FILE REF.

REVISIONS			
NO	DESCRIPTION	DATE	BY
1	Change Ramps At Drive To Std Ped Ramp Type I BC655-20	4-23-88	JKB

CURBLINE		CURVE DATA							
Curve No	Station	Offset	Station	Offset	R	T	C	L	d
1	PC 2+81.4 @ B	35.2 RT	PT 0+56.3 @ C	43.0 RT	25.0	23.64	34.36	37.87	68.75491520
2	PC 1+35.2 @ C	45.0 LT	PT 0+49.7 @ B	12.0 RT	142.45	11.3	33.53	21.42	152.112625495
3	PC 3+43.4 @ B	12.0 LT	PT 4+26.7 @ C	39.7 RT	17.56	23.1	38.56	15.5	171.09738000
4	PC 8+34.7 @ B	39.7 RT	PT 8+45.54 @ C	32.0 RT	28.05	20.3	14.04	10.15	42.971183450

NOTE  
Sta. 7+53.91  
Sta. 7+53.91 B  
Sta. 0+00.0 C  
Sta. 7+88.36 A  
Sta. 0+00.0 D

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

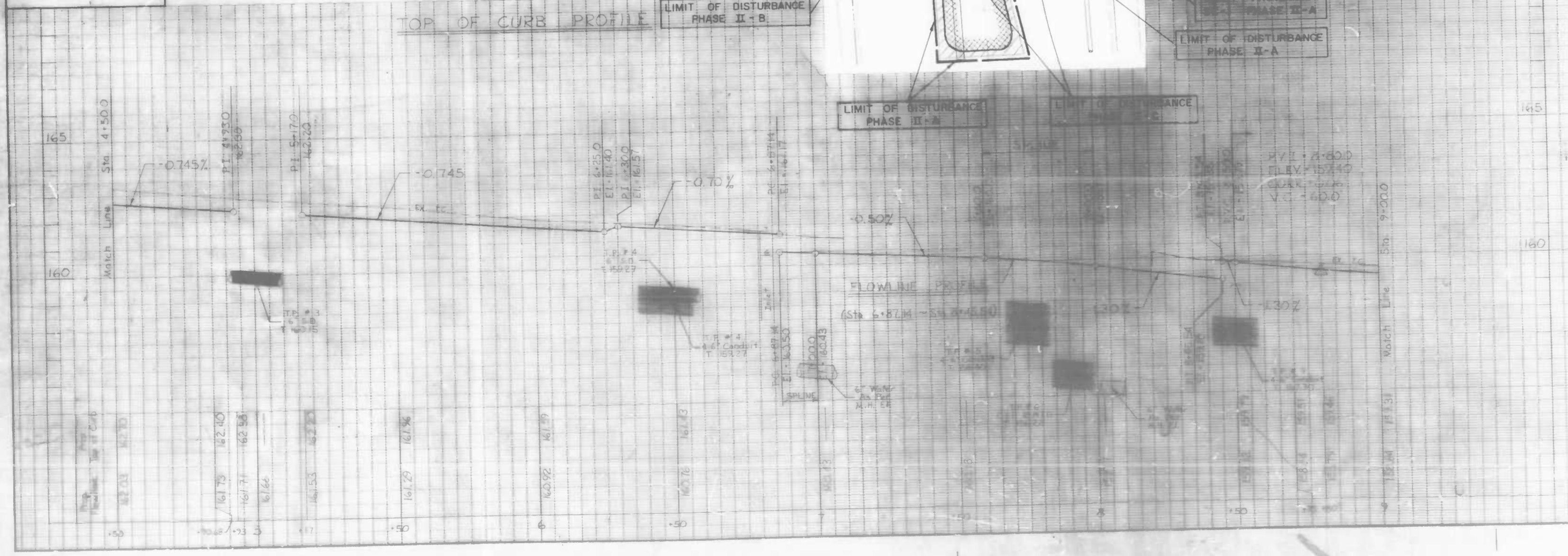
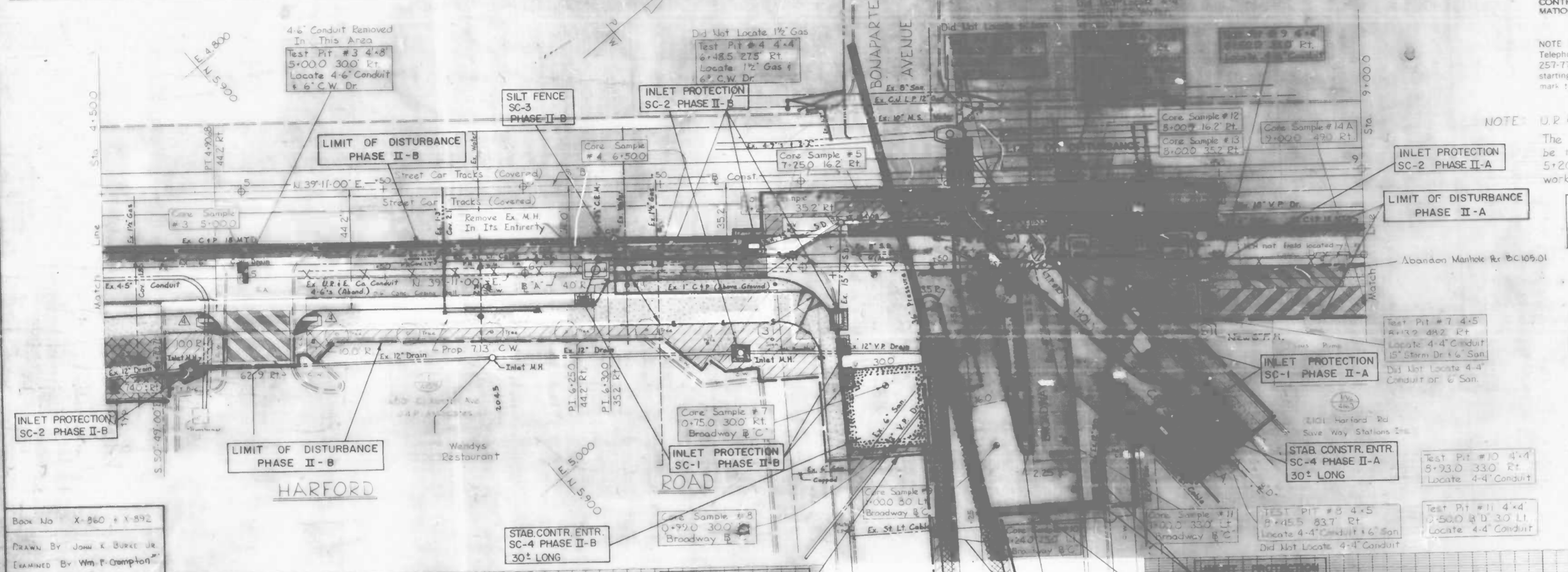
NOTE: Baltimore Gas & Electric Co. & P. Telephone Co Contact "Main Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

NOTE: U.R. & E. Co Conduit Removal  
The existing U.R. & E. Co conduit shall be removed and backfilled from Sta. 5+20 to Sta. 9+32. The cost for this work shall be covered under item no.

For Conduit Work in This Area See Sheet 20 of 27.

For Proposed Street Lighting And Transit & Traffic See Sheet 21 of 27.

SEE SHEET 17 FOR WATER NOTES  
WATER ENGINEERING DIVISION  
DRAWN BY: C.F. CURTIS  
CHECKED BY: Wm. Walter  
CHIEF, WATER SECT.



CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3096  
  
HARFORD ROAD  
20TH ST - 250+00 OF BROADWAY  
SOIL EROSION & SEDIMENT CONTROL PLAN  
Sta. 0+000 - Sta. 9+000  
  
SCALE: 1" = 40' VERT. 1" = 40' HORIZ.  
DATE: July 17, 1988  
SHEET 23 OF 27

FILE REF.



FILE REF.

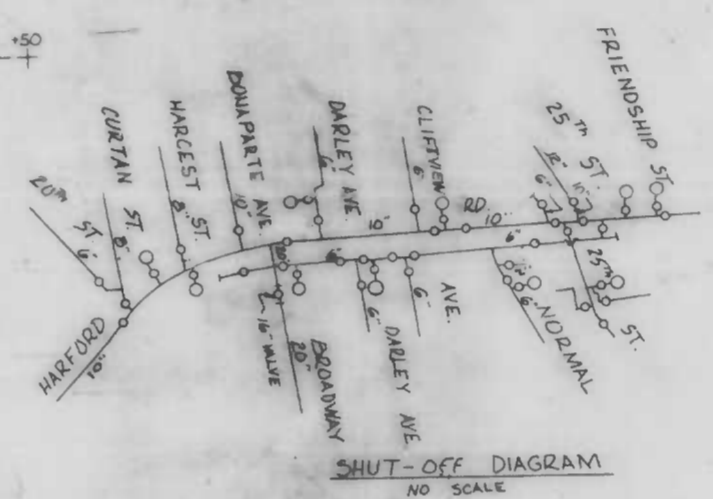
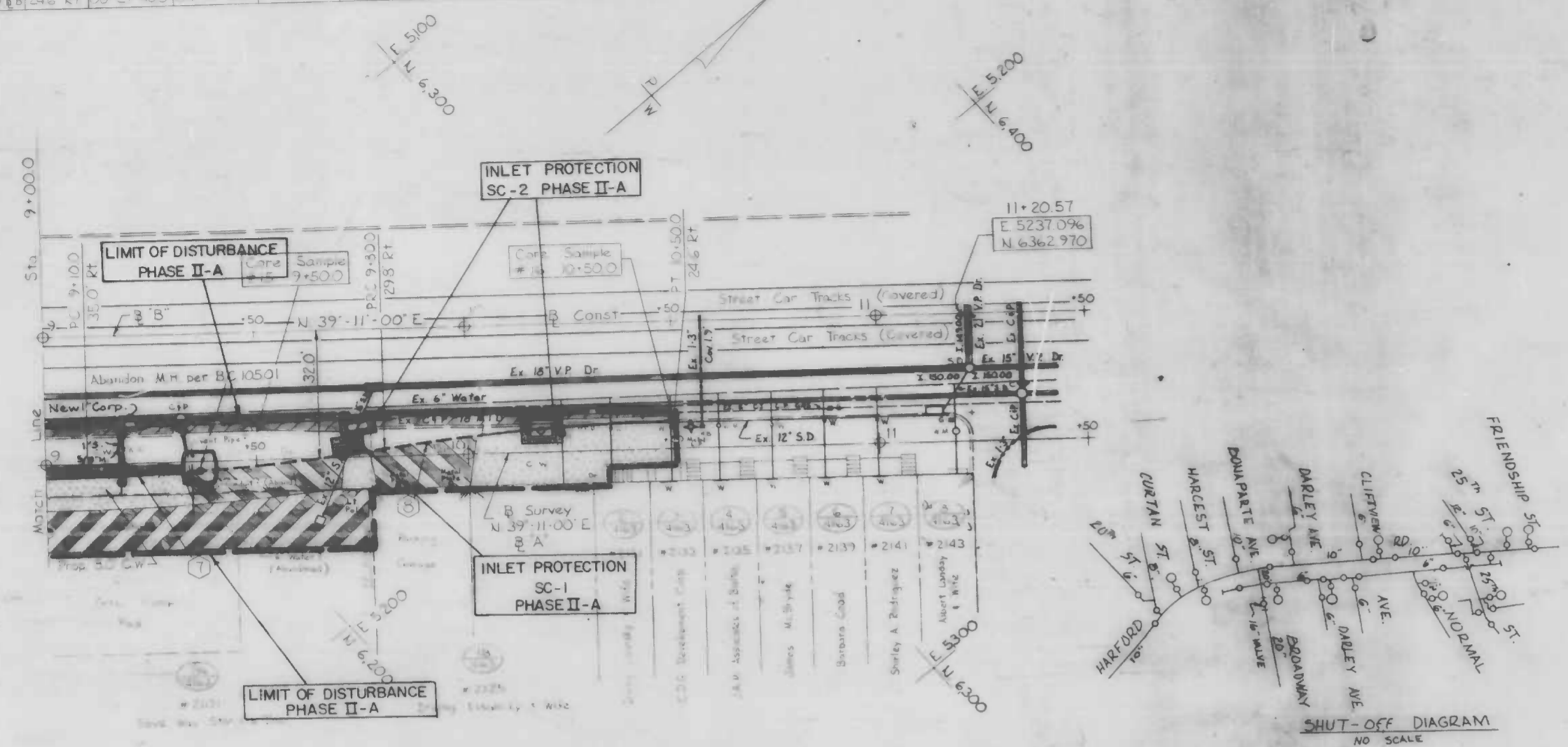
CURVE DATA											
Curve No.	Station	Offset	Station	Offset	Δ	R	T	L	C	d	
7	PC 9+10.0	35.0 RT	PT 9+50.0	29.5 RT	98° 27' 45.5"	147.544	473.7%	35.19	70.26	70.19	3.623152186
8	PC 9+50.0	29.5 RT	PT 10+50.0	24.6 RT	28° 27' 45.5"	147.544	473.7%	35.19	70.26	70.19	3.623152186

REVISIONS		
NO.	DESCRIPTION	DATE BY

NOTE OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE Baltimore Gas & Electric Co. C & P Telephone Co. Contact "Miss Utility" at 1-500-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

