



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P.O. BOX 3265, HARRISBURG, PA 17105-3265

June 29, 1994

IN REPLY PLEASE
REFER TO OUR FILE

A-00110138

WILLIAM J CARLIN ESQUIRE
LOWER MAKEFIELD TWP SOLICITOR
680 MIDDLETOWN BLVD
PO BOX 308
LANGHORNE PA 19047

Application of the Township of Lower Makefield for approval of the alteration of the crossing (AAR No. 587 635 M) where Heacock Road (S.R. 2029) crosses the tracks of Consolidated Rail Corporation, in Lower Makefield Township, Bucks County.

To Whom It May Concern:

This is to advise you that an Order has been adopted by the Commission in Public Meeting on June 23, 1994 in the above entitled proceeding.

A copy of this Order has been enclosed for your records.

Very truly yours,

John G. Alford, Secretary

smk
encls.
cert. mail

DOCUMENT
FOLDER

DOCKETED

JUL 19 1994

DOCUMENT
FOLDER

PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265

Public Meeting held June 23, 1994

Commissioners Present:

David W. Reika, Chairman
Joseph Rhodes, Jr., Vice-Chairman
John M. Quain
Lisa Crutchfield
John Hanger

DOCKETED
JUL 19 1994

Application of the Township of Lower
Makefield for approval of the alteration
of the crossing (AAR No. 587 635 M) where
Heacock Road (S.R. 2029) crosses the tracks
of Consolidated Rail Corporation, in Lower
Makefield Township, Bucks County.

A-00110138

O R D E R

BY THE COMMISSION:

This matter is before us upon petition filed on December 30, 1993,
by Pennsylvania Department of Transportation seeking modification of the Com-
mission's order adopted November 5, 1992.

Said order directed the installation of a new high-type rubber
crossing surface and new cantilevered flashing light railroad crossing warning
signals and gates. Pennsylvania Department of Transportation has agreed to
reimburse Consolidated Rail Corporation for its expenses incurred in the in-
stallation of the crossing surface and signals from funding which consists of
90% Federal funds and 10% State funds.

In its petition Pennsylvania Department of Transportation states
that Numbered Paragraph 8 of the subject order directs the Department to pro-
vide for the maintenance and protection of vehicular traffic during the time
the crossing improvement is being constructed. The Department contends that
it would be more appropriate for Consolidated Rail Corporation to provide said
maintenance and protection of vehicular traffic at the sole cost and expense
of the Department.

A copy of the petition has been served on all parties. No one has
advised that it opposes the Commission granting the prayer of the petition or,
indicated a desire to be heard; THEREFORE,

IT IS ORDERED:

1. That the prayer of Pennsylvania Department of Transportation's petition filed on December 30, 1993, seeking modification of the Commission's order adopted November 5, 1992, be and is hereby granted.

2. That Numbered Paragraph 8 of our order adopted November 5, 1992, which reads as follows:

"8. That Pennsylvania Department of Transportation provide for the maintenance and protection of vehicular traffic during the time the crossing improvement is being constructed."

be and is hereby modified to read as follows:

8. That Consolidated Rail Corporation provide for the maintenance and protection of vehicular traffic during the time the crossing improvement is being constructed.

3. That Numbered Paragraph 17 of our order adopted November 5, 1992, which reads as follows:

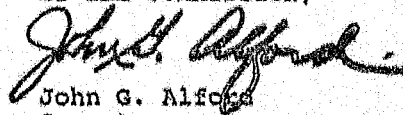
"17. That Pennsylvania Department of Transportation pay Consolidated Rail Corporation a sum or sums of money equal to the actual cost of materials furnished, work performed and services rendered by the corporation in compliance with numbered Paragraphs 4 and 7 of this order."

be and is hereby modified to read as follows:

17. That Pennsylvania Department of Transportation pay Consolidated Rail Corporation a sum or sums of money equal to the actual cost of materials furnished, work performed and services rendered by the corporation in compliance with Numbered Paragraphs 4, 7 and 8 of this order.

4. That in all respects not inconsistent herewith, our order adopted November 5, 1992, shall remain in full force and effect.

BY THE COMMISSION,


John G. Alfors
Secretary

(SEAL)

ORDER ADOPTED: June 23, 1994

ORDER ENTERED: JUN 29 1994



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P.O. BOX 3265, HARRISBURG, PA 17105-3265

January 5, 1995

IN REPLY PLEASE
REFER TO OUR FILE

LDA

DOCKETED

JAN 11 1995

MR MICHAEL L QUINN CHAIRMAN
LOWER MAKEFIELD TOWNSHIP SUPERVISORS
1100 EDGEWOOD ROAD
YARDLEY PA 19067

In Re: A-00110138 - Application of the Township of Lower Makefield for approval of the alteration of the crossing (AAR No. 587 635 M) where Heacock Road (S.R. 2029) crosses the tracks of Consolidated Rail Corporation, in Lower Makefield Township, Bucks County.

RECEIVED
JAN 11 1995
COMMUNICATIONS SECTION

Dear Mr. Quinn:

The Commission's order in this proceeding adopted November 5, 1992 approved Lower Makefield Township's application to alter the subject crossing and directed, inter alia, that Consolidated Rail Corporation install a new high-type rubber surface and cantilevered flashing light signals at the crossing. Also, the township was directed, inter alia, to construct highway approaches to the crossing. All work was to be completed by December 31, 1993.

A final inspection of the project on October 14, 1994 revealed that the railroad's work appears to have been completed. However, the township's portion of the project has not been completed.

It will be necessary for you to file a petition with this Commission requesting an extension of time to complete this work and provide reasons why the project has not been completed. A copy of the petition should be served on all parties of record.

If you have any questions regarding this matter, please do not hesitate to call me at (717) 787-9732.

Very truly yours,

David C. Hart, P.E., Manager
Rail Safety Division
Bureau of Transportation & Safety

DCH:WJK:nm

**DOCUMENT
FOLDER**



Township of Lower Makefield

DMM

ORIGINAL

BOARD OF SUPERVISORS

Wesley W. Hackman, Jr., Chairman
Frank J. Fazzalora, Vice Chairman
Grace M. Godshalk, Secretary/Treasurer
Michael L. Quinn, Supervisor
Scott I. Fogley, Supervisor

January 26, 1995

John G. Alford, Secretary
Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: A-00110138 - Petition to Extend Time to Complete :
Application of the Township of Lower Makefield for approval of
the alteration of the crossing (AAR No. 587 635 M) where
Heacock Road (S.R. 2029) crosses the tracks of Consolidated
Rail Corporation, in Lower Makefield Township, Bucks County

Dear Mr. Alford:

Reference is made to your, letter dated January 9, 1995, with
regard to the above project.

The Pennsylvania Department of Transportation, on January 12,
1995, let the construction project for the improvements to S.R.
2029, Section L01, for approximately 5,470 linear feet, which
crosses the tracks of the Consolidated Rail Corporation. The
construction project is scheduled to begin approximately March
1995, and require two construction seasons, or 511 calendar days.

As a result of the Pennsylvania Department of Transportation
schedule for the construction of improvements to S.R. 2029, we
hereby make a request to the Public Utility Commission to extend
the time to complete the approach roadways at the crossing of the
Consolidated Rail Corporation, to an approximate six (6) month
period beyond the estimated completion of construction to September
1, 1997.

DOCKETED
FEB 22 1995

DOCUMENT
FOLDER

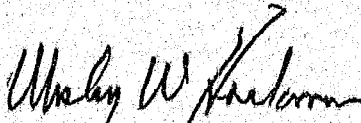
RECEIVED
FEB 19 PM 1:28
PA. P. U. C.
REG. CONTROL DIV.

John G. Alford, Secretary
Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
Page 2

We will also forward a copy of this petition to the following parties of record:

Office of the Clerk, Bucks County
Office of the Assoc. General Council, of Consolidated
Rail Corporation
Office of the Chief Engineer, S.E.P.T.A.
Office of the Asst. Council-In-Charge, Office of Chief
Council of the Commonwealth of Pennsylvania

Very truly yours,
LOWER MAKEFIELD TOWNSHIP


Wesley W. Hackman, Jr., Chairman,
Board of Supervisors

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

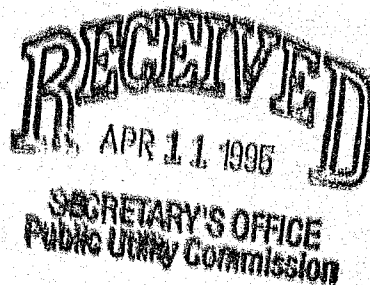
April 6, 1995



IN REPLY REFER TO:

LDA

Bucks County
Township of Lower Makefield
S. R. 2009 (Heacock Road), Section E01
AAR No. 587 635 M
PUC No. A-00110138



Mr. John G. Alford, Secretary
Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Dear Secretary Alford:

On behalf of the Township of Lower Makefield, we are forwarding three sets of construction drawings for the subject project, signed by the Secretary of Transportation on November 18, 1994, on behalf of the Governor as well as himself.

