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FEDERAL AID SECTION NO.	STATE	F.A.S. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND.	25	1938	1	59

SECTION:- A

STATE OF INDIANA

STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY F. A. S. PROJECT NO. 25 SEC. A. (1938)

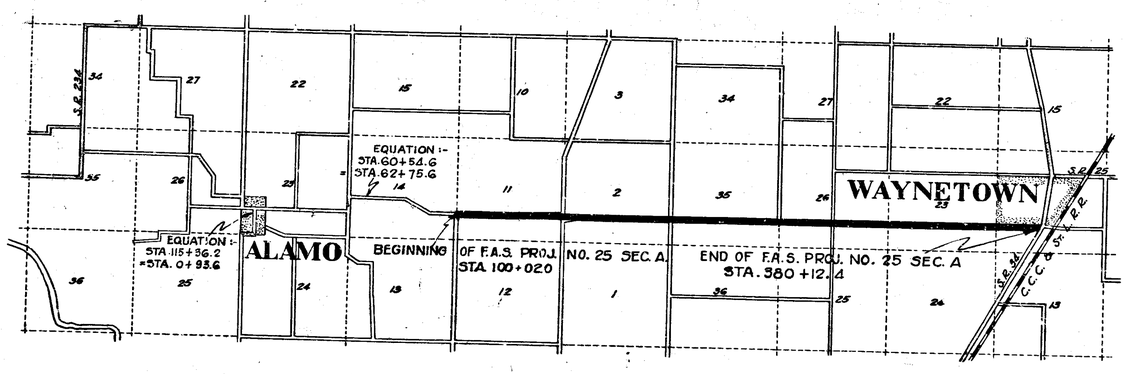
BEGINNING AT APPROX. S.W. CORNER OF S.E. 1/4 OF S.E. 1/4 OF SEC. 11, T 18 N R 6 W AND EXTENDING IN A NORTHERLY DIRECTION TO THE JUNCTION WITH S.R. 34 AT THE EAST CORPORATION LIMITS OF WAYNETOWN, IN MONTGOMERY COUNTY.

GROSS LENGTH:- 5.305 MI.
NET LENGTH:- 5.305 MI.

SCALES:-
PLAN { LONG:- 1"=100' TRANS:- 1"=100' } PROFILE { HORIZ:- 1"=100' VERT:- 1"=10' }

MAX. GRADE— 4.95 %

H. C. THURSTON
CRAWFORDSVILLE IND
10-31-38
EAS



SCALE 1"=3000'

3-15-38

APPROVED AND ADOPTED 3-15-38
BY STATE HIGHWAY COMMISSION OF INDIANA

Earl Crumpacker
CHAIRMAN-STATE HIGHWAY COMMISSION OF INDIANA

APPROVED 3-15-38

M. K. Cecil
CHIEF ENGINEER-STATE HIGHWAY COMMISSION OF INDIANA

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER-BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER-BUREAU OF PUBLIC ROADS

APPROVED

CHIEF-BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL 3-12-38

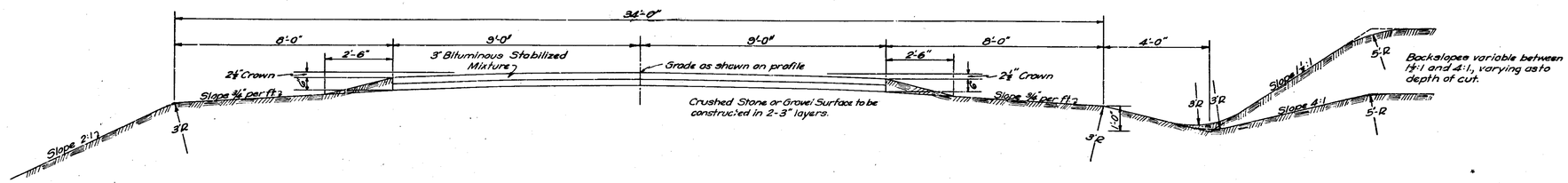
C. E. Voorhees
ENGINEER OF ROADS

STATE HIGHWAY COMMISSION OF INDIANA.
STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION, DATED MARCH, 1933, AND SUPPLEMENT DATED JUNE, 1936, ON FILE WITH U. S. BUREAU OF PUBLIC ROADS TO BE USED WITH THESE PLANS.

Printed on Form No. 111 Crawford Clark
by National Printing Paper Co., Indianapolis

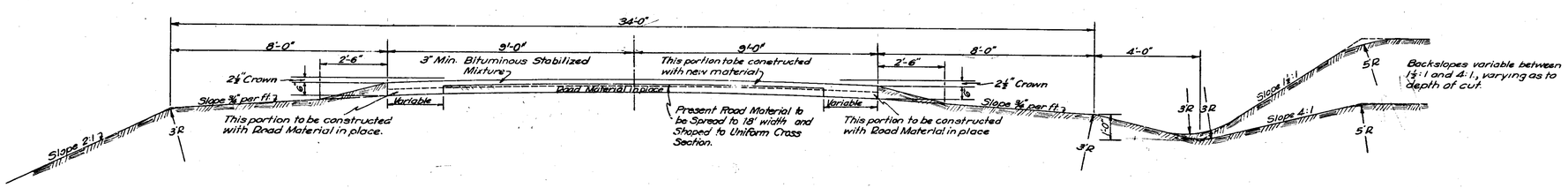
FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
7	IND.	25	1938	2	59

Sec. A.



BITUMINOUS STABILIZED CRUSHED STONE OR GRAVEL SURFACE

APPROXIMATE STATIONS			APPROXIMATE STATIONS		
STA.	115+00	- 121+00	STA.	241+00	- 249+00
STA.	123+00	- 128+00	STA.	262+00	- 274+00
STA.	131+00	- 136+00	STA.	284+00	- 289+00
STA.	138+00	- 145+00	STA.	294+00	- 320+00
STA.	147+00	- 166+00	STA.	333+00	- 337+00
STA.	173+00	- 175+00	STA.	338+00	- 346+00
STA.	178+00	- 190+00	STA.	347+00	- 352+00
STA.	197+00	- 203+00	STA.	353+00	- 379+75
STA.	210+00	217+00			



BITUMINOUS STABILIZED CRUSHED STONE OR GRAVEL SURFACE

APPROXIMATE STATIONS			APPROXIMATE STATIONS		
STA.	110+00	- 115+00	STA.	217+00	- 241+00
STA.	121+00	- 123+00	STA.	249+00	- 262+00
STA.	128+00	- 131+00	STA.	274+00	- 284+00
STA.	136+00	- 138+00	STA.	289+00	- 294+00
STA.	145+00	- 147+00	STA.	320+00	- 333+00
STA.	166+00	- 173+00	STA.	337+00	- 338+00
STA.	175+00	- 178+00	STA.	346+00	- 347+00
STA.	190+00	- 197+00	STA.	352+00	- 353+00
STA.	203+00	- 210+00	STA.	379+75	- 380+01.6

STA. 100+02 to STA. 110+00 on RT. to be surfaced with 3" Bituminous Stabilized Crushed Stone or Gravel Surface as above, except that no shoulders and ditches shall be constructed.