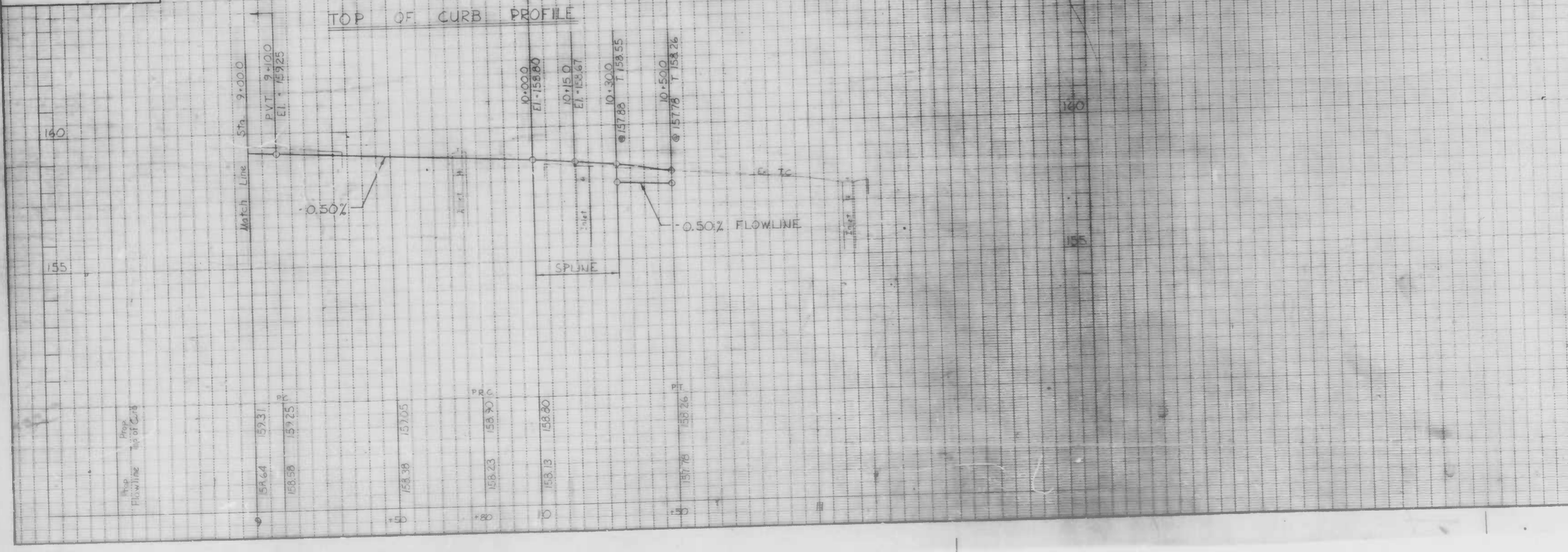
- WATER NOTES**
- Notify The Bureau Of Water & Waste Water Maintenance Division At 396-0243 One Week Before Starting Work.
  - All Existing Water Valves Shall Be Operated By The Bureau Of Water & Waste Water Maintenance Division Forces Only.
  - All Water Supply Services And/Or Meters, Fire Hydrant Relocations Shall Be Done In Accordance With The Contract Documents And The Book Of Standards.
  - Contractor Shall Observe Extreme Caution When Working Near Or Over Existing Water Facilities.
  - Existing Water Supply Services And/Or Meters To Be Relocated In HARFORD RD.
    - Relocation of (1) One Single Setting 3/4" Meter Item-801
    - Relocation of (2) Two Single Setting 3/8" Meter Item-802
    - Relocation of (1) One Single Setting 1/2" Meter Item-803
    - Relocation of (1) One 1" Water Service, 3/8" Meter Item-804
    - Relocation of (1) One 3/4" Water Service, 1/2" Meter Item-805
    - Relocation of (2) Two 3/4" Water Service, 3/4" Meter Item-806



HARFORD ROAD

Book No. X-860 + X-892  
DRAWN BY JOHN K BUREK JR  
EXAMINED BY Wm. F. Compton

WATER ENGINEERING DIVISION  
DRAWN BY C. Curtis  
CHECKED BY Wm. Walter  
CHIEF, WATER ENGINEERING SECT.



CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT 40 3095

HARFORD ROAD  
20TH ST - 250' N OF BROADWAY  
SOIL EROSION & SEDIMENT CONTROL PLAN  
Sta. 9+000 - 250' N OF BROADWAY

SCALE HORIZ. 1"=200' VERT. 1"=20'  
DATE July 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 24 OF 27

FILE REF.

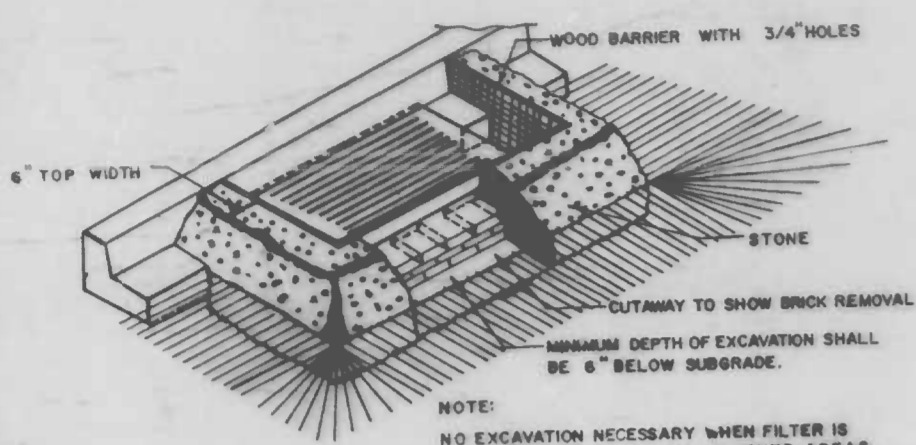






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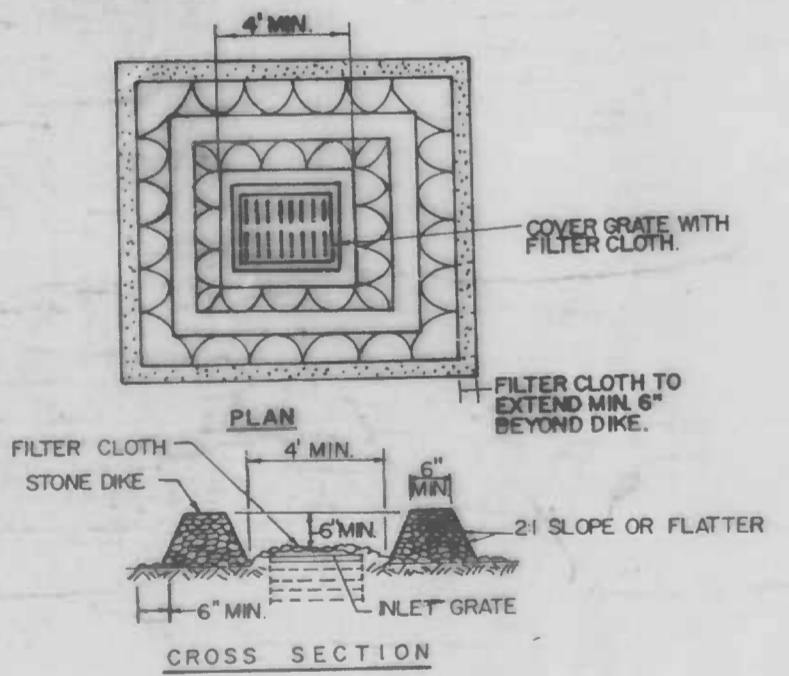
REVISIONS			
NO.	DESCRIPTION	DATE	BY



**CONSTRUCTION SPECIFICATIONS**

- Structure shall be inspected after each storm and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed when drainage area has been properly stabilized.
- The crushed stone used in the outlet shall meet AASHTO Designation M33 size no. 2 or 24 or its equivalent such as MSHA no. 2. Gravel means the above gradation may be used if crushed stone is not available. Crusher run is not acceptable.

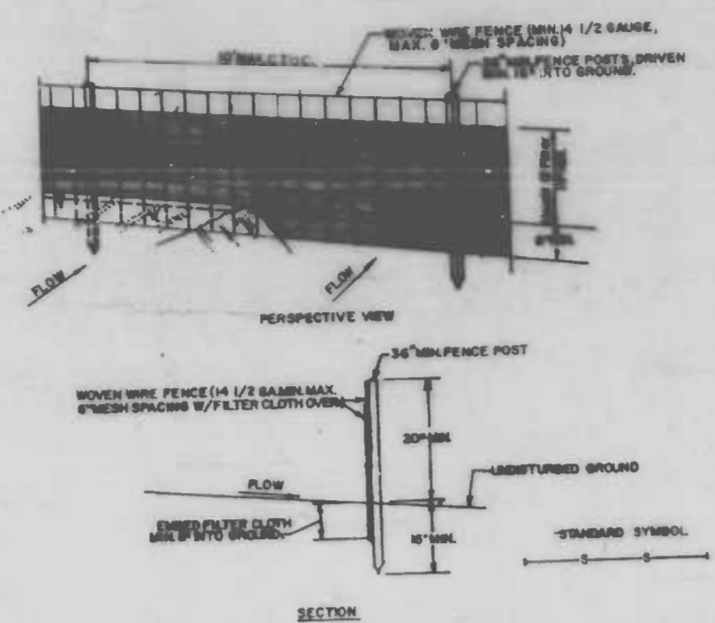
**INLET PROTECTION  
DETAIL SC-1**



**CONSTRUCTION SPECIFICATIONS**

- Stone for the Dike shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA size no. 2 or AASHTO designation M33 size no. 2 or 24. Crusher run is not acceptable.
- Filter Cloth shall be Poly-Filtex K or approved equal.
- The structure shall be inspected after each rain and repairs made as needed.

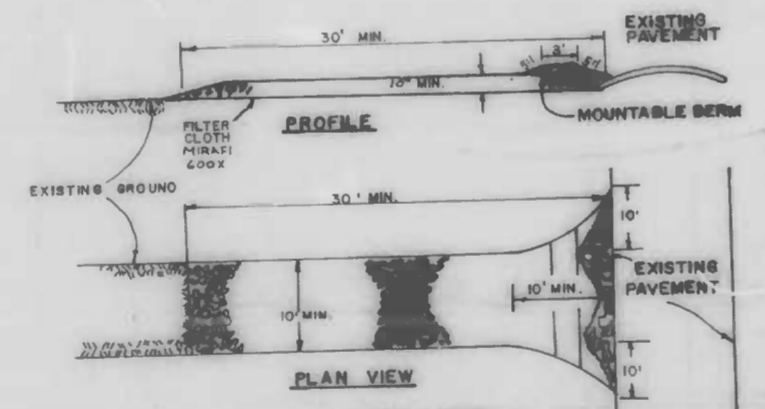
**INLET PROTECTION  
DETAIL SC-2**



**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- Woven Wire Fence to be fastened securely to fence posts with wire ties or staples.
- Filter Cloth to be fastened securely to Woven Wire Fence with ties spaced every 24" at top and mid section.
- When two sections of Filter Cloth adjoin each other they shall be overlapped by six inches and folded.
- Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

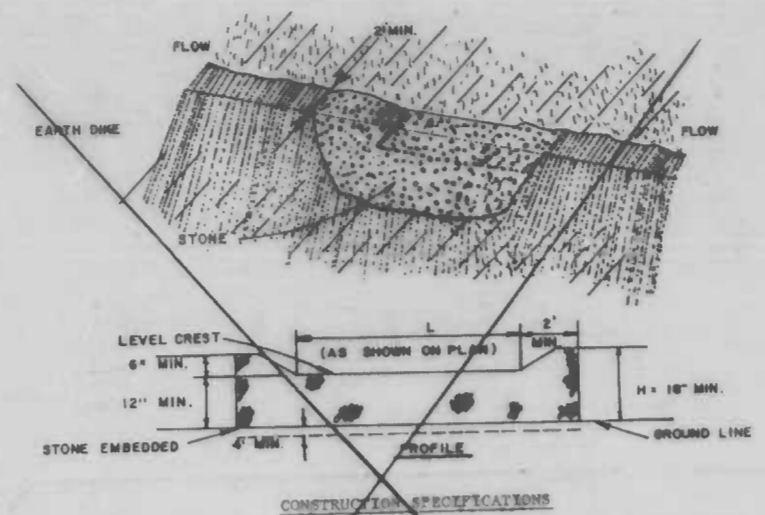
**SILT FENCE  
DETAIL SC-3**



**CONSTRUCTION SPECIFICATIONS**

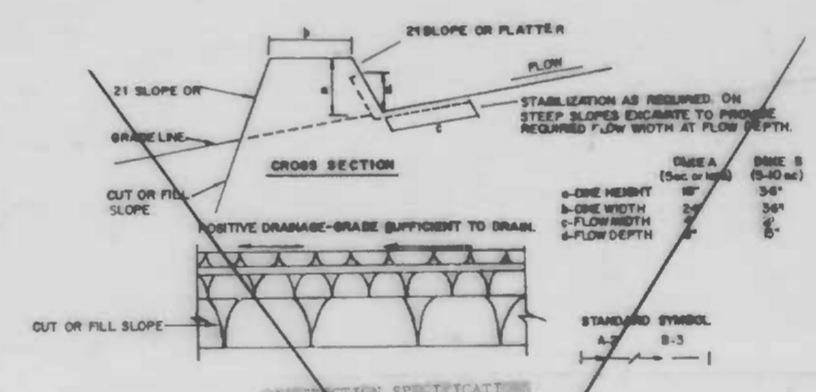
- Stone Size - Use 2" stone, or recycled or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residential lot where a 30 foot minimum length would apply).
- Thickness - Not less than 18" (6) inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be covered on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 3:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic gap dressing with additional stone as conditions demand and removal and/or cleaning of any materials used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Trucks shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

**STABILIZED CONSTRUCTION ENTRANCE  
DETAIL SC-4  
HEAVY DUTY ENTRANCE**



- The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 2 or AASHTO designation M33 Size No. 2 or 24.
- The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
- The stone outlet structure shall be embedded into the soil a minimum of four inches.
- The minimum length, in fact, of the crest of the stone outlet structure shall be equal to six times the number of acres of contributing drainage area.
- The stone outlet structure shall be inspected after each rain and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation among the stones, washout, construction traffic damage, etc.