These drawings are being forwarded for your approval in accordance with Paragraph 2 of the Commission's Order of November 12, 1992, in the referenced proceeding.

A copy of this letter and one copy of the aforementioned plans are being forwarded to the following parties:

Mr. Terry Fedorchak, Township Manager
Township of Lower Makefield
1100 Edgewood Road
Yardley, PA 19067

Mr. J. D. Cossel, Chief Engineer
Construction
Consolidated Rail Corporation
2001 Market Street, 12-B
P. O. Box 41412
Philadelphia, PA 19101-1412

Peco Energy Company
2301 Market Street
P. O. Box 8699
Philadelphia, PA 19101

DOCUMENT
FOLDER

The Bell-Atlantic-PA-Inc.
One Parkway
Floor 8A
Philadelphia, PA 19102

Pennsylvania American Water Company
Yardley District
60 West College Avenue
P. O. Box 353
Yardley, PA 19062

Sincerely,

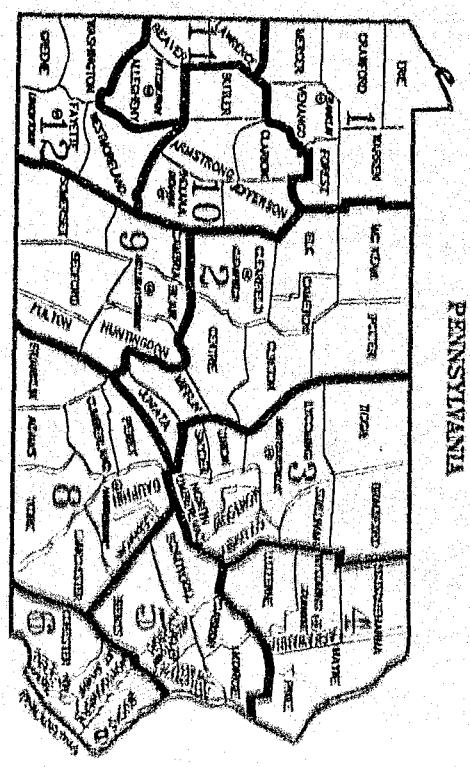
M. G. Patel

For: M. G. Patel, P.E.
Acting Director
Bureau of Design

Attachment

PROPERTY OWNERS

- 1 PAULINE L. WESPER
- 2 BELLEVEDUE DEVELOPMENT CORP.
- 3 BELLEVEDUE DEVELOPMENT CORP.
- 4 LORNE WAREFIELD PARTNERSHIP
- 5 MARE ANN THOMPSON
- 6 MICHAEL MADOK & THERESA P. MADOK H/W
- 7 THERESA MADOK
- 8 ERIN DEVELOPMENT COMPANY
- 9 ERIN DEVELOPMENT COMPANY
- 10 OTTO F. WESPER & PAULINE L. WESPER H/W
- 11 HAROLD RAYN
- 12 CONSOLIDATED PALE CORPORATION
- 13 HAROLD RAYN
- 14 LORNE WAREFIELD PARTNERSHIP
- 15 WAREFIELD CORPERS HOLDINGS
- 16 JANE CARRISON & JACOB T. CARRISON H/W
- 17 FRANCIS SHANNON
- 18 ANDRUSKA L. WISNITZ
- 19 MICHAEL W. CUNY & TONYA M. CUNY H/W
- 20 ROBERT E. GORE
- 21 JACOB STEINBERG & ERIN SHANNON
- 22 CLYDE W. WASSILL & DON R. WAREFIELD H/W
- 23 WILLIAM DEWITT & JANE W. DEWITT H/W
- 24 JOSEPH M. ROBERTS & JOHANN M. ROBERTS H/W
- 25 ERIC W. COYNE & CECILIA B. COYNE H/W
- 26 ALFRED S. FUNK & WENDY L. FUNK H/W
- 27 WAREFIELD COMMUNITY ASSOC.
- 28 WAREFIELD COMMUNITY ASSOC.
- 29 HAROLD W. EYKES & NICHOLAS MARTEL
- 30 CONSOLIDATED PALE CORPORATION
- 31 LORNE WAREFIELD PARTNERSHIP
- 32 LORNE WAREFIELD PARTNERSHIP
- 33 WAREFIELD GEN UTIL PARTNERSHIP
- 34 BELLEVEDUE DEVELOPMENT CORP.



PENNSYLVANIA

DISTRICT	COUNTY	TOWNSHIP	SECTION	SHEET
5-3	BERKS	LOWER WAREFIELD TOWNSHIP	101	2 OF 27
DATE	REVISIONS	DATE	BY	



LIMIT OF WORK
 SR 2029 (OXFORD VALLEY RD.)
 STA 108+00.00
 STA 108+69.72
 LOWER WAREFIELD TOWNSHIP
 BERKS COUNTY

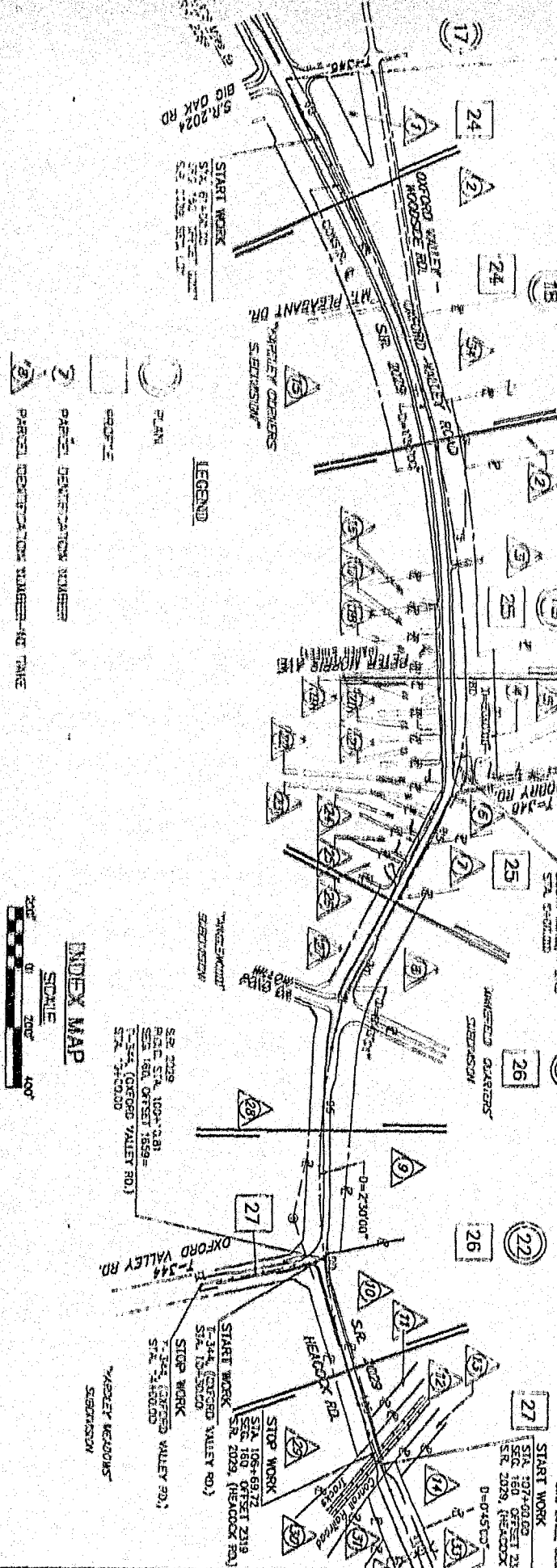
STOP WORK
 STA 108+00.00
 T-348 (DRYDEN RD.)