RECOMMENDED FOR APPROVAL 3-12-38

C. E. Vogelgesang
ENGINEER OF PLANS

TYPICAL CROSS SECTIONS TO BE USED ON FAS. PROJ. NO. 25

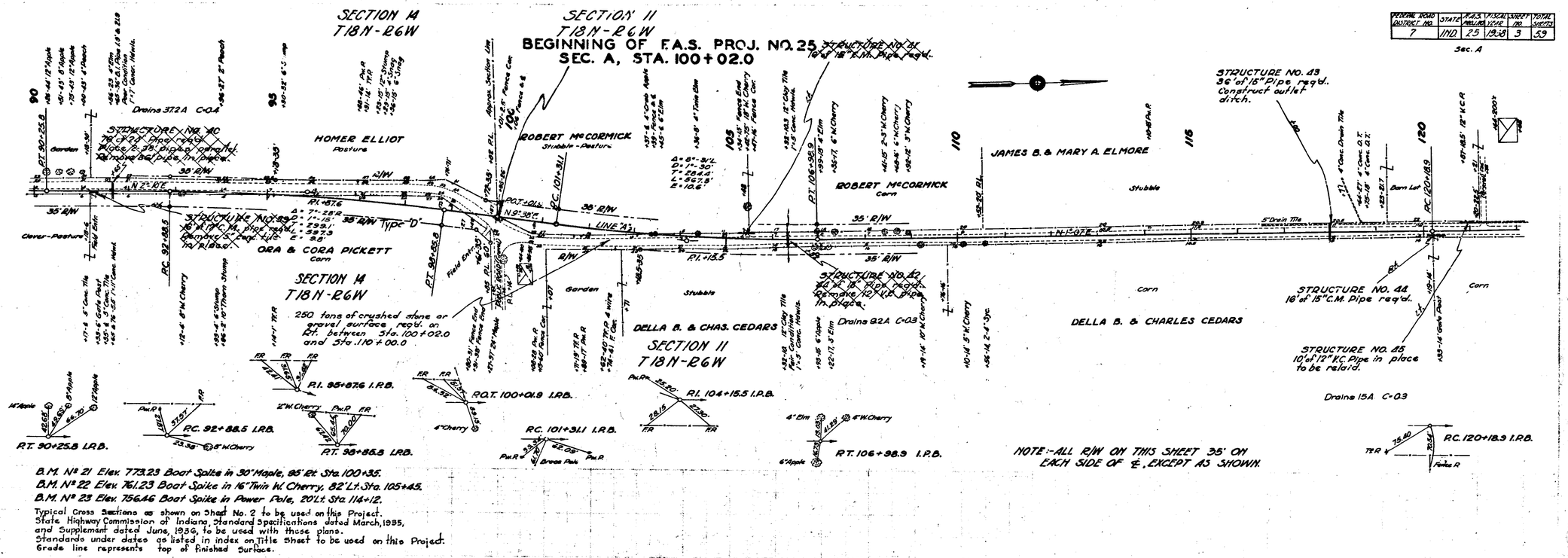
Scale ½" = 1'-0"

APPROVED Earl Crawford
CHAIRMAN: STATE HIGHWAY COMMISSION OF INDIANA

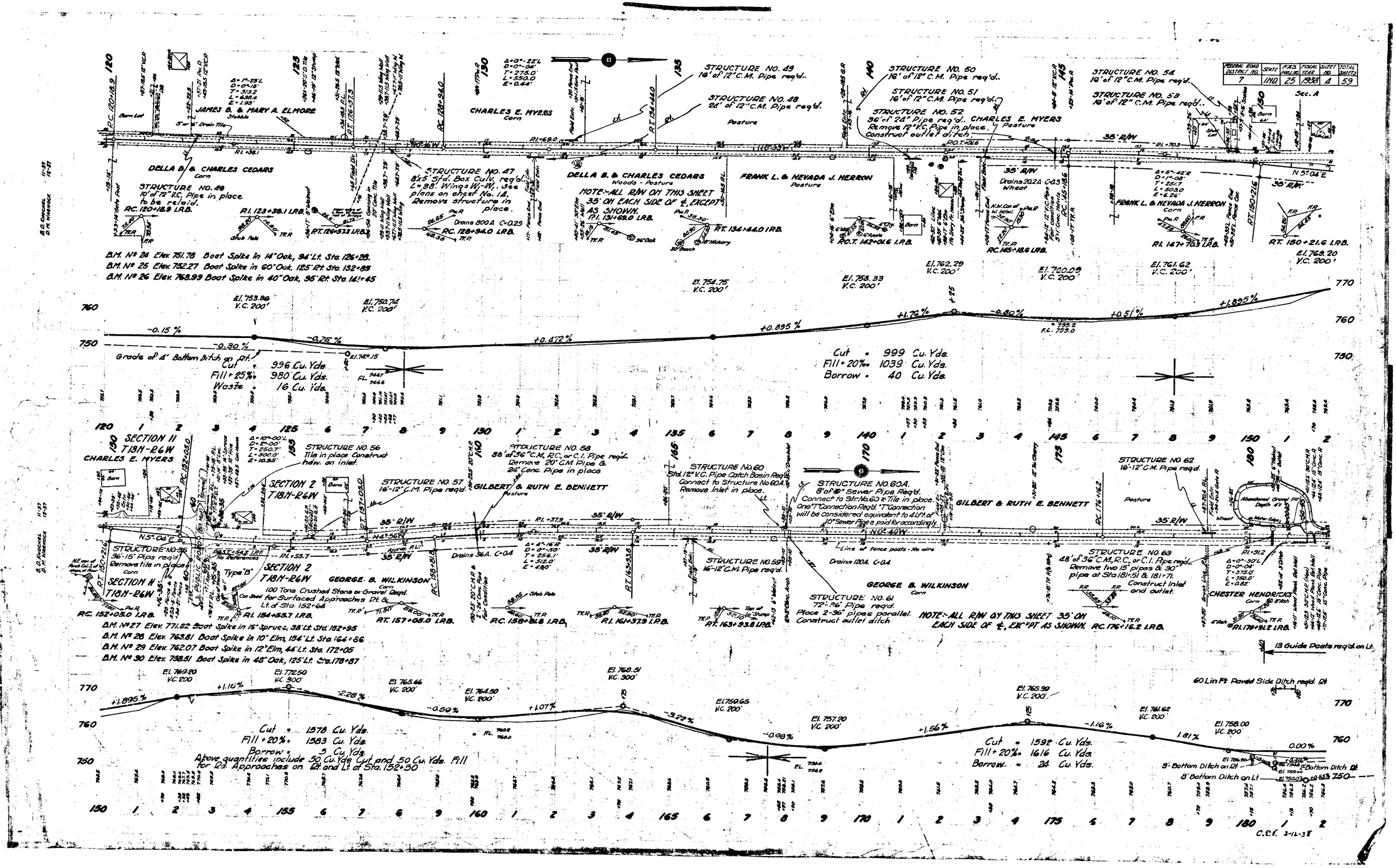
APPROVED M R Keefe
CHIEF ENGINEER: STATE HIGHWAY COMMISSION OF IND.

FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND	25	1938	3	59

Sec. A



FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. ROAD NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND	25	1938	4	59



FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. ROUTE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND.	25	1938	5	59

Sec. A

STRUCTURE NO. 63 See preceding sheet

STRUCTURE NO. 65 16'-12" C.M. Pipe reqd.

STRUCTURE NO. 67 16'-12" C.M. Pipe reqd.

STRUCTURE NO. 68 16'-12" C.M. Pipe reqd.

SEC. 2-T18N-R6W

STRUCTURE NO. 69 40'-15" Pipe reqd.

SEC. 35-T19N-R6W

STRUCTURE NO. 70 40'-15" Pipe reqd. Remove 12" C.M. Pipe in place.

ANDREW FOLEY

CHESTER HENDRICKS

Abandoned Gravel Pit Depth 4'±

Water stands 2' over present grade

Rye

Marsh

Pasture

Corn

Orchard

Woods

Drains 4A C-03

Drains 8A6A C-05

6 Wire Telephone Line on Rt.

STRUCTURE NO. 64 8'-5' Std. Box Culv. Req'd. L=38' Wings-W.-W. See plans on sheet No. 14. Remove conc. arch in place. & 22" C.M.P. at Sta. 189+25

NOTE:-ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

60 Tons Crushed Stone or Gravel Reqd. for Surfaced Approach Rt. & Lt. of Sta. 203+56

JOSEPH SINGER

Δ = 0°30'L
D = 0°04'
T = 375.0'
L = 750.0'
E = 0.82'

Δ = 2°31'E
D = 0°20'
T = 377.6'
L = 755.0'
E = 4.14'

Δ = 2°31'E
D = 0°20'
T = 377.6'
L = 755.0'
E = 4.14'

P.T. 183+66.2 I.P.B.

P.C. 184+77.7 I.P.B.

P.I. 188+55.3 I.P.B.

P.T. 202+52.7 I.P.B.

P.O.T. 203+58.2 I.P.B.