**STONE OUTLET STRUCTURE  
DETAIL SC-5**



- All Earth Dikes shall be connected by satch means equipment.
- All Dikes shall have positive drainage to an outlet.
- Top width may be wider and slope shall be flatter if desired to facilitate crossing by construction traffic.
- Field location should be adjusted as needed to utilize a stabilized, safe outlet.
- Dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
- Stabilization shall be: (a) In accordance with standard specifications for seed and straw mulch or not in rainfall season; (b) Flow channel as per the above notes. Stone Dike need not be stabilized.

**FLOW CHANNEL STABILIZATION**

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	Seed and Straw Mulch	Seed and Straw Mulch
2	3.1-5.0%	Seed and Straw Mulch	Seed using Jute, or Excelsior; Sod; 2" Stone
3	5.1-9.0%	N.I.C.	Seed using Jute, or Sod; 2" Stone
4	9.1-20%	Seed and Straw Mulch	Engineering Design

- Stone to be 2 inch stone, or recycled concrete equivalent, in a layer of least 3 inches in thickness and be pressed into the soil with construction equipment.
  - Straw-Rap to be 4-6 inches in a layer at least 8 inches thickness and pressed into the soil.
  - Approved equivalents can be substituted for any of the above materials.
- Periodic inspection and required maintenance must be provided after each rain event.

**EARTH / STONE DIKE  
DETAIL SC-6/DETAIL SC-7**

**LEGEND**

- LIMITS OF DISTURBANCE
- INLET PROTECTION (SC-1 OR SC-2 AS NOTED)
- S-S- SILT FENCE (SC-3)
- STABILIZED CONSTRUCTION ENTRANCE (SC-4)
- STONE OUTLET STRUCTURE (SC-5) N.I.C.
- EARTH/STONE DIKE (SC-6 OR SC-7 AS NOTED) N.I.C.
- STOCKPILE AREA N.I.C.
- SUMP PIT (SP-1) N.I.C.
- SEDIMENT TRAP (ST-1) N.I.C.
- CHECK DAM N.I.C.
- CONTRACTOR STAGING AREA N.I.C.
- INSTREAM SEDIMENT TRAP (SC-8) N.I.C.

NO STOCKPILE OR STAGING AREA  
WILL BE PERMITTED ON THIS PROJECT

DRAWN BY A. MOSCATO  
EXAMINED BY M. C. CAMPBELL

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095

HARFORD ROAD  
20TH ST. ~ 250' ± N. OF BROADWAY  
CLIFFVIEW AVE. ~ 25TH ST.  
SOIL EROSION / SEDIMENT CONTROL DETAILS

SCALE NO SCALE  
HIGHWAY ENGINEERING DIVISION

DATE JULY 17, 1986  
SHEET 26 OF 27

FILE REF.



FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

**STABILIZATION SPECIFICATIONS**

**TEMPORARY STABILIZATION - ARTICLE 36.12**

**Planting Season** - Temporary seeding can be done anytime of the year except when the ground is frozen. This item shall consist of furnishing and placing all fertilizer, temporary seed and mulch on areas disturbed for more than fourteen (14) days.

**Schedule of Procedure** - The contractor shall provide temporary stabilization as specified in the approved sediment control plan.

**Seedbed Preparation** - When the area to be seeded is packed and hard, the top layer of topsoil shall be loosened by raking or other means before seed is applied.

**Lime** - No lime shall be required for temporary seeding.

**Fertilizer** - Commercial fertilizer of an analysis 5-10-5 applied at a rate of 35 pounds per 1000 square feet.

**Seeding** (Section 20.28-1) - Seed mixture, Annual Ryegrass applied at the rate of 3 pounds per 1000 square feet.

**Mulching** - Applied at the rate of 100 pounds per 1000 square feet. Mulch anchoring - asphalt mix at the rate of 10 gallons per 1000 square feet. The mulch shall be applied by blowing and the asphalt binder material shall be sprayed into the mulch.

**PERMANENT STABILIZATION - ARTICLE 36.06**

**Planting Season** - No sod shall be placed between the dates of June 1 and August 15 inclusive nor at anytime when the temperature is below thirty-two (32) degrees Fahrenheit. No frozen sod shall be used and no sod shall be placed upon frozen soil.

**Sodbed Preparation** - Before placing or depositing sod upon any surface, all shaping and dressing of such surfaces shall have been completed. The completed areas to be sodded shall present a smooth, uniform, well-tilled surface true to line and cross section and any raking required to accomplish this will be done prior to the placing of the sod.

**Fertilizers** - All areas to be sodded shall be fertilized with a commercial fertilizer of an analysis 10-10-10 and Ureaform fertilizer 38-0-0 applied at the rate of 20 and 5 pounds respectively per 1000 square feet.

**NOTE** - After sod is in place, topdress the sod with Ureaform fertilizer 38-0-0 at the rate of 5 pounds per 1000 sq. ft.

**Lime** - Limed at the rate of 100 pounds of ground limestone per 1000 square feet. The lime and the 10-10-10 and 38-0-0 fertilizers shall be worked into the top two (2) inches of soil prior to placing sod.

**Seedmixture Grass Sod** (Section 20.28-3)

**TYPE A - Bluegrass Sod**  
 not less than 60% Kentucky Bluegrass  
 not more than 35% Creeping Red Fescue  
 not more than 10% other grasses and legumes

**TYPE B - Tall Fescue Sod**  
 not less than 80% Tall Fescue  
 not more than 20% other grasses and legumes

**BALTIMORE CITY SEDIMENT CONTROL**

The B, Subtitle II, Natural Resources, Annotated Code of Maryland and Baltimore City Ordinance 1013, require that provisions to control erosion and sediment shall be included for all City land disturbance. As required by State Law, construction cannot be started until such erosion and sediment control provisions are approved.

The Contractor must filter all run-off and control all sediment within the project. All work must comply with all requirements of the "Baltimore City Erosion and Sediment Control Manual" and the "1983 Maryland Standards And Specifications For Soil Erosion And Sediment Control", as distributed and modified by the Baltimore City Sediment Control Section.

Nothing herein relieves the Contractor from complying with any and all other Federal, State or Municipal Regulations.

**EROSION AND SEDIMENT CONTROL NOTE**

- All utilities to be constructed first, prior to any construction on the site.
- No pumping from foundation excavations will be allowed directly into City system unless it is filtered by way of Sediment Traps or Filter.
- All excavation material shall be placed on the high side whenever possible and confined to an area where it will not obstruct the normal flow of drainage courses.
- Continuous inspection and maintenance of all Sediment Control devices will be required.

**INSTRUCTIONS**

- For land disturbing activities it is understood that the following conditions will be met:
- A. Grading**
- All disturbed areas shall be protected to control erosion and to prevent sedimentation of adjacent properties, storm sewers and/or streams.
  - Sediment control devices such as diversion berms, sediment traps, silt fences, vegetative stabilization, etc., shall be used to prevent off-site sedimentation at all times, at every location throughout the site where natural or existing conditions would cause sediment to normally wash off the site.
  - No proposed cut or fill will exceed three feet in depth (cut) or height (fill) without erosion and sediment controls. Exclusive of excavation for foundations.
  - No fill will be placed on any existing slope steeper than 5:1 without erosion and sediment controls.
  - There will be no final graded slope steeper than 2:1.
  - Borrow and/or spoil material shall not be stockpiled within the limits of this project.
  - All fills will be free of any organic or other deleterious materials and will be compacted. All areas to receive fill will have the ground surface prepared by removing all existing vegetation and root mat.
  - The proposed grading will not impair existing surface drainage, constitute a potential erosion hazard, or source of sedimentation to any adjacent property, drainage way or right-of-way.
  - All points of ingress and egress shall be protected to prevent tracking of mud onto public ways.
- B. Stabilization**
- As soon as final grading is completed, all disturbed areas will be stabilized with temporary or permanent mulch, including stone, blacktop, conc. surfacing, etc.
  - For vegetating areas steeper than three horizontal units to one vertical unit, adequate mulch, fertilizer and type of seed will be placed to ensure a vigorous ground cover and such application will be repeated, if necessary, until such growth is established.
  - Timing - Following initial solid disturbances or redistribution, permanent or temporary stabilization shall be completed within:
    - Seven calendar days for the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1) and;
    - Twenty-four (24) hours for disturbed areas such as base repairs, alley returns, curb repairs, bus pads, pedestrian ramps, sidewalks and backfilled utility trenches. Stabilization shall consist of a minimum of 4 inch Graded Aggregate Sub-base and;
    - Fourteen calendar days for all other disturbed or graded areas.
  - For Details regarding temporary and permanent stabilization practices, reference the "1983 Maryland Standards And Specifications For Soil Erosion And Sediment Control", or contact the Baltimore City Sediment Control Representative.
  - Sediment control devices are to be removed only after all disturbed areas have been stabilized.

**CONDITIONS**

- The Contractor will submit written notification to the Baltimore City Sediment Control Representative at least three working days before starting any grading activities, stating the following:
- The day he intends to start work
  - The source of all borrow material
  - The designated stockpile area N.I.C.
  - The Contractor's staging area N.I.C.
  - The disposal site for all excess material
  - The construction sequence
  - The completion day of the work

DESIGNATED AREA	ACTIVE	INACTIVE	TYPE OF STABILIZATION	SEQUENCE		
				PHASE I	PHASE II-A	PHASE II-B
NEW CONSTRUCTION	X		6" SUB-BASE, CR-6	(D)	(C)	(B)
		X	8" CONCRETE BASE & BIT BINDER COURSE	(F)	(E)	(D)
NEW CONSTRUCTION	X		6" SUB-BASE, CR-6	(D)	(C)	
		X	3 1/2" BIT BINDER COURSE	(F)	(E)	
NEW CONSTRUCTION	X		6" SUB-BASE, CR-6		(C)	
		X	5 1/2" BIT BINDER COURSE		(E)	
NEW CONSTRUCTION	X		6" SUB-BASE, CR-6			(B)
		X	7" CONCRETE BASE			(D)
SIDEWALKS	X		3" SUB-BASE	(D)	(C)	(B)
		X	5" CEM CONC.	(F)	(E)	(D)
DRIVEWAYS	X		6" SUB-BASE, CR-6	(D)	(C)	(B)
		X	8" REINF. CONC.	(F)	(E)	(D)
VAR CUT AREA	X		TEMPORARY STABILIZATION, RYEGRASS			(B)
		X	PERMANENT STABILIZATION, SOD			(C)
FLAT FILL	X		TEMPORARY STABILIZATION, RYEGRASS	(D)		
		X	PERMANENT STABILIZATION, SOD	(F)		

**SITE DATA**

DISTURBED AREA	
PHASE I	25,344 S.F.
PHASE II-A	15,612 S.F.
PHASE II-B	20,024 S.F.
PHASE II-C	2,472 S.F.
TOTAL	73,452 S.F.

Note: Quantities listed herein are to be used only to assist in developing the soil erosion & sediment control plans. There is no guarantee that these quantities are complete and the contractor should not rely on the accuracy of these figures in preparing and submitting his bid.

CUT	2,323.66 C.Y.
FILL	122.39 C.Y.
TOTAL EXCESS CUT MATERIAL	2,201.27 C.Y.

DRAWN BY JOHN K. BURKE, JR.  
 EXAMINED BY J. F. CAMPBELL

**Owners/Developers Certification**

"I/We hereby certify that any clearing, grading, construction and/or development will be done pursuant to this plan and that all responsible personnel involved in the construction project will have a certification of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project."

*James A. Zito*  
 Signature Owner/Developer  
 JAMES A. ZITO  
 Print Name  
 9-25-86  
 Date  
 304 N. Hildag St.  
 Address  
 396-4600  
 Phone

**Engineer's Certification**

I certify that this plan for Erosion and Sediment Control represents a practical, workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Baltimore City Erosion and Sediment Control Section.

*Robert F. Guston*  
 Signature  
 9-25-86  
 Date  
 309 Municipal Bldg  
 Address  
 396-4707  
 Phone

APPROVED BY: *Frederick M. ...*  
 EROSION & SEDIMENT CONTROL REPRESENTATIVE

Department of Public Works, Bureau of Highways  
 Environmental Services Division, Erosion and Sediment Control Section  
 309 Municipal Building, Baltimore, MD 21202  
 Phone - (301) 396-3693

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3035

HARFORD ROAD  
 20TH ST. ~ 250'± N. OF BROADWAY  
 CLIFTVIEW AVE. ~ 25TH ST.  
 SOIL EROSION / SEDIMENT CONTROL NOTES

SCALE NONE  
 HIGHWAY ENGINEERING DIVISION  
 DATE JULY 17, 1986  
 SHEET 27 OF 27

FILE REF.