STOP WORK
 OXFORD VALLEY ROAD
 P.O.A. STA. 108+00.00
 STA. 108+00.00
 STA. 108+00.00

STOP WORK
 STA 110+00.00
 STA 110+00.00
 STA 2029, SEC 101

STOP WORK
 STA 110+00.00
 STA 110+00.00
 STA 2029, (HEALDOCK RD.)
 D=0+45.00'

LIMIT OF WORK
 SR 2029 (OXFORD VALLEY RD.)
 STA 108+00.00
 STA 108+69.72
 LOWER WAREFIELD TOWNSHIP
 BERKS COUNTY



SHEET INDEX

DESCRIPTION	SHEET
INDEX SHEET	1
GENERAL NOTES, UTILITY LIST, LAYOUT MAP	2
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DE AND SWEET'S	6 TO 11
SUBURBAN SWEET'S	12 TO 15
ROADWAY SWEET'S	16 TO 18
DRYDEN SWEET'S	19 TO 21
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SUPPLEMENTAL PLANS	
CROSS SECTIONS (UPON REQUEST)	28
PAVEMENT WORKING AND FINISHING PLAN	29
RAILROAD CONCEPT PLAN - (UPON REQUEST)	30
RAVINE SLOPE PLAN	31
WETLAND MITIGATION PLANS	32

INDEX MAP



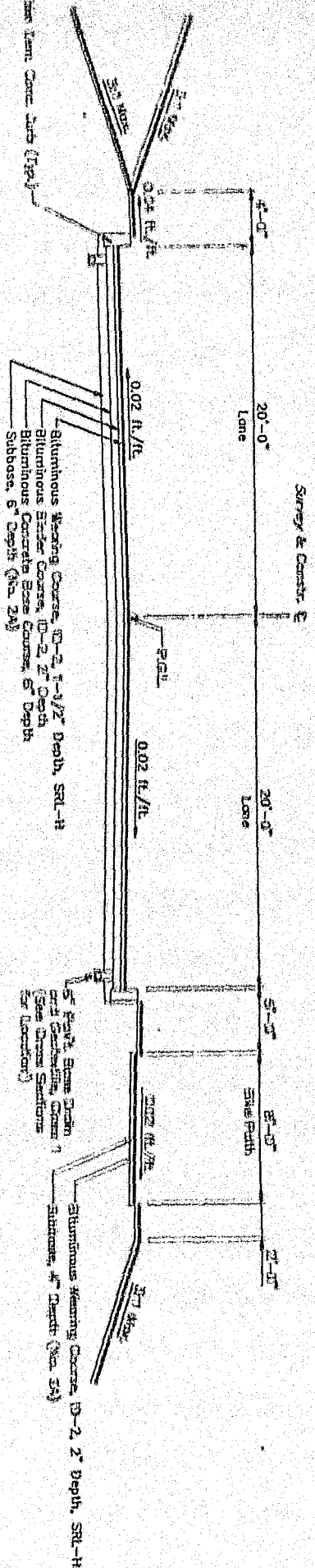
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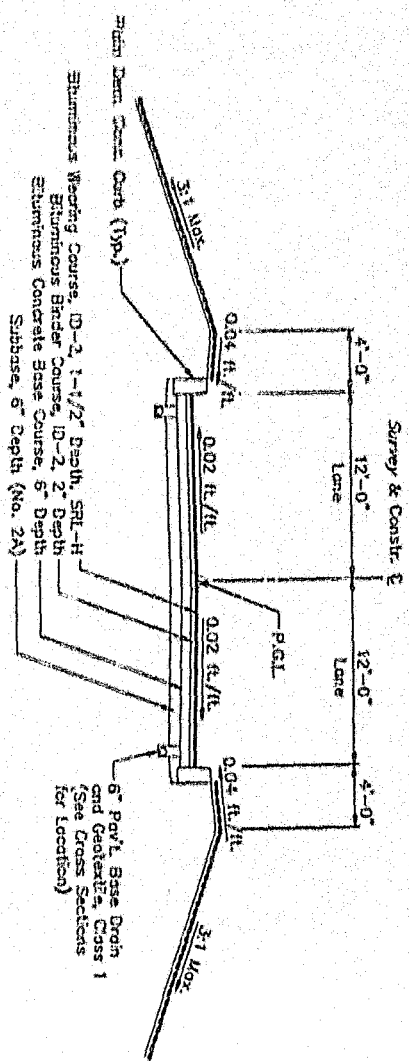
DISTRICT	BLK/CS	ROUTE	SECTION	SHEET
6-0		2028	LOT	7 OF 23
LOWER WANDFIELD TOWNSHIP				
REVISION	DATE	BY		

Seeding & Soil Supplements
 Formula 1 Seeding - 3:1 Slopes or Flatter

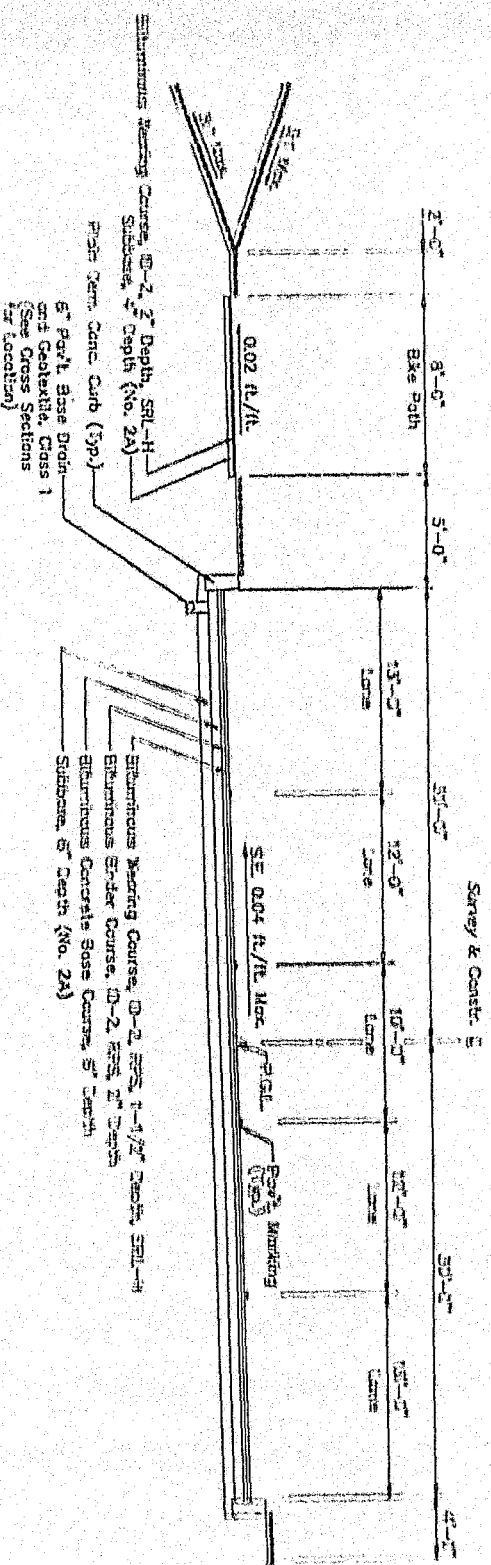
LEGEND



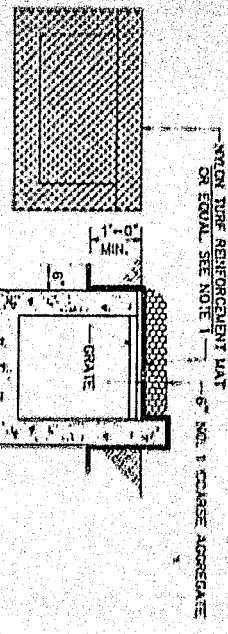
TYPICAL SECTION
I-344. (OXFORD VALLEY RD.)
 Sta. 10 + 30.00 to Sta. 13 + 59.00



TYPICAL SECTION
I-348. (DOBRY RD.)
 Sta. 0+50.00 to Sta. 2+52.50



TYPICAL SECTION
SR. 2029. (HEACOCK RD.)
 Sta. 104+99.02 to Sta. 106+52.22
 Sta. 107+00.00 to Sta. 108+00.00

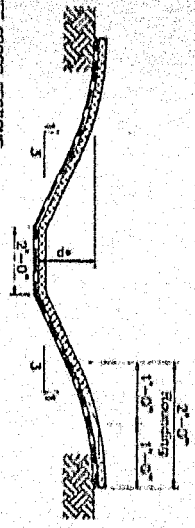


PLAN SECTION

NOTE: 1. SEE PROJECT PLS. 424, 1990 FOR SPECIFICATIONS

INLET PROTECTION

PLS. N.T.S. ITEM NO. 9500-0001



SEE CROSS SECTIONS FOR DETAILS OF PARALLEL DITCH

PARALLEL DITCH

N.T.S.

