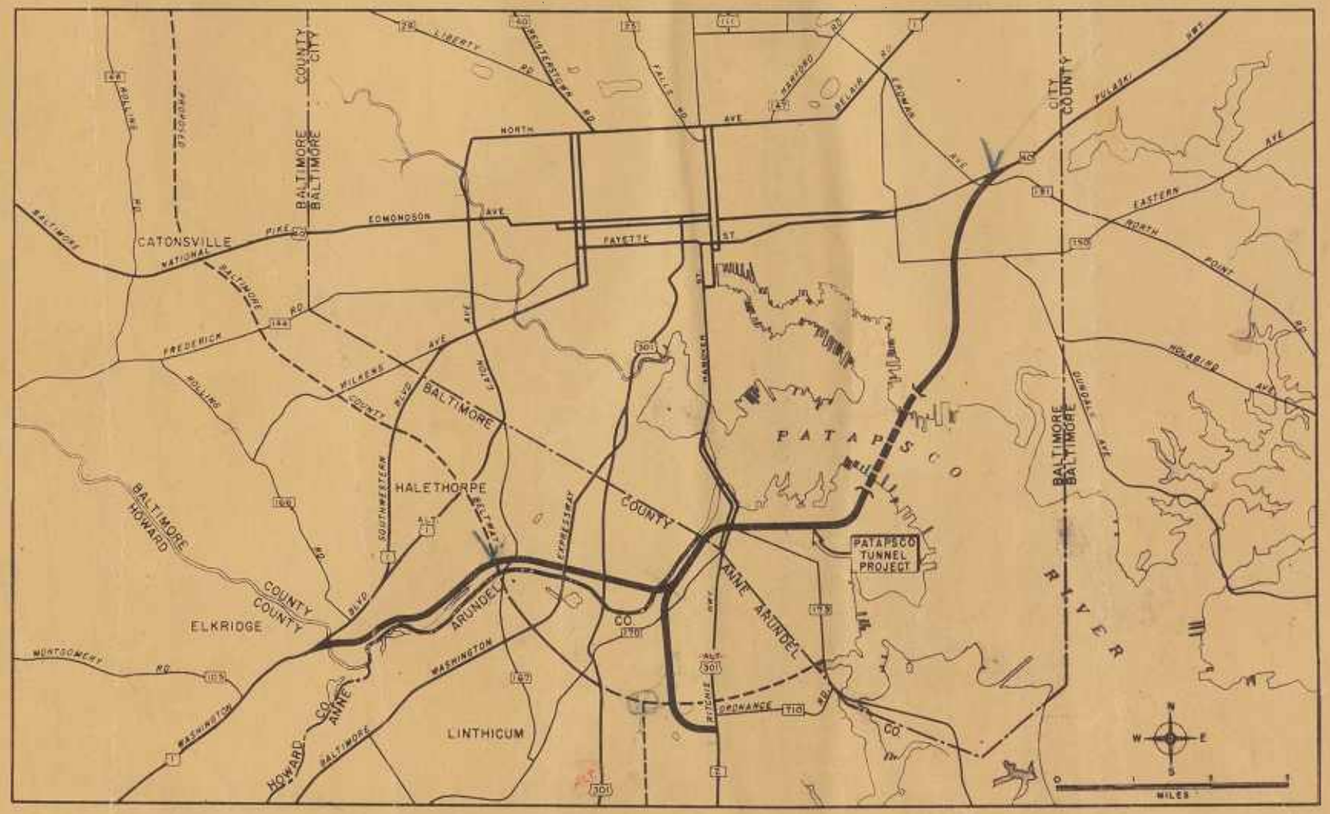
OPENED Nov. 30, 1957

STATE OF MARYLAND

STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT



J.E. GREINER COMPANY – CONSULTING ENGINEERS

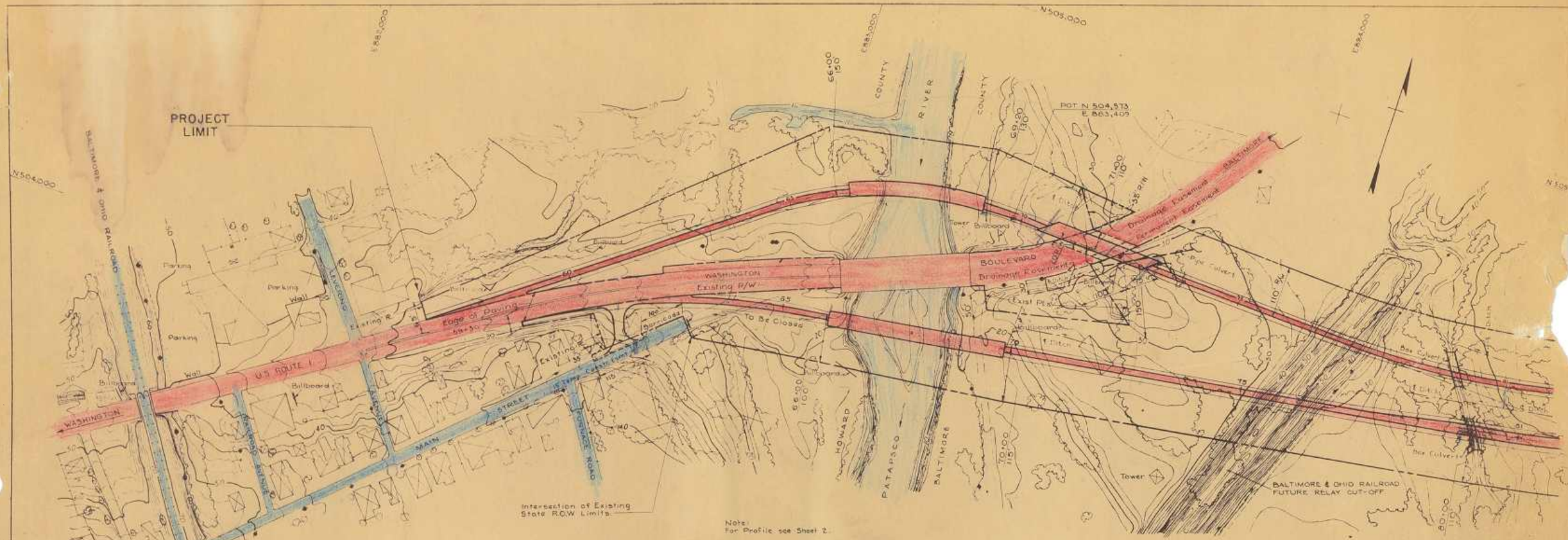
BALTIMORE, MARYLAND

SUBMITTED OCTOBER 8, 1954

J E GREINER CO

BY Herschel H. Allen

REVISED 16 MAY 55



LEGEND

CREEK OR STREAM	EXISTING PAVED ROADS	PROPOSED NEW OR RELOCATED ROAD (Surfaced Shoulders, Pavement, Structure)
RIVER	EXISTING DIRT ROADS	TUNNEL
LAKE OR POND	PROPOSED ROAD (OTHER PROJECTS)	RELOCATED RAILROAD TRACK
MARSH	RAILROAD TRACK	BOX CULVERT
WOODS	BRIDGE	PIPE CULVERT
INDEX CONTOUR (10 FT.)	POWER LINE OR POWER & TEL. LINE	RIGHT OF WAY LINE
INTERMEDIATE CONTOUR (2 FT.)	TRANSMISSION TOWERS	
DEPRESSION CONTOUR	BUILDINGS	
TRAIL	FENCE	

GENERAL NOTES

Datum: U.S.C. & G.S. Mean Sea Level Datum, 1929 - Sandy Hook.
Coordinates: Maryland Lambert Projection.
Stationing as shown is based on simple horizontal curves and does not take spiral transitions into consideration.
Topography as shown is based on an aerial survey made in March 1954.
Proposed drainage as shown includes pipe culverts, box culverts, ditches, and stream relocations. Inlets, manholes, and storm drains are not shown.
These strip maps were prepared to accompany the Civil Engineering Report dated October 8, 1954.

SCALE
100 0 100 200 300 400

No.	Revisions	By	Date
2	ROW dims added	C.F.D.	4-22-55
1	Horizontal Alignment & ROW Sta. 56 to 81	C.D.	4-4-55

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OCTOBER 1954

STATE OF MARYLAND
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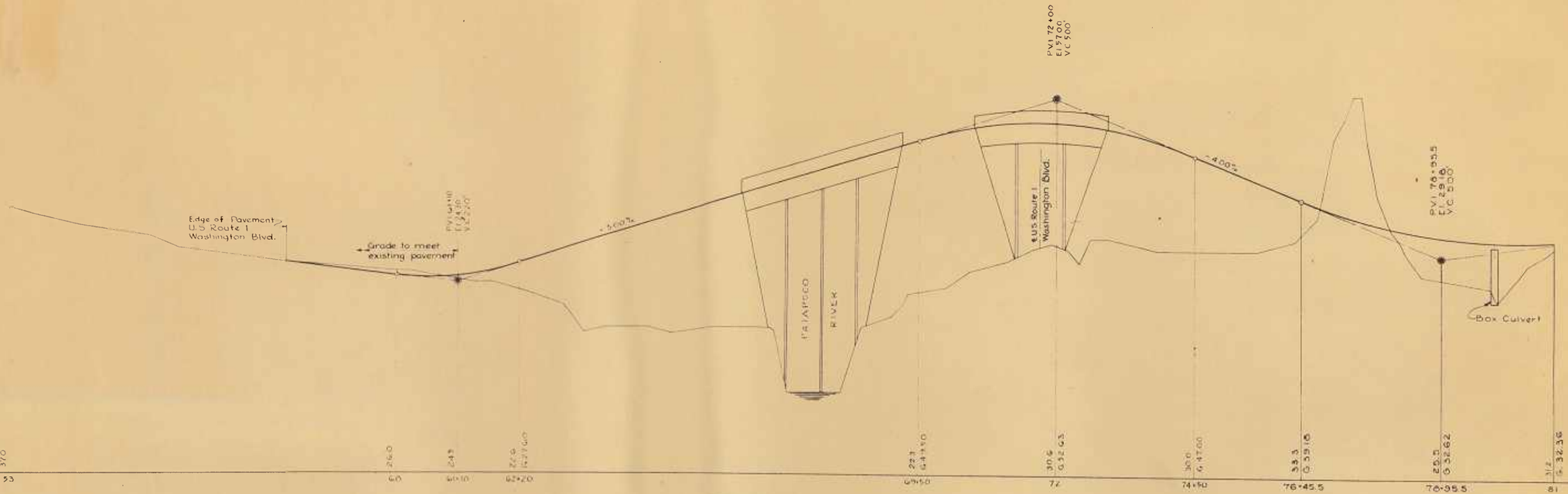
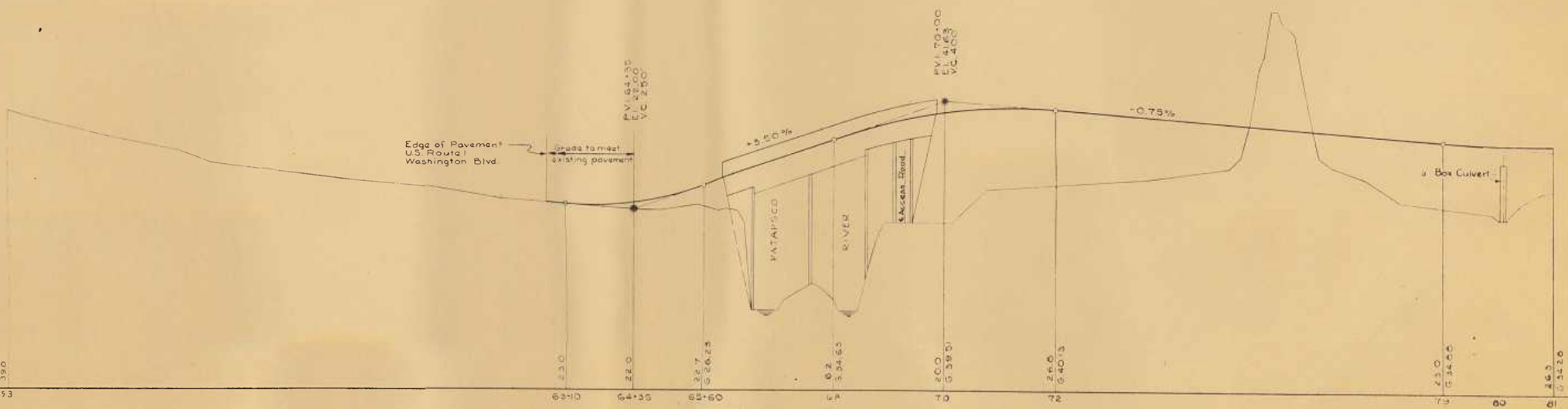
PATAPSCO TUNNEL PROJECT

PLAN - STA. 53+00 TO STA. 81+00

S.



SOUTHBOUND LANE



NORTHBOUND LANE

SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

1	Grade Line N.B.L. Sta 63 to 81 & S.B.L. Sta 76-81	A.V.C.	4-1-55

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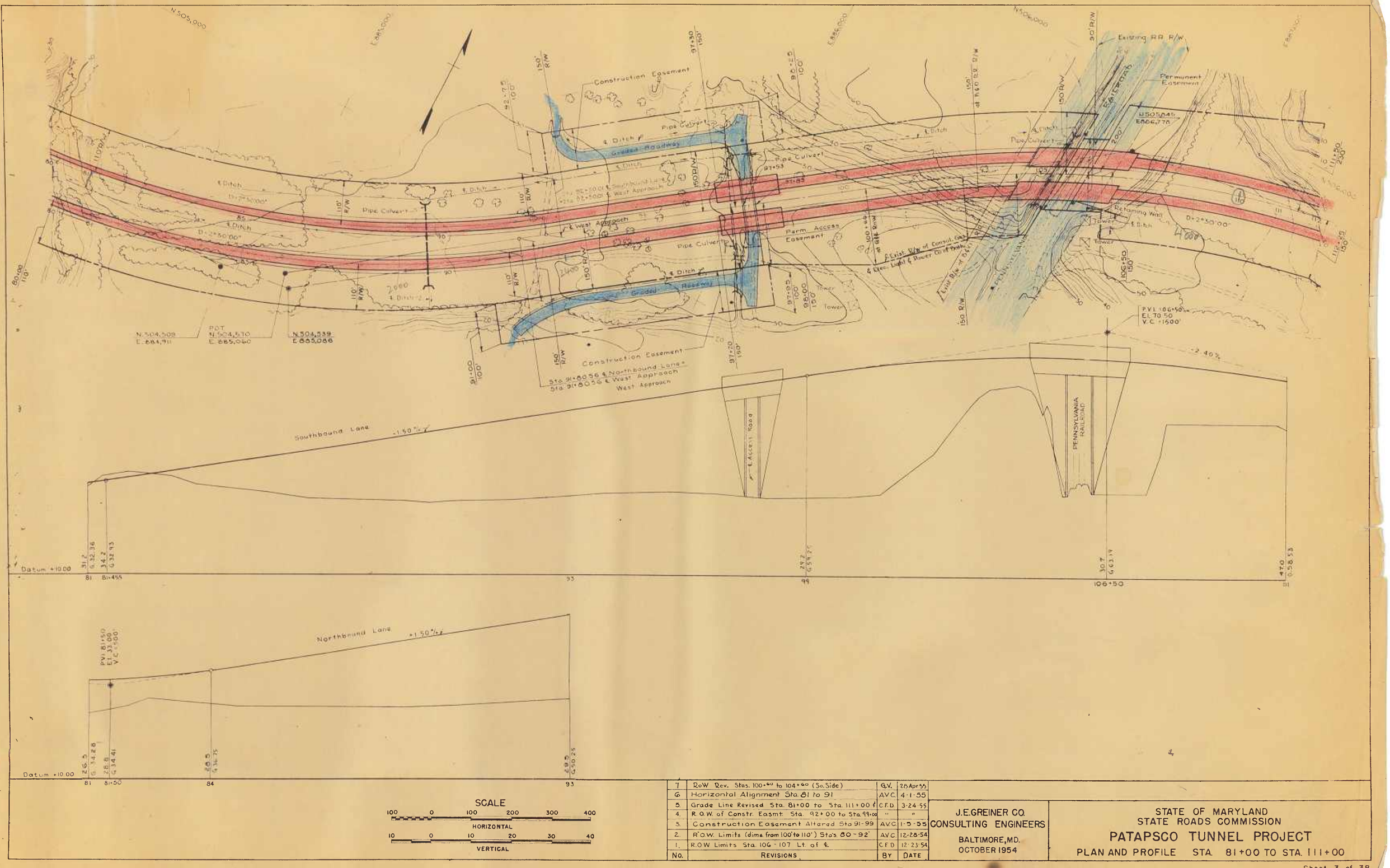
STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT



SCALE

HORIZONTAL: 100 0 100 200 300 400

VERTICAL: 10 0 10 20 30 40

No.	Revisions	By	Date
7	RoW Rev. Stas. 100+60 to 104+60 (So. Side)	G.V.	28 Apr 55
6	Horizontal Alignment Sta. 81 to 91	A.V.C.	4-1-55
5	Grade Line Revised Sta. 81+00 to Sta. 111+00 ℄	C.F.D.	3-24-55
4	R.O.W. of Constr. Easmt: Sta. 92+00 to Sta. 99+00	"	"
3	Construction Easement Altered Sta 91-99	A.V.C.	1-5-55
2	R.O.W. Limits (dims. from 100' to 110') Sta's. 80 - 92'	A.V.C.	12-28-54
1	R.O.W Limits Sta. 106 - 107 Lt. of ℄	C.F.D.	12-23-54

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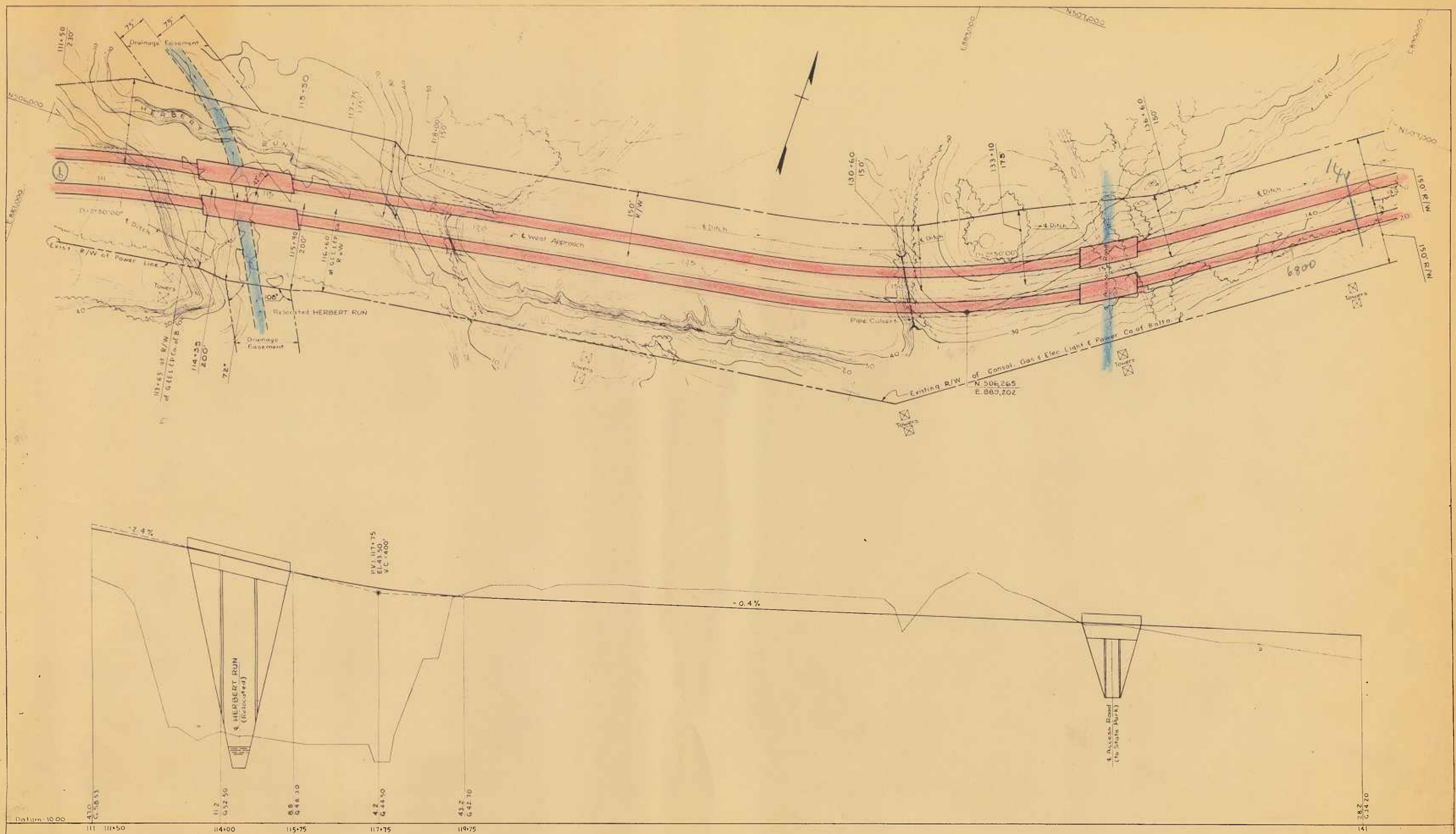
PLAN AND PROFILE STA. 81+00 TO STA. 111+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revision	By	Date
3	R.O.W. Revised Stas 110 to 142 South of ℄	C.F.D.	4-29-55
2.	Grade Line Revised	C.F.D.	4-6-55
1.	R.O.W. Dimensions Sta. 115±, 133+10	A.V.C.	12-28-54