PROPOSED CURVE DATA							
NO.	Δ	1/2	R	T	C	L	d
1	07° 37' 40"	03° 48' 50"	508.52'	35.90'	62.65'	67.70'	3.38014702
2	112° 20' 30"	56° 10' 15"	38.00'	36.70'	63.13'	74.51'	45.23351000

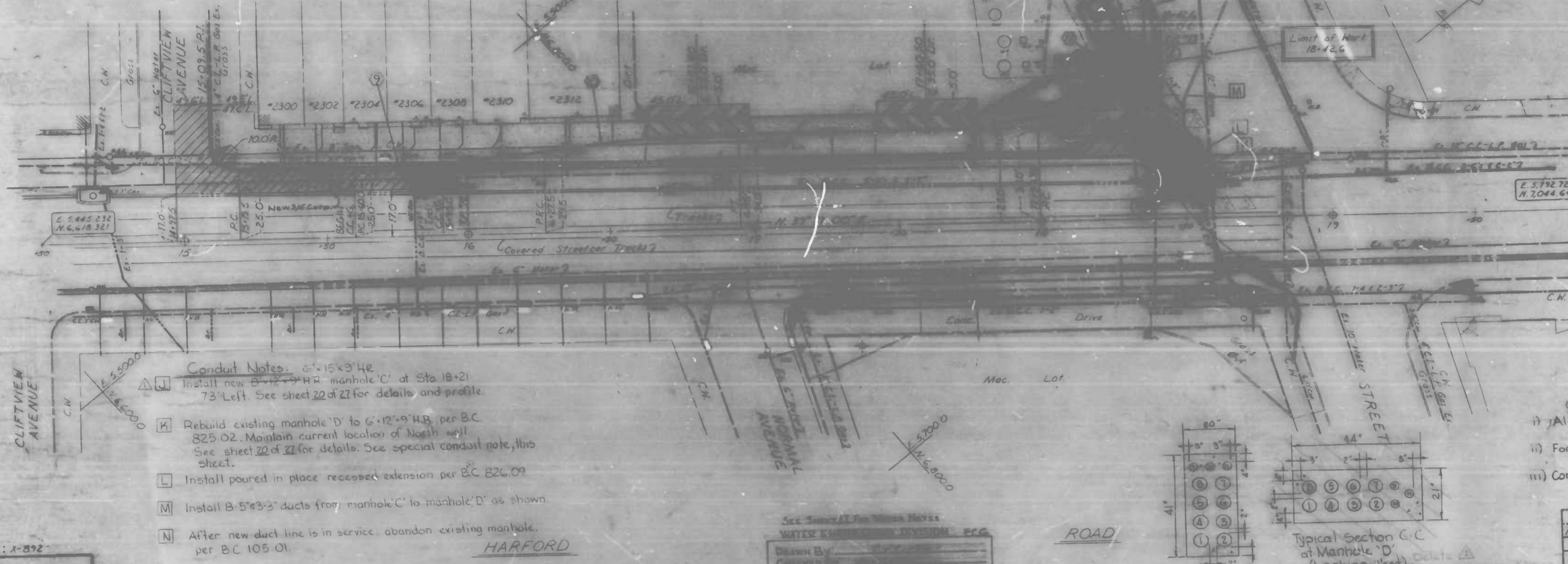
REVISIONS		
NO.	DESCRIPTION	DATE
1	Change Location of Manhole 'C'	7/11/86
2	Change Location of Prop. Street 'A' to 'B'	7/11/86
3	Change Size of Manhole 'C'	7/11/86

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SIZING INFORMATION TO HIS OWN SATISFACTION.

NOTE: Baltimore Gas & Electric Co. C & Telephone Co. Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.



For Proposed Street Lighting and Transit & Traffic, See Sheet 21 of 27.



- Conduit Notes:**
- A) Install new 8'-12" x 9" HR manhole 'C' at Sta 18+21.73' Left. See sheet 22 of 27 for details and profile.
  - B) Rebuild existing manhole 'D' to 6'-12" x 9" HR per B.C. 825.02. Maintain current location of North wall. See sheet 22 of 27 for details. See special conduit note, this sheet.
  - C) Install poured in place recessed extension per B.C. 826.09.
  - D) Install B-5' x 3'-3" ducts from manhole 'C' to manhole 'D' as shown.
  - E) After new duct line is in service, abandon existing manhole per B.C. 105.01.

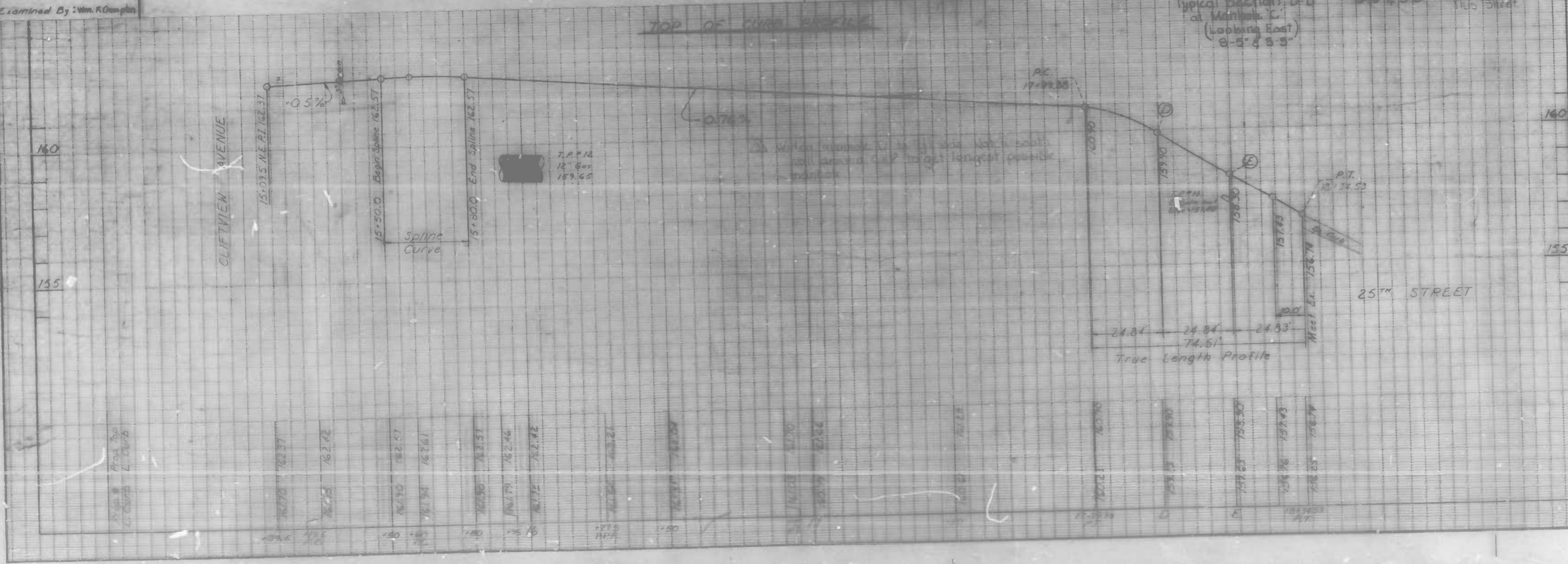
- General Conduit Notes:**
- i) All duct radii shall be 12" minimum.
  - ii) For profile and manhole details, see sheet 20 of 27.
  - iii) Concrete for manholes shall be Mix 9.

TEST PITS			
No.	Plus	Offset	Utility
12	16+00	26.3'	12" Gas
13	0+00	45.1'	6" Gas

**Special Conduit Note:**  
The Contractor shall tight around the wall of manhole 'D' in order to hold fast the existing trolley tracks and bellows.

Book No.: 1-892  
Drawn By: S. Vosburg  
Examined By: Wm. Kumpfen

See Sheet 21 For Utility Notes  
WATER ENGINEERING DIVISION  
Drawn By: [Signature]  
Checked By: [Signature]

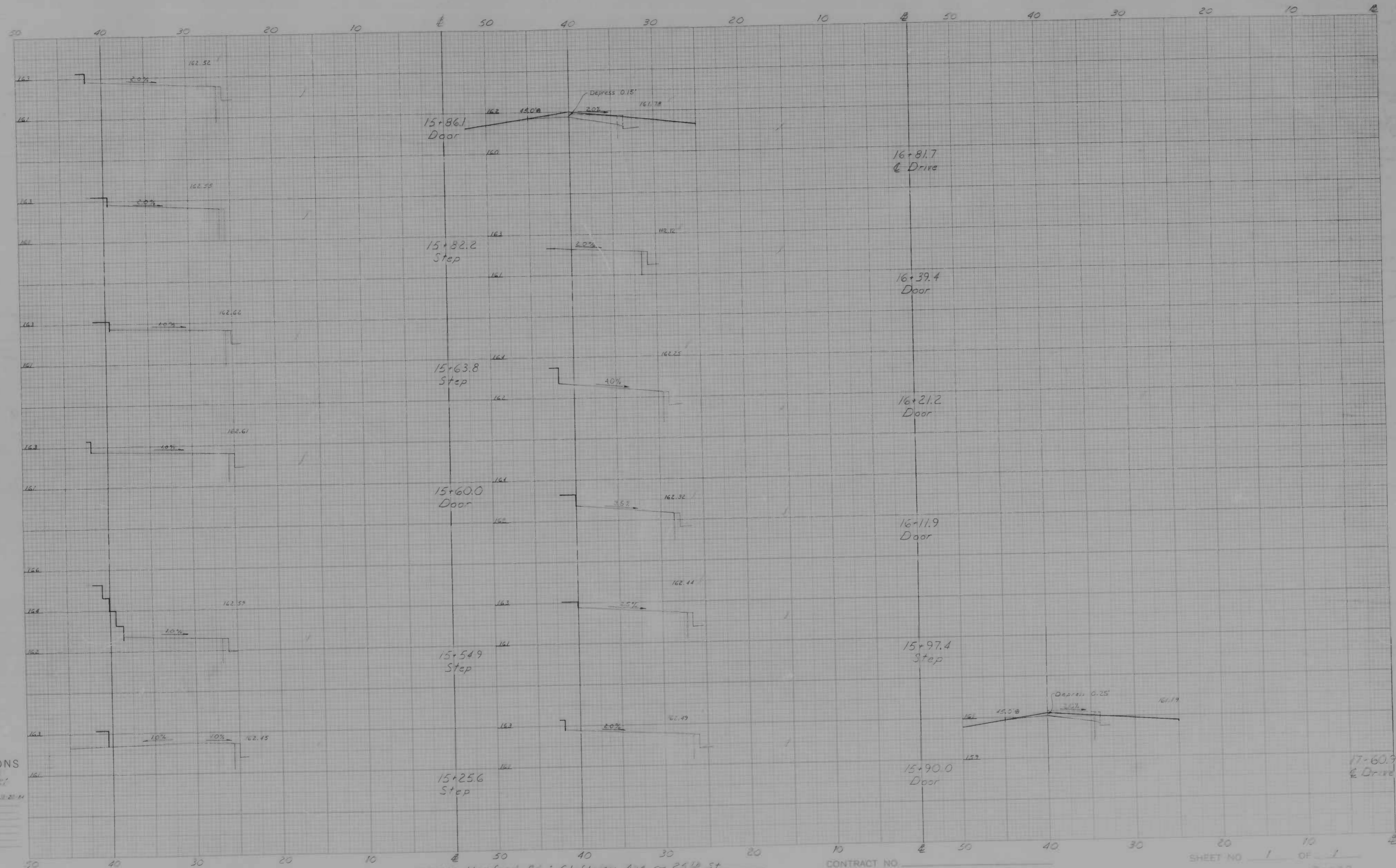


CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3095  
  
HARFORD ROAD  
CLIFTVIEW AVE. ~ 25<sup>TH</sup> ST.  
UTILITY PLAN

SCALE 1" = 20.0' HOR., 2.0" VERT. DATE: July 17, 1986  
HIGHWAY ENGINEERING DIVISION SHEET 18 OF 27

FILE REF.