B.M. No. 31 Elev. 758.81 Boat Spike in 10" Twin W. Cherry, 90' Rt. Sta. 183+67.
B.M. No. 32 Elev. 760.75 Boat Spike in 16" Hickory, 250' Rt. Sta. 191+36.
B.M. No. 33 Elev. 778.13 Boat Spike in 30" Twin Elm, 34' Rt. Sta. 200+42.
B.M. No. 34 Elev. 783.15 Boat Spike in 10" Hickory, 70' Rt. Sta. 207+94.

Guide Posts on Lt. See preceding sheet

8-Guide Posts reqd. on Rt.

35 Syds. of Rip Rap Req'd on Rt.

60 Lin. Ft. Paved Side Ditch req'd. Rt.

40 Syds. of Rip Rap Req'd on Rt.

El. 758.00 V.C. 200' +1.60%

El. 765.20 V.C. 200' +3.06%

El. 777.44 V.C. 250' +0.10%

El. 777.84 V.C. 200' +0.265%

El. 778.70 V.C. 200' +1.18%

El. 783.42 V.C. 200' -0.20%

0.00%

Cut = 1662 Cu. Yds.
Fill + 20% = 1721 Cu. Yds.
Borrow = 59 Cu. Yds.

Cut = 1210 Cu. Yds.
Fill + 25% = 1166 Cu. Yds.
Waste = 44 Cu. Yds.
Above quantities include 50 Cu. Yds. Cut and 50 Cu. Yds. Fill for Rd. Approaches Rt. and Lt. of Sta. 203+50

STRUCTURE NO. 71 10' of 8" Sewer Pipe reqd. Extend present struct. to new ditch line. Hdw. reqd.

STRUCTURE NO. 72 10' of 8" Sewer Pipe reqd. Extend present struct. to new ditch line Hdw. reqd.

STRUCTURE NO. 74 Std. 12" V.C. Pipe Catch Basin Reqd. Connect to Stru. No. 74A. Remove Catch Basin in place.

STRUCTURE NO. 74A 8' of 10" Sewer Pipe Req'd. Connect to Str. No. 74 & One "T" Connection Req'd. "T" Connection will be Considered equivalent to 2 L.F. of 10" Sewer pipe and paid for accordingly.

STRUCTURE NO. 75 10'-6" F.D.T. Tile to be relaid. Delay in new ditch line Hdw. reqd.

STRUCTURE NO. 77 36'-15" Pipe reqd. Construct outlet ditch.

STRUCTURE NO. 76 16'-12" C.M. Pipe reqd.

STRUCTURE NO. 80 16'-12" C.M. Pipe reqd.

GILBERT C. & RUTH E. BENNETT

ANDREW FOLEY

DAISY & DELMARK FRUITS (ANDREW FOLEY Buying under Contract)

Drains 22A C-03

STRUCTURE NO. 73 40'-24" Pipe reqd. Remove 24" C.M. Pipe in place.

STRUCTURE NO. 76 8" F.D.T. Tile in place Construct Arrs.

STRUCTURE NO. 78 Std. Catch Basin (Type C5) Req'd. Remove inlet in place. Connect to 8" F.T. in place

JOSEPH SINGER

P.O.T. 215+08.5 I.P.B.

P.O.T. 222+ I.P.B.

P.O.T. 233+74.6 I.P.B.

P.C. 238+25.3 I.P.B.

NOTE:-ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

B.M. No. 35 Elev. 782.41 Boat Spike in 24" Sycamore 56' Lt. Sta. 214+84
B.M. No. 36 Elev. 784.38 Boat Spike in 12" Pine, 58' Rt. Sta. 225+26
B.M. No. 37 Elev. 786.09 Boat Spike in Tel. Pole, 18' Rt. Sta. 232+77.

El. 783.42 V.C. 200' -0.80%

El. 782.47 V.C. 200' -0.38%

El. 780.96 V.C. 200' -0.64%

El. 779.35 V.C. 200' +0.70%

El. 781.10 V.C. 200' +1.40%

El. 784.60 V.C. 200' +0.223%

El. 787.39 V.C. 200' +0.173%

El. 787.91 V.C. 200'

2' Bottom Ditch on Lt.

Cut = 721 Cu. Yds.
Fill + 25% = 785 Cu. Yds.
Borrow = 64 Cu. Yds.

Cut = 684 Cu. Yds.
Fill + 25% = 717 Cu. Yds.
Borrow = 33 Cu. Yds.

C.E.V. 3-12-38

FEDERAL ROAD DISTRICT NO.	STATE	F.A.P. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND.	25	1938	6	59

Sec. A

STRUCTURE NO. 81
18' of 12" C.M. Pipe req'd.

STRUCTURE NO. 82
90' of 12" Pipe req'd.
Remove 7" drain tile in place.

FLORENCE STRAUB
Corn

Garden

ABIGAL E. PITTMAN
Garden & Orchard

SEC. 35-T19N-R6W

OLIVER J. BANTZ
Wheat

Type "D"

HARRY R. & JOSEPHINE COOPER
Corn

SEC. 26-T19N-R6W

Drains 90A C-0.3

Soy Beans

Stubble Pasture

R.I.+25.3

R.I.+14.5

Approx. R.L.

35' R/W

STRUCTURE NO. 83
8' of 6" Drain tile tube relaid.
Place in hdw. with #82.

STRUCTURE NO. 84
16' of 12" C.M. Pipe req'd.
Remove 8" tile in place.

STRUCTURE NO. 85
40' of 18" C.M. Pipe req'd.
Remove 8" Conc. Drain tile in place.

JOSEPH SINGER
Corn

NOTE:- ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

IDA BURRIS MASTERS
Soy Beans

R.I. 243+25.3 I.P.B.

R.T. 248+25.3 I.P.B.

30 tons crushed stone or gravel surface req'd. for road approach on Lt., Sta. 256+48.

SEC. 35-T19N-R6W

HARRY R. & JOSEPHINE COOPER

SEC. 26-T19N-R6W

R.O.T. 256+48.1 I.P.B.

Woods Pasture

STRUCTURE NO. 88
3x3' Std. Box Culv., L=40'
Wings W₁-W₄. See plans on Sheet No. 14. Remove 30" C.M. Pipe in place.

Chicken Yard

Barn Lot

Garden

Hog Lot

R.I. 269+14.5 I.P.B.

B.M. No. 38 Elev. 785.35 Boot Spike in 10" Maple, 60' Lt. Sta. 248+70.
B.M. No. 39 Elev. 776.73 Boot Spike in 36" Oak, 65' Rt. Sta. 259+10.
B.M. No. 40 Elev. 781.01 Boot Spike in 16" Pear, 40' Rt. Sta. 268+55.

+0.173 % | -0.28 % | -1.17 % | -0.83 % | -0.43 % | -0.20 % | -1.147 % | +2.87 % | -0.38 %

El. 787.91 V.C. 900' | El. 786.72 V.C. 900' | El. 783.50 V.C. 200' | El. 780.60 V.C. 200' | El. 779.10 V.C. 200' | El. 778.20 V.C. 200' | El. 773.04 V.C. 250' | El. 781.66 V.C. 250' | El. 780.23 V.C. 350'

Widen std. Ditches on Lt. & Rt. to 2' Bottoms.

Cut =	547 Cu. Yds.
Fill+25% =	561 Cu. Yds.
Borrow =	14 Cu. Yds.

Above quantities include 50 Cys. Fill for Rd. App. Lt. Sta. 256+48.

Cut =	904 Cu. Yds.
Fill+25% =	925 Cu. Yds.
Borrow =	21 Cu. Yds.

Drains 1500A C-0.35

STRUCTURE NO. 87
16' Std. R.C. Slab Top Culv. req'd., (Without Fill). Skew 15°, H=6'.
Stubble Pasture 28' rdwy. Wings 2@45° & 2@60°.
See plans on Sheet No. 15.
Remove slt-wet. in place.

HW - 6" below floor

R.O.T.+71.0

Drains 1A C-0.4

STRUCTURE NO. 88
36' of 15" C.M. Pipe req'd.