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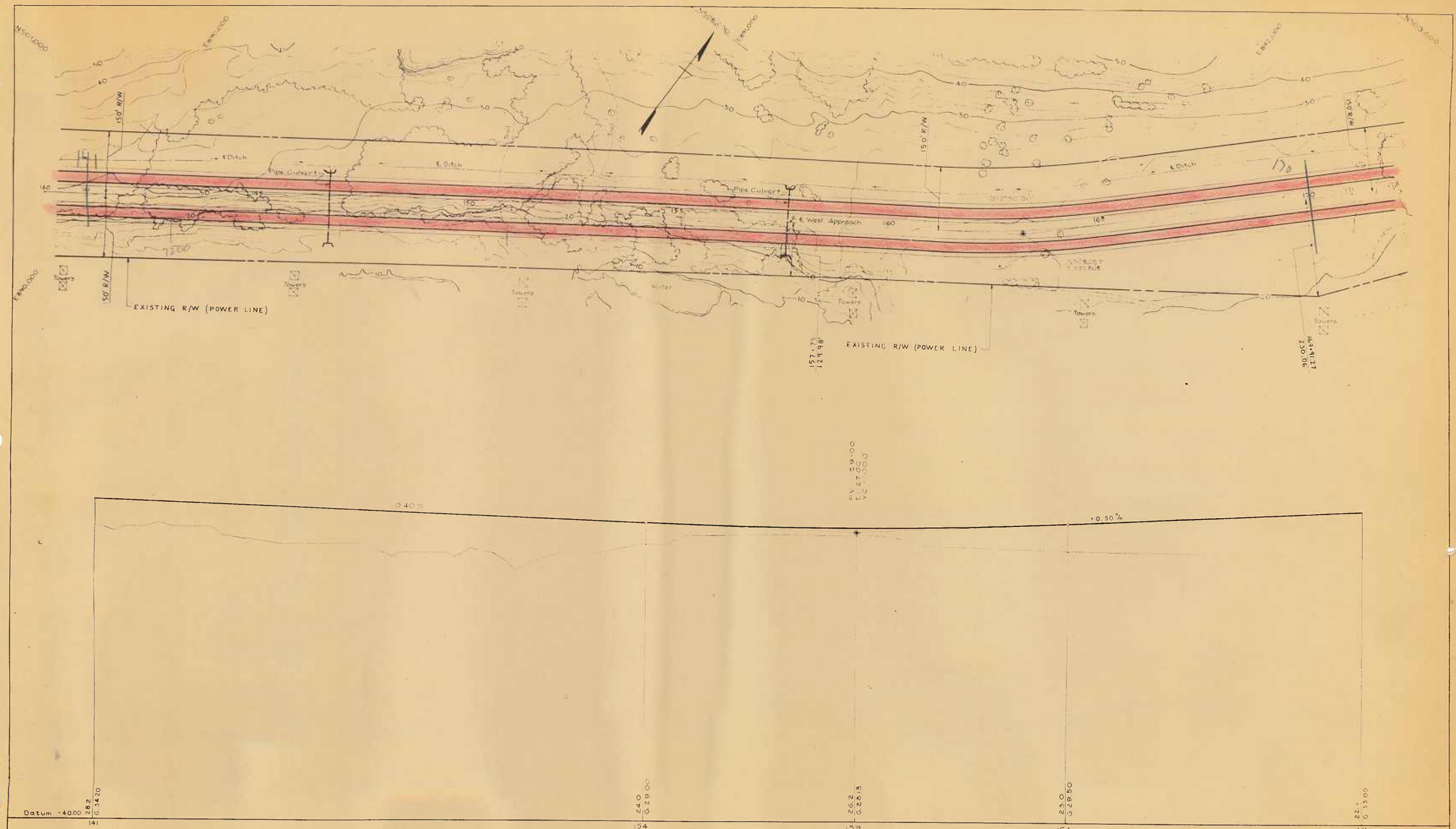
STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 111+00 TO STA. 141+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date
2	RoW Dims Rev. Sta 157 to 172 South Side	C.F.D.	4-19-55
1	Grade Line Revised	C.F.D.	4-6-55

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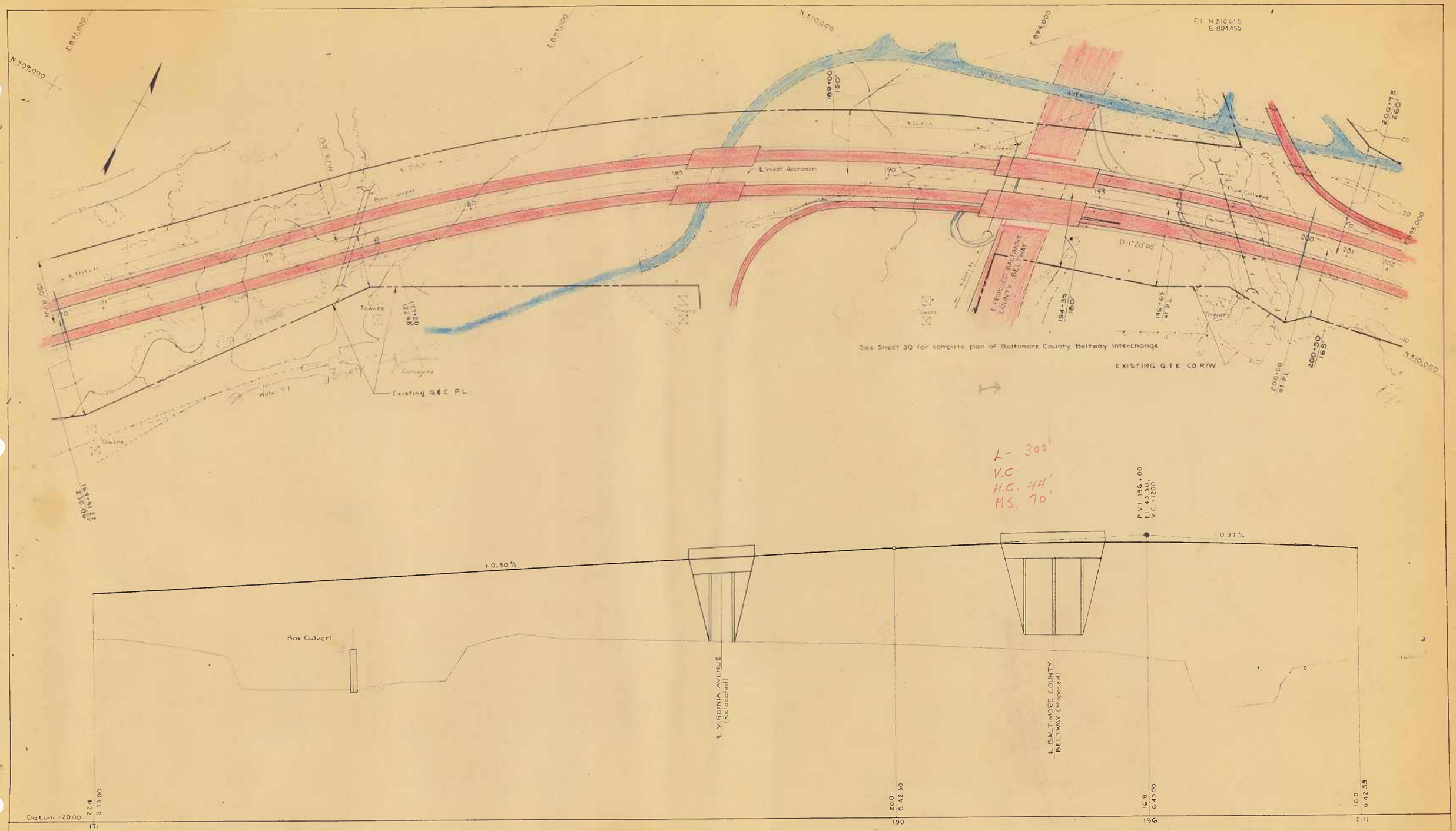
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 141+00 TO STA. 171+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revision	By	Date
2	R.o.W. Dims. Rev. Stas 170 to 185 South Side	C.F.D.	19 Apr 55
1.	R.O.W. Dims. Sta's. 170, 184-189, 200-50, 200-75	A.V.C.	12-28-54

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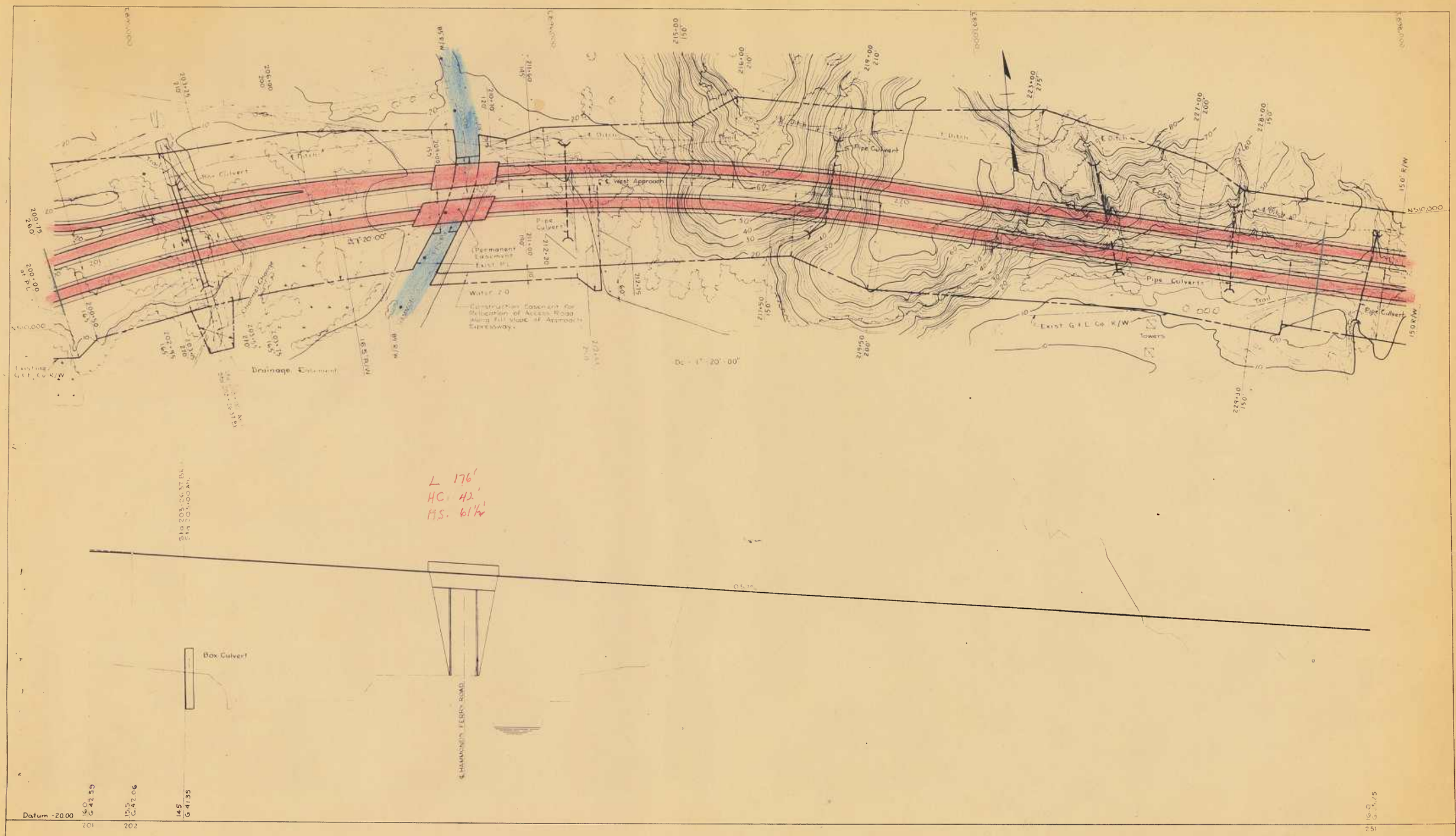
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE - STA. 171+00 TO STA. 201+00


Box Culvert
Sta 203+26.57 Bk
Sta 204+00 Ah
Datum -20.00
60 G 42.59
201
125 G 42.06
202
145 G 41.35
G. HAMMONDS FERRY ROAD
Box Culvert
Pipe Culvert
Pipe Culvert
Pipe Culvert
Pipe Culvert
Permanent Easement Exist R/L
Construction Easement for Relocation of Access Road along Fill slope of Approach Expressway.
Drainage Easement
Exist G & E Co R/W
Towers
150' R/W
N 510,000
200.00 on P.L.
200.75
260
Water 20
Trail
Trail
Trail
Trail
Ditch
Ditch
Ditch

E 898,000

N 510,000

235+30
150'

150' R/W

℄ Ditch

240+00

Ruins

Pipe Culvert

Towers

Drainage Easement

Temp. Detour Easement

242+75

BALTIMORE-WASHINGTON EXPRESSWAY

150' R/W

Exist. R/W

130' R/W

245+00
205' R/W

250+00
250'

254+00
190'

℄ West Approach

170' R/W

N 509,000

241+10
150'

241+90
150'

242+12
280'

100'

248+00
170'

See Sheet 31 for complete plan of Baltimore-Washington Expressway Interchange

SEE STATE ROADS COMM. ROW PLATES
Nos 12773 & 12774

℄ BALTIMORE-WASHINGTON EXPRESSWAY

PVI 244+50
El 17.50
VC 800'

PVI 258+00
El 58.00
VC 1300'

-0.57%

+3.00%

+0.50%

Datum -10.00

160 G 25.25	231	
220 G 19.78	240+50	
400 G 21.01	244+50	
520 G 29.50	248+50	
602 G 36.50	251+50	
550 G 52.31	258	
465 G 54.85	261	

SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date
2	S.R.C. Std. Plat Nos Rev.	GV	21 Apr 55
1	R.O.W. Dimensions Added		12 54

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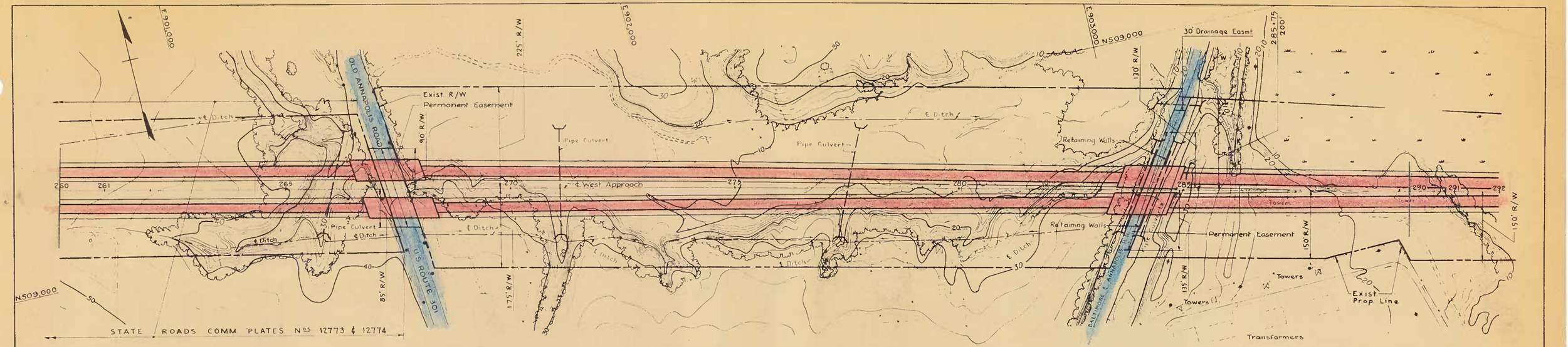
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

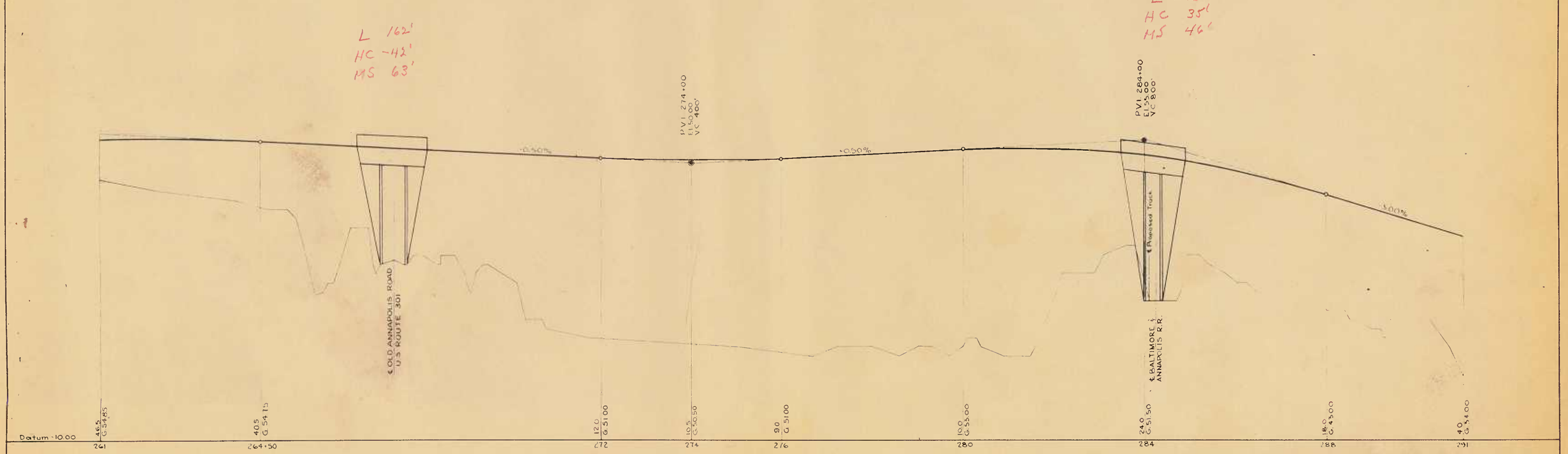
PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 231+00 TO STA. 261+00



L 162'
HC 42'
MS 63'

L - ~~162~~ 170'
HC 35'
MS 46'



SCALE
100 0 100 200 300 400
HORIZONTAL
10 0 10 20 30 40
VERTICAL

No.	Revisions	By	Date
2	S.R.C. Std Plat Nos Rev.	G.V.	21 Apr 55
1	R.O.W. Dimensions Added		12 - 54

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OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 261+00 TO STA. 291+00

N 509,000
E 904,000
E 905,000
E 906,000
N 508,000
Exist. Prop Line
295
300
305
310
Approach
Temporary Construction Easement
297+10
150'
207+10
150'
30' Temporary Const. Easement
Dr. 3°00'00"
BALTIMORE COUNTY
ANNE ARUNDEL COUNTY
RIVER
Patapsco
Existing Property Line
Southbound Lane (South Approach)
Northbound Lane (South Approach)
℄ Ditch
Pipe Culvert
Box Culvert
N 508,921.281
E 906,303.180
N 508,854.006
E 906,353.306
N 506,369.397
E 906,344.033
312+25
210'
312+00
210'
310+00
200'
310+00
165'
N 507,362
E 906,054
L = 2415'
HC = ~~2~~ 2-28' Lanes
MS = 56'
VC = 115'
HC = 37'
SOUTH APPROACH - ℄ B.L.
VIADUCT
PATAPSCO RIVER
-3.00%
0.00%
+0.62%
PVI 297+00
EL 16.00
VC 600
Datum = 30.00
A.0 C.24.00 291
2.0 C.25.00 294
L.8 C.18.25 297
5.4 C.16.00 300
2.0 C.16.00 317
2.0 C.16.17 318
2.1 C.16.62 319
2.0 C.17.18 321

SCALE
HORIZONTAL 100 0 100 200 300 400
VERTICAL 10 0 10 20 30 40

No.	REVISIONS	BY	DATE
4	South Approach Alignment Revised to Alternate Line B	FCG	4-13-55
3	Alternate Line B. N.B.L. Data Changed	AVC	3-24-55
2	Alignment, Grades & R.O.W. Revised Sta's. 260 335	CFD	2-1-55
1	R.O.W. Dimensions Sta's. 297 - 310	AVC	12-28-54

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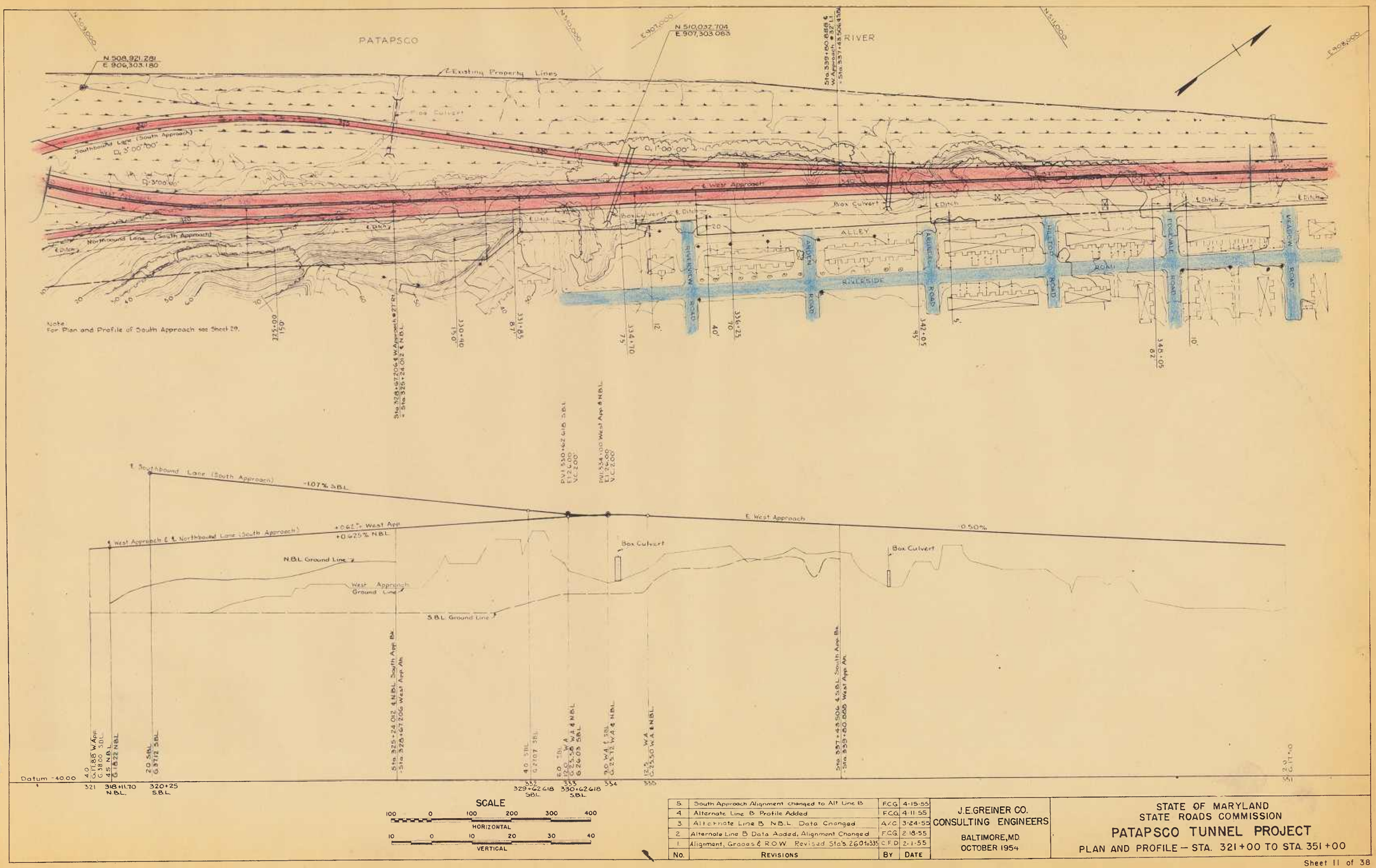
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE - STA. 291+00 TO STA. 321+00