CROSS SECTIONS

Scale 1 inch = 10 feet

Original Plotted by: Substanting Date: 12-27-84  
 Original Checked by: Date:  
 Template by: Date:  
 Area by: Date:  
 Final Plotted by: Date:  
 Final Checked by: Date:  
 Area by: Date:  
 Area Checked by: Date:

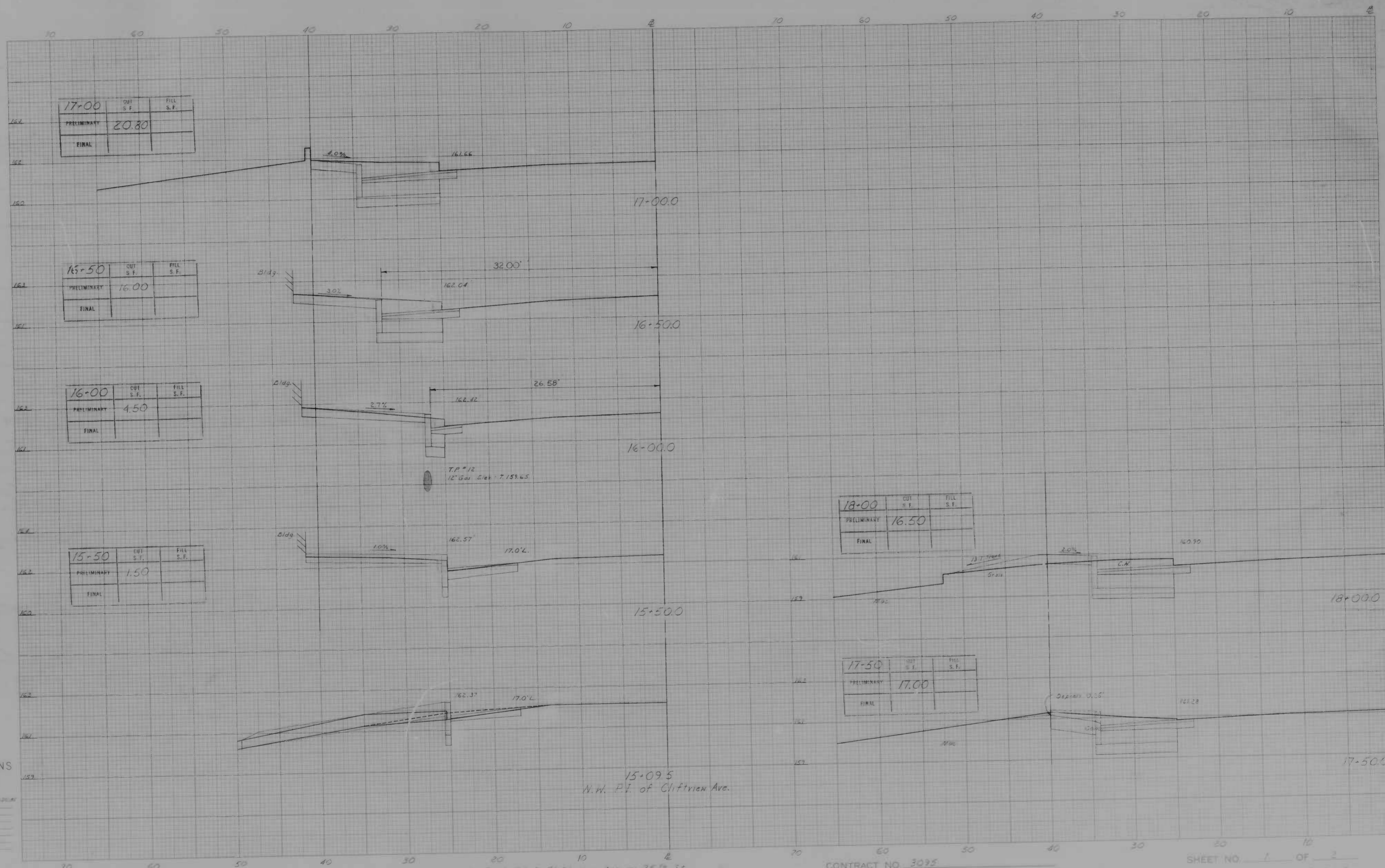
BOOK NO. X-222

PROJECT Harford Rd. : Clifton Ave ~ 25th St  
 DESCRIPTION Study

CONTRACT NO.

SHEET NO. 1 OF 1  
 STATION 15+25.6 TO STATION 17+60.9





17-00	CUT S.F.	FILL S.F.
PRELIMINARY	20.80	
FINAL		

16-50	CUT S.F.	FILL S.F.
PRELIMINARY	16.00	
FINAL		

16-00	CUT S.F.	FILL S.F.
PRELIMINARY	4.50	
FINAL		

15-50	CUT S.F.	FILL S.F.
PRELIMINARY	1.50	
FINAL		

18-00	CUT S.F.	FILL S.F.
PRELIMINARY	16.50	
FINAL		

17-50	CUT S.F.	FILL S.F.
PRELIMINARY	17.00	
FINAL		

CROSS SECTIONS

Scale 1 inch = 10 feet  
 5.0' HORIZ.  
 2.0' VERT.

Original Plotted by J. B. [unclear] Date 10-20-48  
 Original Checked by [unclear] Date  
 Rechecked by [unclear] Date  
 Placed on File by [unclear] Date  
 Final Checked by [unclear] Date  
 Area Checked by [unclear] Date

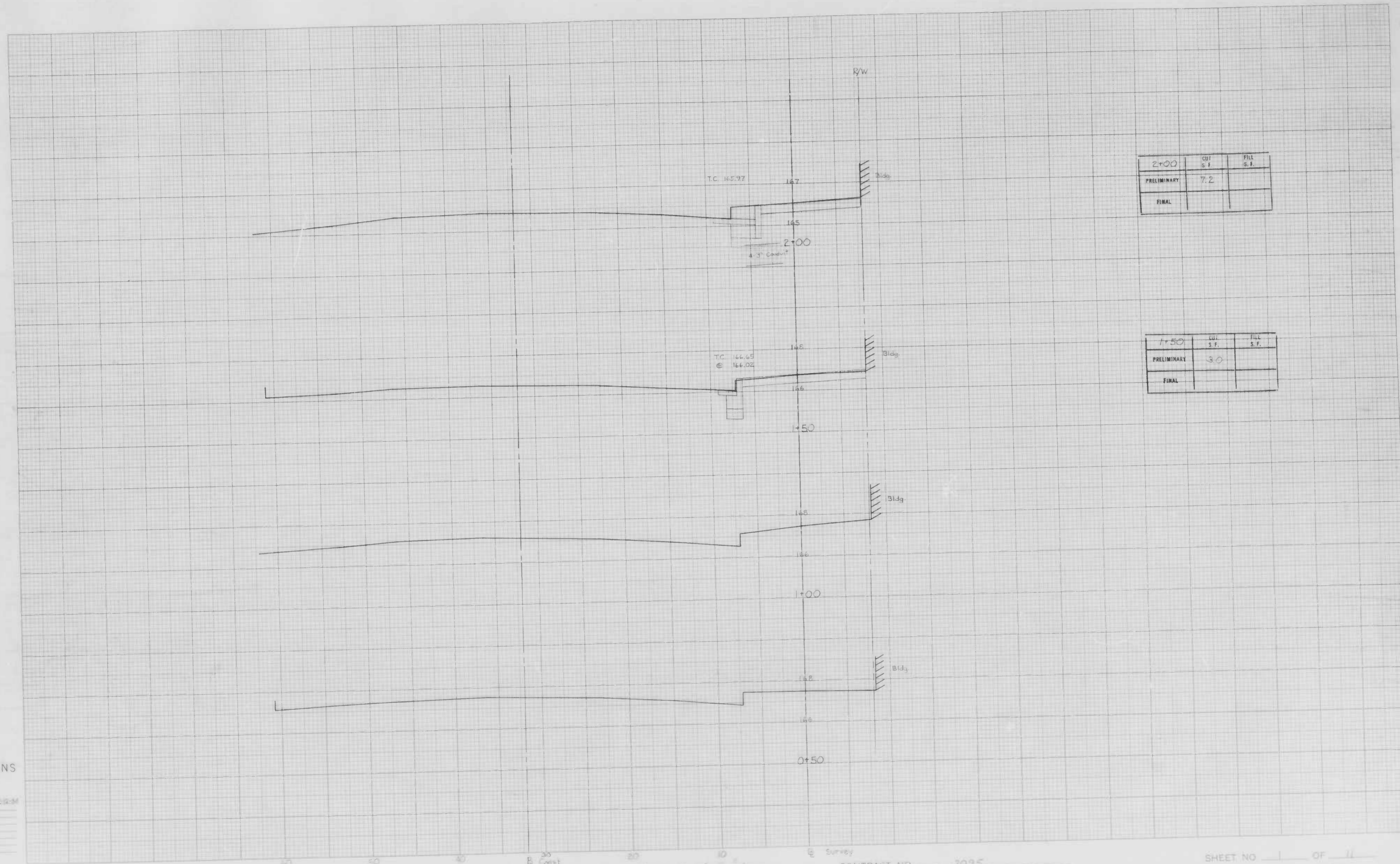
BOOK NO. X-892

PROJECT Harford Rd. - Clifton Ave. - 25th St.  
 DESCRIPTION X-Sections

CONTRACT NO. 3095

SHEET NO. 1 OF 2  
 STATION 15+09.5 TO STATION 18+00.0





2+00	CUT S.F.	FILL S.F.
PRELIMINARY	7.2	
FINAL		

1+50	CUT S.F.	FILL S.F.
PRELIMINARY	3.0	
FINAL		

CROSS SECTIONS

Scale 1 inch = 40 feet  
 Date 1/2/50  
 Original Plan by [Name] Date 12/2/49  
 Original Checked by [Name]  
 Translated by [Name]  
 Area by [Name]  
 Plans Plotted by [Name]  
 Final Checked by [Name]  
 and by [Name]  
 Area Plotted by [Name]

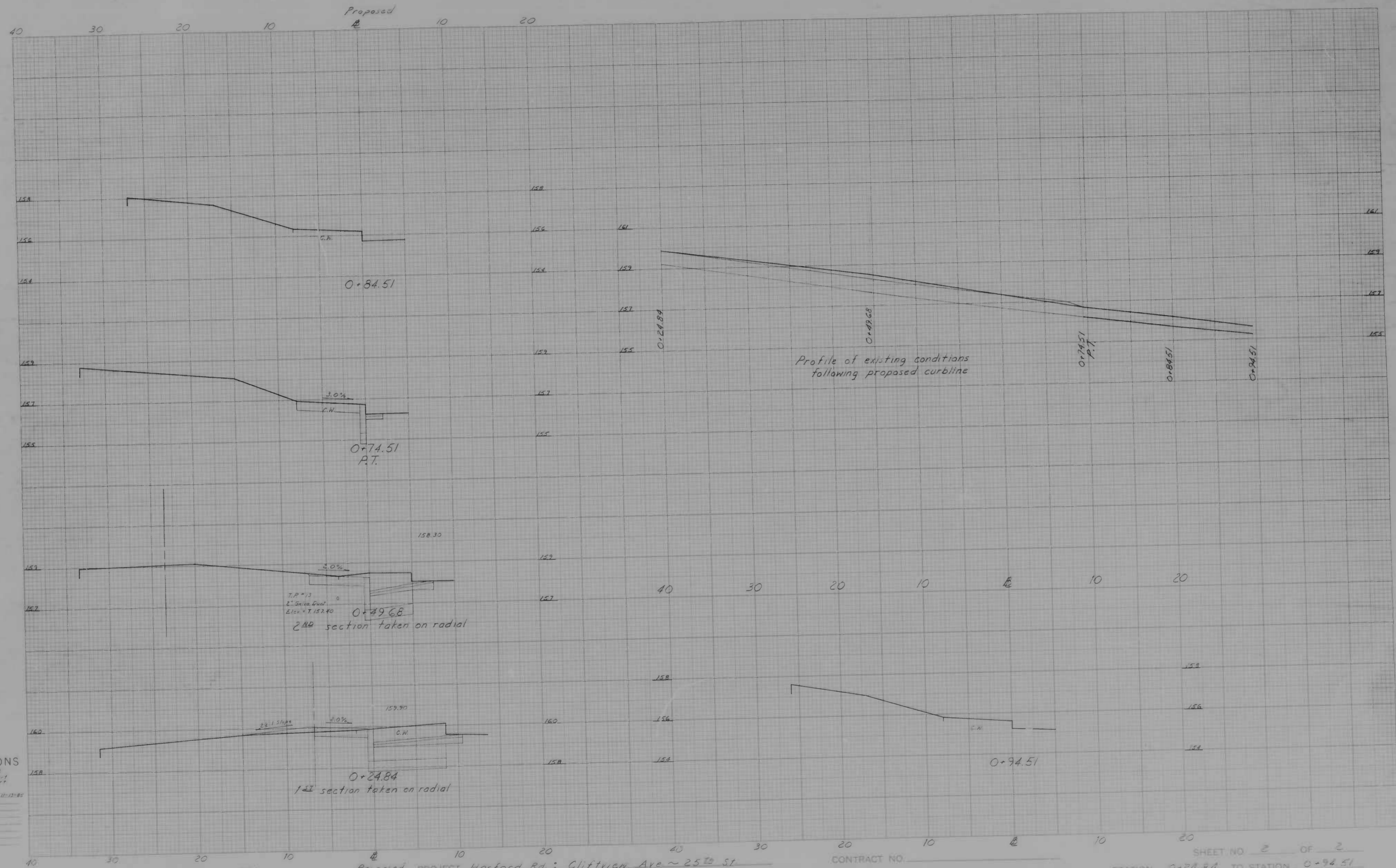
BOOK NO. X-250 & X-292

PROJECT Harvard Road 20th St - 250' N. of Broadway  
 DESCRIPTION X-Sections

CONTRACT NO. 3095

SHEET NO. 11 OF 11  
 STATION 0+50 TO STATION 2+00





CROSS SECTIONS

Scale 1 inch = 10 feet  
2.0" HORIZ  
2.0" VERT

Original Plotted by	C. V. Keating	Date	11-13-85
Original Checked by		Date	
Template by		Date	
Area by		Date	
Plots Plotted by		Date	
Plots Checked by		Date	
Area by		Date	
Area Checked by		Date	