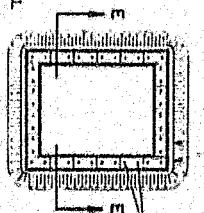
SEE 2229 STA. 79+00 TO STA. 82+50, ET 1-342 STA. 0+50 TO STA. 24+50, ET

EROSION CONTROL AND REGENERATION MAT

SEEDING & SOIL S. SP. ERECT

3' BAGED STRAW BUTT TOGETHER

- NOTES:
1. GEOTEXTILE FILTER SLACKET WILL BE CONSIDERED NECESSARY TO THE TEMPORARY SETTLING BASIN.
 2. PLACE AS PER SEC. AND DIRECTED BY THE ENGINEER.
 3. BASIN TO BE CLEANED WHEN SEDIMENT MAKES UP 5% OF VOLUME.



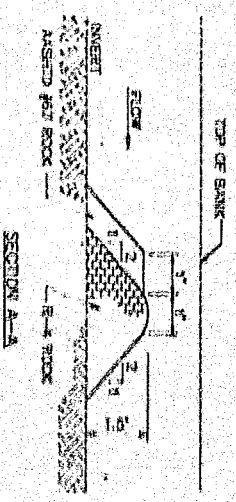
TEMPORARY SETTLING BASIN (20' X 25')

GEOTEXTILE MATERIAL CLASS 3, TYPE B (ONE PIECE)

3' BAGED STRAW STAKED IN PLACE

SECTION E-E

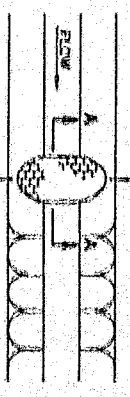
3' BAGED STRAW STAKED IN PLACE WITH 4 FT. WOODEN REINFORCEMENT BARS



SECTION A-A



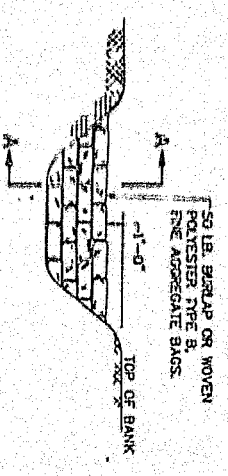
SECTION B-B



PLAN VIEW

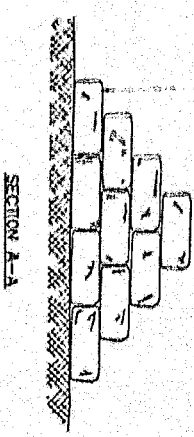
ROCK FILTER CHECK DAM

ITEM NO. 9000-0002 N.T.S.



SECTION

SANDBAGS STAKED IN PYRAMID FORM. EXPOSURE SPACING OVERLAPPED 1/2 BAG TO HEIGHT.



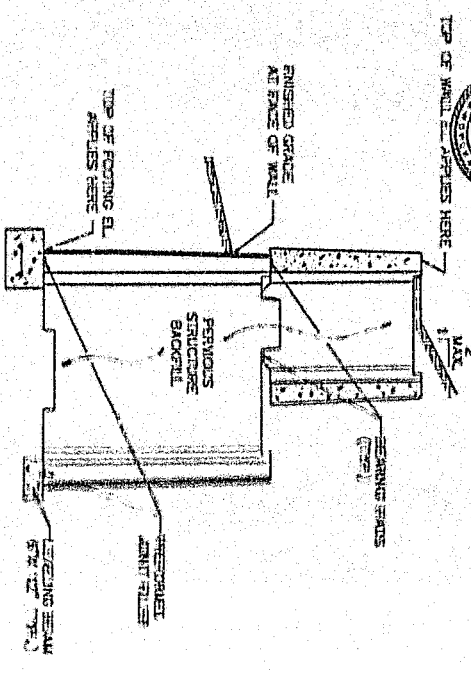
SECTION A-A

TEMPORARY SANDBAG BARRIER

ITEM NO. 9000-0005 N.T.S.



DISTRICT	QUANTITY	APPROX. COST	SECTION	DATE
6-0	1000	20000	1/11	8/10/27



TYPICAL SECTION PRECAST MODULAR RETAINING WALL SYSTEMS

STA. 56+50 TO STA. 57+50, ET ITEM NO. 8901-0001

SCALE 1/2" = 1'-0"

- NOTES:
1. MATERIALS & WORKMANSHIP TO ACCORDANCE WITH SPECIFICATIONS PUBLISHED 4/28/90. SEE PROJECT STANDARD 80-21, 2, 3, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. DIMENSIONS NOT INDICED.

BAR SCHEDULE - FOR INFORMATION ONLY

MARK	SIZE	QTY	TYPE	A	B	C	LENGTH
A-20	4	22	STR				8'-8"
A-21	5	6	STR	8'-9"	1'-0"	2'-0"	11'-5"
A-22	5	1	STR	2'-9"	1'-0"	2'-9"	6'-5"
A-23	5	6	STR				8'-3"
A-24	4	22	STR				8'-3"
A-25	5	8	STR				4'-5"
A-26	5	6	STR				10'-0"
A-27	5	10	STR				5'-5"
A-28	5	10	STR				10'-0"

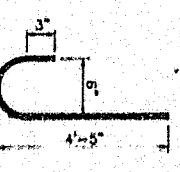
* CUT IN FIELD AS REQUIRED TO ACCOMMODATE 3/4" Ø PIPE APPROX. LGS. 600

APPROX. LGS. 600

TYPE 1



TYPE 2 (AS STANDARD HOOK)