No.	Revisions	By	Date
5.	South Approach Alignment changed to Alt Line B	F.C.G.	4-15-55
4	Alternate Line B Profile Added	F.C.G.	4-11-55
3.	Alternate Line B N.B.L. Data Changed	A.V.C.	3-24-55
2.	Alternate Line B Data Added, Alignment Changed	F.C.G.	2-18-55
1.	Alignment, Grades & R.O.W. Revised Sta's. 2601 to 335	C.F.D.	2-1-55

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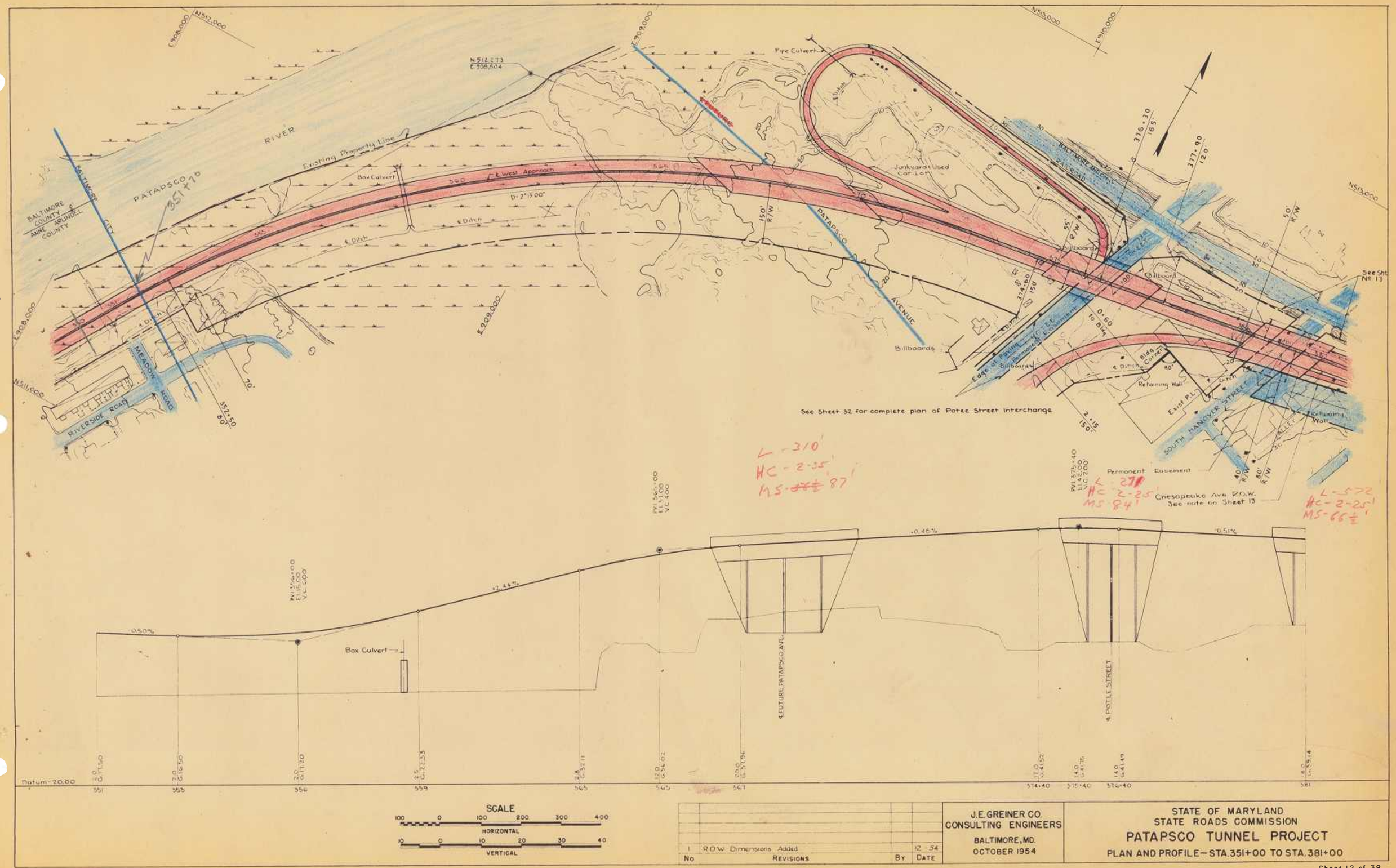
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 321+00 TO STA. 351+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No	Revisions	By	Date
1	R.O.W. Dimensions Added		12-54

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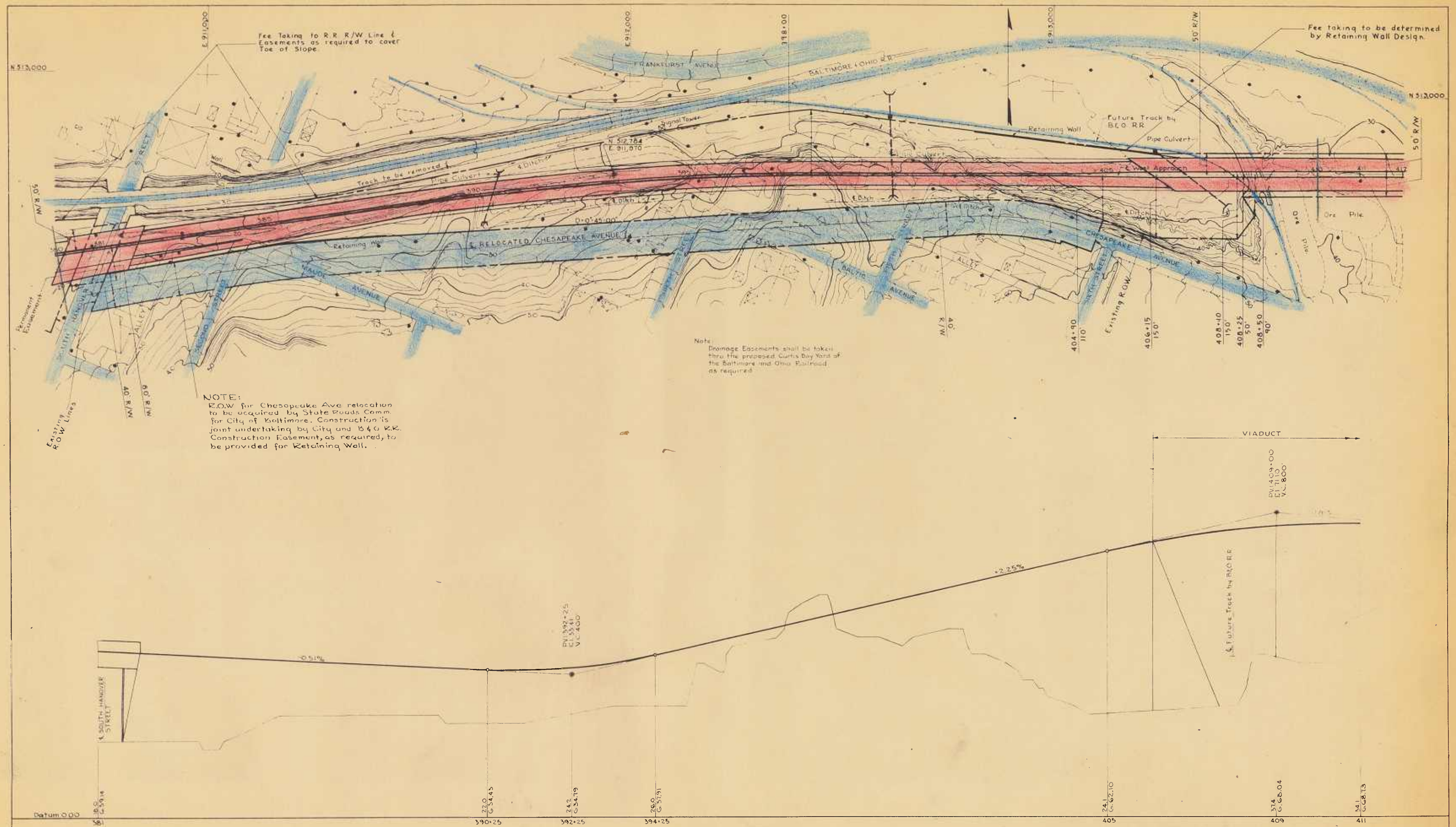
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 351+00 TO STA. 381+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

NO.	REVISIONS	BY	DATE
3.	Structure Revised Sta 409 to Sta 412	F.C.G.	4-21-55
2	R.O.W Revised Sta 409 to Sta 412, Both Sides	C.F.D.	4-12-55
1.	R.O.W. Revised Sta 409 to Sta. 412, North Side	C.F.D.	3-25-55

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OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA 381+00 TO STA. 411+00

N 513,000

E 914,000

E 915,000

E 916,000

Stream Relocation

Pipe Culvert

BALTIMORE AND OHIO RAILROAD

418+50 at PI

FRANKFURST AVENUE

Retaining Wall

Billboard

Ore Pile

Walls

50' R/W

Fee taking to be determined by Retaining Wall Design.

142' R/W

425+00 142'

426+75 275'

428+25 250'

436+50 205'

441+00 300'

Pipe Culvert

Water

Curb

475 ℄ West Approach

430

435

ACCESS ROAD

Movable Barricade

TOLL PLAZA

440

441

442

Parking Area

Administration & Maintenance Building

Retaining Wall

Existing Property Line

FRANKFURST AVENUE

See Sheet 33 for complete plan of Shell Road and Frankfurst Avenue Interchange

4

VIADUCT

TRUSS BRIDGE

L - 1635'
HC - 2-28'
MS - 480'
68' TRUSS TO TRUSS

L - 168'
HC - 2-35'
MS - 61½'

L - 167'
HC - 52' & 50' LANES
MS - ~~45~~ 47'

-0.81%

-2.96%

+0.75%

P.V.I. 424+00
El. 59.00
V.C. 600'

P.V.I. 432+00
El. 35.50
V.C. 400'

℄ R.R. Tracks

℄ R.R. Tracks

℄ FRANKFURST AVE.

℄ RELOCATED FRANKFURST AVENUE

℄ Future R.R. Tracks

Datum-10.00

24.1 G 68.73 411

20.0 G 67.88 413

25.0 G 61.42 431

18.5 G 51.38 424

12.5 G 50.12 427

8.0 G 47.22 430

20.0 G 37.15 432

8.0 G 36.80 434

15.8 G 42.05 441

SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

NO.	REVISIONS	BY	DATE
3.	Structure Revised Sta. 410 to Sta. 422	F.C.G.	4-21-55
2.	R.O.W. Revised Sto 410 to Sta. 412, Both Sides	C.F.D.	4-12-55
1.	R.O.W. Revised Sta 410 to Sta. 412, North Side	C.F.D.	3-25-55

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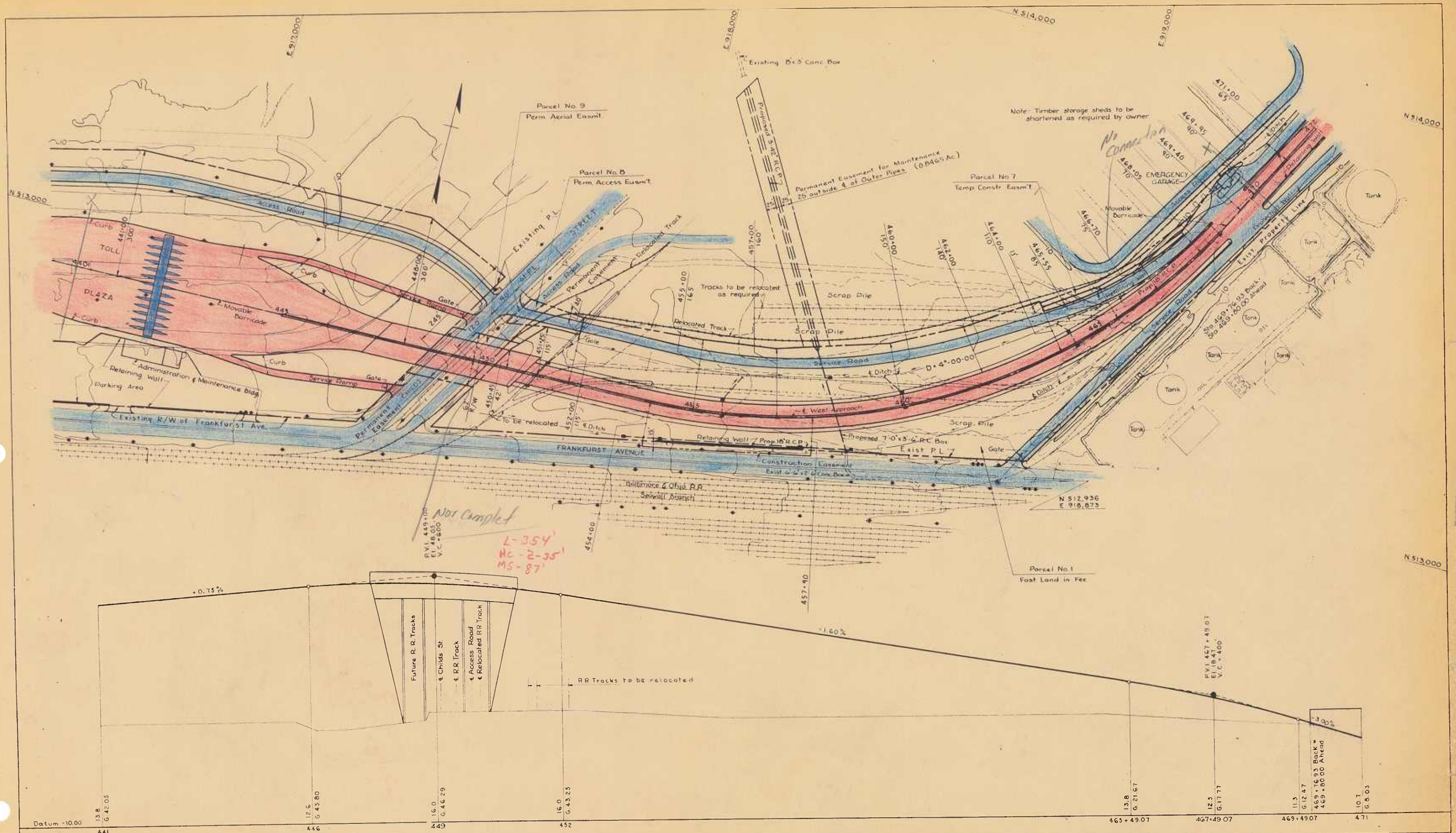
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 411+00 TO STA. 441+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date
2	R.O.W. & Drainage Revised	F.C.G.	4-21-55
1	R.O.W. Dimensions Added		12-54

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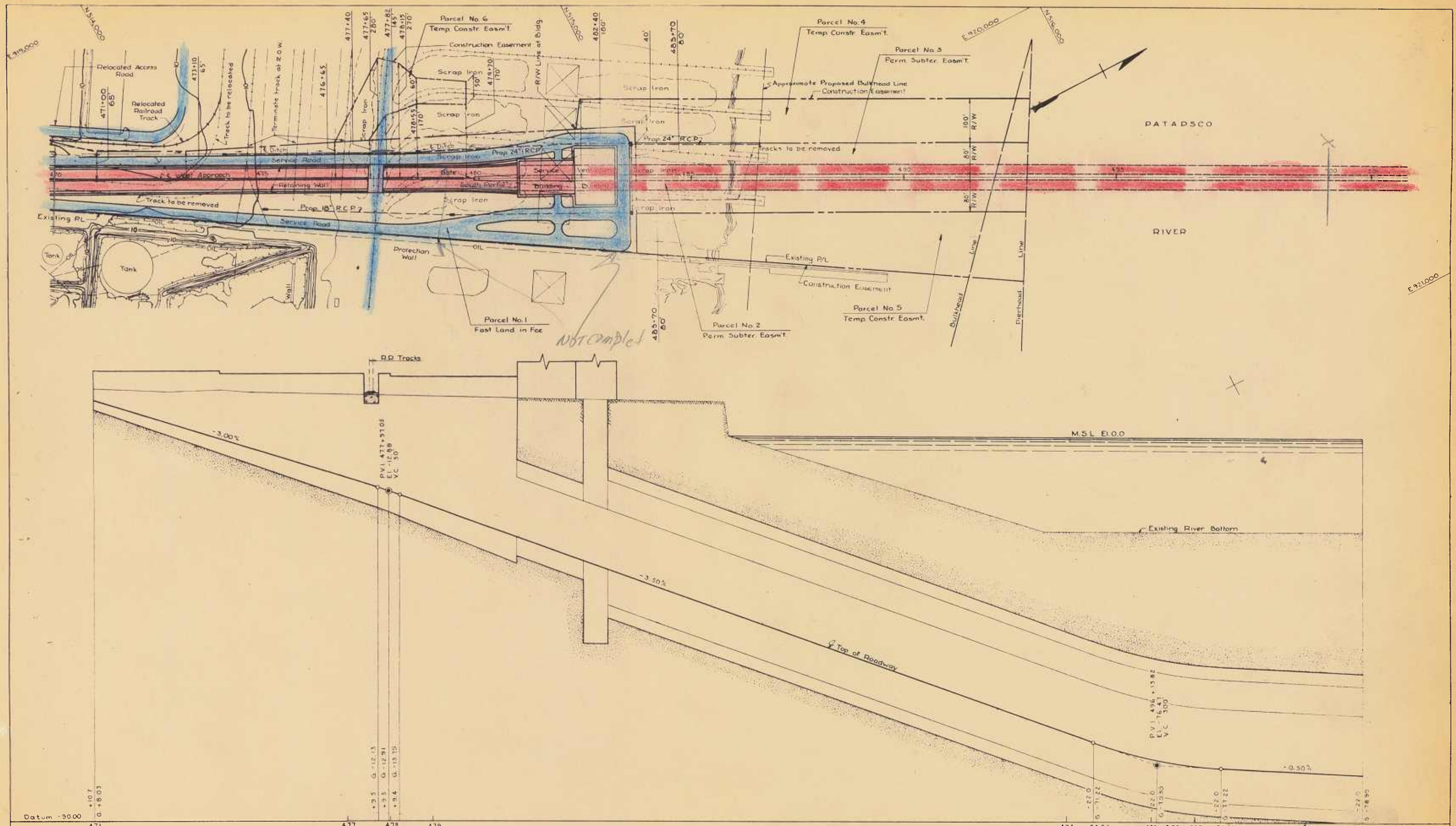
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 441+00 TO STA. 471+00



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date
2.	R.O.W. & Drainage Revised	FCG	4-21-55
1.	R.O.W. Dimensions Added		12-54

J.E. GREINER CO.
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BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 471+00 TO STA. 501+00

N 517,000

E 921,000

N 518,000

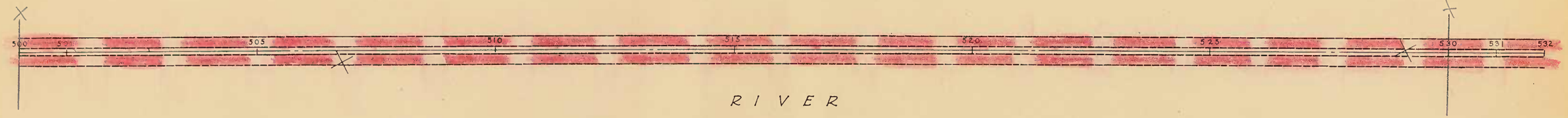
N 519,000

Flood

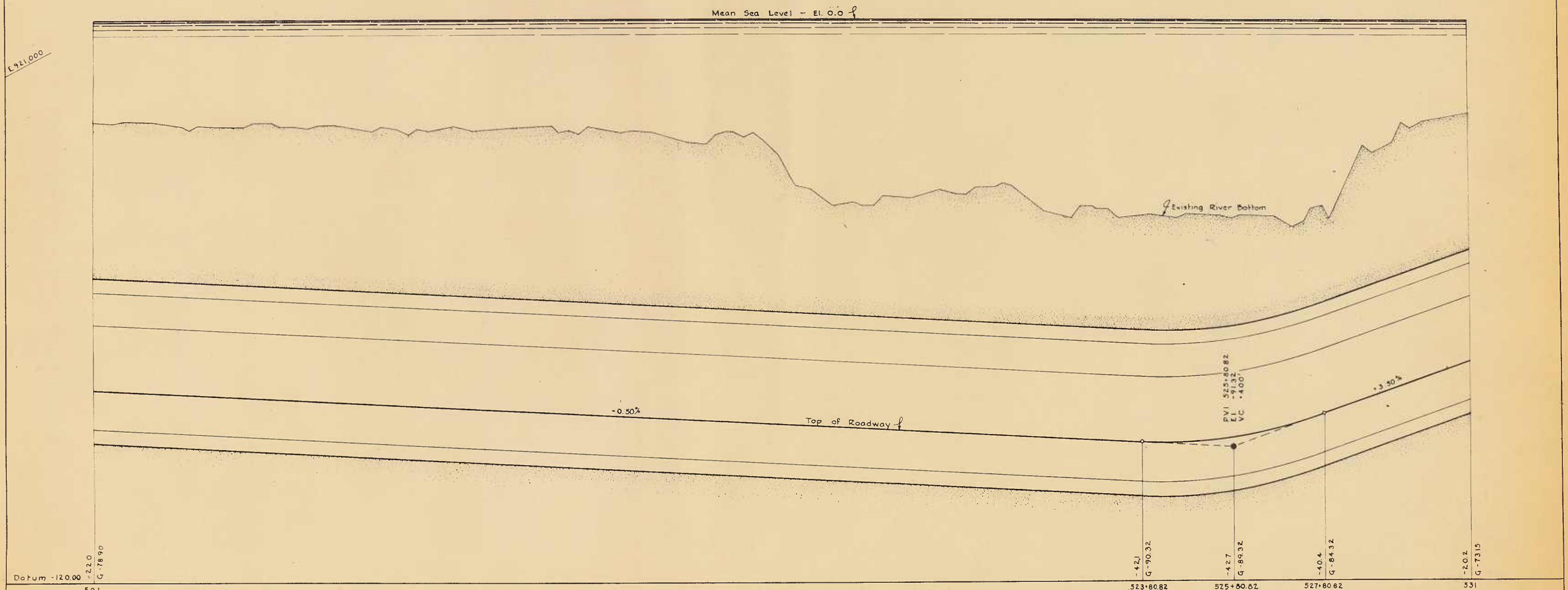
Ebb

E 922,000

PATAPSCO



RIVER



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 501+00 TO STA. 531+00

PATAPSCO RIVER

Temporary Construction Easement

Outer Edge of Tunnel Tube

Overhead Conveyor Sulphur Pile

Tanks

VENTILATION BUILDING

Intersection of ℄

Existing R/W of Clinton Street

Existing R/W of Nanticoke Avenue

20' Perm. Access Easmt.