BOOK NO X-892

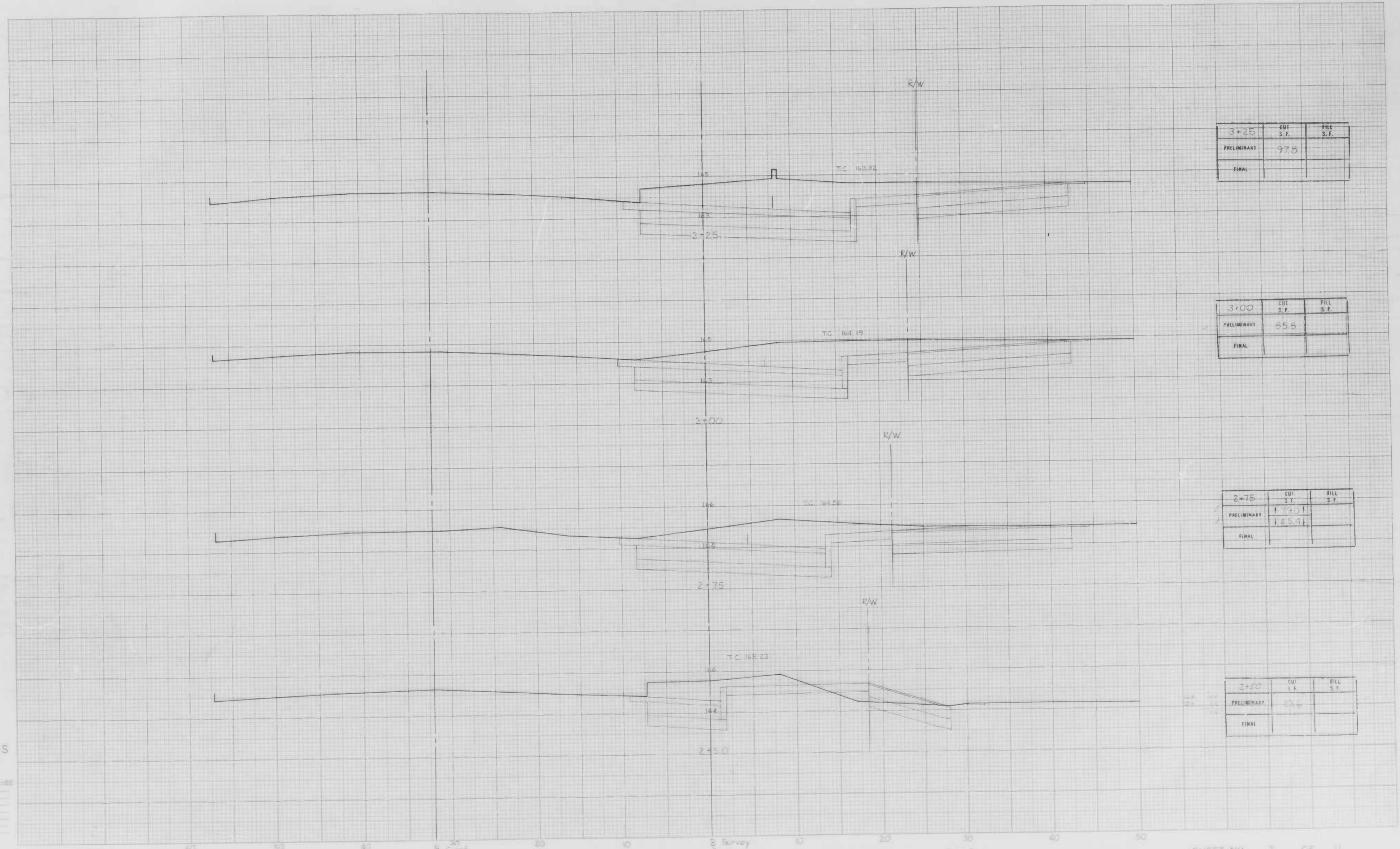
Proposed PROJECT Harford Rd; Cliftuca Ave ~ 25<sup>th</sup> St

CONTRACT NO.

DESCRIPTION X-sections around the corner at 25<sup>th</sup> St

SHEET NO 2 OF 2  
STATION 0+24.84 TO STATION 0+94.51





3+25	CUT S.F.	FILL S.F.
PRELIMINARY	978	
FINAL		

3+00	CUT S.F.	FILL S.F.
PRELIMINARY	655	
FINAL		

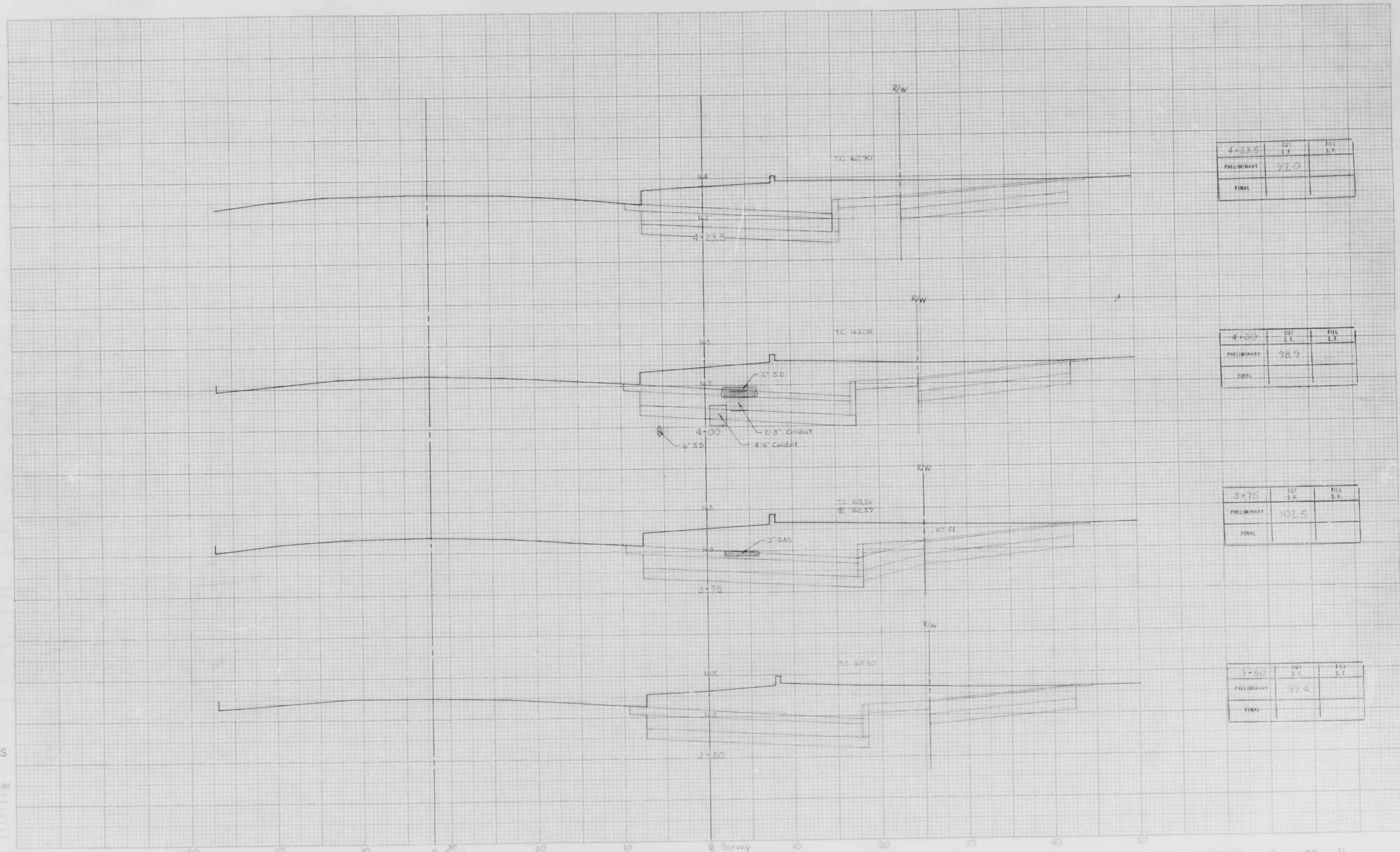
2+75	CUT S.F.	FILL S.F.
PRELIMINARY	1721	
FINAL	1654	

2+50	CUT S.F.	FILL S.F.
PRELIMINARY	224	
FINAL		

CROSS SECTIONS

Scale 1 inch = 40 feet  
 Horizontal  
 Vertical = 2:1  
 Original Written by J. Burke, Date 8/1/58  
 Original Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Rechecked by \_\_\_\_\_ Date \_\_\_\_\_  
 Approved by \_\_\_\_\_ Date \_\_\_\_\_





4+23.5	CUT S.F.	FILL S.F.
PRELIMINARY	97.0	
FINAL		

4+00	CUT S.F.	FILL S.F.
PRELIMINARY	98.9	
FINAL		

3+75	CUT S.F.	FILL S.F.
PRELIMINARY	102.5	
FINAL		

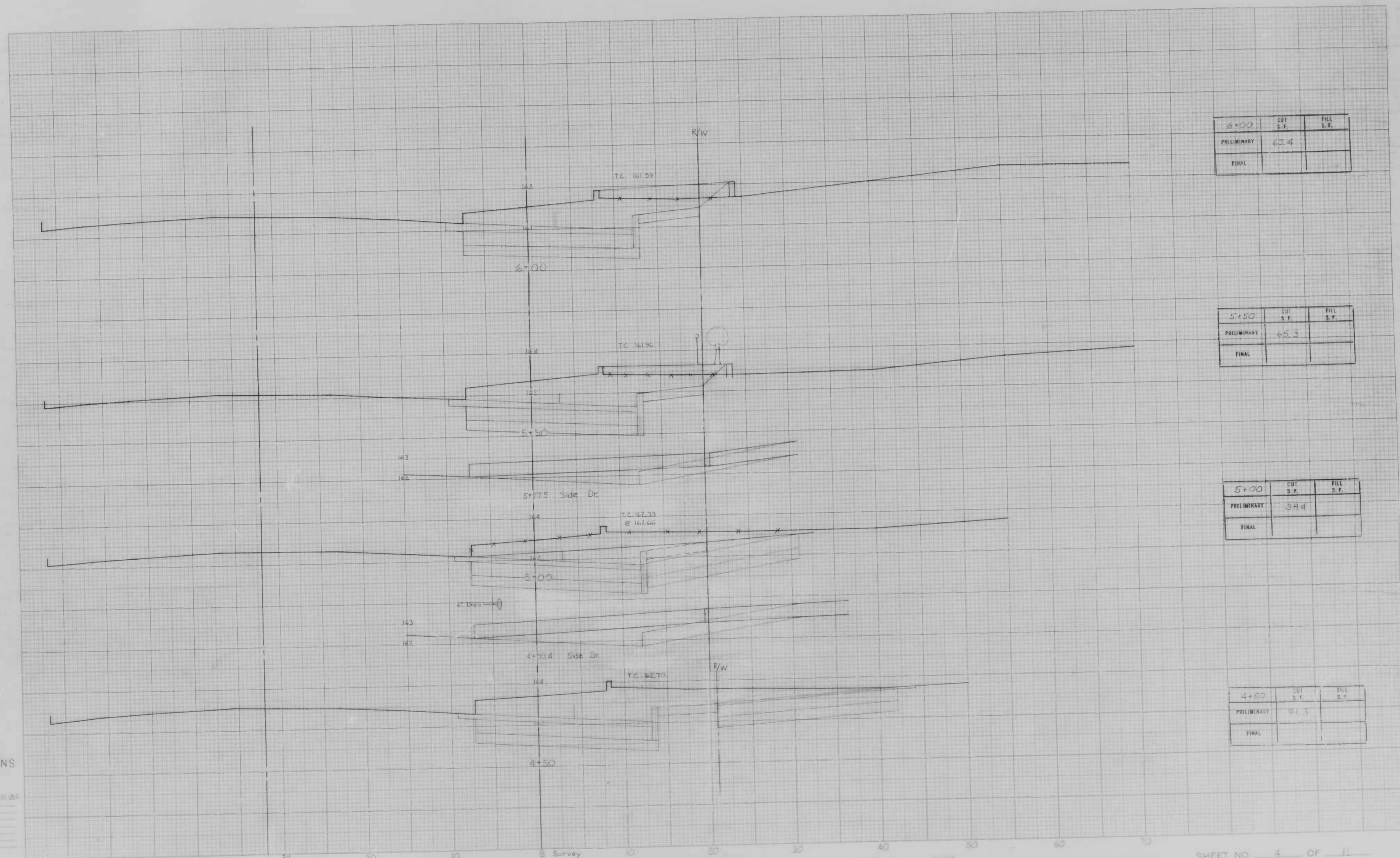
5+50	CUT S.F.	FILL S.F.
PRELIMINARY	97.4	
FINAL		

CROSS SECTIONS

Scale: 1 inch = 40 feet  
 Horiz. 1" = 40'  
 Vert. 1" = 10'

Original Plotted by J. Burke Rev. 11/1/88  
 Design Checked by: [ ]  
 Plotted by: [ ]  
 Area by: [ ]  
 Drafted by: [ ]  
 Design Checked by: [ ]  
 Area by: [ ]  
 Area Checked by: [ ]