HARRY P. & JOSEPHINE COOPER
Corn

HARRY M. & ELIZABETH BOUNNELL

STRUCTURE NO. 90
40' of 36" C.M., R.C., or C.I. Pipe req'd.
Remove structure in place.

STRUCTURE NO. 92
16' of 12" C.M. Pipe req'd.
Remove tile in place.

HARRY M. & ELIZABETH BOUNNELL
Stubble Pasture

STRUCTURE NO. 93
16' of 12" C.M. Pipe req'd.
Remove tile in place.

Garden

Hog Lot

Pasture

STRUCTURE NO. 89
86' of 15" C.M. Pipe req'd.
Remove tile in place.

HARRY P. & JOSEPHINE COOPER

Drains 1A C-0.4

60 tons Crushed stone or Gravel surface req'd. for road approaches Rt. & Lt., Sta. 283+04.

HARRY M. & ELIZABETH BOUNNELL
Corn

Drains 35A C-0.4

STRUCTURE NO. 91
98' of 12" C.M. Pipe req'd.
Remove tile in place.

Hog Lot

Barn Lot

Orchard

2 Story Brick House

R.I. 283+04.5 I.P.B.

R.O.T. 275+71.8 I.P.B.

R.I. 294+33.1 I.P.B.

NOTE:- ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

B.M. No. 41 Elev. 781.51 Boot Spike in 24" Walnut, 46' Rt. Sta. 282+87
B.M. No. 42 Elev. 801.37 Boot Spike in 30" Oak, 52' Rt. Sta. 297+35

285 Lin. Ft. Paved Side Ditch req'd. on Lt.
260 Lin. Ft. Paved Side Ditch req'd. on Rt.

4 Guide Posts req'd. on Lt.
4 Guide Posts req'd. on Rt.

Cut =	469 Cu. Yds.
Fill+25% =	460 Cu. Yds.
Waste =	9 Cu. Yds.

Above quantities include 50 Cu. Yds. Fill for Rd. Approaches on Rt. and Lt. Sta. 283+04.

Cut =	1555 Cu. Yds.
Fill+25% =	1486 Cu. Yds.
Waste =	69 Cu. Yds.

El. 804.98 V.C. 700'

-0.38 % | -4.95 % | -0.94 % | +2.01 % | +3.15 % | -3.44 % | +1.29 % | +3.857 % | -2.07 %

El. 780.23 V.C. 350' | El. 766.62 V.C. 200' | El. 764.51 V.C. 260' | El. 768.56 V.C. 200' | El. 786.86 V.C. 500' | El. 778.32 V.C. 200' | El. 786.06 V.C. 250'

C.C.F. 3-12-38

FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. ROUTE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND	25	1938	7	59

Sec. A

STRUCTURE NO. 94
44' of 24" C.M., R.C. or C.I. Pipe req'd.
Remove 42" C.M. Pipe in place. Wings Wi-Wi.
See plans on Sheet No. 16.

SEC. 26-T19N-R6W

HARRY M. & ELIZABETH BOUNNELL
Pasture

SEC. 23-T19N-R6W

JOHN E. & MARY ALICE BARRICKLOW
Pasture

STRUCTURE NO. 98
16'-12" C.M. Pipe req'd.

JAMES E. REMLEY
Pasture

HARRY M. & ELIZABETH BOUNNELL
Wheat

Drains 125A C-0.3

HARRY M. & ELIZABETH BOUNNELL
Woods

Drains 250A C-0.4
Pasture
H.W. 6" below top of arch

THE WAYNETOWN STATE BANK
Woods - Pasture

STRUCTURE NO. 93
See preceding sheet.

SEC. 26-T19N-R6W

NOTE:-ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

STRUCTURE NO. 95
16'-12" C.M. Pipe req'd.
Remove tile in place

SEC. 23-T19N-R6W

STRUCTURE NO. 96
16'-12" C.M. Pipe req'd.
Remove tile in place

R.O.T. 315+30.5

STRUCTURE NO. 97
6'-4" Std. Box Culv. req'd. L-36'
Wings-Wi-Wi. See plans on Sheet No. 14. Remove 8'-9" conc. arch in place.

B.M. No. 43 Elev. 777.07 N.W. cor. of W. Hexiwall, Lt. Sta. 308+37.
B.M. No. 44 Elev. 774.20 Boat Spike in 24" Elm, 18" Rt. Sta. 319+50
B.M. No. 45 Elev. 784.39 Boat Spike in 18" Walnut, 80' Rt. Sta. 327+95

El. 784.08 V.C. 200' — −4.07% — El. 778.21 V.C. 200' — −1.37% — El. 779.20 V.C. 200' — +0.93% — El. 788.24 V.C. 250' — +2.41% — El. 774.84 V.C. 250' — −2.82% — El. 783.89 V.C. 200' — +1.006% — +0.10%

Cut = 1298 Cu. Yds.
Fill + 20% = 1285 Cu. Yds.
Waste = 13 Cu. Yds.

Cut = 1300 Cu. Yds.
Fill + 20% = 1379 Cu. Yds.
Borrow = 79 Cu. Yds.

Cut = 391 Cu. Yds.
Fill + 25% = 385 Cu. Yds.
Waste = 6 Cu. Yds.

STRUCTURE NO. 99
16'-12" C.M. Pipe req'd.

JAMES E. REMLEY
Pasture

JAMES E. REMLEY
Woods

STRUCTURE NO. 100
3'-3 Std. Box Culv. req'd.
L-18' Wings Wi-Wi
Extend 9'-3" Box Culv. in place 8' on Lt. & 10' on Lt.
See plans on Sheets No. 14 & 17.

STRUCTURE NO. 102
44' of 30" C.M., R.C., or C.I. Pipe req'd.
Remove 24" pipe in place.

JAMES E. REMLEY
Wheat

STRUCTURE NO. 105
16'-15" C.M. Pipe req'd.

JAMES E. REMLEY
Corn

THE WAYNETOWN STATE BANK
Woods - Pasture

Drains 30A C-0.5

JOHN S. THOMPSON
Pasture

Drains 4A C-0.4

JOHN H. & ORA M. MUNNS
Stubble

Drains 25A C-0.4

STRUCTURE NO. 104
16'-12" C.M. Pipe req'd.

STRUCTURE NO. 103
16'-12" C.M. Pipe req'd.

Drains 5A C-0.4

JOHN H. & ORA M. MUNNS
Stubble

STRUCTURE NO. 101
38'-15" Pipe req'd.
Remove pipe in place.

R.O.T. 333+22.4 LRB.

R.O.T. 342+45.3 LRB.

R.O.T. 347+24.8 LRB.

P.I. 350+95.7 I.P.B.

NOTE:-ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

B.M. No. 46 Elev. 785.57 Boat Spike in 24" Elm, 50' Lt. Sta. 336+30.
B.M. No. 47 Elev. 792.25 Boat Spike in 30" Maple, 36' Lt. Sta. 347+62.
B.M. No. 48 Elev. 778.19 Boat Spike in Power Pole, 22' Lt. Sta. 355+50.

El. 784.41 V.C. 200' — +0.10% — El. 785.81 V.C. 200' — +0.70% — El. 784.21 V.C. 200 — −0.80% — El. 785.41 V.C. 200' — +0.60% — El. 794.41 V.C. 200 — +3.00% — El. 790.11 V.C. 200' — −1.72% — El. 792.01 V.C. 200' — +0.95% — El. 784.45 V.C. 200' — −3.79% — El. 784.09 V.C. 200' — −0.11% — El. 779.15 V.C. 200' — −2.47% — El. 776.79 — −0.86% — El. 772.49

Cut = 1007 Cu. Yds.
Fill + 25% = 929 Cu. Yds.
Waste = 78 Cu. Yds.

Cut = 1808 Cu. Yds.
Fill + 25% = 1755.5 Cu. Yds.
Waste = 53 Cu. Yds.