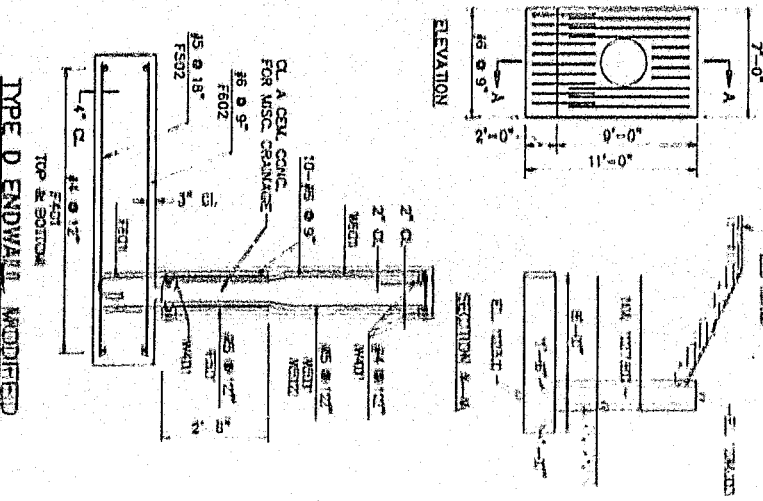


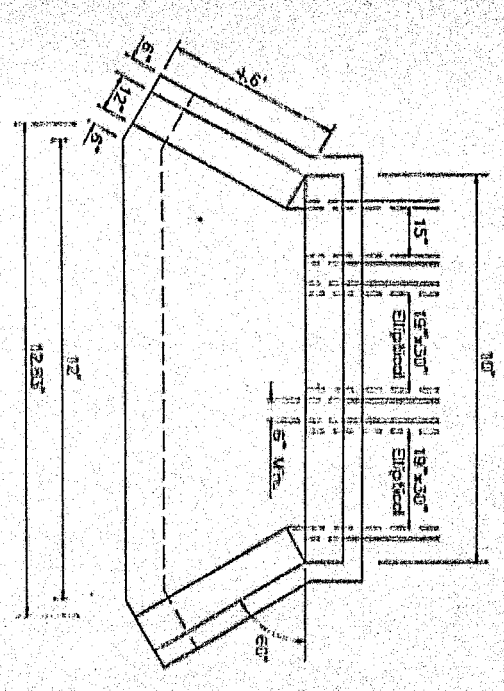
TYPE D ENDWALL MODIFIED

STA. 56+50, ET

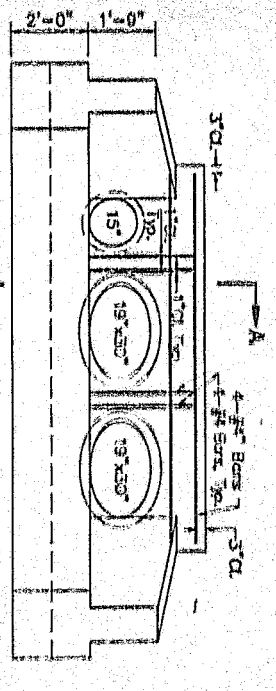
TYPE D ENDWALL MODIFIED

STA. 56+50, ET





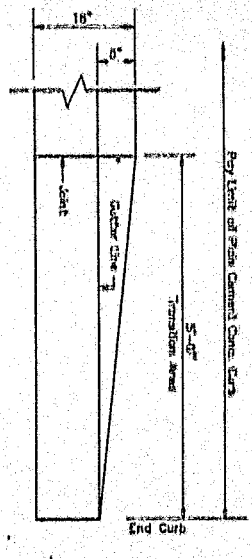
TOP VIEW



END VIEW

TYPE D-W ENDWALL, MODIFIED

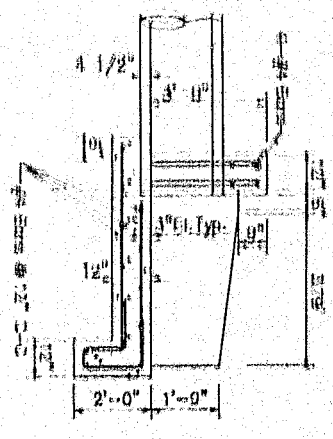
SEE S&M 002, RL



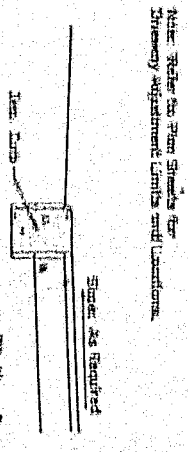
CURB TRANSITION DETAIL

SEE

- NOTES:**
1. Materials & Workmanship in accordance with Specifications Section 403.00.
 2. See PAVEMENT Standard R2-21, 3/25/94, for dimensions not indicated.
 3. Reinforcement Top Total Reinforcement Approximately 225 lbs.

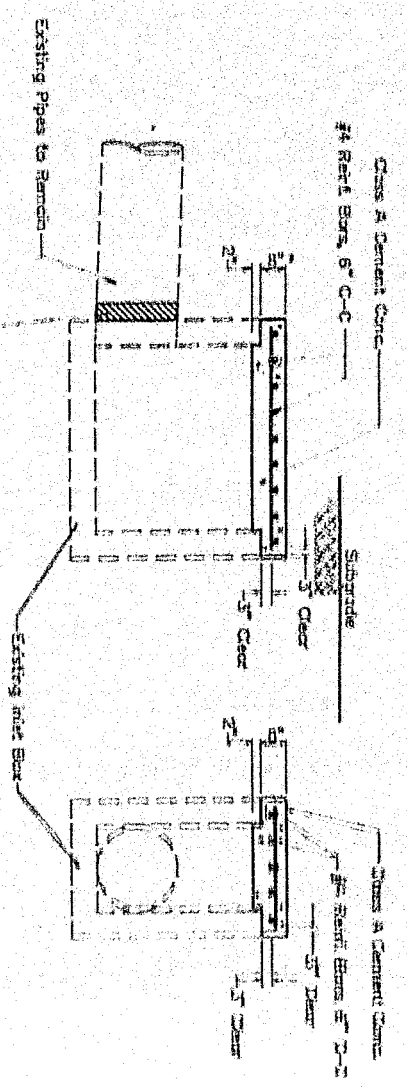


SECTION A-A



DRIVEWAY ADJUSTMENT SECTION

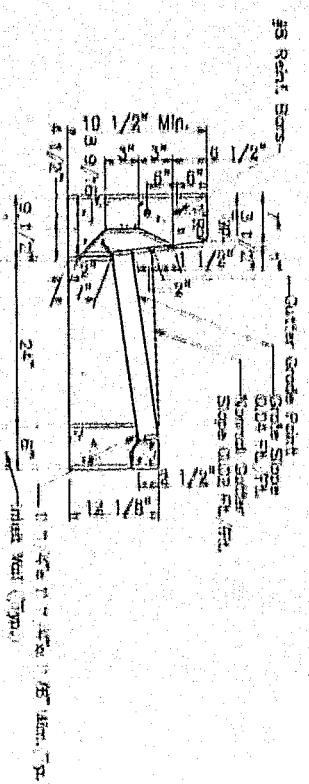
See Item, Concrete Finish, 5" Depth for S&M 004, RL & S&M 034-16, RL



- NOTES:**
1. Verify dimensions of existing inlet & pipe prior to ordering material.
 2. Construct or install entire curb below subgrade elevation.
 3. 21" A. Cement Concrete per 2007 S&M included in Item Section 2-3.

CAP EXISTING INLET

ITEM 9000-0003
 STA. 76 + 62.81
 STA. 72 + 15.81
 STA. 81 + 15.81



- NOTES:**
1. Verify dimensions of existing inlet & pipe prior to ordering material.
 2. Construct or install entire curb below subgrade elevation.
 3. 21" A. Cement Concrete per 2007 S&M included in Item Section 2-3.

TYPE C INLET, BICYCLE SAFE GRATE SPECIAL

(Modified Top View)
 INCLUDED IN ITEM 4505-2070
 ITEM 4505-2070
 & ITEM 4505-2072



SECTION	DATE	BY	CHECKED BY
6-0	2019	DDM	9-28-20
LOWER WORKED DRAWING			
6-0			

TABULATION OF DRAINAGE QUANTITIES

1 OF 3

EMBANKMENT (INFORMATION ONLY)		REMARKS		STATIONS		ROUTE	
0203	CLASS 1 EXCAVATION						
0204	CLASS 2 EXCAVATION						
4204	CLASS 2 EXCAVATION, MODIFIED						
0204	CLASS 4 EXCAVATION						
0212	GEOTEXTILE, CLASS 1	715					
0212	GEOTEXTILE, CLASS 2, TYPE A	315					
0212	GEOTEXTILE, CLASS 2, TYPE B						
0601	18" REINFORCED CEMENT CONCRETE PIPE CLASS II						
0601	18" REINFORCED CEMENT CONCRETE PIPE CLASS II						
0601	30" REINFORCED CEMENT CONCRETE PIPE CLASS II						
0601	30" REINFORCED CEMENT CONCRETE PIPE CLASS II						
0601	30" REINFORCED CEMENT CONCRETE PIPE CLASS II						
0601	COARSE AGGREGATE FOR PIPE TRENCH BACKFILL						
0601	AGGREGATE FOR BEDDING						
0601	CLASS A CEMENT CONCRETE FOR MISCELLANEOUS DRAINAGE						
0602	24" x 18" CORRUGATED STEEL PIPE ARCH (SULPHUR METALLIC COATED, TYPE B, (2 2/3" x 1/2" CORRUGATIONS), 10 GAGE						
0604	18" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)						
0604	24" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)						
0604	30" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)						
0804	TYPE M INLET						
0804	GRADE ADJUSTMENT OF EXISTING INLETS						
0811	8" PAVEMENT BASE DRAIN						
0811	8" SUBSURFACE DRAIN UTILITY						
0828	CORROSION RESISTANT FABRICS, TYPE B						
0800	EROSION CONTROL AND REVEGETATION MAT						
0860	ROCK, CLASS R-6						
4805	TYPE C INLET, BICYCLE SAFE GRATE, SPECIAL						
4805	TYPE C INLET, TYPE 1 BOX, BICYCLE SAFE GRATE, SPECIAL						
4805	TYPE C INLET, TYPE 2 BOX, BICYCLE SAFE GRATE, SPECIAL						
0605	TYPE D ENDWALL						
4805	TYPE D ENDWALL, MODIFIED						
4805	TYPE D-W ENDWALL, MODIFIED						
9000	INLET PROTECTION						
9000	ROCK FILTER CHECK DAM						
9000	CAP EXISTING INLET						
9601	18" x 30" HORIZONTAL ELLIPTICAL REINFORCED CEMENT CONCRETE CLASS HE-II						
	ITEM NUMBER						
	UNIT						
	REMARKS						
	STATIONS						
	ROUTE						
	1E-W TO EXIST. INLET						
	CUTLET TO DITCH						
	DRAINAGE SWALE						
	2" DRAINAGE DITCH						
	PLUS EXIST. PIPE						
	PLUS EXIST. PIPE						
	PLUS EXIST. PIPE						
	PLUS EXIST. PIPE						
	PLUS EXIST. PIPE						
	REMOVE EXIST. PIPE & NETS						
	TOTAL						