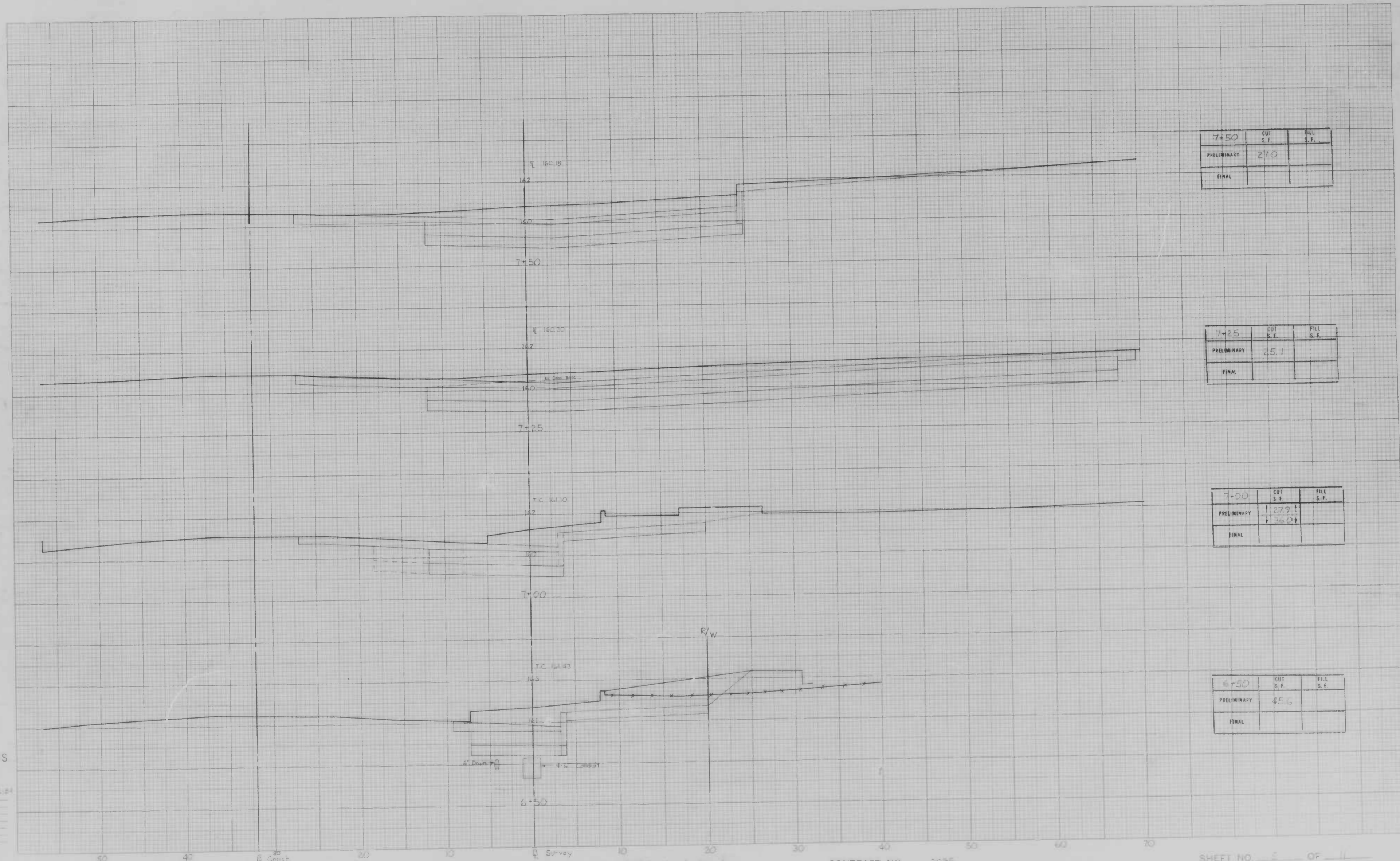




CROSS SECTIONS

Scale 1 inch = 10 feet  
 Date 1-20-50  
 Original Stationed by J. Burkhart  
 Original Checked by J. Burkhart  
 Proposed by J. Burkhart  
 Area by J. Burkhart  
 Final Stationed by J. Burkhart  
 Final Checked by J. Burkhart  
 Area by J. Burkhart





7+50	CUT S.F.	FILL S.F.
PRELIMINARY	270	
FINAL		

7+25	CUT S.F.	FILL S.F.
PRELIMINARY	251	
FINAL		

7+00	CUT S.F.	FILL S.F.
PRELIMINARY	279.1	30.0
FINAL		

6+50	CUT S.F.	FILL S.F.
PRELIMINARY	45.6	
FINAL		

CROSS SECTIONS

Scale 1 inch = 10 feet  
 Vert. = 5.0  
 Horiz. = 2.0  
 Original Plotted by: Burke, Date 1/12/54  
 Original Checked by: Same  
 Transferred by: Same  
 Area by: Same  
 Plots Made by: Same  
 Plots Checked by: Same  
 Area by: Same  
 Area Checked by: Same

BOOK NO. X-860 & X-892

PROJECT Hartford Road 20th St ~ 250' N of Broadway

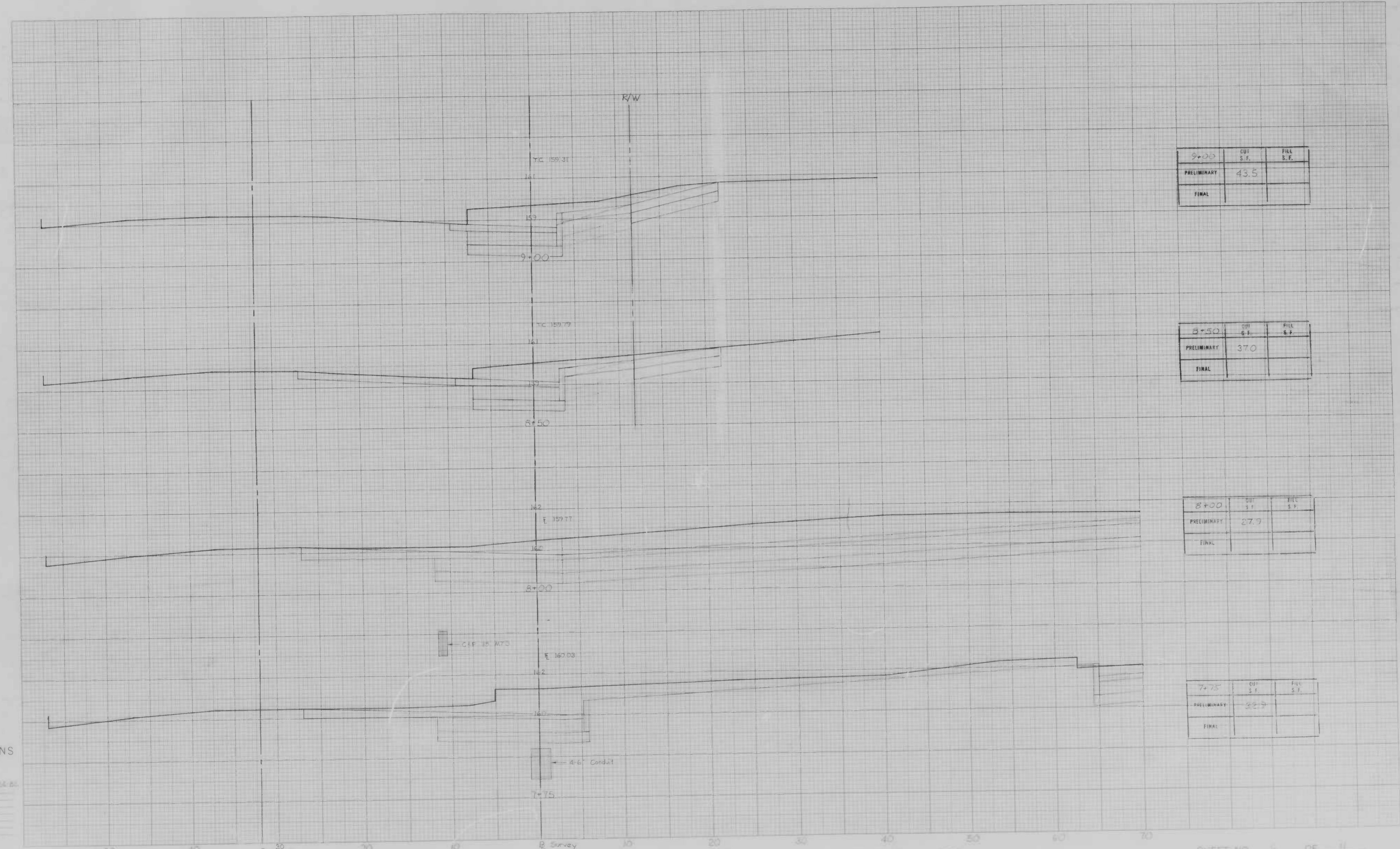
CONTRACT NO. 3095

SHEET NO. 5 OF 11

STATION 6+20 TO STATION 7+20

DESCRIPTION X-Sections





STATION	CUT S.F.	FILL S.F.
9+00	43.5	
PRELIMINARY		
FINAL		

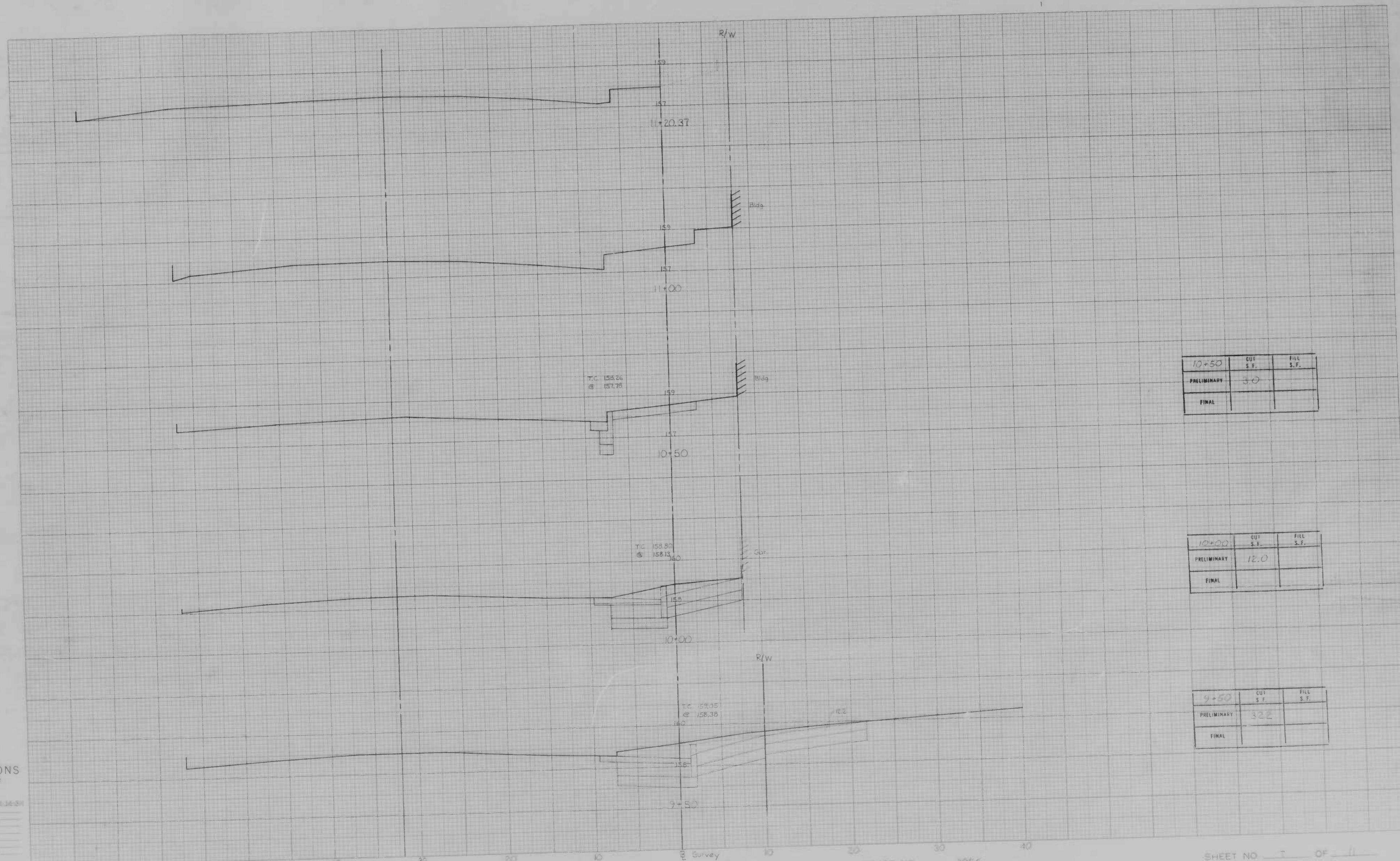
STATION	CUT S.F.	FILL S.F.
8+50	37.0	
PRELIMINARY		
FINAL		

STATION	CUT S.F.	FILL S.F.
8+00	27.7	
PRELIMINARY		
FINAL		

STATION	CUT S.F.	FILL S.F.
7+75	22.9	
PRELIMINARY		
FINAL		

**CROSS SECTIONS**  
 Scale 1 inch = 10 feet  
 Vert. = 5.0  
 Horiz. = 2.0  
 Original Plotted by M. DeKla. Date 10-6-50  
 Original Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Transferred to \_\_\_\_\_ Date \_\_\_\_\_  
 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Plans Plotted by \_\_\_\_\_ Date \_\_\_\_\_  
 Fields Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Area Checked by \_\_\_\_\_ Date \_\_\_\_\_





10+50	CUT S.F.	FILL S.F.
PRELIMINARY	3.0	
FINAL		

10+00	CUT S.F.	FILL S.F.
PRELIMINARY	12.0	
FINAL		

9+50	CUT S.F.	FILL S.F.
PRELIMINARY	32.2	
FINAL		

CROSS SECTIONS

Scale 1 inch = 10 feet  
 Horiz. S.C.  
 Vert. 1" = 2.0'

Original Prepared by: J. J. [unclear] Date: 11/16/54  
 Original Checked by: [unclear]  
 Transcribed by: [unclear]  
 Area by: [unclear]  
 Final Checked by: [unclear]  
 Date: [unclear]