35' Permanent Protective Easement

Existing ℄

Proposed ℄

MERTEN'S SHAFT

90' Perm. Subterranean Easement 45' Each side of ℄ Tunnel

Temporary Construction Easement

Dep. of Parks

Parkland

Parkland

Line

Mt. Winans

Existing R/W 100'

Existing R/W 80'

Existing R/W 150'

Existing R/W 120'

Existing R/W 60'

Existing R/W 40'

Existing R/W 50'

Existing R/W 30'

Existing R/W 20'

Existing R/W 10'

Existing R/W 5'

Existing R/W 3'

Existing R/W 2'

Existing R/W 1'

Existing R/W 0'

Existing R/W -1'

Existing R/W -2'

Existing R/W -3'

Existing R/W -4'

Existing R/W -5'

Existing R/W -6'

Existing R/W -7'

Existing R/W -8'

Existing R/W -9'

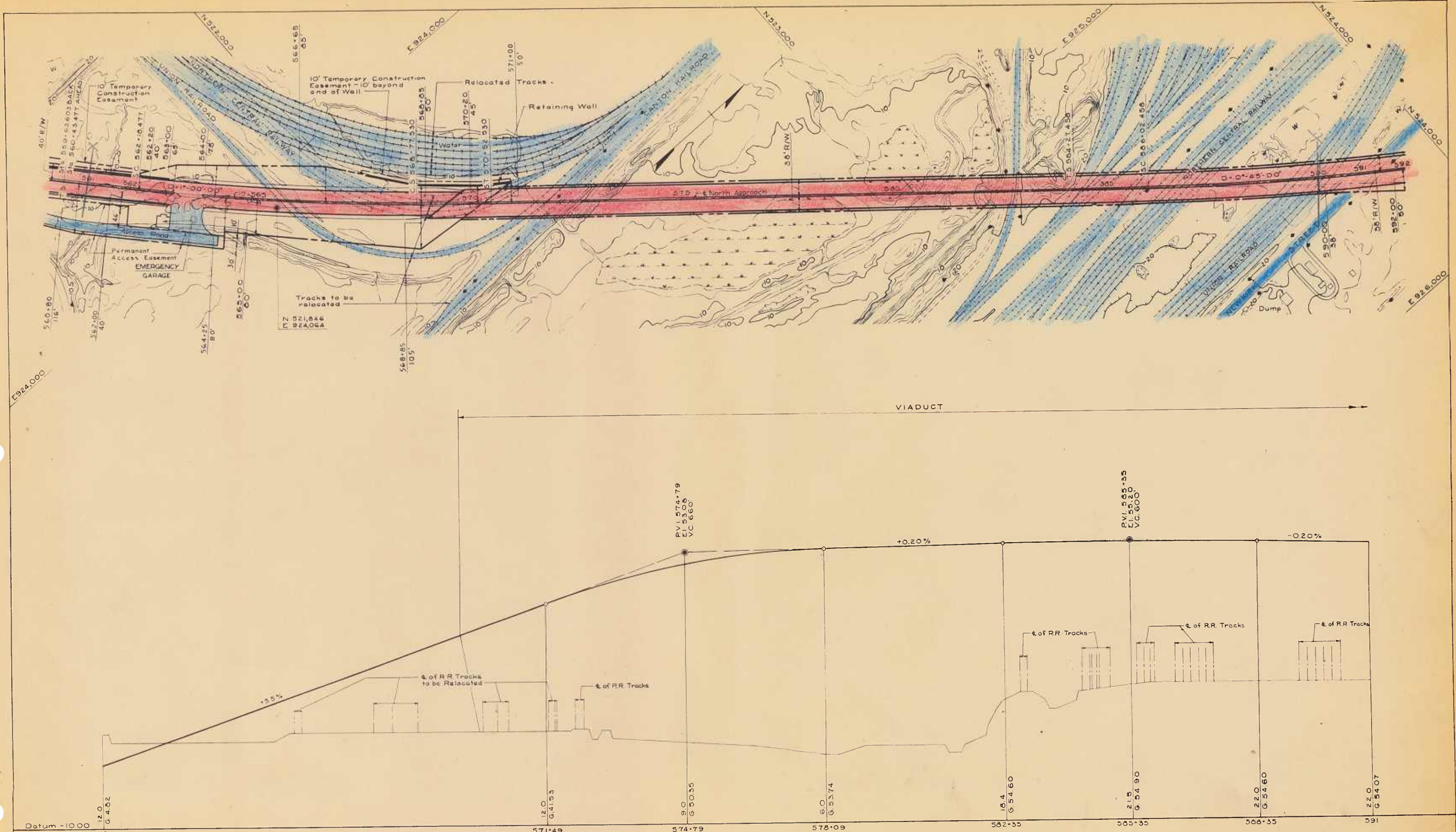
Existing R/W -10'

Existing R/W -11'

Existing R/W -12'

Existing R/W -13'

Existing R/W



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No	Revisions	By	Date
5	Emergency Garage Added	RHG	4-22-55
4	R.o.W. Revised Sta's. 561 to 571	C.F.D.	4-13-55
3.	Abutment Location Revised to Sta. 569+45	A.V.C.	4-4-55
2.	Grade Line Revised Sta. 561 to 575	A.V.C.	4-4-55
1.	Horiz. Alignment & Grade Sta. 561 to 591	A.V.C.	3-14-55

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 561+00 TO STA. 591+00

NOTE:
Permanent Easements will be taken across Railroad Property and Existing Streets or Structures.

See Sheet 34 for complete plan of the Holabird Avenue Interchange

Dike Walls to be reconstructed as required to provide existing reservoir volume for Oil Storage Tanks.

Two pipe utility tunnels to be constructed according to location and details to be worked out with Standard Oil Company.

L - 335'
HC - 2-30'
MS - 177'

L - 154'
HC - 2-30'
MS - ~~3½~~ 73'
10' PAVED SHOULD FOR EACH LANE

SCALE
HORIZONTAL 100 0 100 200 300 400
VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date
3.	R.O.W. dims. Rev. Sta. 601 to Sta. 612 East of ℄	A.V.C.	5-10-55
2.	On-Ramp Revised	A.V.C.	4-7-55
1.	Grade, Alignment & R.O.W. Sta. 591 to 612	A.V.C.	3-14-55

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
PLAN AND PROFILE — STA. 591+00 TO STA. 621+00

E 926,000

Existing Property Corner

Billboard

Existing Property Corner

Tank

Retaining Wall

Existing P.L.

O'DONNELL

STREET

10' R/W

Existing P.L.

Retaining Wall

N 528,000

Existing P.L.

Permanent Easement

50' R/W

CANTON R.R.

D-0°15'00"
N 527,822
E 926,345

HUDSON

FAIT

FOSTER

FLEET

N 527,000

Existing P.L.

Construction Easement

QUAIL

STREET

Retaining Wall

Wall

E 926,000

BALTIMORE EASTERN TRANSIT CO.

AVENUE

North Approach

Permanent Easement

Existing P.L.

See Sheet 35 for complete plan of O'Donnell Street Interchange.

Existing P.L.

Existing P.L.

Retaining Wall

Construction Easement

ALLEY

RAPPALLO

STREET

AVENUE

Playpole

Existing P.L.

School

Drainage Easement

Tank

Retaining Wall

Existing Property Corner

R/W of Proposed O'Donnell Street

Two pipe utility tunnels to be constructed according to location and details to be worked out with Telephone Co.

Duct Walls to be reinforced concrete encased in concrete

L-182'
HC-2-25'-10' SHOULDERS
MS-91'

L-188'
HC-2-25 WITH 10' SHOULDERS
MS-66'

VC-14½'
HC-74'

VC-21'
HC-74

VC-14½'
HC-74

PVI 629+66
El 46.00
V.C. 600'

PVI 631+00
El 74.00
V.C. 800'

+2.00%

-0.56%

E. Fait Ave.

E. Foster Ave.

E. Fleet St.

E. Hudson St. (Note closed)

E. O'DONNELL ST

E. CANTON RAILROAD

E. Proposed Track

E. Existing Track

Note
Proposed profile contemplates lowering of O'Donnell St by City of Baltimore in conjunction with reconstruction and extension of that street

Datum +30.00		
621+00	51.3 G 68.80	
626+60	70.0 G 80.00	
629+60	68.2 G 84.08	
632+60	71.7 G 84.32	
647+00	104.2 G 76.24	
651	99.2 G 76.74	

SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

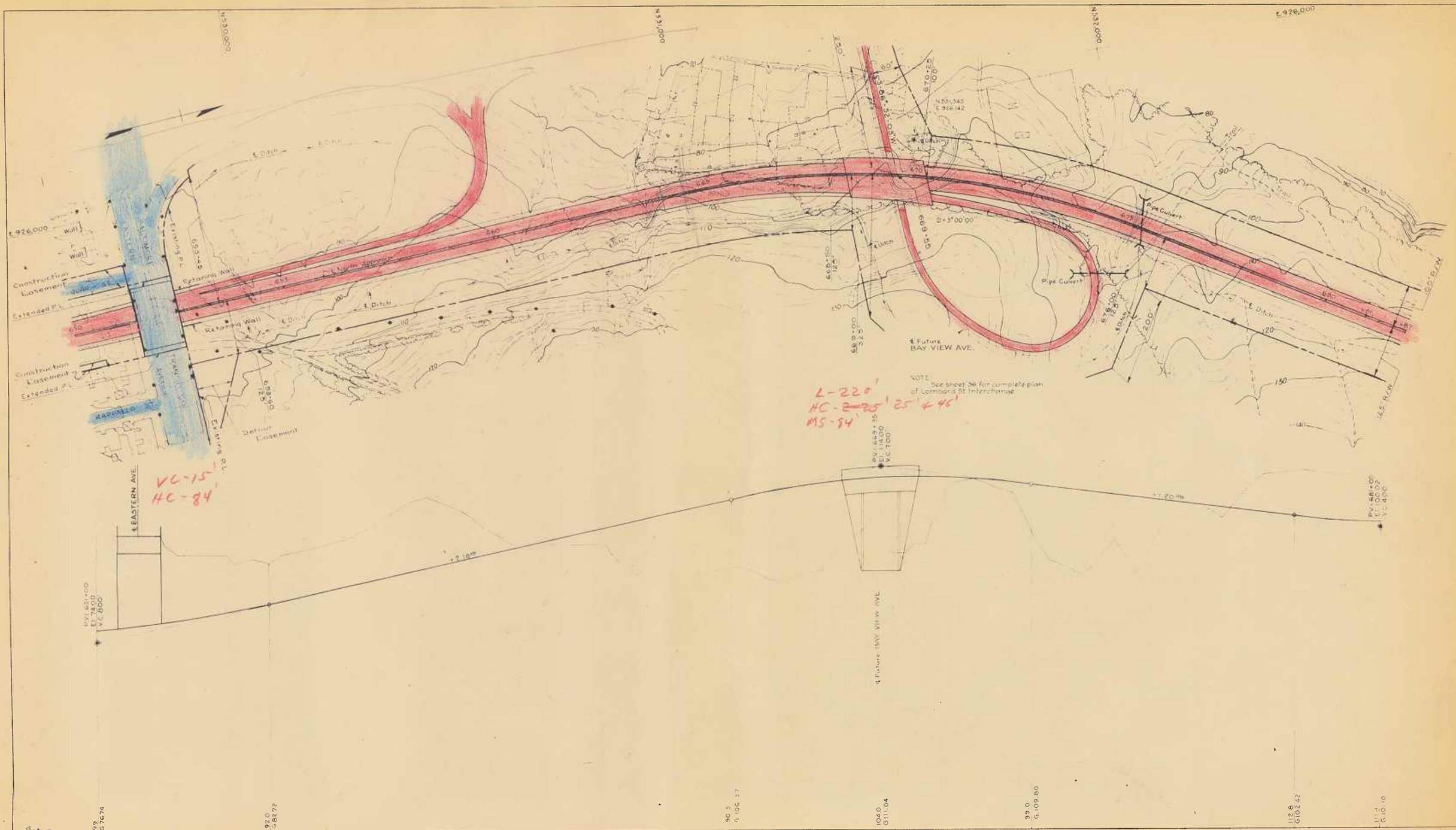
No.	Revisions	By	Date
1	R O W Dimensions Added		12-54

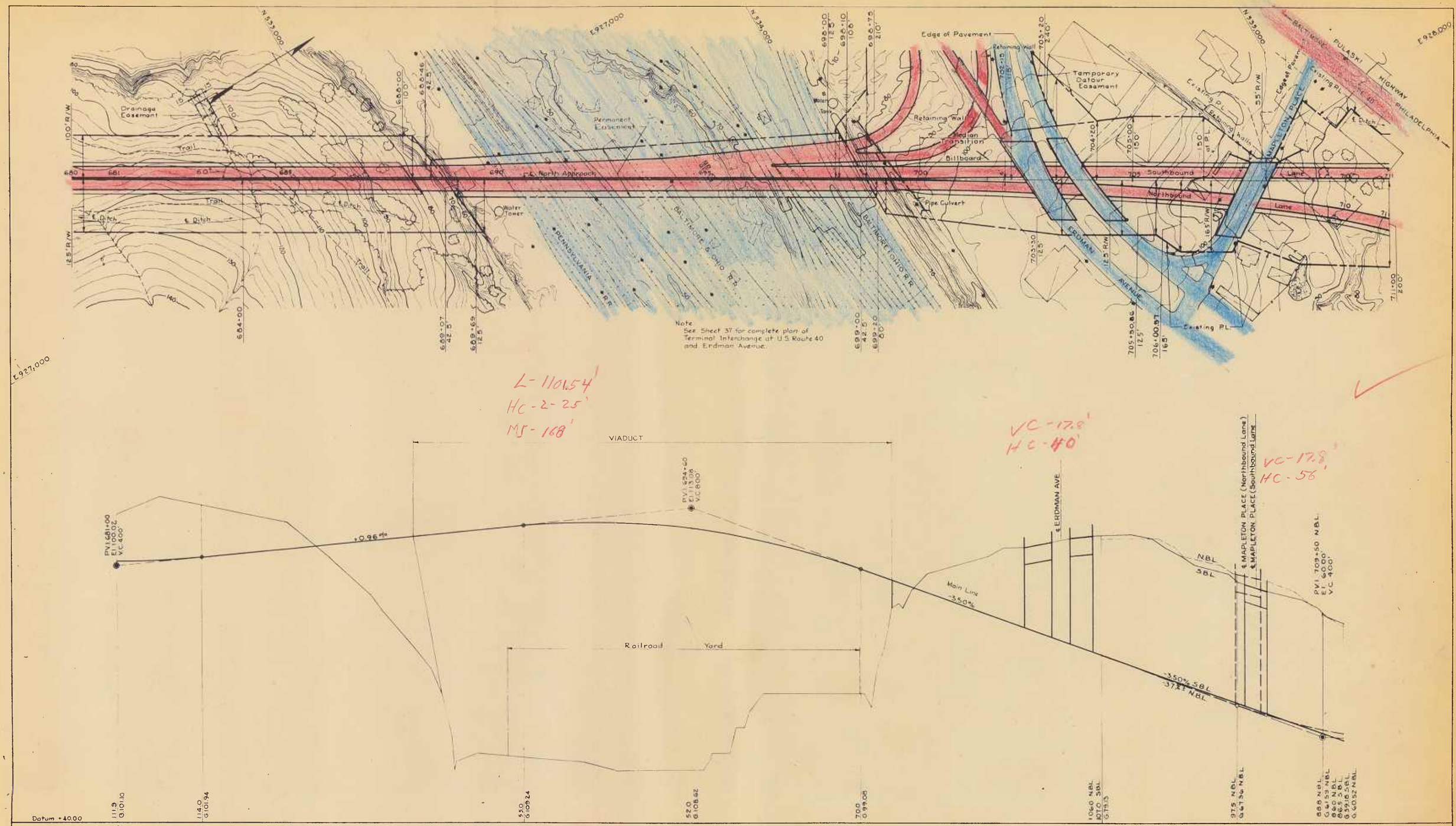
J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 621+00 TO STA. 651+00


N 550,000
N 551,000
N 552,000
E 926,000
Wall
Construction Easement
Extended P.L.
ALTAMONT
QUAY ST.
RAPPALLO ST.
EASTERN AVE.
Retaining Wall
Retaining Wall
Detour Easement
655+46
655+90
650
655
660
665
670
675
680
685
690
695
700
710
720
730
740
750
760
770
780
790
800
810
820
830
840
850
860
870
880
890
900
910
920
930
940
950
960
970
980
990
1000
1010
1020
1030
1040
1050
1060
1070
1080
1090



SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

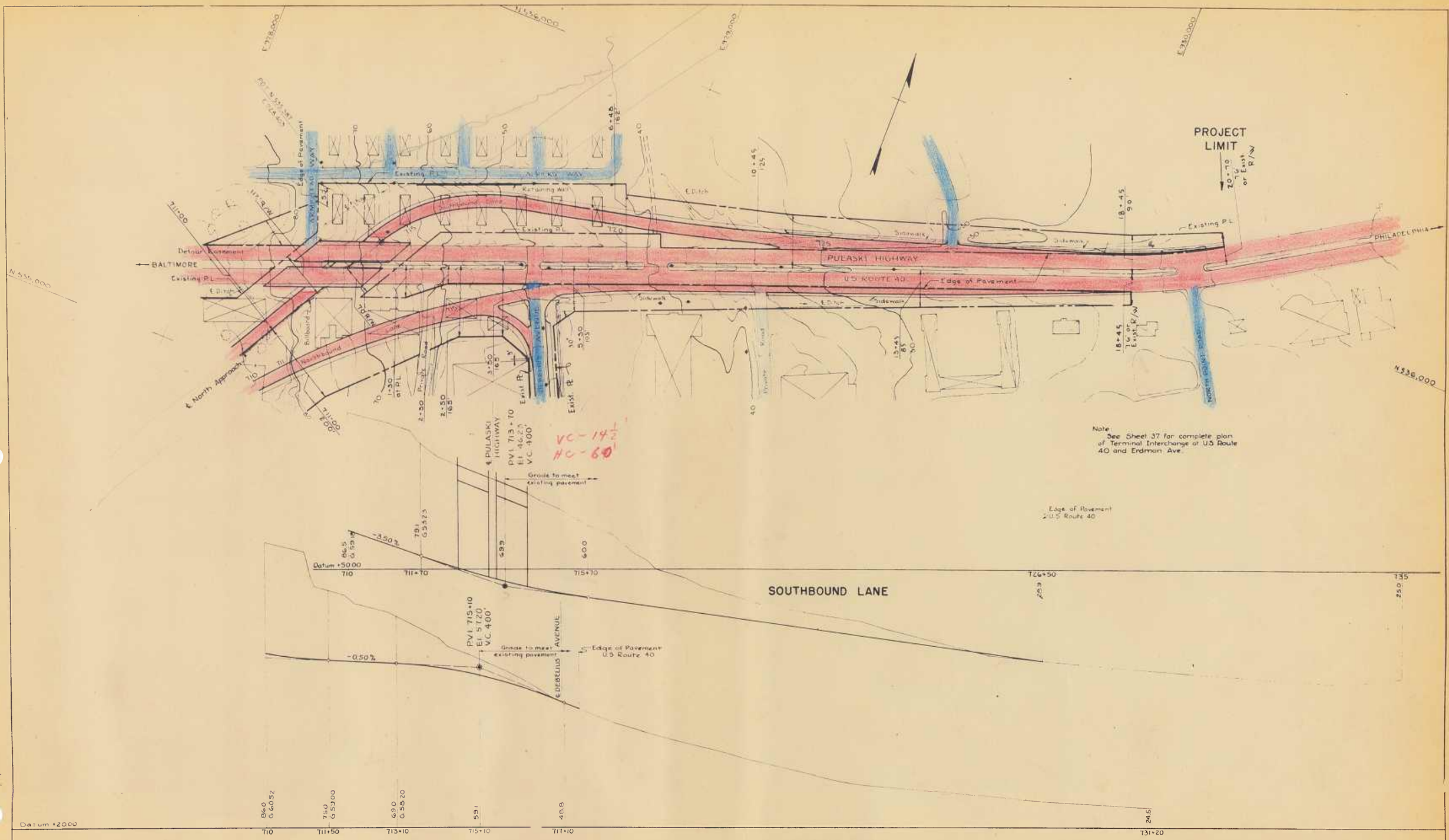
No.	Revisions	By	Date
2.	R.O.W. Dimensions Stas. 705 to 707 Rt. of ℄	G.V.	12-29-54
1.	R.O.W. Limits Sta's 705 to 707 Rt. of ℄	C.F.D.	12-23-54

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE – STA. 681+00 TO STA. 710+00



Note
See Sheet 37 for complete plan of Terminal Interchange at U.S. Route 40 and Erdman Ave.