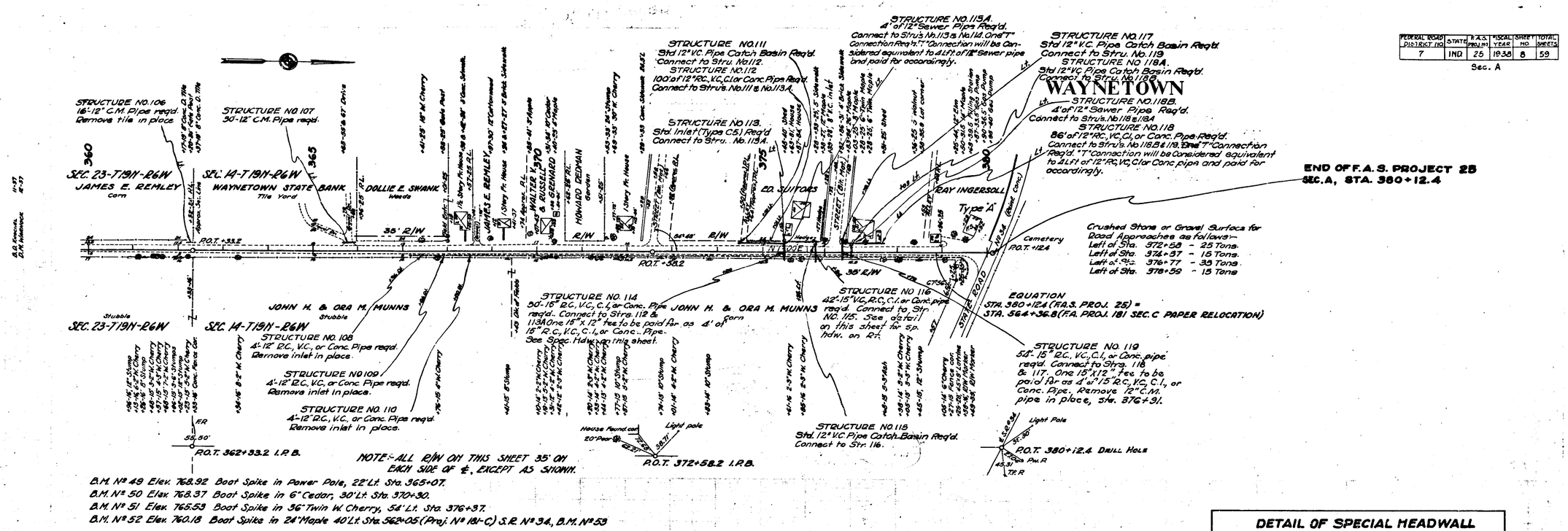
Grade of 2' Bottom ditch on Rt.

Grade of 3' Bottom ditch on Rt.

C.D.K. 3-11-38

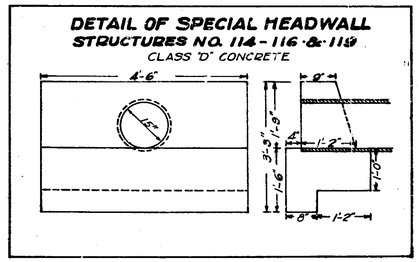
FEDERAL ROAD DISTRICT NO.	STATE	F.A.S. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	IND	25	1938	8	59

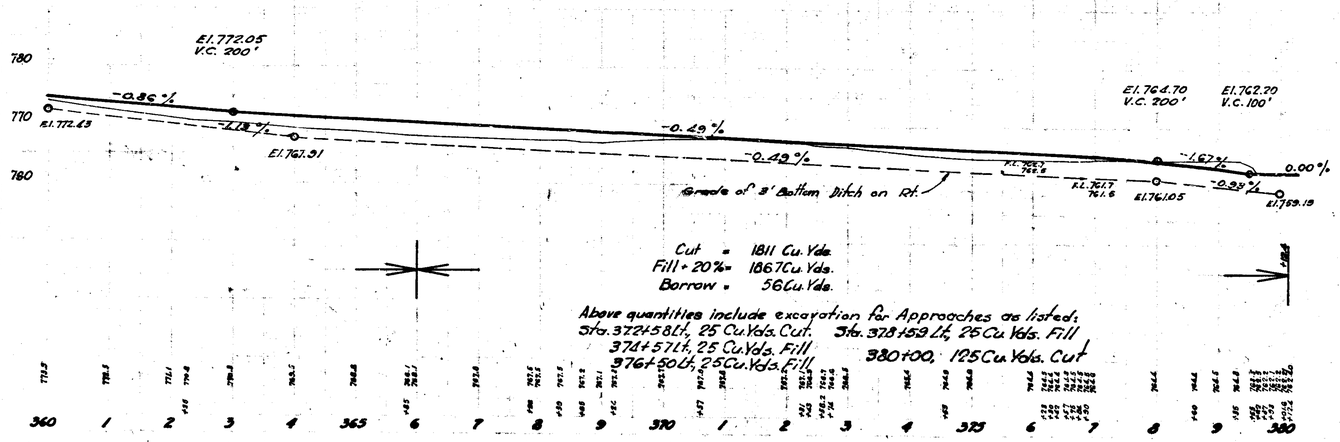
Sec. A



NOTE:- ALL R/W ON THIS SHEET 35' ON EACH SIDE OF ℄, EXCEPT AS SHOWN.

B.M. No. 49 Elev. 768.92 Boot Spike in Power Pole, 22' Lt. Sta. 365+07.
B.M. No. 50 Elev. 768.37 Boot Spike in 6" Cedar, 30' Lt. Sta. 370+30.
B.M. No. 51 Elev. 765.53 Boot Spike in 36" Twin W. Cherry, 54' Lt. Sta. 376+37.
B.M. No. 52 Elev. 760.18 Boot Spike in 24" Maple 40' Lt. Sta. 562+05 (Proj. No. 181-C) S.R. No. 34, B.M. No. 53





Cut = 1811 Cu. Yds.
Fill + 20% = 1867 Cu. Yds.
Borrow = 56 Cu. Yds.

Above quantities include excavation for Approaches as listed:
Sta. 372+58 Lt. 25 Cu. Yds. Cut. Sta. 378+59 Lt. 25 Cu. Yds. Fill
374+37 Lt. 25 Cu. Yds. Fill 380+00. 125 Cu. Yds. Cut
376+50 Lt. 25 Cu. Yds. Fill

C.E.H. 3-16-38

ESTIMATE OF QUANTITIES

For Rock Asphalt Surface / Base and Binder Courses / For Bituminous Concrete Surface

Base and Binder Courses	Unit
Coarse aggregate	TONS
Screenings	TONS
Sub-grade fine aggregate	CU.YDS.
Aggregate	TONS
Bitum. mat'l for 1st & 2nd coat	GALS.
Bitum. mat'l for seal coat	GALS.
Bit. mat'l for base treat.	GALS.
Cover agg. for base treat.	TONS
Bit. mat'l for prime	GALS.
Leveling or wedge course	TONS
Bit. coated agg. "EA"	TONS
Bit. coated agg. "LA"	TONS
Bit. coated agg. "T"	TONS
Bit. conc. mixture	TONS
Concrete	CU.YDS.
Concrete base course	SQ.YDS.
Reinforcing steel	LBS.

Column headings, For Rock Asphalt Surface: Concrete, Waterbound Macadam, Bituminous Macadam, Bituminous Concrete AH, Bituminous Concrete AC, Bit. Coated Aggregate, Reconstructed. For Bituminous Concrete Surface: Concrete, Waterbound Macadam, Bituminous Macadam, Bituminous Concrete AH, Bituminous Concrete AC, Bituminous Coated Aggregate, Reconstructed.