BOOK NO. X-860 & X-872

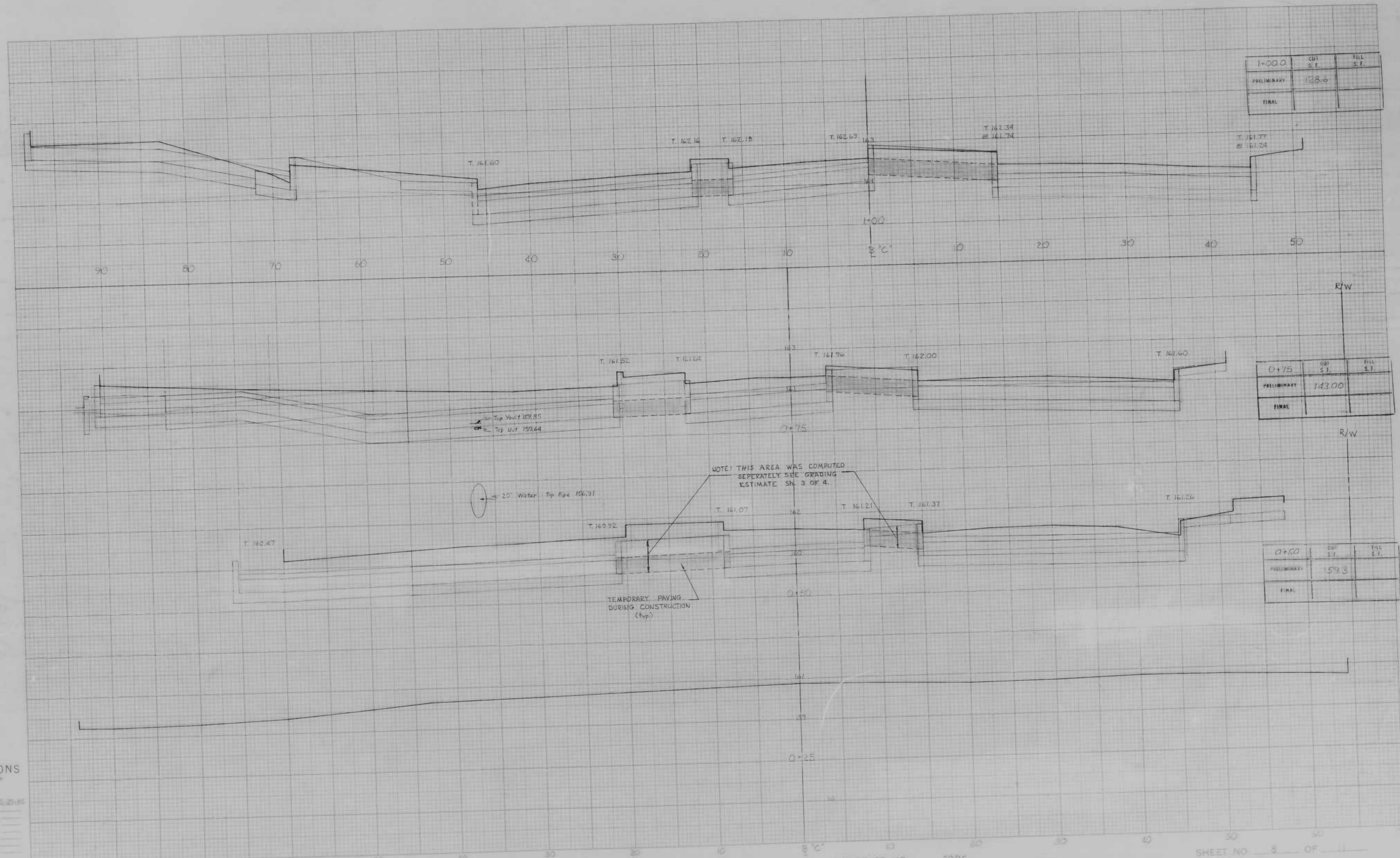
PROJECT Hartford Road 20th St. ~ 250 ± N. of Broadway

DESCRIPTION X-Sections

CONTRACT NO. 3025

SHEET NO. 7 OF 11  
 STATION 9+50 TO STATION 11+00.37





1+00.0	CUT S.F.	FILL S.F.
PRELIMINARY	128.6	
FINAL		

0+75	CUT S.F.	FILL S.F.
PRELIMINARY	143.00	
FINAL		

0+50	CUT S.F.	FILL S.F.
PRELIMINARY	159.3	
FINAL		

**CROSS SECTIONS**  
Scale 1 inch = 10 feet

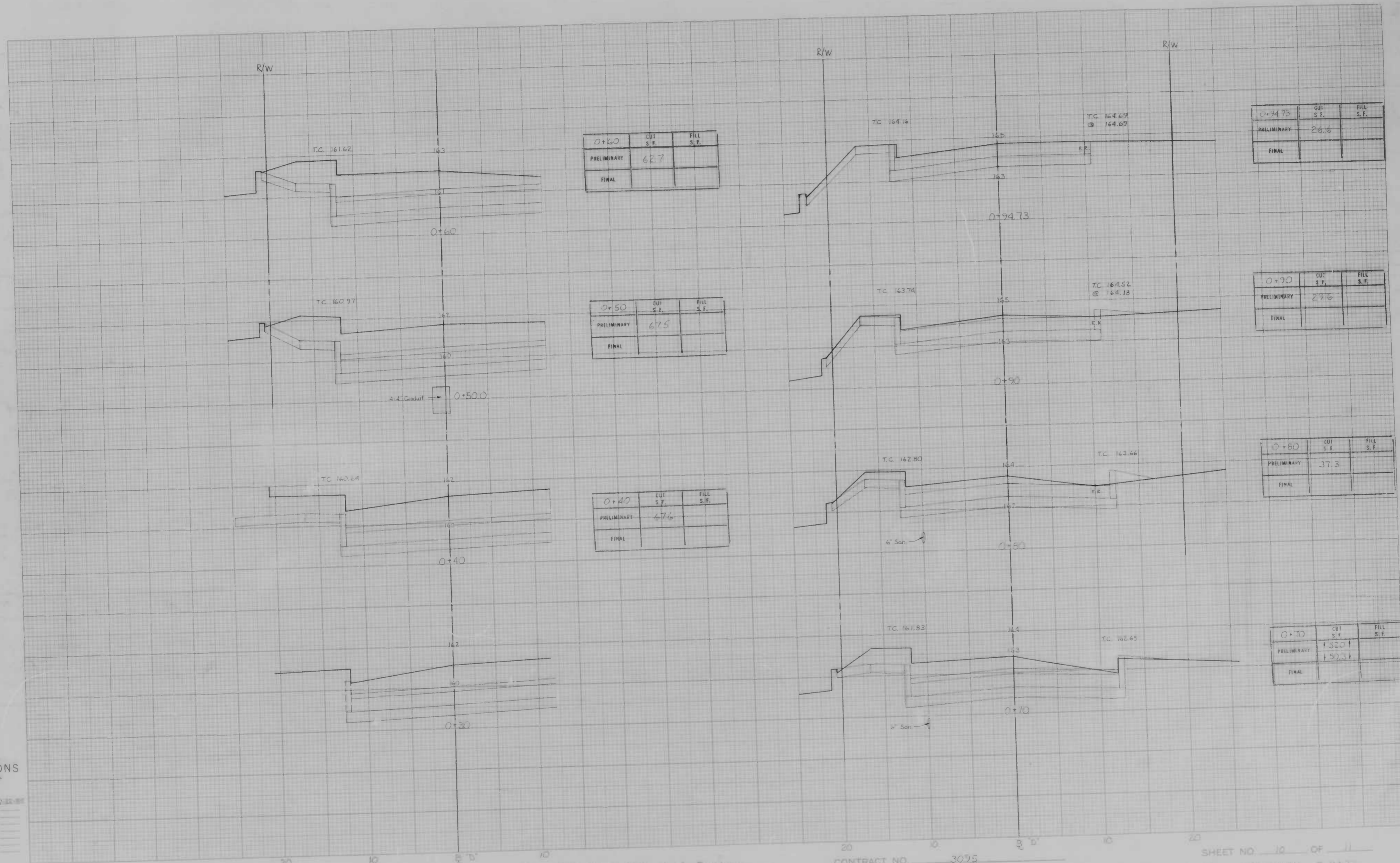
Original Proposed by J. Burke, Date 10-20-55  
 Original Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Template by \_\_\_\_\_ Date \_\_\_\_\_  
 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Check Plotted by \_\_\_\_\_ Date \_\_\_\_\_  
 Final Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Area Checked by \_\_\_\_\_ Date \_\_\_\_\_

DESCRIPTION X-Sections of Broadway





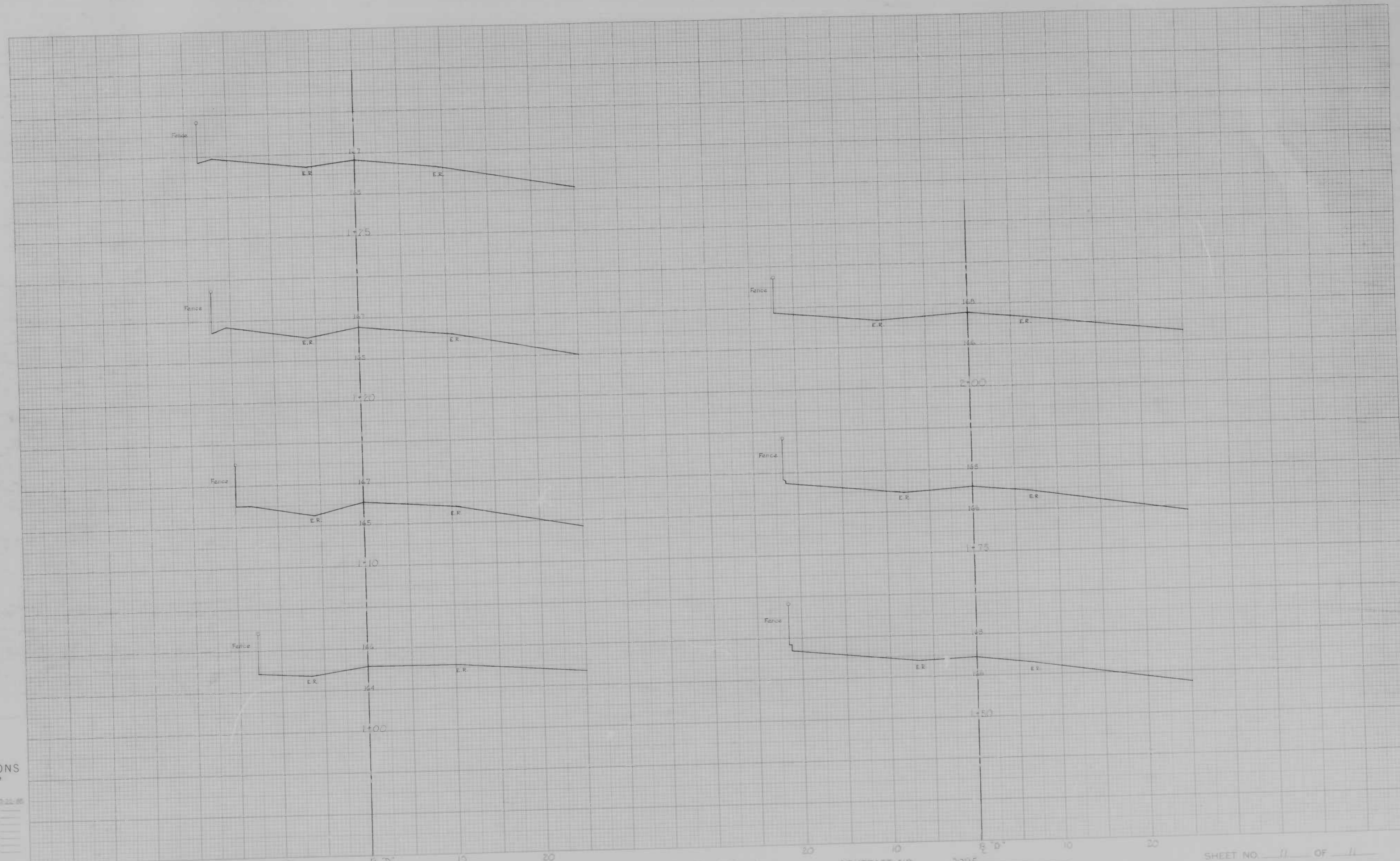




CROSS SECTIONS

Scale 1 inch = 10 feet  
 HORIZ. = S.S.  
 VERT. = S.S.  
 Original Plotted by: M. D. [unclear] Date: 7-22-88  
 Original Checked by: [unclear]  
 Template by: [unclear]  
 Plotted by: [unclear]  
 Final Checked by: [unclear]  
 Area by: [unclear]  
 Area Checked by: [unclear]





**CROSS SECTIONS**

Scale 1 inch = 40 feet  
 Plot = 5.0  
 Date = 3.27  
 Original plotted by J. G. ...  
 Original Checked by ...  
 Template No. ...  
 Area by ...  
 Plots Plotted by ...  
 Plots Checked by ...  
 Area by ...  
 Area Checked by ...

BOOK NO. X-860 X-832

PROJECT Warford Rd 20th St. - 250' N. of Broadway  
 DESCRIPTION X-Section of Holy Cross Lane

CONTRACT NO. 3095

SHEET NO. 11 OF 11  
 STATION 1+00 TO STATION 2+00