SCALE
HORIZONTAL 100 0 100 200 300 400
VERTICAL 10 0 10 20 30 40

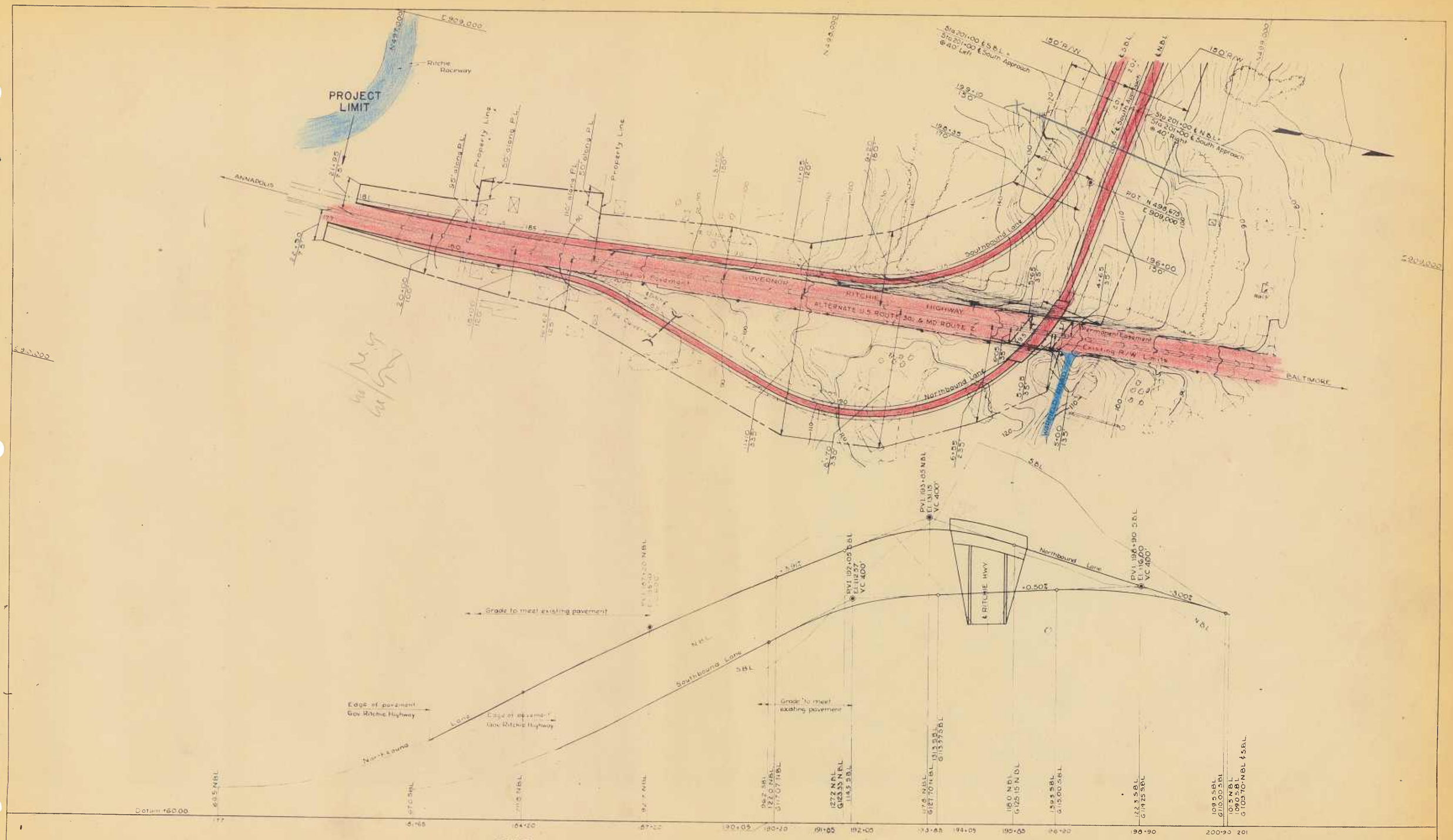
No.	Revisions	By	Date
2	R.O.W. Revised Stas 5+30 to 20+70	C.H.D.	4-19-55
1	R.O.W. Limits Revised Sta 5+30 to 20+70	G.V.	3-21-55

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

PLAN AND PROFILE — STA. 710+00 TO STA. 735+00



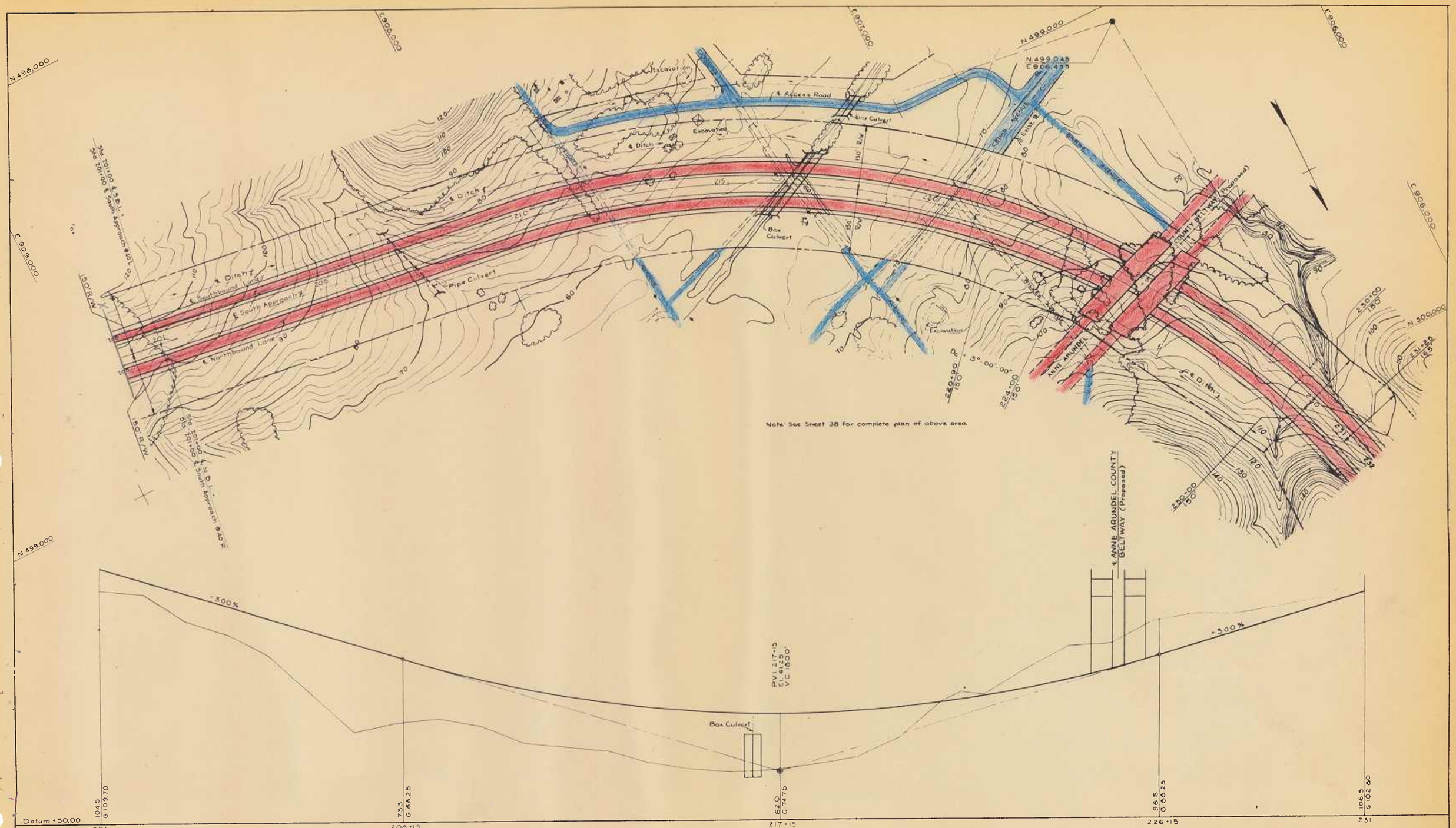
No	Revisions	By	Date
1	R.O.W. Dimensions Added		12 54

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)

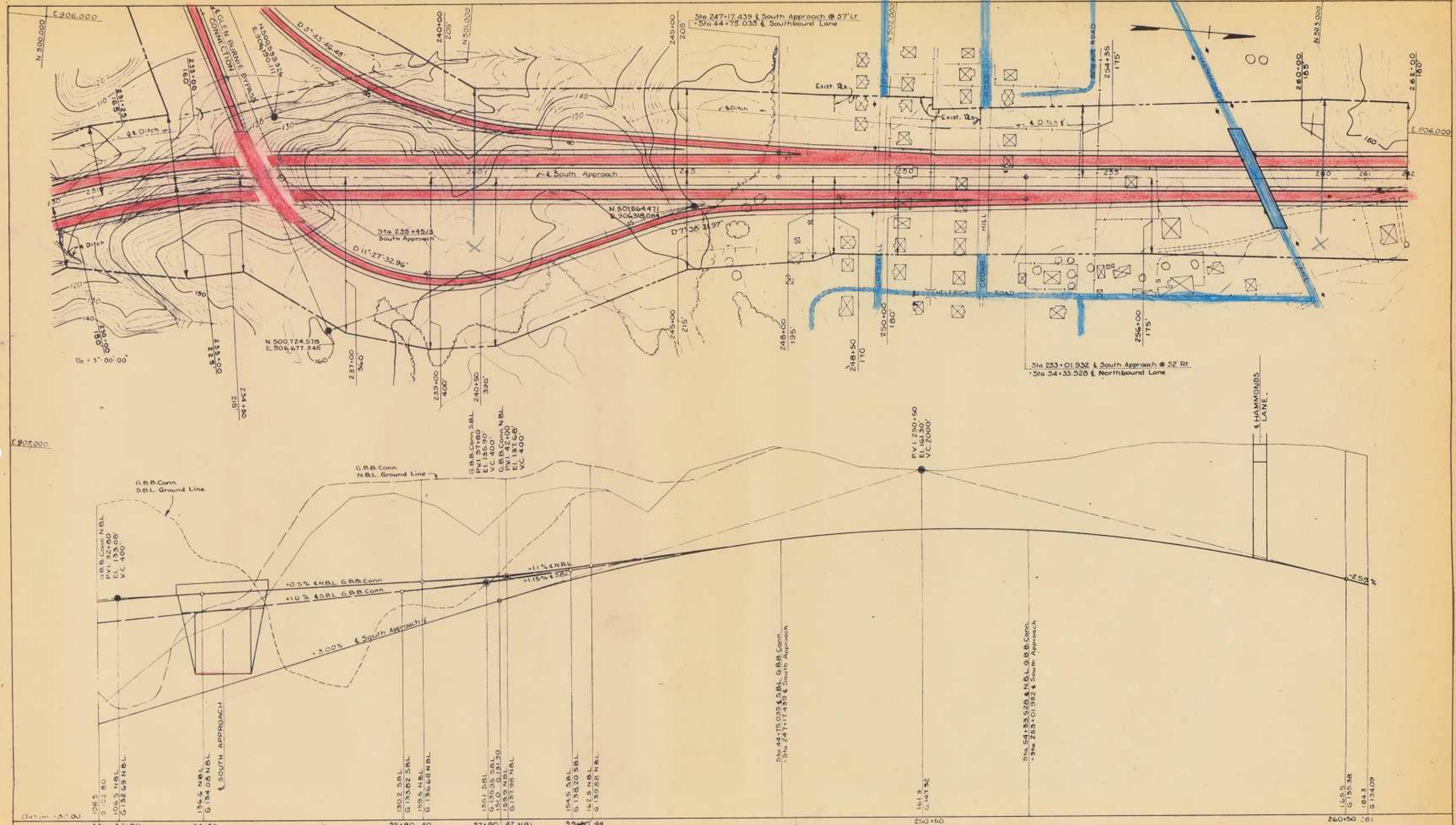
PLAN AND PROFILE — STA. 177+00 TO STA. 201+00



No.	Revisions	By	Date
4	R.O.W. Revised Stas 215 to 220+90	C.F.D.	4-29-55
3	Cedar Ave. ℄ Access Road - Location & R.O.W. Changed	F.C.G.	3-30-55
2	Perm. Easement Added Stas. 210+90 - 221+50	G.V.	2-11-55
1	R.O.W. Dimension Sta's. 224, 231-25	A.V.C.	12-29-54

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)
PLAN AND PROFILE — STA. 201+00 TO STA. 231+00



No.	Revisions	By	Date
6	Ramp Shoulders Added & R.O.W. Dimensions Revised	F.C.G.	4-22-55
5	South Approach Profile Changed to Alt. Line B Profile	F.C.G.	4-13-55
4	Glen Burnie Bypass Connection Profile Corrected	F.C.G.	4-1-55
3	Glen Burnie Bypass Connection Geometry & R.O.W.	F.C.G.	3-30-55
2	Profile for Alternate Line B, Glen Burnie Bypass Conn.	F.C.G.	2-18-55
1	R.O.W. Dimension Sta. 234+00	A.V.C.	12-29-54

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)
PLAN AND PROFILE – STA. 231+00 TO STA. 261+00

N 499,572.521
E 904,358.082

℄ GLEN BURNIE BYPASS CONNECTION

S.B.L.

N.B.L.

Variable ℄

℄ GLEN BURNIE BYPASS

℄ BALTIMORE ANNE ARUNDEL COUNTY BELTWAY

95

Δ 5° 00' 00"

D.C. 4°32' 503 G.B.B. Conn
D.T. 29°47' 300 G.B. Bypass

N 500,000

E 905,000

N 501,000

E 906,000

19+40 255

16+95 175

16+95 160

18+35 150

21+35 150

24+10 150

24+10 190

27+35 205

27+35 160

32+35 240

233+00 160

240+00 205

℄ Ditch

Δ 5° 43' 46.48"

Pipe Culvert

N 500,359.336
E 906,190.776

Δ 11° 27' 32.96"

237+00 360

234+50 215

N 500,724.578
E 906,677.345

233+00 225

℄ SOUTH APPROACH

G.B. Bypass
PVI 27+50
El 127.19
VC 1200

Note
Profile is not final; it is subject to change to tie in with the G.B. Bypass profile.

G.B. Bypass ℄

G.B. Conn ℄

+2.96% +0.52%

-0.52% S.B.L.

-0.52% N.B.L.

PVI 21+60 N.B.L.
El 119.06
VC 400

PVI 23+60 S.B.L.
El 121.14
VC 400

+1.27% N.B.L.

+1.04% S.B.L.

℄ Ground Line

S.B.L. Ground Line

N.B.L. Ground Line

PVI 32+80 N.B.L.
El 133.06
VC 400

PVI 37+60
El 139.50
VC 400

+0.57% N.B.L.

+1.15% S.B.L.

℄ N.B.L.

℄ SOUTH APPROACH

11+39.505	12+89.505	15+39.505
335.0 G 127.46 S.B.L. G.B.B. Conn ℄ (G 127.10 S.B.L. G.B. Bypass ℄)	1072 G 124.07 N.B.L. G.B. Bypass ℄ G 126.71 S.B.L. G.B.B. Conn ℄	965 G 122.41 N.B.L. G.B.B. Conn ℄ (G 122.77 N.B.L. G.B. Bypass ℄)

19+60	21+60	21+60	23+60	23+60	25+60	30+60	32+60	34+60	35+60	37+60	39+60	40+00
139.3 G 120.12 N.B.L.	144.0 G 123.16 S.B.L.	139.2 G 119.97 N.B.L.	115.1 G 121.92 S.B.L.	118.0 G 121.62 N.B.L.	130.7 G 123.22 S.B.L.	140.5 G 130.54 N.B.L.	106.5 G 132.69 N.B.L.	136.6 N.B.L. G 134.08 N.B.L.	130.2 S.B. G 133.82 S.B.	155.1 S.B.L. G 135.95 S.B.L.	154.5 S.B.L. G 136.20 S.B.L.	159.5 N.B.L. G 136.66 N.B.L.

Datum +90.00

SCALE

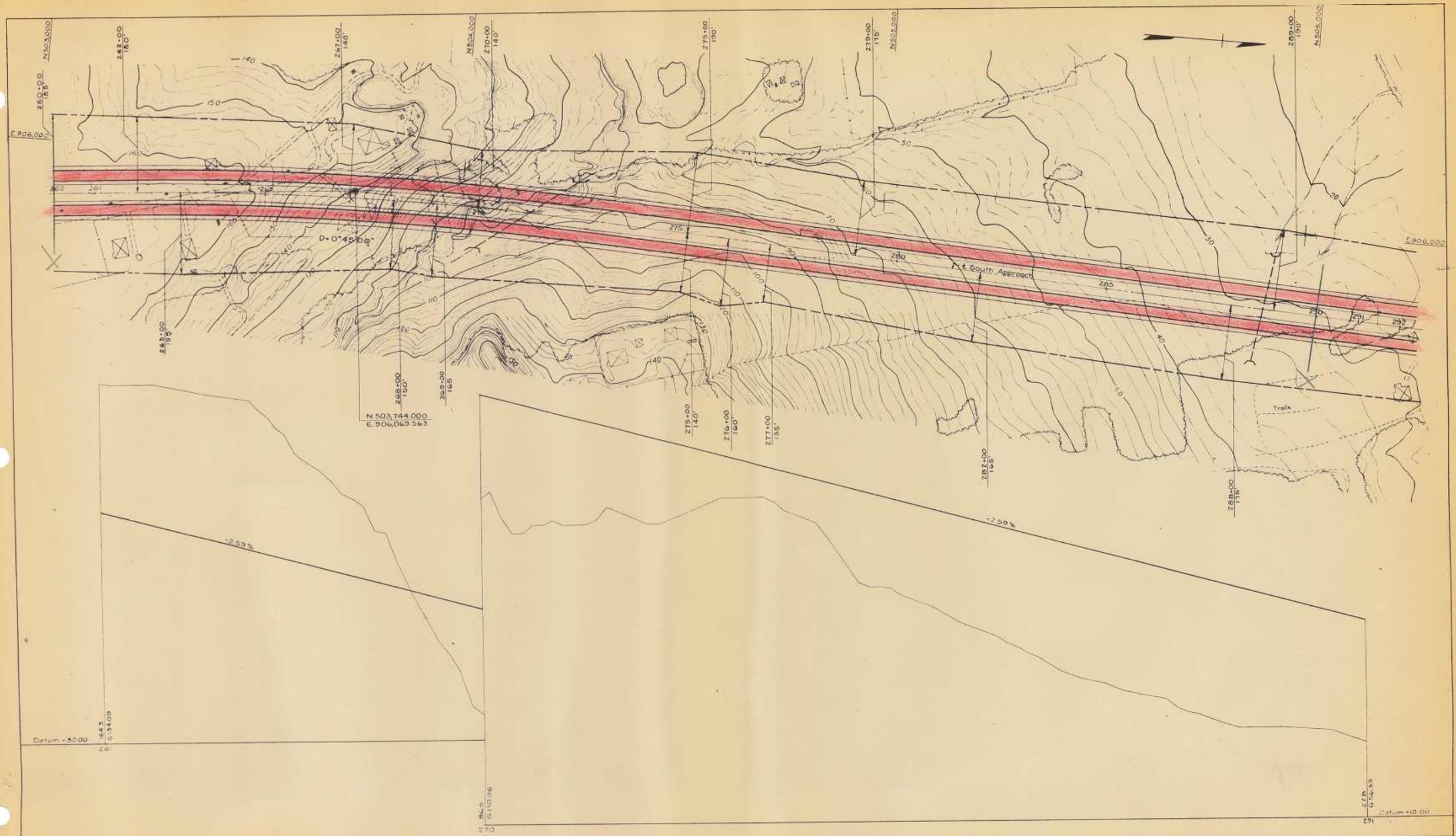
HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

NO	REVISIONS	BY	DATE
2	Ramp Shoulders Added	FCG	4 22 55
1	Profile Corrected - G.B. Bypass Interchange Added	FCG	4 6 55

J.E. GREINER CO
CONSULTING ENGINEERS
BALTIMORE, MD
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)
PLAN AND PROFILE - STA. 4+92.503 TO STA. 40+00



SCALE

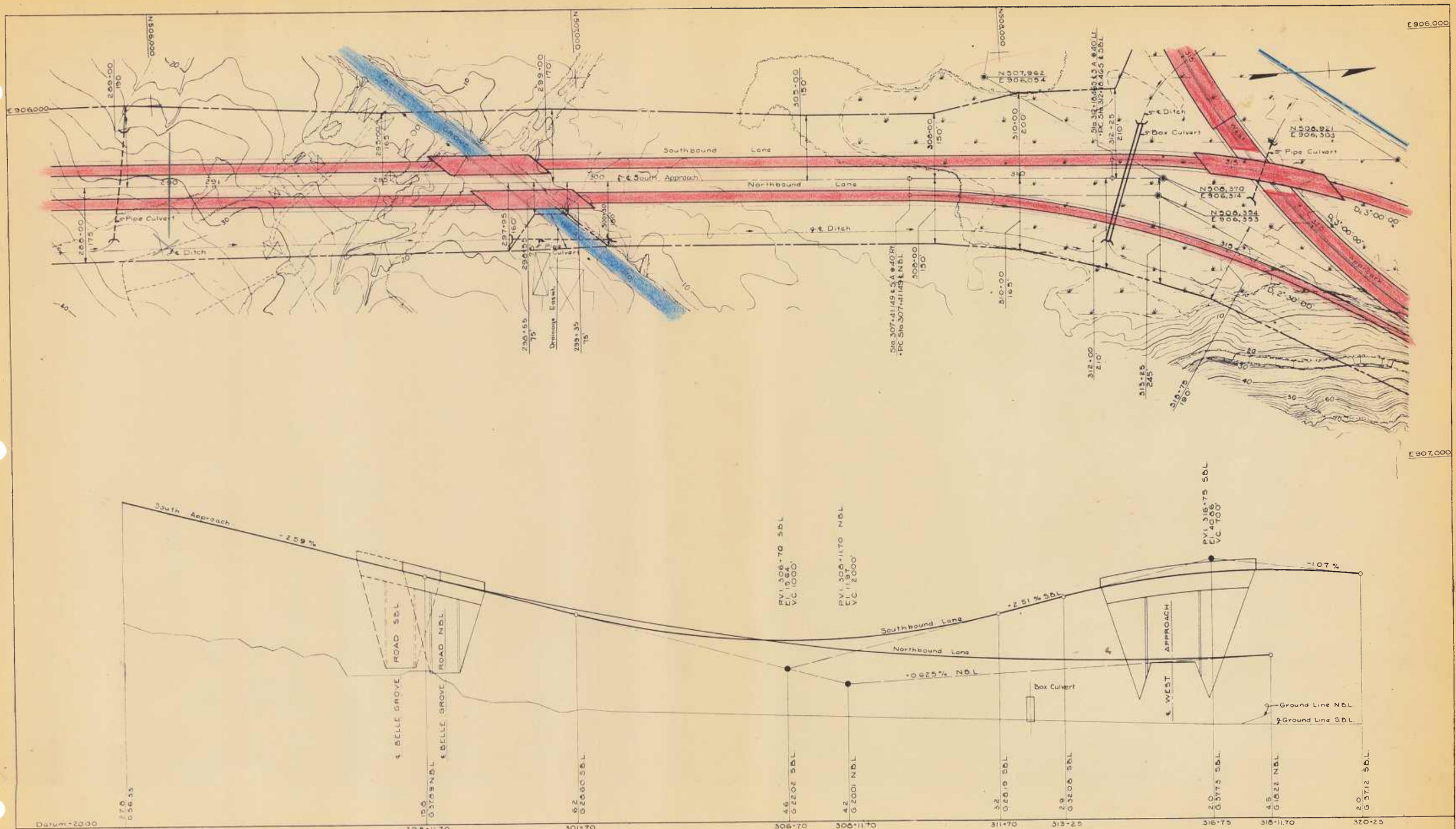
HORIZONTAL: 100 0 100 200 300 400

VERTICAL: 10 0 10 20 30 40

No	Revisions	By	Date
3.	South Approach Alignment & Profile changed to Alt B	F.C.G.	4-14-55
2.	Alternate Line B Data Added	F.C.G.	2-18-55
1.	Alignment, Grades & R.O.W. Revised Sta's 260 to 335	C.F.D.	2-1-55