S.R. 2024 (OXFORD VALLEY ROAD / HEAGOCK ROAD)



6-0	BOOK NUMBER	2028	DATE	11/14/24
1-0	LOWER NUMBER	COMMISSION	DATE	11/14/24
1-0	REVISIONS		DATE	11/14/24

TABULATION OF DRAINAGE QUANTITIES

2 OF 3



PROJECT	DATE	SCALE	BY	CHECKED
6-0				
DRAWN	DATE	SCALE	BY	CHECKED
OWNER	DATE	SCALE	BY	CHECKED
DATE				

ITEM NUMBER	UNIT	REMARKS	STATIONS	ROUTE
0203 0001 C.Y.		CLASS 1 EXCAVATION		
0204 0001 C.Y.		CLASS 2 EXCAVATION		
4204 0001 C.Y.		CLASS 2 EXCAVATION, MODIFIED		
0204 0150 C.Y.	5	CLASS 4 EXCAVATION	181 149	
0212 0001 L.F.		GEOTEXTILE, CLASS 1	282 417	
0212 0002 S.Y.		GEOTEXTILE, CLASS 2, TYPE A		
0212 0003 S.Y.		GEOTEXTILE, CLASS 2, TYPE B		
0601 0031 L.F.		15" REINFORCED CEMENT CONCRETE PIPE CLASS II		
0601 0032 L.F.		18" REINFORCED CEMENT CONCRETE PIPE CLASS II		
0601 0036 L.F.		30" REINFORCED CEMENT CONCRETE PIPE CLASS II		
0601 0037 L.F.		33" REINFORCED CEMENT CONCRETE PIPE CLASS II		
0601 5400 C.Y.		COARSE AGGREGATE FOR PIPE TRENCH BACKFILL		
0601 5403 C.Y.		AGGREGATE FOR BEDDING		
0601 5430 C.Y.		CLASS A CEMENT CONCRETE FOR MISCELLANEOUS DRAINAGE		
0602 0002 L.F.		21" x 15" CORRUGATED STEEL PIPE ANCH CULVERT METALLIC COATED, TYPE A, (2 2/3" x 1/2" CORRUGATIONS), 18 GAGE		
0604 0002 L.F.		18" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)		
0604 0004 L.F.		24" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)		
0604 0006 L.F.		30" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)		
0605 0000 EACH		TYPE M INLET		
0606 0020 SET		GRADE ADJUSTMENT OF EXISTING INLETS		
0610 0002 L.F.		6" PAVEMENT BASE DRAIN		
0615 0022 L.F.		6" SUBSURFACE DRAIN OUTLETS		
0626 0030 C.Y.		CORROSION RESISTANT DABONS, TYPE B		
0608 0050 S.Y.		EROSION CONTROL AND REVEGETATION MAT		
0650 0023 S.Y.		ROCK, CLASS R-6		
4000 2010 EACH		TYPE D INLET, BICYCLE SAFE GRATE, SPECIAL		
4605 2011 EACH		TYPE D INLET, TYPE 1 BOX, BICYCLE SAFE GRATE, SPECIAL		
4605 2012 EACH		TYPE D INLET, TYPE 2 BOX, BICYCLE SAFE GRATE, SPECIAL		
0805 2000 EACH		TYPE D ENDWALL		
4805 2800 EACH		TYPE D ENDWALL, MODIFIED		
4805 2820 EACH		TYPE D-W ENDWALL, MODIFIED		
0000 0001 EACH		INLET PROTECTION		
9000 0002 EACH		ROCK FILTER CHECK DAM		
9000 0003 EACH		CAP EXISTING INLET		
9001 0001 L.F.		10" x 30" HORIZONTAL ELLIPTICAL REINFORCED CEMENT CONCRETE CLASS II-C-II		
		TOTAL		

S.R. 2020 (OXFORD VALLEY ROAD / HEAGOCK ROAD)

TABULATION OF DRAINAGE QUANTITIES

3 OF 3

EMBANKMENT (INFORMATION ONLY)

ITEM NUMBER	UNIT	QUANTITY	REMARKS	STATIONS
0203	0001 C.Y.		CLASS 1 EXCAVATION	
0204	0001 C.Y.		CLASS 2 EXCAVATION	
4204	0001 C.Y.		CLASS 2 EXCAVATION, MODIFIED	
0204	0180 C.Y.		CLASS 4 EXCAVATION	
0212	0001 L.F.		GEOTEXTILE, CLASS 1	
0212	0002 C.Y.		GEOTEXTILE, CLASS 2, TYPE A	
0212	0003 C.Y.		GEOTEXTILE, CLASS 2, TYPE B	
0501	0001 L.F.		18" REINFORCED CEMENT CONCRETE PIPE CLASS II	
0501	0002 L.F.		18" REINFORCED CEMENT CONCRETE PIPE CLASS II	
0501	0003 L.F.		48" REINFORCED CEMENT CONCRETE PIPE CLASS II	
0501	0027 L.F.		48" REINFORCED CEMENT CONCRETE PIPE CLASS II	
0501	0009 C.Y.		COARSE AGGREGATE FOR PIPE TRENCH BACKFILL	
0501	0013 C.Y.		AGGREGATE FOR BEDDING	
0501	0430 C.Y.		CLASS A CEMENT CONCRETE FOR MISCELLANEOUS DRAINAGE	
0602	0002 L.F.		36" x 18" CORRUGATED STEEL PIPE ARCH CULTURED METAL COATED, TYPE II, (9 2/3" x 1 1/2" CORRUGATIONS), 16 GAGE	
0804	0028 L.F.		18" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)	
0804	0054 L.F.		24" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)	
0804	0058 L.F.		30" REINFORCED CEMENT CONCRETE PIPE CLASS II (OPEN JOINT)	
0808	2080 EACH		TYPE M INLET	
0806	0050 SET		GRADE ADJUSTMENT OF EXISTING INLETS	
0610	2002 L.F.		6" PAVEMENT BASE DRAIN	
0615	0022 L.F.		6" SUBSURFACE DRAIN OUTLETS	
0828	0030 C.Y.		CORROSION RESISTANT GRABBERS, TYPE B	
0808	0009 S.Y.		EROSION CONTROL AND REVEGETATION MAT	
0850	0023 S.Y.		ROCK, CLASS R-5	
4605	2010 EACH		TYPE C INLET, BICYCLE SAFE GRATE, SPECIAL	
4605	2011 EACH		TYPE C INLET, TYPE 1 BOX, BICYCLE SAFE GRATE, SPECIAL	
4605	2012 EACH		TYPE C INLET, TYPE 2 BOX, BICYCLE SAFE GRATE, SPECIAL	
0805	2609 EACH		TYPE D ENDWALL	
4605	2600 EACH		TYPE D ENDWALL, MODIFIED	
4605	2620 EACH		TYPE D-W ENDWALL, MODIFIED	
0800	0801 EACH		INLET PROTECTION	
0800	0808 EACH		ROCK FILTER CHECK DAM	
0800	0803 EACH		GAP EXISTING INLET	
0800	0801 L.F.		18" x 18" HORIZONTAL FLOORING REINFORCED CEMENT CONCRETE CLASS II-II	