Surface Courses

Surface Courses	Unit	Concrete	Reinforced Concrete	Reinforced Concrete Resurface	Bituminous Conc. AH Type	Bituminous Conc. AC Type	Natural Rock Asphalt	Stone or Gravel	Bituminous Mulch	Bituminous Retread	Bituminous Treatment	Bituminous Coated Aggregate	Road Oil Treatment	Patching	Bituminous Stabilized Mix
Concrete pavement	SQ.YDS.														
Reinf. conc. pavement	SQ.YDS.														
Reinf. conc. resurface	SQ.YDS.														
Ult. reinf. conc. pavement	SQ.YDS.														
Reinforcing steel	LBS.														
Expansion joints type A,B,C,E	LIN.FT.														
Expansion joint type D	LIN.FT.														
Preformed expansion joint	LIN.FT.														
Cork or rubber exp. joints	LIN.FT.														
Bituminous exp. joints	LIN.FT.														
Contraction joints	LIN.FT.														
Concrete overrun	CU.YDS.														
Rock asphalt	TONS														
Bit. conc. mix type " "	TONS														
Crushed stone or gravel															
Agg. for bit. mulch surface & seal	TONS														
Covering aggregate	TONS														700
Bit. mat'l for 1st, 2nd & 3rd coats	GALS.														84,000
Bit. mat'l for seal	GALS.														16,800
Bit. coated aggregate "EA"	TONS														
Bit. coated aggregate "LA"	TONS														
Bit. coated aggregate "T"	TONS														
Monuments, type A	EACH														
Monuments, type B	EACH														
Crushed aggregate surface	TONS														9807
Lime stone dust for crushed agg. surface	TONS														1731
Gravel surface	TONS														11,538
Crushed stone surface	TONS														10,615
Screenings for crushed stone surface, size No. 10	TONS														923

Type of Pavement	Excavation Cu. Yds. Common	Solid Rock	Peat	Special Borrow Cu. Yds.	Special Fill Material Cu. Yds.	Overhaul Cu. Yds. One Balance	Two Balances	Three Balances
	20,927				400			

Concrete for Structures Cu. Yds. Special Class	Class "D"	Rubble Headwalls Cu. Yds.	Reinforcing Steel for Structures Lbs.	Catch Basin and Inlets, Type C-5, Concrete: Curb & Gutter	Earth Ditch	Curb Type	Catch Basins and Inlets, Brick: Curb & Gutter	Curb Type
29.1	352.1		25,973		1			

Type C-5 Inlets, Concrete: E.D. Type	C&G Type	Curb Type	Brick: E.D. Type	C&G Type	Curb Type	Manholes Type A	Type B	V.C. Pipe Catch Basin 12"	18"	24"	Adjusted to Grade: Manholes	Inlet Covers	C.B. Covers	Structure Removal for Culvert Extensions: Group	Group	Group	Finishing Shoulders and Ditches Lin. Ft.	Sodding Sq. Yds.	Aggregate for Shoulder Drains Tons	Agg. for Sub Surface Drains	Rip-Rap Sq. Yds.	Grouted Rip-Rap Sq. Yds.	Relaid Rip-Rap Sq. Yds.	Paved Side Ditch Lin. Ft.	Paved Gutter Lin. Ft.
1								6													75			665	

Combined Curb and Gutter Lin. Ft.: New	Removal	Reset	Integral Concrete Curb Lin. Ft.	Concrete Curb Lin. Ft.	Curb Removal Lin. Ft.	Curb Reset Lin. Ft.: Stone	Concrete	Sidewalk Sq. Yds.: New	Relaid	Removal	Crosswalk Sq. Yds.: New	Removal	Pavement Removal Sq. Yds.	Pavement Surface Removal Sq. Yds.	Brick Surface Relaid Sq. Yds.	Test Holes Lin. Ft.	Dynamite Lbs.	Machine Operation Hrs.	Final Blasting Lin. Ft.	Timber Piling Lin. Ft.: Furnished	Driven

Guard Rail Lin. Ft.: Flex. Steel	Reset	Monuments Type "C" Each	Right of Way Markers Each	Salvaged Road Material Cu. Yds.	R.R. Grade Crossings Sq. Yds.		Guide Posts Each	Final Trimming and Cleaning, Miles	Water for Crushed Stone or Gravel Surface 1000 Gals.
							29	5.305	22

Pipe

Pipe	Unit	6"	8"	10"	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	72"	84"
Vitrified clay	LIN.FT.																
Reinforced concrete	LIN.FT.																
Pipe	LIN.FT.				90	226			76								
Corrugated metal	LIN.FT.				492	104	40										
Reinf. conc. or vit. clay, cast iron	LIN.FT.																
[illegible]	LIN.FT.																
Pipe, C.M., R.C., or C.I.	LIN.FT.									44	198		44				
Pipe [illegible], C.M.	LIN.FT.																
[illegible]	LIN.FT.																
[illegible] Relaid	LIN.FT.	18	20	20	6												
R.C., V.C., C.I., or Conc.					188	150											
R.C., V.C., or Conc.					12												
Vit. clay, relaid					20												

BRIDGE AND CULVERT DATA

Not to be constructed under this Contract (structures 10 to 43)