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)
PLAN AND PROFILE — STA. 261+00 TO STA. 291+00



SCALE

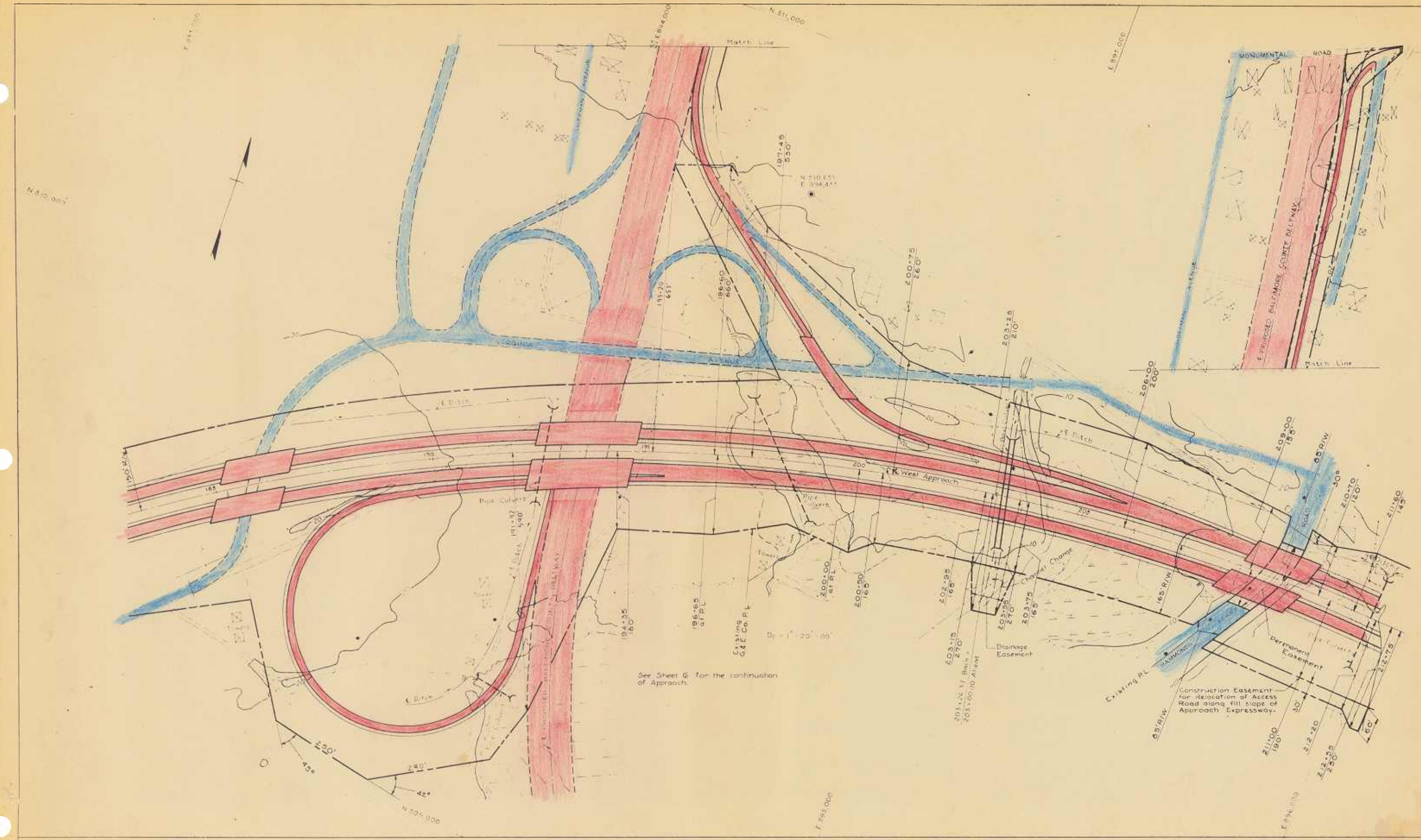
HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

NO	REVISIONS	BY	DATE
5.	South Approach Alignment Revised to Alternate Line B	AVC	4-22-55
4.	Alternate Line B Profile Revised	FCG	4-11-55
3.	Alternate Line B N.B.L Data Changed	AVC	3-24-55
2.	Alternate Line B Data Added: Alignment Changed	FCG	2-18-55
1.	Alignment, Grades & R.O.W. Revised Sta 260 to 355	C.F.D.	2-1-55

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
(SOUTH APPROACH)
PLAN AND PROFILE — STA. 291+00 TO STA. 321+00



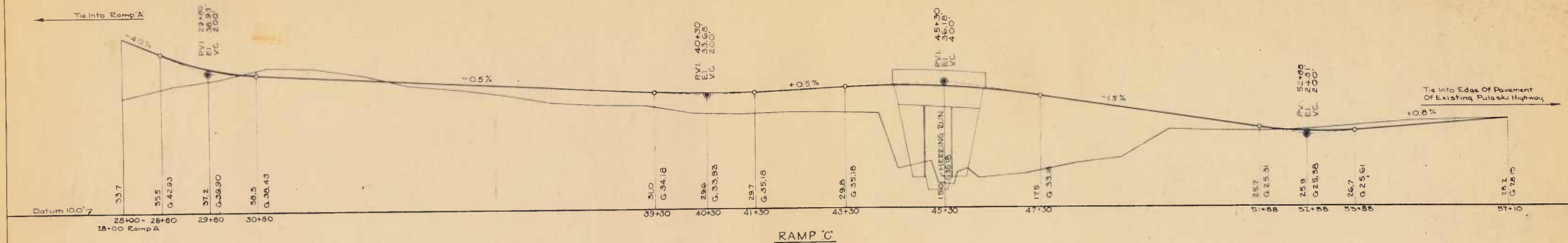
SCALE

100 0 100 200 300 400

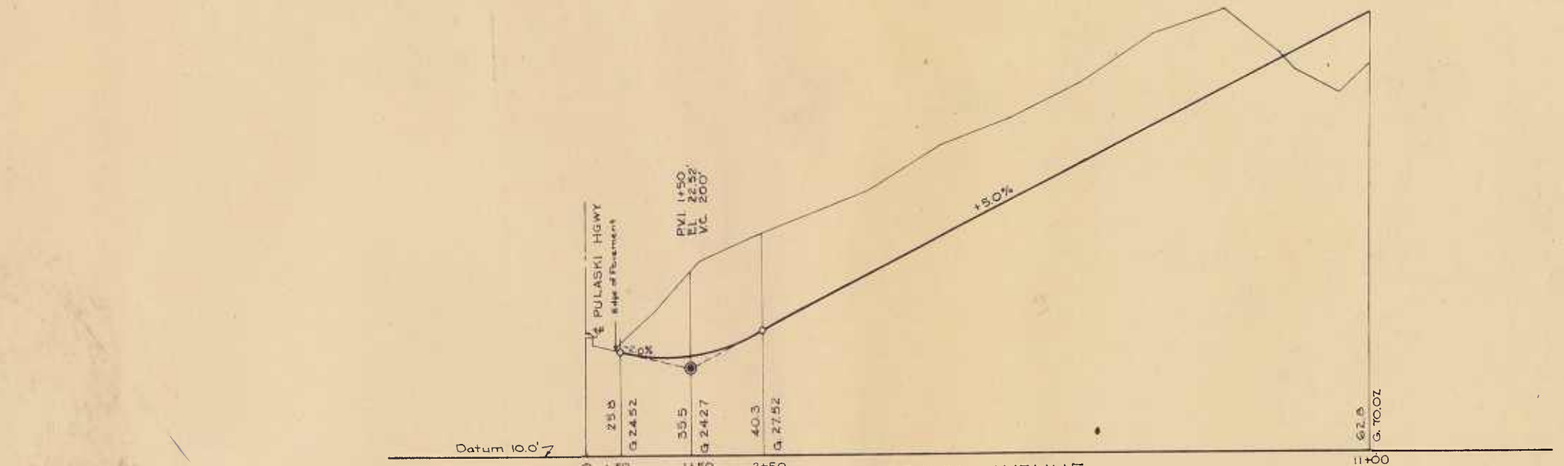
No.	Revisions	By	Date
3.	R.o.W. Limits Rev. @ Sta. 185 South of ℄	C.F.D.	4-19-55
2.	R.O.W. Dimensions at Beltway Interchange	C.F.D.	1-20-55
1.	R.O.W. Dimensions Sta. 204-208 R+of ℄	A.V.C.	12-28-54

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

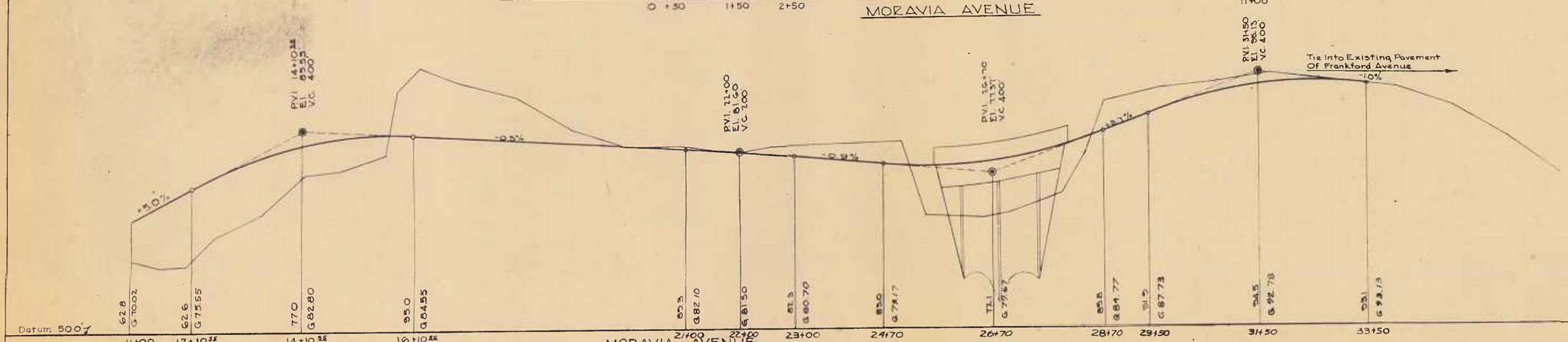
STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
BALTIMORE COUNTY BELTWAY INTERCHANGE



RAMP 'C'



MORAVIA AVENUE



MORAVIA AVENUE

SCALE

HORIZONTAL 100 0 100 200 300 400

VERTICAL 10 0 10 20 30 40

No.	REVISIONS	BY	DATE

RUMMEL, KLEPPER & KAHL
CONTRACTING ENGINEERS
BALTIMORE, MARYLAND JAN. 1956

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
DESIGN SECTION D-7
PROFILE BOWLEY'S LANE INTERCHANGE

SHEET 7 OF 7

E 898,000

N 510,000

E 900,000

N 510,000

E 901,000

N 509,000

SEE STATE ROADS COMM. R/W PLATS No. 12773 & 12774

SEE STATE ROADS COMM. R/W PLATS No. 12773 & 12774

N 509,000

E 898,000

E 900,000

Existing Property Line

See Sheet 8 for the continuation of Approach.

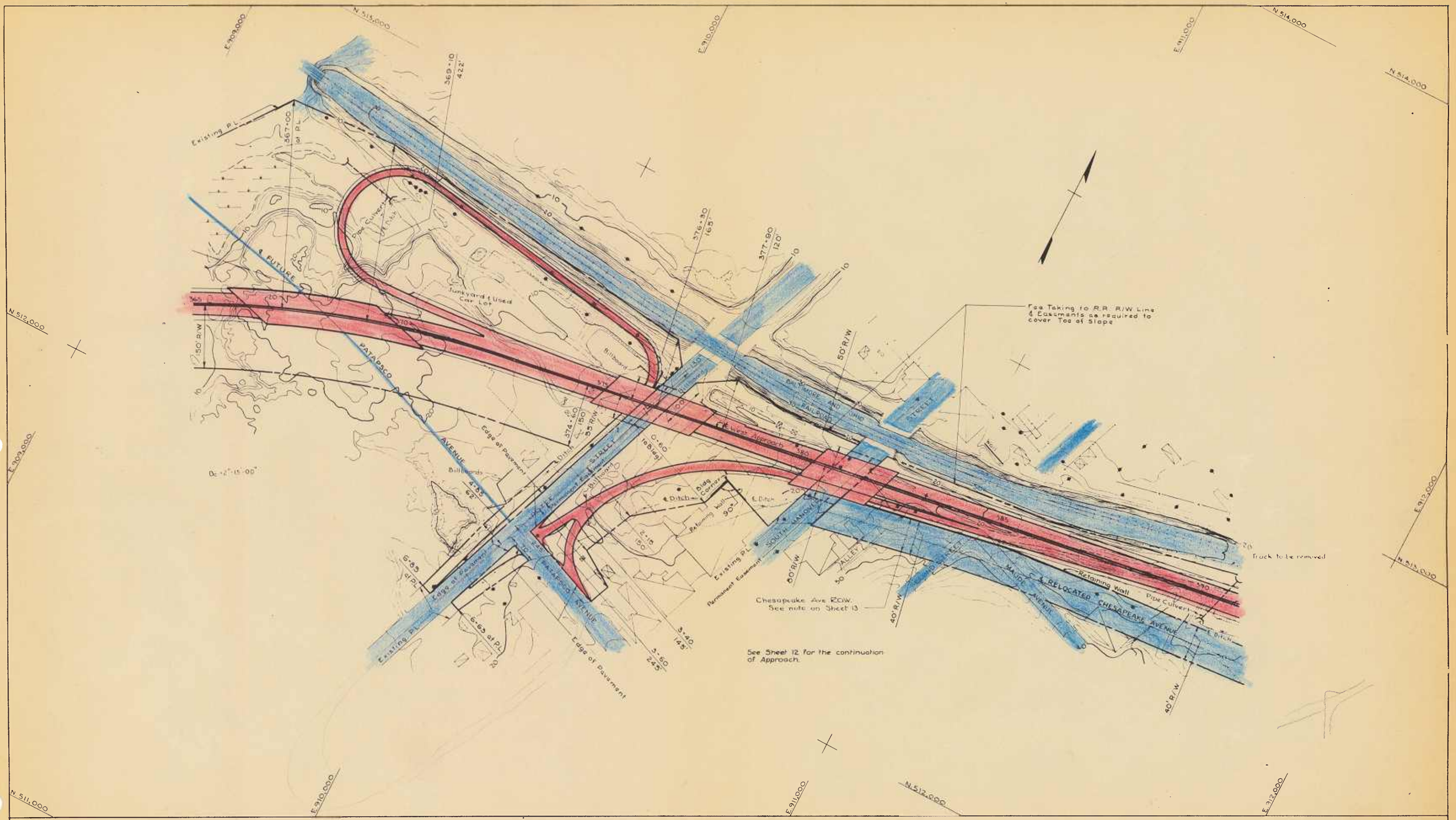
SCALE

100 0 100 200 300 400

No.	Revisions	By	Date
2	SRC Std RoW Rat N°3 Rev	CFD	4 22 54
1	R.O.W. Dimension Sta 239+20	AVC	12 29 54

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
BALTIMORE-WASHINGTON EXPRESSWAY INTERCHANGE



SCALE

100 0 100 200 300 400

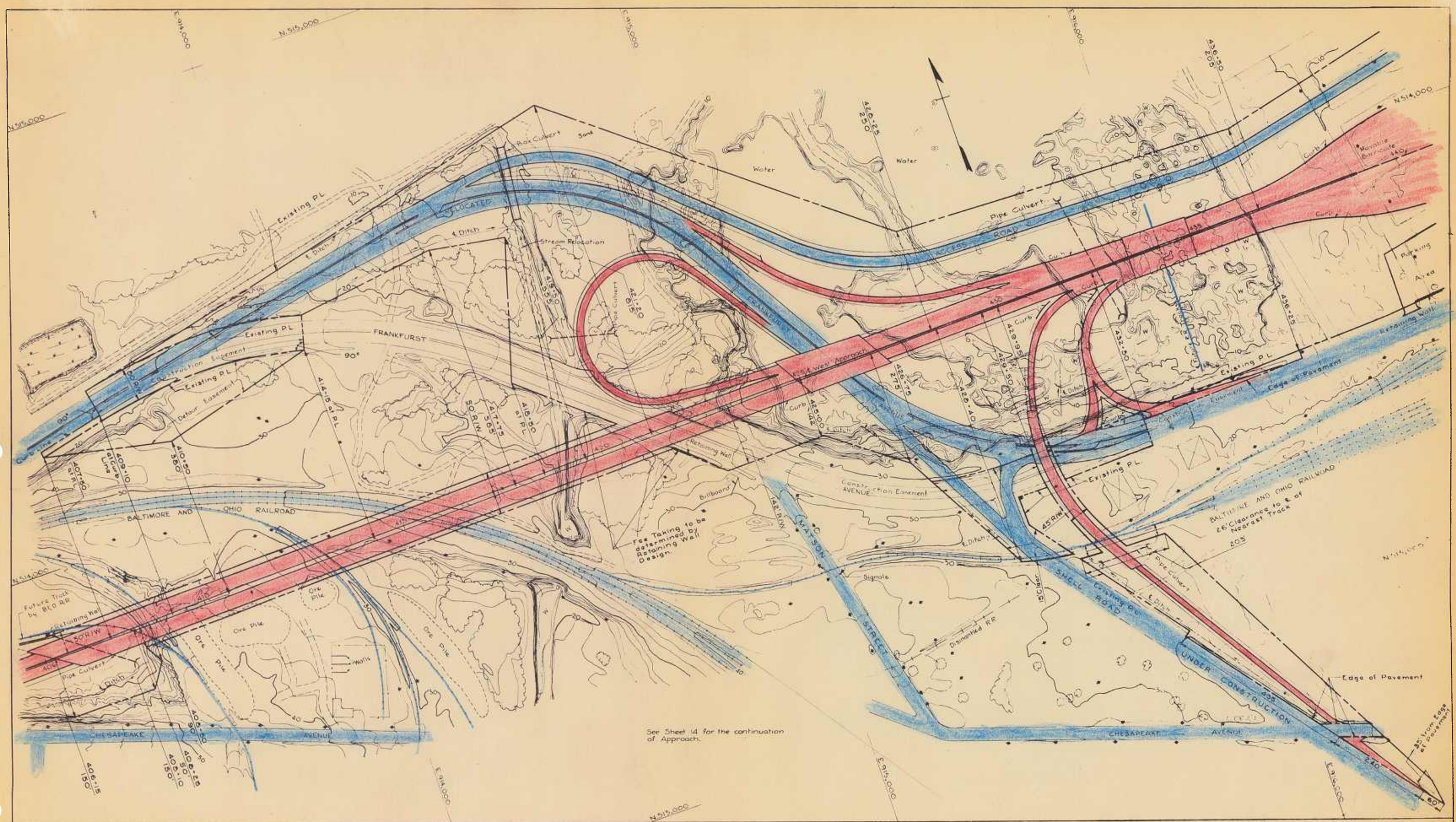
No	Revisions	By	Date
1	R.O.W. Dimension Added		12 54

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

POTEE STREET INTERCHANGE



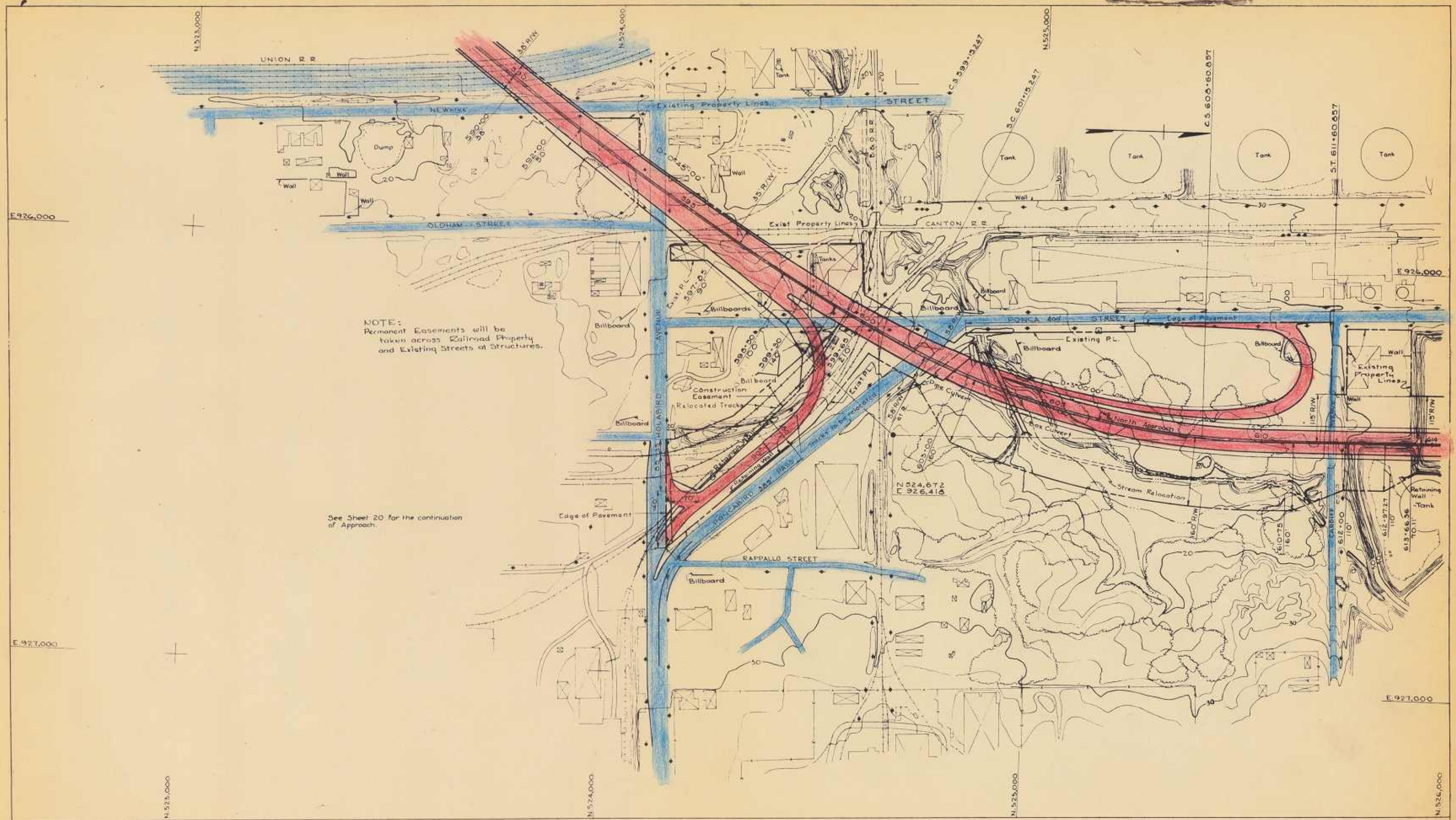
SCALE

100 0 100 200 300 400

No.	Revisions	By	Date
2	R.O.W. Limits Rev. Stas. 407+60 & 412+70	C.F.D.	4 19 55
1	R.O.W. Dimensions Added		12 54

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
SHELL ROAD & FRANKFURST AVENUE INTERCHANGE



No	Revisions	By	Date
4.	R.O.W. dims. Rev. Sta. 601 to Sta. 612. East of ℄	AVC	5-10-55
3.	R.O.W. dims. Rev. at Sta. 590 & one added at Sta. 605	GV	4-22-55
2.	On-Ramp Revised	AVC	4-6-55
1.	Horiz. Alignment & R.O.W. Sta. 590 to 612	AVC	3-14-55

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
HOLABIRD AVENUE INTERCHANGE

N 526,000 N 527,000 N 528,000 N 529,000

E 926,000 E 927,000

NEWKIRK STREET

OLDHAM STREET

PONCA STREET

BOSTON STREET

HUDSON STREET

WILKENS AVENUE

PAPPALO STREET

Curb Lines

Existing P.L.