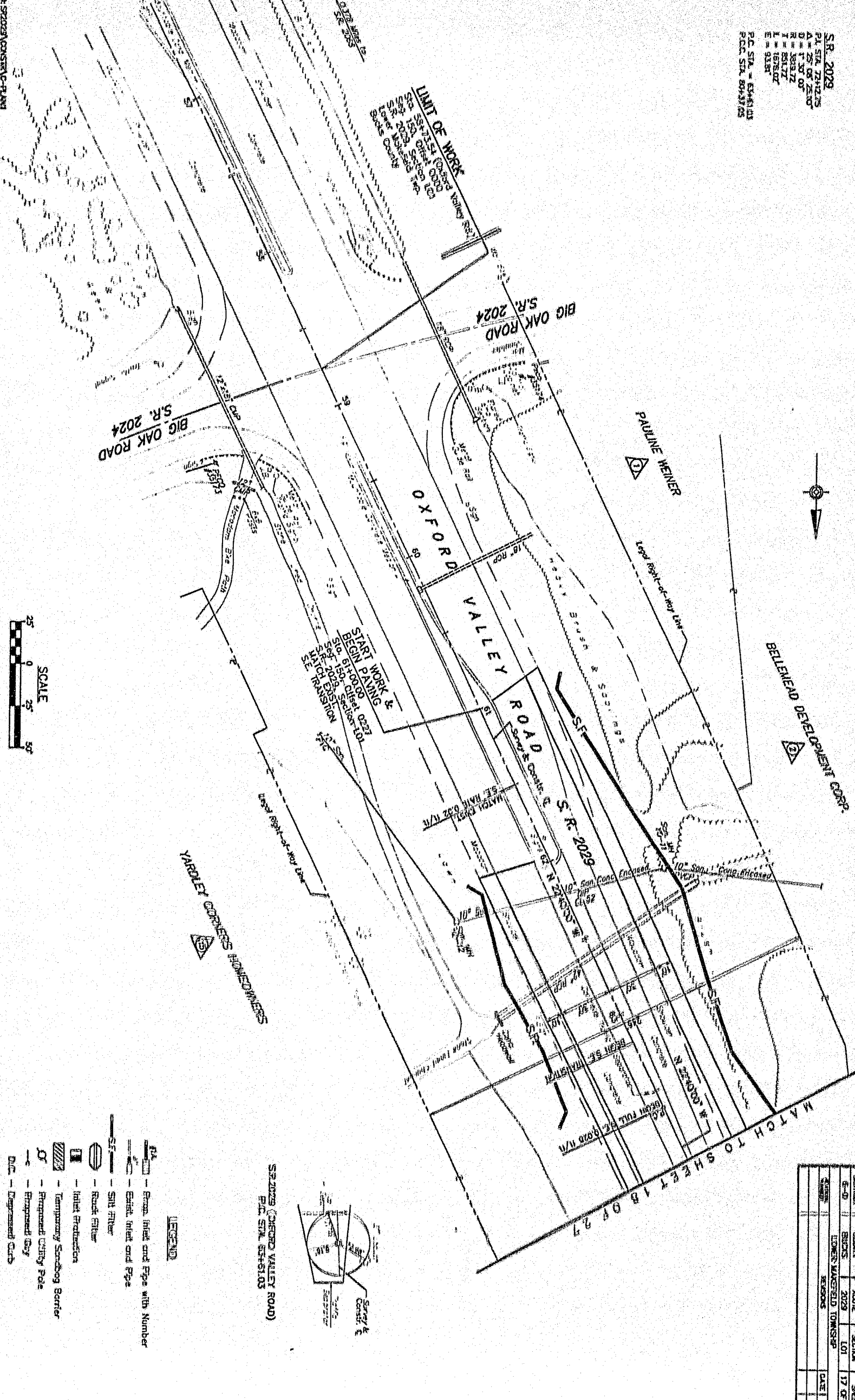
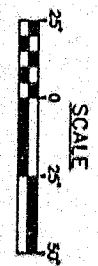
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PAGE: 3



PROJECT	DATE	SCALE	SHEET
QUANTITY	08-20	AS SHOWN	18 OF 27
DRAWN BY			
CHECKED BY			
DATE			

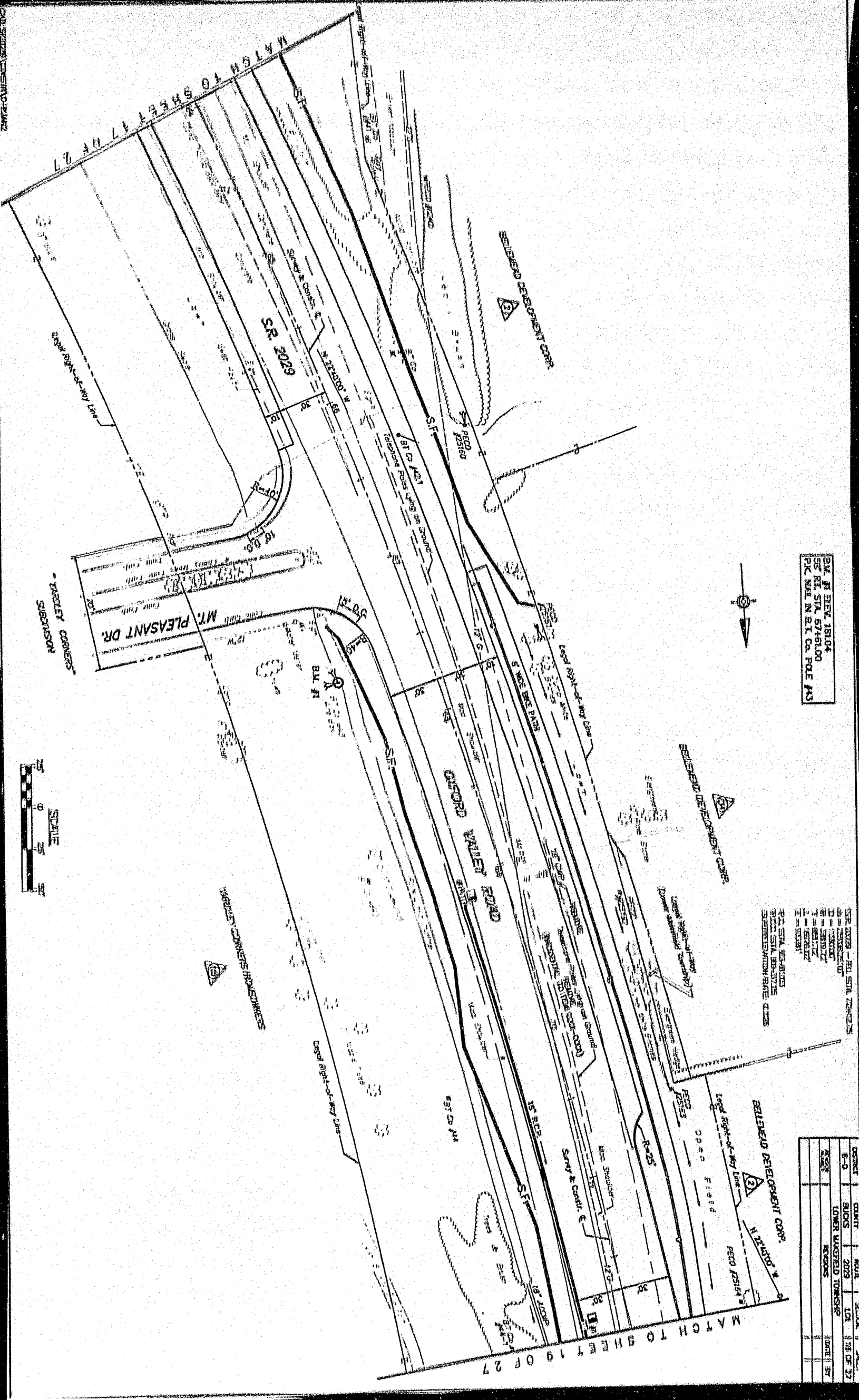
S.R. 2029
 P.L. STA. 2742.5
 A = 25' OF 25'
 B = 1' OF 0'
 R = 363.72
 I = 85.17
 L = 167.67
 E = 91.87
 P.C. STA. = 2742.5
 P.T. STA. 2910.17