Structure Number	Location	Size	Kind	Skew	Length "L"	Height "H"	Wings "W"	Flow Line Up Stream	Flow Line Down Stream	Concrete Class "D" Cu. Yds.	Special Concrete Class "X" Cu. Yds.	Rubble Headwalls Cu. Yds.	Steel Reinforcing Lbs.	Remarks
10	1+46L	12"	V.C. pipe		10'						0.27			Extend 12" V.C. pipe in place to new ditch line. Construct inlet ditch from sta. 113+50 Line "A".
11	2+06R	12"	C.M. pipe		16'						0.54			Remove 12" conc. tile in place.
12	3+84L	12"	V.C. pipe		10'						0.27			Extend 12" V.C. pipe in place to new ditch line.
13	6+00L	12"	C.M. pipe		16'						0.54			Remove 8" conc. tile in place.
14	9+09L	12"	C.M. pipe		16'						0.54			
15	13+47	24"	Pipe		76'			790.7	790.4	5.07				Place two 38' pipes parallel. Remove 1'x1' conc. box in place.
16	14+95	15"	Pipe		40'					1.70				Remove 10" sewer in place. Place 2" hdw. Lt. & straight hdw. Rt.
17	20+49	18"	Pipe		54'			785.0	784.1	2.29				Remove 1'x1' conc. box in place.
18	31+80	12"	R.C., V.C., or Conc. pipe		50'									Remove 50' of 12" tile in place.
19	31+80	8'x3'	R.C. box culvert		40'		W1-W1	771.6	771.3	15.3			2305	Remove 48" conc. arch in place.
20	51+90L		Std. Inlet-type C-5											Remove tile inlet in place.
21	37+00L		Std. Inlet-type C-5											Connect to str. #22. Construct inlet ditch.
22	37+00	15"	Pipe		44'									Connect to str. #21 & #23.
23	37+00R		Std. Catch basin, type C-5											Connect to str. #22 & #24. Omit hood.
24	37+00R	15"	Pipe		48'									Connect to str. #23 & to 12" F.D. tile in place. Includes one 15" on 12" tee to be paid for at unit price for 4' of 15" pipe.
25	43+00	15"	Pipe		44'			778.6	776.0	1.71				
26	51+19L	12"	C.M. pipe		16'						0.54			
27	51+51L	12"	C.M. pipe		16'						0.54			
28	51+54R	12"	C.M. pipe		16'						0.54			
29	52+62	15" / 15"	C.M. pipe to be relaid / C.M. pipe		[illegible]			783.4	779.7	1.71				Relay 15" C.M. pipe in place & extend with 15" C.M. Remove headwalls & 1'x1' conc. box sta. 52+67.
30	68+62R	12"	R.C., V.C., or Conc. pipe		8'									Remove tile inlet in place.
31	68+80	36"	Pipe, C.M., R.C., or C.I.		44'			751.2	751.0	8.12				Remove 24" C.M. pipe in place. Construct outlet ditch.
32	69+70R	12"	C.M. pipe		16'						0.54			
33	74+75	15"	Pipe		52'			752.3	751.4	1.71				Remove 12" V.C. pipe in place.
34	76+19R	10"	V.C. pipe in place.								0.48			Construct headwalls on pipe in place.
35	77+72	24"	Pipe		38'			756.5	755.3	3.75				Remove 12" V.C. pipe in place. Construct outlet ditch.
36	79+44	24"	Pipe		50'			755.4	753.8	3.75				Remove 20" B.I. pipe in place.
37	84+01	15"	Pipe		46'			759.2	756.0	1.71				Remove 1.3'x1.3' conc. box in place.
38	86+63L	12"	C.M. pipe		26'						0.54			Remove 8" F.D. tile in place.
39	91+26R	12"	C.M. pipe		16'						0.54			Remove 5" conc. tile in place.
40	91+65	24"	Pipe		76'			761.4	761.2	5.07				Place two 38' pipes parallel. Remove 36" pipe in place.
41	105+41L	15"	C.M. pipe		16'						0.64			
42	106+32	18"	Pipe		44'			757.8	756.4	2.29				Remove 12" V.C. pipe in place.
43	118+00	15"	Pipe		36'			751.8	751.7	1.71				Construct outlet ditch.
44	120+26R	15"	C.M. pipe		16'						0.64			
45	120+92L	12"	V.C. pipe to be relaid		10'						0.27			Relay 12" pipe in place in new ditch line.
46	122+38L	12"	V.C. pipe to be relaid		10'						0.27			" " " " " " " "
47	127+54	8'x5'	R.C. box culvert		38'		W1-W1	744.7	744.5	61.2			5893	Remove structure in place.
48	131+29R	12"	C.M. pipe		24'						0.54			
49	132+25L	12"	C.M. pipe		16'						0.54			
50	141+10R	12"	C.M. pipe		16'						0.54			
51	143+00R	12"	C.M. pipe		16'						0.54			
52	144+84	24"	Pipe		36'			759.2	759.0	3.75				Construct outlet ditch. Remove 12" V.C. pipe in place.
53	149+44L	12"	C.M. pipe		16'						0.54			
54	150+46L	12"	C.M. pipe		16'						0.54			
55	152+54R	15"	Pipe		36'					1.71				
56	152+75L	6"	F.D. tile in place								0.215			Remove drain tile in place.
57	155+52L	12"	C.M. pipe		16'						0.54			Place headwall on inlet end.
58	159+90	36"	Pipe, C.M., R.C., or C.I.		38'					8.12				
59	165+34R	12"	C.M. pipe		16'						0.54			Remove 20" C.M. pipe & 24" conc. pipe in place.
60	167+85L	12"	Std. V.C. Pipe Catch Basin											Connect to Stru. No. 60A. Remove Inlet in place.
61	167+97	36"	Pipe, C.M., R.C., or C.I.		72'			754.4	754.2	10.99				Place two 36' pipes parallel. Construct outlet ditch. Remove conc. arch in place (Span 6', rise 3').
62	178+90L	12"	C.M. pipe		16'						0.54			
63	180+68	36"	Pipe, C.M., R.C., or C.I.		48'			753.4	750.8	8.12				Remove two 15" conc. pipes and one 30" C.M. pipe, sta. 181+51 - 181+71. Construct inlet and outlet ditches.
64	184+41	8'x5'	R.C. box culvert		38'		W1-W1	751.8	751.6	61.2			5893	Remove conc. arch in place. (Span 12', rise 4.5')
65	192+58L	12"	C.M. pipe		16'						0.54			
66	197+93R	12"	C.M. pipe		16'						0.54			
67	198+00L	12"	C.M. pipe		16'						0.54			
68	198+41L	12"	C.M. pipe		16'						0.54			
69	203+40	15"	Pipe		40'					1.69				
70	203+8[illegible]	15"	Pipe		40'					1.69				Remove 12" C.M. pipe in place.
71	213+47L	8"	Sewer		10'						0.215			Extend present structure to new ditch line.
72	215+93L	8"	Sewer		10'						0.215			" " " " " " "
73	221+33	24"	Pipe		40'			775.8	775.5	3.75				Remove 24" C.M. pipe in place.
74	221+30L	12"	Std. V.C. Pipe Catch Basin											Connect to Stru. No. 74A. Remove Catch Basin in place.
75	223+99L	6"	F.D. tile to be relaid		10'						0.215			Relay in new ditch line.
76	225+77R	8"	F.D. tile in place								0.43			Construct headwalls.
77	227+00	15"	Pipe		36'			782.3	782.1	1.71				Construct outlet ditch.
78	229+93R		Std. Catch Basin (Type C5)											Remove inlet in place. Connect to 6" F.T. in Place.
79	230+02L	12"	C.M. pipe		16'						0.54			
80	233+83L	12"	C.M. pipe		16'						0.54			
81	245+00L	12"	C.M. pipe		16'						0.54			
82	248+77L	12"	Pipe		30'						0.54			
83	249+21L	8"	Drain tile to be relaid		8'									Remove 7" drain tile in place.
84	250+08R	12"	C.M. pipe		16'						0.54			Place in headwall with str. #82.
85	256+47L	18"	C.M. pipe		40'					1.88				Remove 8" conc. drain tile.
86	264+63	3'x3'	R.C. box culvert		40'		W1-W1	768.2	767.9	15.8			2305	Remove 30" C.M. pipe in place.
87	276+50	16'	R.C. Slabtop culvert, without fill	15°	28'	6'	W1-W1 [illegible]	757.5	757.5	103.9			6080	28' roadway. Remove structure in place.
88	283+05L	15"	C.M. pipe		36'					1.69				
89	283+05R	15"	C.M. pipe		36'					1.69				Remove drain tile in place.
90	298+22	36"	Pipe, C.M., R.C., or C.I.		40'			774.5	773.2	8.12				Remove structure in place.
91	296+25R	12"	C.M. pipe		38'						0.54			Remove 8" drain tile in place.
92	296+31L	12"	C.M. pipe		16'						0.54			Remove 6" drain tile in place.
93	301+67R	12"	C.M. pipe		16'						0.54			Remove 8" drain tile in place.
94	308+37	48"	Pipe, C.M., R.C., or C.I.		44'		W1-W1	771.4	771.0	3.6			790	Remove 42" C.M. pipe in place.
95	309+37R	12"	C.M. pipe		16'						0.54			Remove 10" conc. drain tile in place.

ESTIMATE OF QUANTITIES

FOR ROCK ASPHALT SURFACE

	CONCRETE	PAVEMENT REINFORCED WITH WIRE MESH	BITUMINOUS MACADAM	BITUMINOUS CONCRETE	BITUMINOUS CONCRETE AS PRIMITIVE PAVING	BITUMINOUS COATED AGGREGATE	RECONSTRUCTING

BASE AND BINDER COURSES.	
COARSE AGGREGATE	TONS
SELECTED FINES	TONS
COARSE OR FINE AGGREGATE	CU.YDS
AGGREGATE	TONS
BITUMINOUS MATERIAL	GALS
BITUMINOUS MACADAM	SQ.YDS
BITUMINOUS CONCRETE	GALS.
BITUMINOUS CONCRETE	TONS
BITUMINOUS PRIME	GALS.
BITUMINOUS COURSE	TONS
	TONS
BITUMINOUS COATED AGGREGATE	TONS
BITUMINOUS COATED AGGREGATE	TONS
BITUMINOUS MIXTURE	TONS
CONCRETE	CU.YDS.
CONCRETE BASE COURSE	SQ.YDS
REINFORCING STEEL	LBS.

FOR BITUMINOUS CONCRETE SURFACE

	CONCRETE	MACADAM	BITUMINOUS MACADAM	BITUMINOUS CONCRETE	BITUMINOUS CONCRETE	BITUMINOUS COATED AGGREGATE	RECONSTRUCTING

SURFACE COURSES	CONCRETE	REINFORCED CONCRETE	REINFORCED CONCRETE	BITUMINOUS CONCRETE AS PRIMITIVE PAVING	BITUMINOUS CONCRETE AS SURFACE COURSE	NATURAL ROCK ASPHALT	STONE OR GRAVEL	BITUMINOUS MACADAM	BITUMINOUS REPEAT	BITUMINOUS TREATMENT	BITUMINOUS CONCRETE AGGREGATE	ROAD OIL TREATMENT	PATCHING
CONCRETE PAVEMENT	SQ.YDS												
REINFORCING PAVEMENT	SQ.YDS												
WIRE REINFORCEMENT	SQ.YDS												
REINFORCING STEEL	LBS.												
EXPANSION JOINTS	LIN.FT.												
EXPANSION JOINT	LIN.FT.												
EXPANSION JOINT	LIN.FT.												
CONTRACTION JOINTS	LIN.FT.												
CONTRACTION JOINTS	LIN.FT.												
CONCRETE OVERLAY	CU.YDS												
ASPHALT	TONS												
BITUMINOUS MIXTURE	TONS												
CRUSHED STONE OR GRAVEL													
AIR FORCED MACADAM SURFACE & SEAL	TONS												
COVERING AGGREGATE	TONS												
ASPHALT PRIMER & SEAL	GALS.												
BITUMINOUS PRIME	GALS.												
BITUMINOUS MACADAM SEAL	TONS												
BITUMINOUS MACADAM TYPE A	TONS												
BITUMINOUS MACADAM TYPE	TONS												
MANHOLES TYPE A	EACH												
MANHOLES TYPE B	EACH												
MANHOLES TYPE D	EACH												
CONCRETE BLANKETS	LIN.FT.												