Existing Prop. Corner

Existing Property Corner

Permanent Easement

Retaining Wall

Billboard

Tank

Pipes

Pipe

Tower

Pipe Culvert

Trail

Flagpole

School

Tanks

Drainage Easement

Construction Easement

Existing P.L.

Dike walls to be reconstructed as required to provide existing reservoir volume for Oil Storage Tanks.

Two pipe utility tunnels to be constructed according to location and details to be worked out with Standard Oil Co.

See Sheet 21 for the continuation of Approach

SCALE

100 0 100 200 300 400

No.	Revisions	By	Date
1.	R.O.W. Dimension Sta 635+00, 637+04	AVC	12-29-54

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
O'DONNELL STREET INTERCHANGE

E. 925,000

N. 530,000

N. 531,000

N. 532,000

E. 926,000

E. 927,000

LOMBARD STREET

Edge of Pavement

Existing P.L.

Billboard

Trail

Bus Termina

Wall

Ditch

Retaining Walls

℄ North Approach

℄ Ditch

Construction Easement

EASTERN AVENUE

BALTIMORE STREET

RAPPAHANNOCK STREET

CHARLES P.C.

TRANSIT COMPANY

Existing P.L.

Detour Easement

See Sheet 22 for the continuation of Approach.

N 531,345
E 926,142

℄ Future BAY VIEW AVENUE

Pipe Culvert

100' R/W

Dc = 3°-00-00"

N. 530,000

E. 927,000

N. 531,000

N. 532,000

SCALE

100 0 100 200 300 400

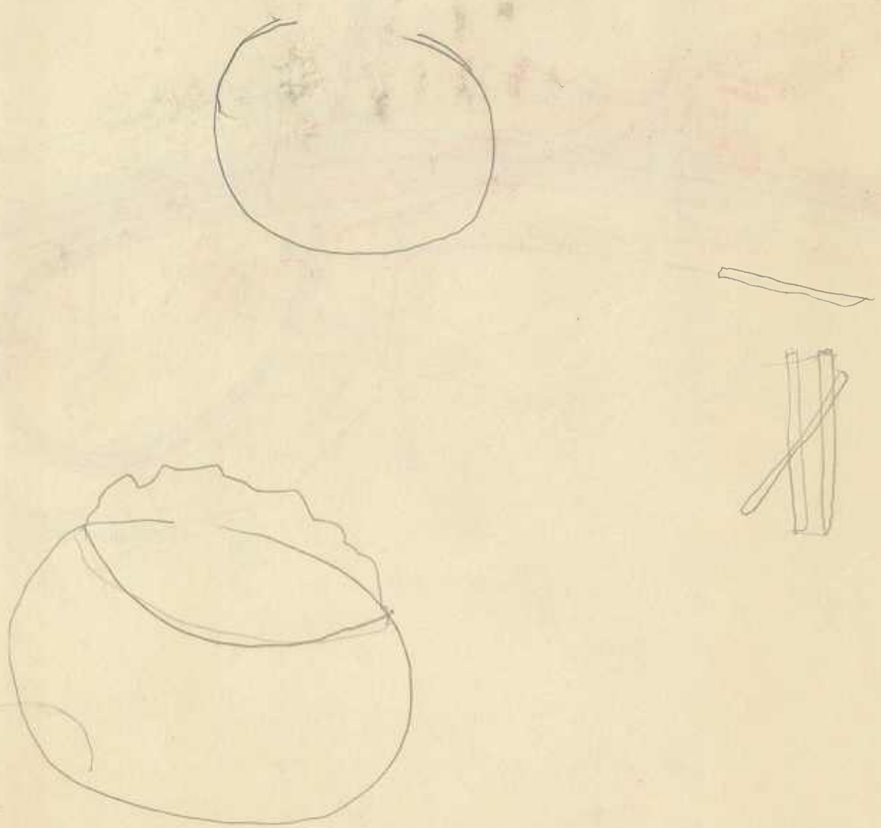
No.	Revisions	By	Date
1	R.O.W. Dimensions Added		12 54

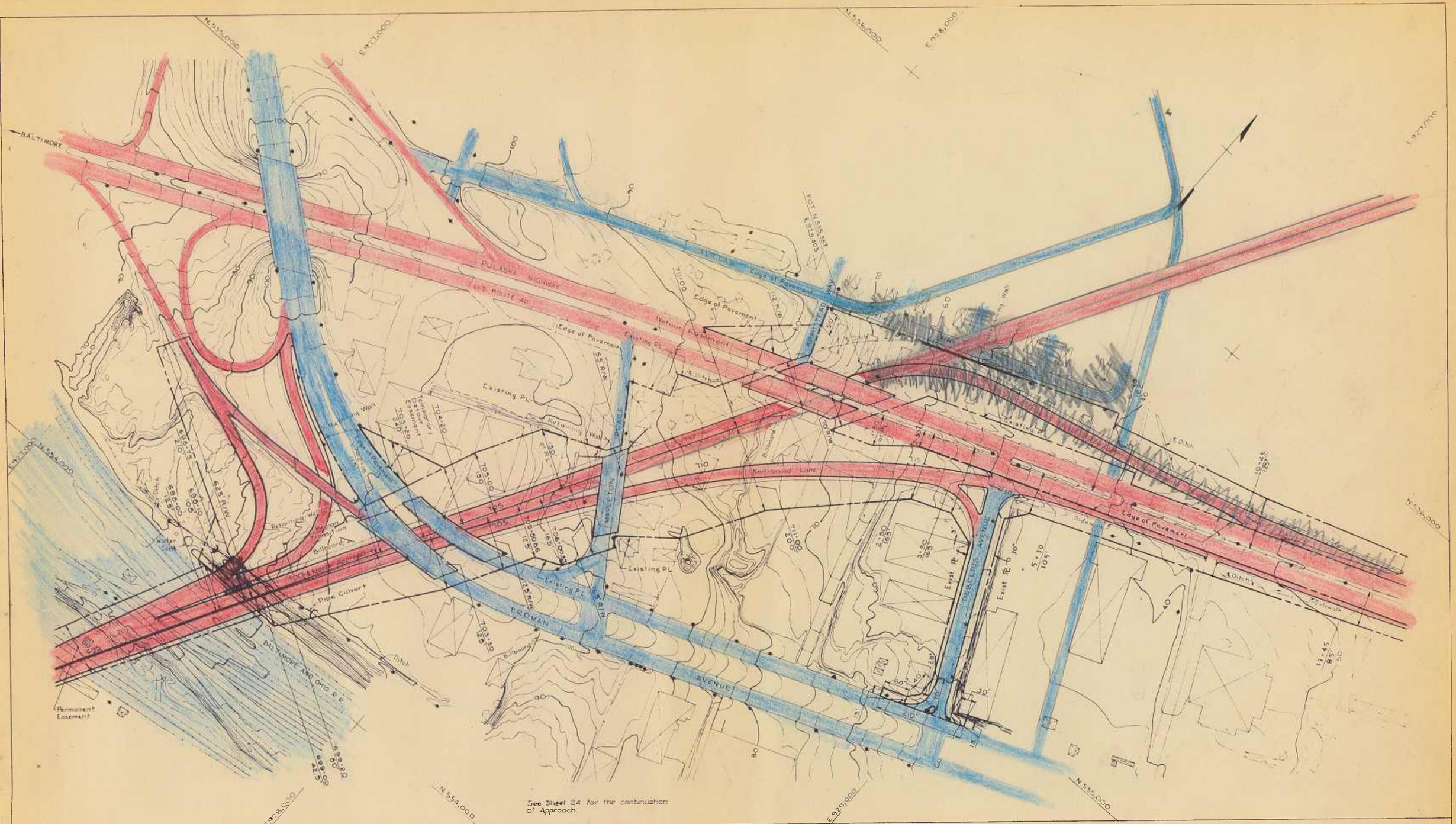
J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

LOMBARD STREET INTERCHANGE





SCALE

100 0 100 200 300 400

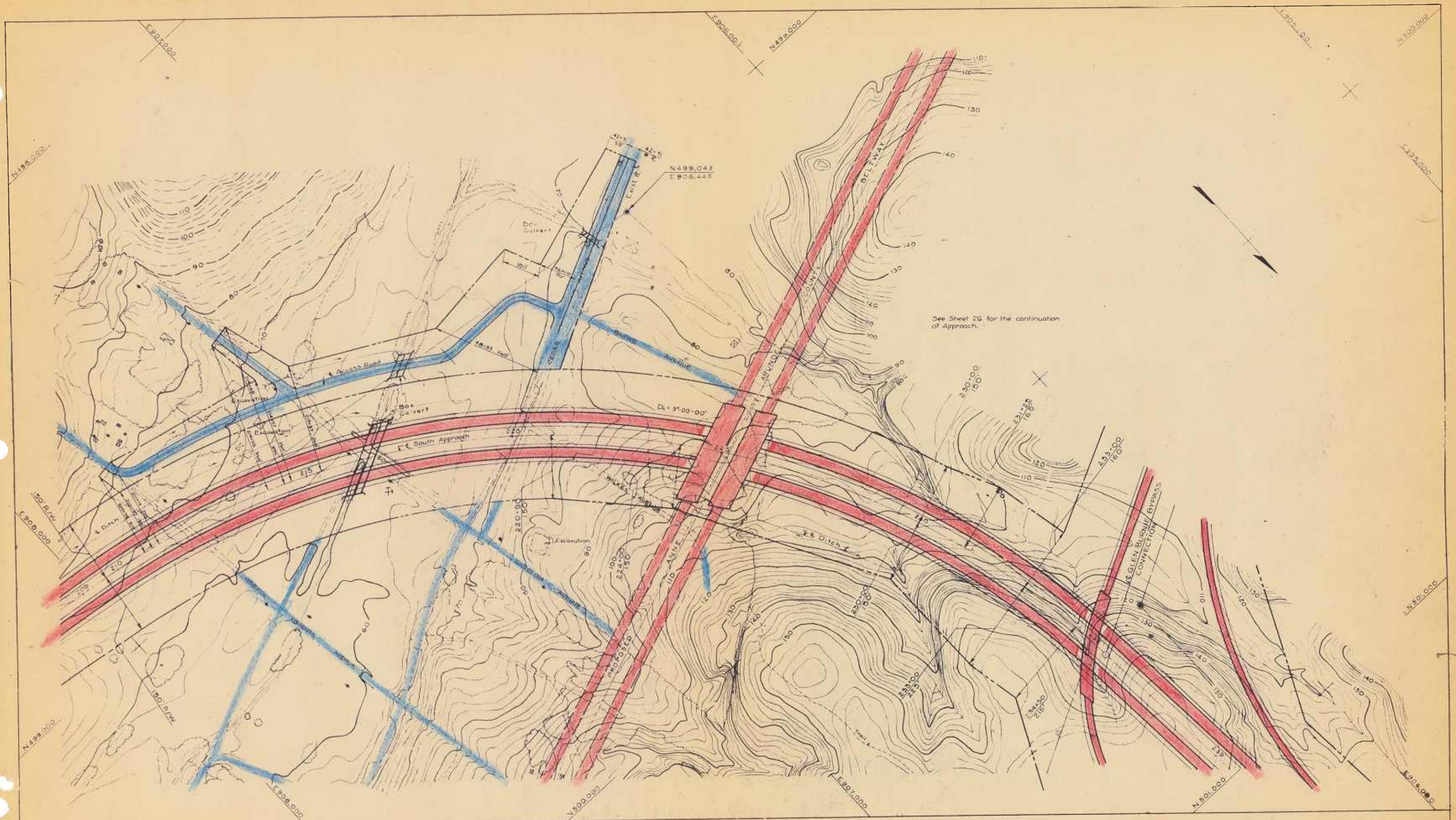
No	Revisions	By	Date
4	R.O.W. Revised Stas. 5+30 to 13+45	C.F.D.	4 1955
3	R.O.W. Limits Revised Sta 5+30 to 20+70	G.V.	22 Mar 55
2	R.O.W. Dimensions Sta's - 705 to 707 Rt of ℄	A.V.C.	12-29-54
1	R.O.W. Limits Sta's - 705 to 707 Rt of ℄	A.V.C.	12-22-54

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

STATE OF MARYLAND
STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

TERMINAL INTERCHANGE: U.S. ROUTE 40 AND ERDMAN AVENUE



SCALE

100 0 100 200 300 400

No.	Revisions	By	Date
3	R.o.W. Revised Stas. 215 to 220+90	C.F.D.	4-29-55
2	Cedar Ave., Access Road, Glen Burnie Bypass Conn.	F.C.G.	3-30-55
1	Perm. Easement Added Sta's. 210+90 - 221+50	G.V.	2-11-55

J. E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MD.
OCTOBER 1954

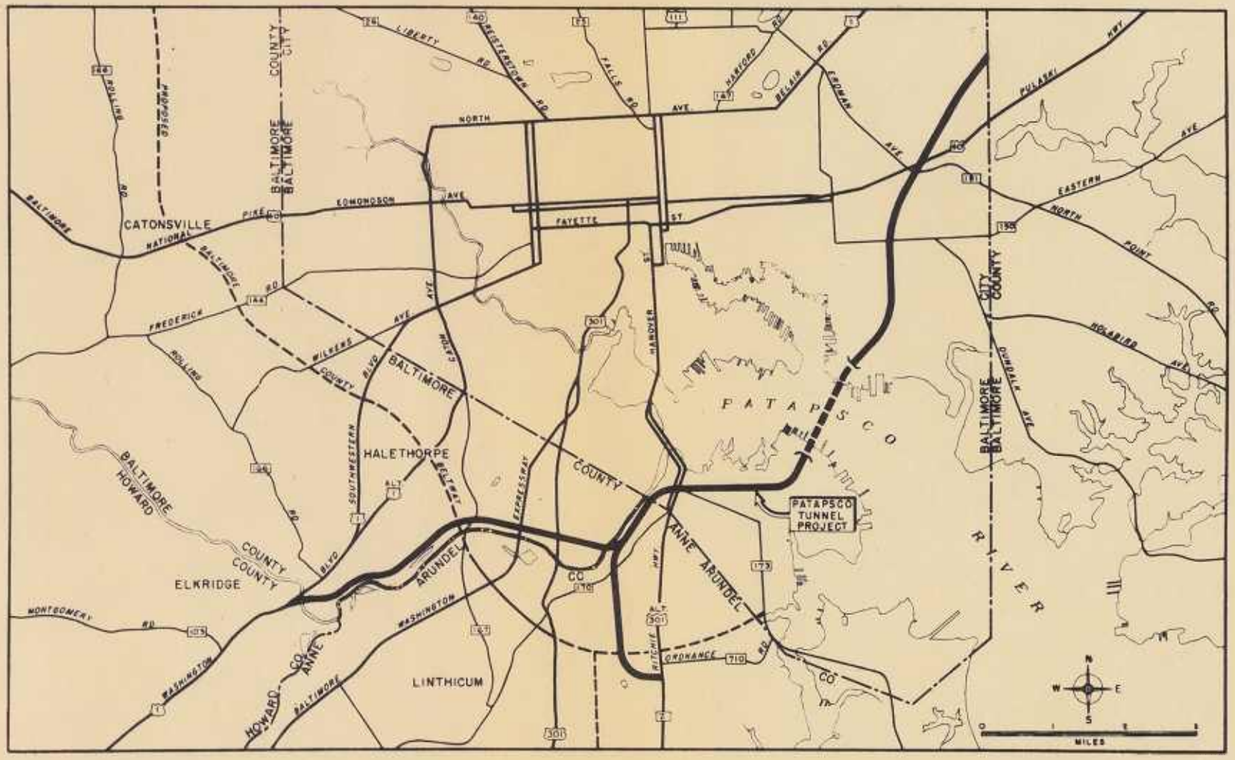
STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
ANNE ARUNDEL COUNTY BELTWAY CROSSING

STATE OF MARYLAND

STATE ROADS COMMISSION

PATAPSCO TUNNEL PROJECT

DESIGN SECTION D-7



J.E.GREINER COMPANY – CONSULTING ENGINEERS

BALTIMORE, MARYLAND

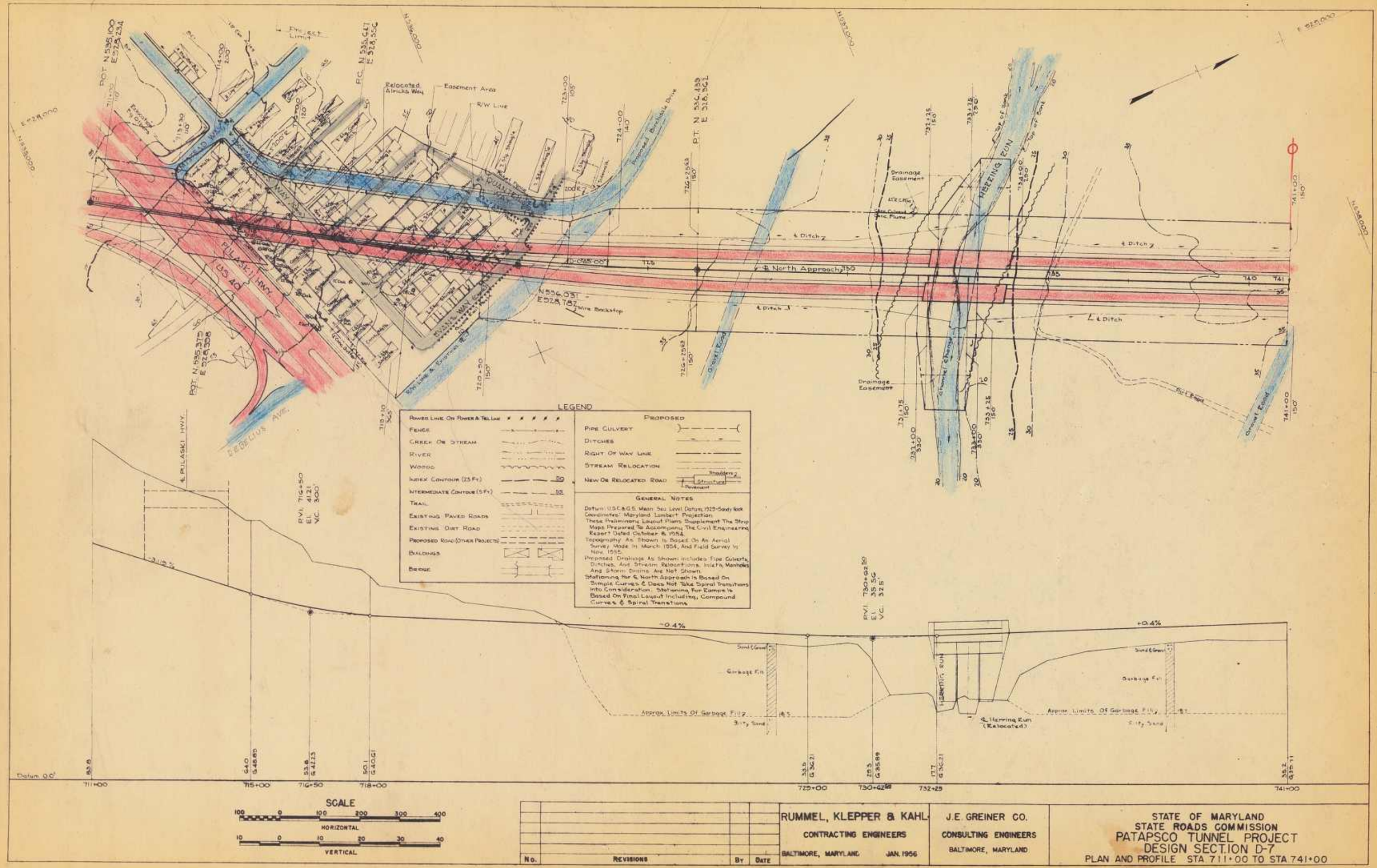
RUMMEL, KLEPPER & KAHL – CONTRACTING ENGINEERS

BALTIMORE, MARYLAND

SUBMITTED JANUARY 18, 1956.

RUMMEL, KLEPPER & KAHL

BY E.E. Rummel



LEGEND

Power Line Or Power & Tel Line	
Fence	
Creek Or Stream	
River	
Woods	
Index Contour (25 Ft.)	
Intermediate Contour (5 Ft.)	
Trail	
Existing Paved Roads	
Existing Dirt Road	
Proposed Road (Other Projects)	
Buildings	
Bridge	

PROPOSED

Pipe Culvert	
Ditches	
Right Of Way Line	
Stream Relocation	
New Or Relocated Road	Shoulders, Structure, Pavement

GENERAL NOTES

Datum: U.S.C.& G.S. Mean Sea Level Datum, 1929 - Sandy Hook
Coordinates: Maryland Lambert Projection
These Preliminary Layout Plans Supplement The Strip Maps Prepared To Accompany The Civil Engineering Report Dated October 8, 1954.
Topography As Shown Is Based On An Aerial Survey Made In March 1954, And Field Survey In Nov. 1955.
Proposed Drainage As Shown Includes Pipe Culverts, Ditches, And Stream Relocations. Inlets, Manholes And Storm Drains Are Not Shown.
Stationing For & North Approach Is Based On Simple Curves & Does Not Take Spiral Transitions Into Consideration. Stationing For Ramps Is Based On Final Layout Including, Compound Curves & Spiral Transitions

SCALE

HORIZONTAL 100 0 100 200 300 400

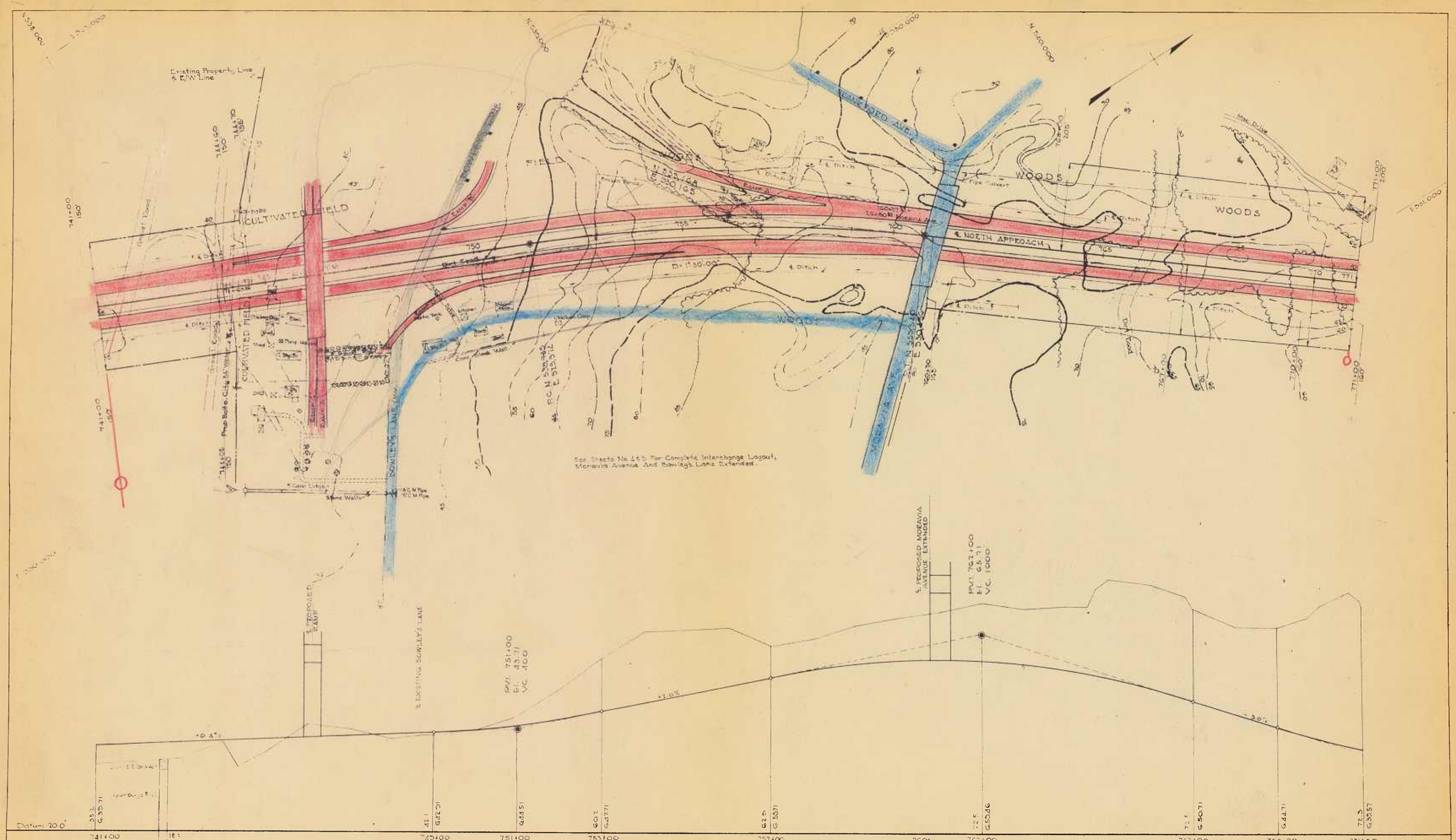
VERTICAL 10 0 10 20 30 40

No.	Revisions	By	Date

RUMMEL, KLEPPER & KAHL
CONTRACTING ENGINEERS
BALTIMORE, MARYLAND JAN. 1956

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
DESIGN SECTION D-7
PLAN AND PROFILE STA 711+00 TO STA 741+00



SCALE

HORIZONTAL: 100 0 100 200 300 400

VERTICAL: 10 0 10 20 30 40

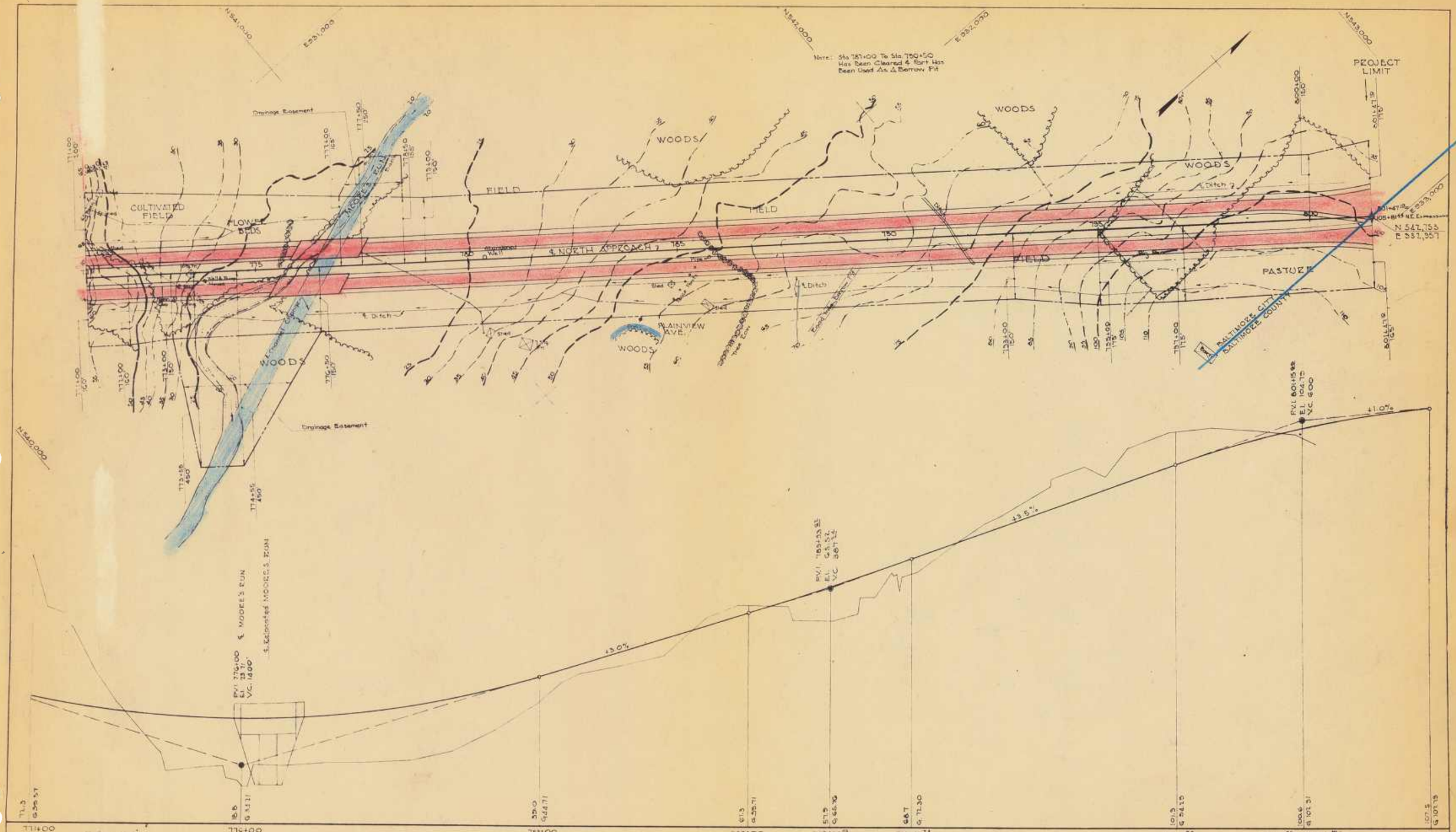
No.	Revisions	By	Date

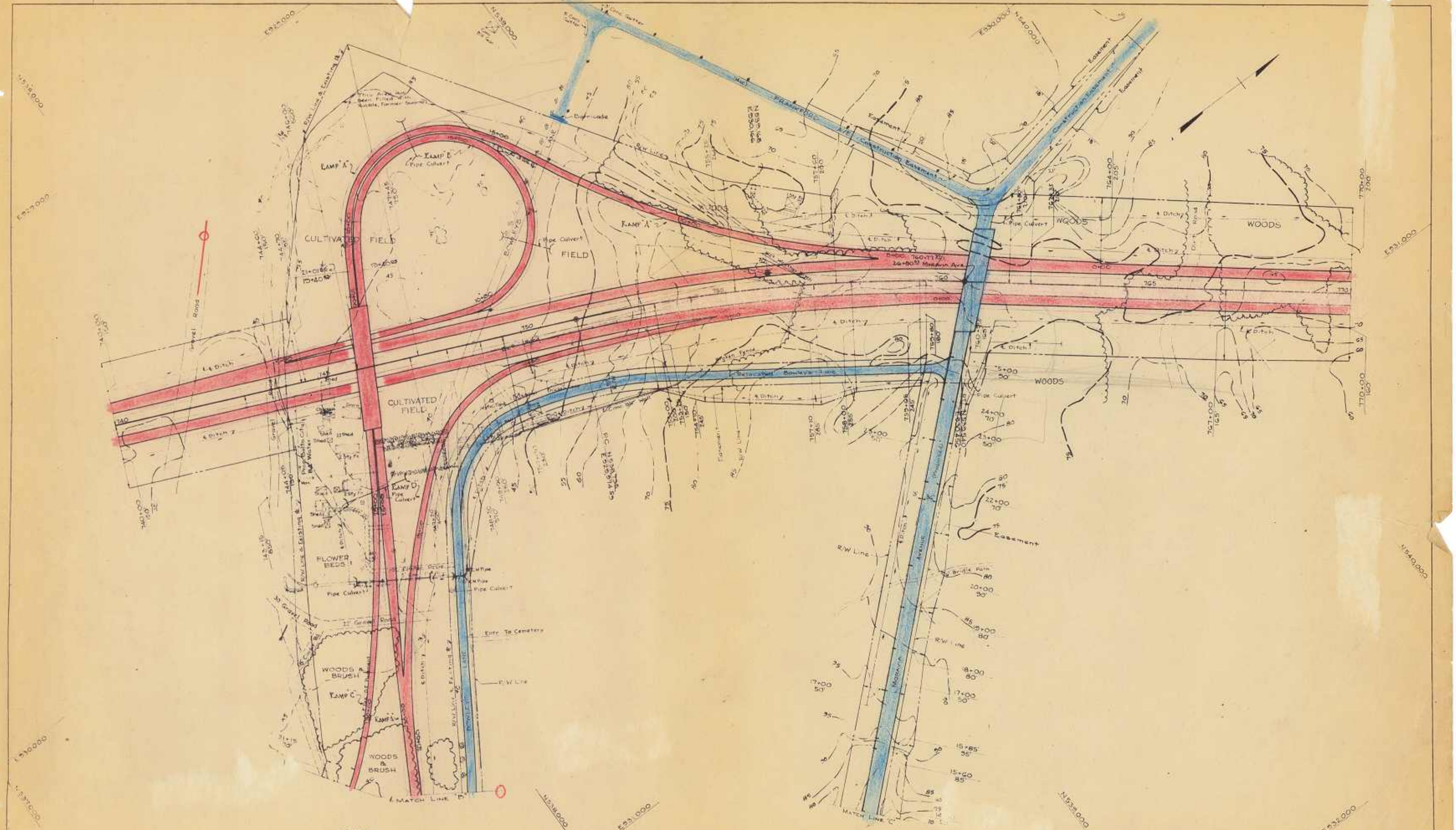
RUMMEL, KLEPPER & KAHL
CONTRACTING ENGINEERS
BALTIMORE, MARYLAND JAN. 1956

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
DESIGN SECTION D-7
PLAN AND PROFILE STA. 741+00 TO STA. 771+00

SHEET 2 OF 7


N 541,000
E 531,000
N 542,000
E 532,000
N 543,000
Note: Sta 787+00 To Sta 790+50 Has Been Cleared & Part Has Been Used As A Borrow Pit
PROJECT LIMIT
Drainage Easement
WOODS
FIELD
CULTIVATED FIELD
FLOWER BEDS
MOORE'S RUN
NORTH APPROACH
PLAINVIEW AVE.
PASTURE
BALTIMORE CITY
BALTIMORE COUNTY
N 547,753
E 532,957
PVI 776+00
El. 23.71
VC 1400'
PVI 801+15.88
El. 104.75
VC 600
PVI 789+33.55
El. 65.54
VC 3867.74
+3.0%
+1.07%
+3.5%
Datum 100'
SCALE
HORIZONTAL
VERTICAL
RUMMEL, KLEPPER & KAHL
CONTRACTING ENGINEERS
BALTIMORE, MARYLAND JAN. 1956
J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND
NO. REVISIONS BY DATE
STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
DESIGN SECTION D-7
PLAN AND PROFILE STA 771+00 TO STA 801+47.10

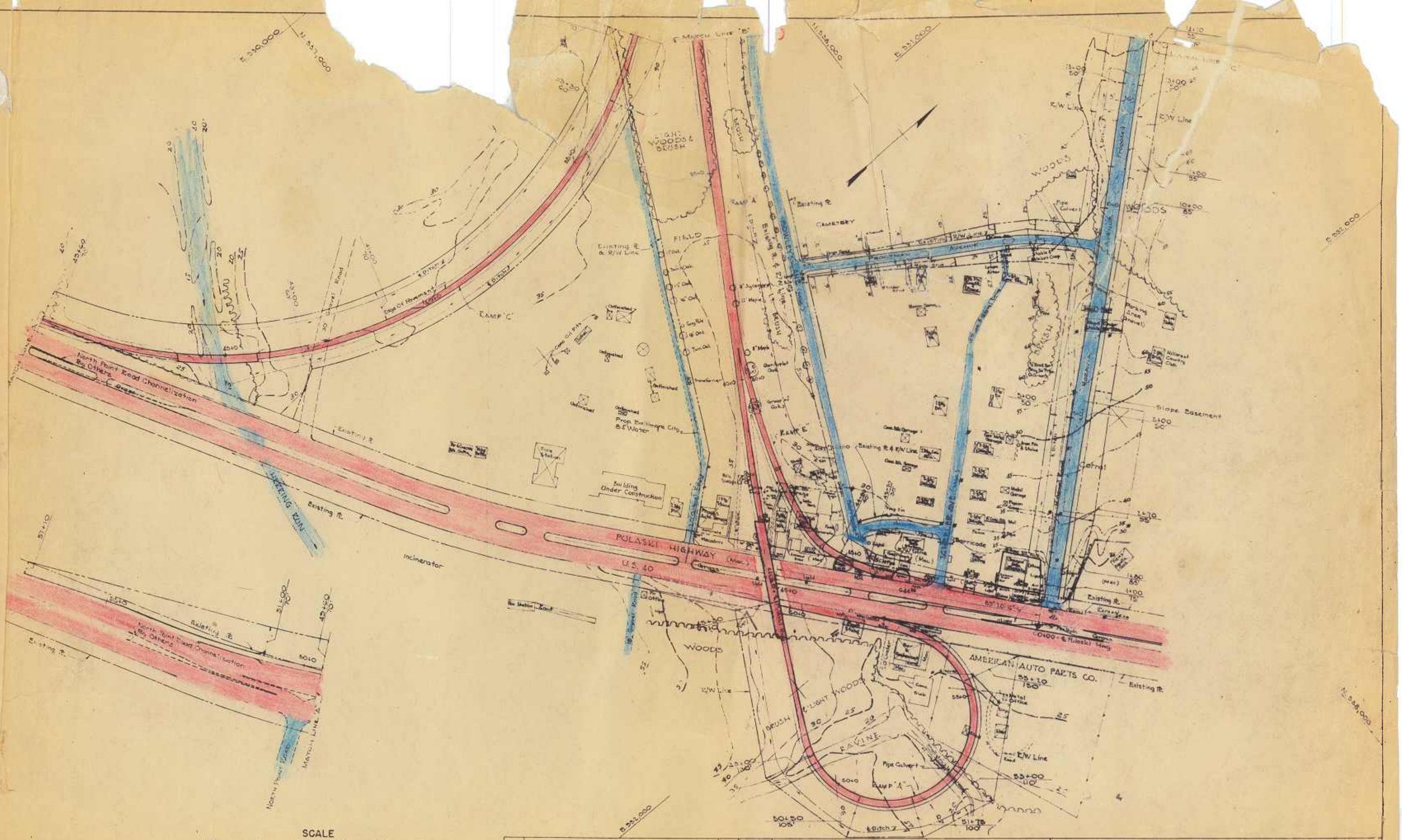


No	Revisions	By	Date

RUMMEL, KLEPPER & KAHL
CONTRACTING ENGINEERS
BALTIMORE, MARYLAND JAN. 1956

J.E. GREINER CO.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

STATE OF MARYLAND
STATE ROADS COMMISSION
PATAPSCO TUNNEL PROJECT
DESIGN SECTION D-7
BOWLEY'S LANE INTERCHANGE


E 830,000
N 857,000
E 831,000
E 832,000
E 833,000
N 858,000
N 857,000
Existing ℄
℄ March Line "B"
LIGHT WOODS & BRUSH
RAMP "A"
RAMP "B"
RAMP "C"
RAMP "D"
FIELD
Existing ℄ & R/W Line
Existing R/W Line
Existing Bldg. & R/W Line
CEMETERY
Existing ℄
Pipe Culvert
Edge Of Pavement
Proposed Road
Proposed Ramp
Proposed Ramp "A"
Proposed Ramp "B"
Proposed Ramp "C"
Proposed Ramp "D"
Existing Road
Existing Ramp
Existing Ramp "A"
Existing Ramp "B"
Existing Ramp "C"
Existing Ramp "D"
Existing Ramp "E"
Existing Ramp "F"
Existing Ramp "G"
Existing Ramp "H"
Existing Ramp "J"
Existing Ramp "K"
Existing Ramp "L"
Existing Ramp "M"
Existing Ramp "N"
Existing Ramp "P"
Existing Ramp "Q"
Existing Ramp "R"
Existing Ramp "S"
Existing Ramp "T"
Existing Ramp "U"
Existing Ramp "V"
Existing Ramp "W"
Existing Ramp "X"
Existing Ramp "Y"
Existing Ramp "Z"
Existing Ramp "AA"
Existing Ramp "BB"
Existing Ramp "CC"
Existing Ramp "DD"
Existing Ramp "EE"
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Existing Ramp "UU"
Existing Ramp "VV"
Existing Ramp "WW"
Existing Ramp "XX"
Existing Ramp "YY"
Existing Ramp "ZZ"
North Point Road (Channelization) By Others
Existing R/W Line
Existing ℄
Existing Road
Existing Ramp
Existing Ramp "A"
Existing Ramp "B"
Existing Ramp "C"
Existing Ramp "D"
Existing Ramp "E"
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Existing Ramp "TT"
Existing Ramp "UU"
Existing Ramp "VV"
Existing Ramp "WW"
Existing Ramp "XX"
Existing Ramp "YY"
Existing Ramp "ZZ"
SPARROWS POINT ROAD
Existing R/W Line
Existing ℄
Existing Road
Existing Ramp
Existing Ramp "A"
Existing Ramp "B"
Existing Ramp "C"
Existing Ramp "D"
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Existing Ramp "VV"
Existing Ramp "WW"
Existing Ramp "XX"
Existing Ramp "YY"
Existing Ramp "ZZ"
Slope Easement
Pipe Culvert
Pipe Culvert & Inlet
Pipe Culvert & Manhole
Pipe Culvert & Headwall
Pipe Culvert & Flared End
Pipe Culvert & Flared End Section
Pipe Culvert & Flared End Section & Headwall
Pipe Culvert & Flared End Section & Manhole
Pipe Culvert & Flared End Section & Inlet
Pipe Culvert & Flared End Section & Inlet & Manhole
Pipe Culvert & Flared End Section & Inlet & Manhole & Headwall
Pipe Culvert & Flared End Section & Inlet & Manhole & Headwall & Flared End
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Agreement
Dated

April 12th 195