TYPE OF PAVEMENT	EXCAVATION CU.YDS. COMMON	SOLID ROCK	BEAT	SPECIAL BORROW CU.YDS.	SPECIAL FILL MATERIAL CU.YDS.	OVERHAUL CU.YDS. ONE BALANCE	TWO BALANCES	THREE BALANCES

CONCRETE FOR STRUCTURES CU.YDS. BRIDGE	CLASS "D"	RUBBLE HEADWALLS CU.YDS.	REINFORCING STEEL FOR STRUCTURES LBS.	CATCH BASINS AND INLETS CONCRETE CURB & GUTTER	CATCH BASINS AND INLETS CONCRETE BATH TUB	CATCH BASINS AND INLETS BRICK CURB TYPE	CATCH BASINS AND INLETS BRICK BATH TUB	CATCH BASINS AND INLETS BRICK CURB TYPE

INLETS CONCRETE CURB TYPE	CONCRETE CURB TYPE	BRICK CURB TYPE	MANHOLES TYPE A	TYPE B	V.C. PIPE INLETS 12"	18"	24"	ADJUSTED TO GRADE MANHOLES	INLETS	CULVERTS	STRUCTURE REMOVAL FOR CULVERT EXTENSIONS CURB	GRAVEL	GROUP

FINISHING SHOULDERS AND DITCHES LIN.FT.	SODDING SQ.YDS.	AGGREGATE FOR SUBSURFACE DRAINS TONS	ARG. FOR SUBSURFACE DRAINS	RIP-RAP SQ.YDS.	SPECIFIED RIP-RAP SQ.YDS.	RELAID RIP-RAP SQ.YDS.	PAVED STRT DITCH LIN.FT.	PAVED GUTTER LIN.FT.

COMBINED CURB AND GUTTER LIN.FT. NEW	REMOVAL	RELAY	RESET	INTEGRAL CONCRETE CURB LIN.FT.	CONCRETE CURB LIN.FT.	CURB REMOVAL LIN.FT.	CURB INLET LIN.FT. INLET	STONE	CONC.	SIDEWALK SQ.YDS. NEW	RELAY	REMOVAL	CROSSWALK SQ.YD. NEW	REMOVAL	PAVEMENT REMOVAL SQ.YDS.	PAVEMENT SURFACE REMOVAL SQ.YDS.	BRICK SURFACE REPAIR SQ.YDS.	TEST HOLES LIN.FT.	DYNAMITE LBS.	MACHINE EXCAVATION HRS.	FINAL BRACING LIN.FT.	TIMBER PILING LIN.FT. DYNAMITED	DRIVEN

GUARD RAIL LIN.FT. STEEL	TIMBER	MONUMENTS TYPE "E"	CONCRETE	LIGHT OF WAY MARKERS	SLAGGED ROAD MATERIAL CU.YDS.	R.R. GRADE CROSSINGS SQ.YDS.

PIPE

	6"	8"	10"	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	72"	84"
VITRIFIED CLAY	LIN.FT.															
CONCRETE	LIN.FT.															
IRON	LIN.FT.															
CORRUGATED METAL	LIN.FT.															
CONC. (FULLER TEST PIPE)	LIN.FT.															
CONC. (FULLER VITRIFIED CLAY)	LIN.FT.															
	LIN.FT.															
	LIN.FT.															
	LIN.FT.															
	LIN.FT.															

BRIDGE AND CULVERT DATA

R.A.S. 25 1935 10 59

Sec A

STRUCTURE NUMBER	LOCATION	SIZE	DESCRIPTION KIND	SKEW	LENGTH			WINGS W.V.	FLOW LINE STATION	FLOW LINE DOWN STREAM	CU. YDS. CLASS "D"			STEEL REINFORCING LBS.	REMARKS
	96 318+312	12"	C.M. pipe		16'						0.54				Remove 8" conc. drain tile in place.
	97 320+68	6'x6'	R.C. box culvert		30'		W-W	770.5	770.4	34.4				3779	Remove conc. arch in place, & pour 8" rise 3"
	98 322+53L	12"	C.M. pipe		16'						0.54				
	99 335+11R	12"	C.M. pipe		16'						0.54				
	100 337+95	3'x3'	R.C. box extension		18'		W-W	779.0	778.8		10.10			1233	Extend 3'x3' box in place 10' on Lt. & 8' on Rt.
	101 345+50	15"	Pipe		38'			788.4	787.9	1.71					Remove pipe in place.
	102 353+39	30"	Pipe, C.M., R.C., or C.I.		44'			780.2	777.0	5.78					Remove 24" C.M. pipe in place.
	103 353+17R	12"	C.M. pipe		16'						0.54				
	104 354+33R	12"	C.M. pipe		16'						0.54				
	105 359+78R	18"	C.M. pipe		16'						0.64				
	106 362+27L	12"	C.M. pipe		16'						0.54				Remove 8" conc. tile in place.
	107 365+83L	12"	C.M. pipe		50'						0.54				
	108 367+30R	12"	R.C., V.C., or conc. pipe		4'										Remove inlet in place.
	109 367+96R	12"	R.C., V.C., or conc. pipe		4'										" " " " "
	110 368+50R	12"	R.C., V.C., or conc. pipe		4'										" " " " "
X	111 371+50L	12"	Std. V.C. Pipe Catch Basin												Connect to Str. #112.
X	112 375+01L	12"	R.C., V.C., C.I., or Conc. pipe		110'										Connect to Str. #111 & #113A.
X	113 375+52L		Std. Inlet (Type C5)												Connect to Str. #113A
X	114 375+50	15"	R.C., V.C., C.I., or Conc. pipe		50'				762.7	762.5	0.64				Connect to Str. #112 & #113A. Pipe 15" 2' long & 2" pipe to be paid for at unit
X	115 376+98L	12"	Std. V.C. Pipe Catch Basin												Connect to Str. #114. price for R.C., V.C., C.I., or Conc. pipe.
	116 376+24	15"	R.C., V.C., C.I., or Conc. pipe		42'						0.64				Connect to Str. #113. Set p.b. for detail of sp. hdw., on pl.
X	117 376+78L	12"	Std. V.C. Pipe Catch Basin												Connect to Str. #119.
X	118 377+29L	12"	R.C., V.C., C.I., or Conc. pipe		86'								0.27		Connect to Str. #118B & #117. Pipe 15" R.C., V.C., C.I., or Conc. pipe.
	119 376+78	15"	R.C., V.C., C.I., or Conc. pipe		54'				761.7	761.5	0.64				Connect to Str. #118 & #117.
X	118B 377+03L	12"	Std. V.C. Pipe Catch Basin												Connect to Str. #118.
X	60A 167+85 LA	10"	Sewer Pipe		8'										Connect to Stru. No 60 & Tile in place. One "T" Connection Req'd. "T" Connection will be Considered equivalent to 4 Lft. of 10" Sewer pipe & paid for accordingly.
X	74A 221+35L	10"	Sewer Pipe		8'										Connect to Stru. No. 74 & F.T. in place. One "T" Connection Req'd. "T" Connection will be Considered equivalent to 4 Lft. of 10" Sewer pipe & paid for accordingly.
X	113A 375+52L	12"	Sewer Pipe		4'										Connect to Stru. No. 113 & No 114 One "T" Connection Req'd. "T" Connection will be considered equivalent to 4 Lft. of 12" sewer pipe and paid for accordingly.
X															

END STR