- LEGEND**
- 18" S.S. - 18" San. Conc. Enslaved
 - 12" S.S. - 12" San. Conc. Enslaved
 - 10" S.S. - 10" San. Conc. Enslaved
 - 8" S.S. - 8" San. Conc. Enslaved
 - 6" S.S. - 6" San. Conc. Enslaved
 - 4" S.S. - 4" San. Conc. Enslaved
 - 3" S.S. - 3" San. Conc. Enslaved
 - 2" S.S. - 2" San. Conc. Enslaved
 - 1" S.S. - 1" San. Conc. Enslaved
 - 18" S.S. - 18" Storm Sewer
 - 12" S.S. - 12" Storm Sewer
 - 8" S.S. - 8" Storm Sewer
 - 6" S.S. - 6" Storm Sewer
 - 4" S.S. - 4" Storm Sewer
 - 3" S.S. - 3" Storm Sewer
 - 2" S.S. - 2" Storm Sewer
 - 1" S.S. - 1" Storm Sewer
 - 18" W.L. - 18" Water Line
 - 12" W.L. - 12" Water Line
 - 8" W.L. - 8" Water Line
 - 6" W.L. - 6" Water Line
 - 4" W.L. - 4" Water Line
 - 3" W.L. - 3" Water Line
 - 2" W.L. - 2" Water Line
 - 1" W.L. - 1" Water Line
 - 18" S.F. - 18" Storm Filter
 - 12" S.F. - 12" Storm Filter
 - 8" S.F. - 8" Storm Filter
 - 6" S.F. - 6" Storm Filter
 - 4" S.F. - 4" Storm Filter
 - 3" S.F. - 3" Storm Filter
 - 2" S.F. - 2" Storm Filter
 - 1" S.F. - 1" Storm Filter
 - 18" R.F. - 18" Road Filter
 - 12" R.F. - 12" Road Filter
 - 8" R.F. - 8" Road Filter
 - 6" R.F. - 6" Road Filter
 - 4" R.F. - 4" Road Filter
 - 3" R.F. - 3" Road Filter
 - 2" R.F. - 2" Road Filter
 - 1" R.F. - 1" Road Filter
 - 18" I.P. - 18" Inlet Protection
 - 12" I.P. - 12" Inlet Protection
 - 8" I.P. - 8" Inlet Protection
 - 6" I.P. - 6" Inlet Protection
 - 4" I.P. - 4" Inlet Protection
 - 3" I.P. - 3" Inlet Protection
 - 2" I.P. - 2" Inlet Protection
 - 1" I.P. - 1" Inlet Protection
 - 18" T.S.B. - 18" Temporary Sandbag Barrier
 - 12" T.S.B. - 12" Temporary Sandbag Barrier
 - 8" T.S.B. - 8" Temporary Sandbag Barrier
 - 6" T.S.B. - 6" Temporary Sandbag Barrier
 - 4" T.S.B. - 4" Temporary Sandbag Barrier
 - 3" T.S.B. - 3" Temporary Sandbag Barrier
 - 2" T.S.B. - 2" Temporary Sandbag Barrier
 - 1" T.S.B. - 1" Temporary Sandbag Barrier
 - 18" C.F. - 18" Fragmented Utility Pole
 - 12" C.F. - 12" Fragmented Utility Pole
 - 8" C.F. - 8" Fragmented Utility Pole
 - 6" C.F. - 6" Fragmented Utility Pole
 - 4" C.F. - 4" Fragmented Utility Pole
 - 3" C.F. - 3" Fragmented Utility Pole
 - 2" C.F. - 2" Fragmented Utility Pole
 - 1" C.F. - 1" Fragmented Utility Pole
 - 18" D.C. - 18" Depressed Curb
 - 12" D.C. - 12" Depressed Curb
 - 8" D.C. - 8" Depressed Curb
 - 6" D.C. - 6" Depressed Curb
 - 4" D.C. - 4" Depressed Curb
 - 3" D.C. - 3" Depressed Curb
 - 2" D.C. - 2" Depressed Curb
 - 1" D.C. - 1" Depressed Curb

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
B-0	BUCKS	2029	LOT	17 OF 22
LOWEN WATFIELD TOWNSHIP				
DATE	BY			

S.R. 2029 (OXFORD VALLEY ROAD)
 P.L. STA. 2742.5 TO 2910.17

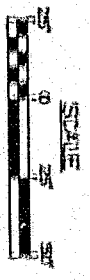


BK # 18104
 ST. STA. 67461.00
 P.C. IN IN ST. CO. POLE #3



SEE NOTES - BEL STA 79-275
 ALL TRANSITS
 D = DISTANCE
 R = BEARING
 T = TANGENT
 C = CURVE
 E = ERROR
 P.C. STA. BEARINGS
 S.T. STA. BEARINGS
 S.T. BEARINGS FROM
 SUBSTANTIATION FROM QUATS

DOCUMENT	COUNTY	MOLE	BOOK	PAGE
S-O	BLUES	2029	101	178 OF 277
RECORD	LOWER WAKESFIELD TOWNSHIP			
	RECORDS			
	DATE			
	BY			



MATCH TO SHEET 19 OF 27

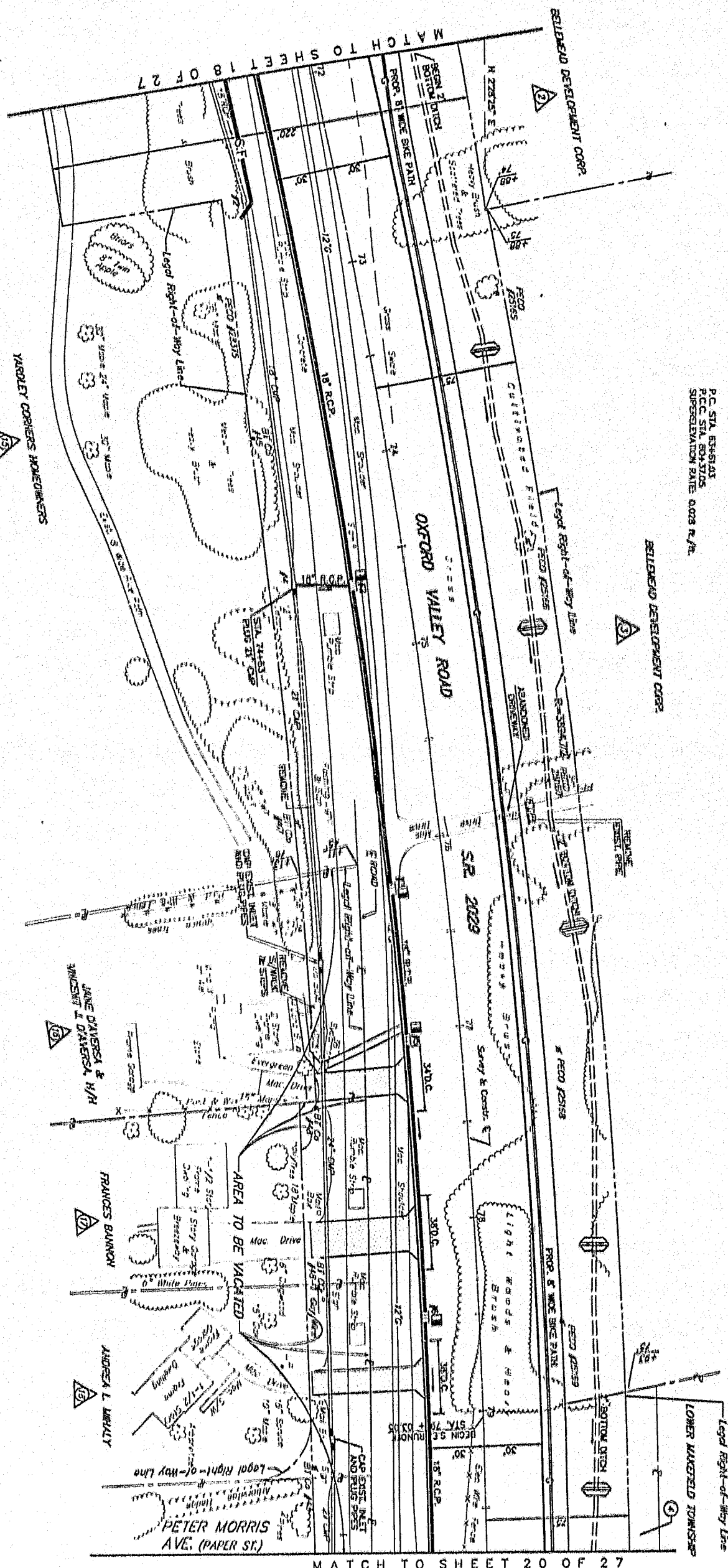
MATCH TO SHEET 17

S.R. 2029
 P.L. STA. 7741275
 A = 250825.107
 D = 130700
 R = 38927
 T = 89127
 L = 167612
 E = 9331

P.C. STA. 854541
 P.C.C. STA. 8043105
 SUPERELEVATION RATE: 0.023 R/L



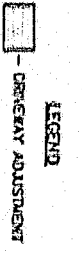
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
S-3	BLUES	2029	101	19 OF 27
LOWER WAREFIELD TOWNSHIP		CAREY ST		
REVISIONS				



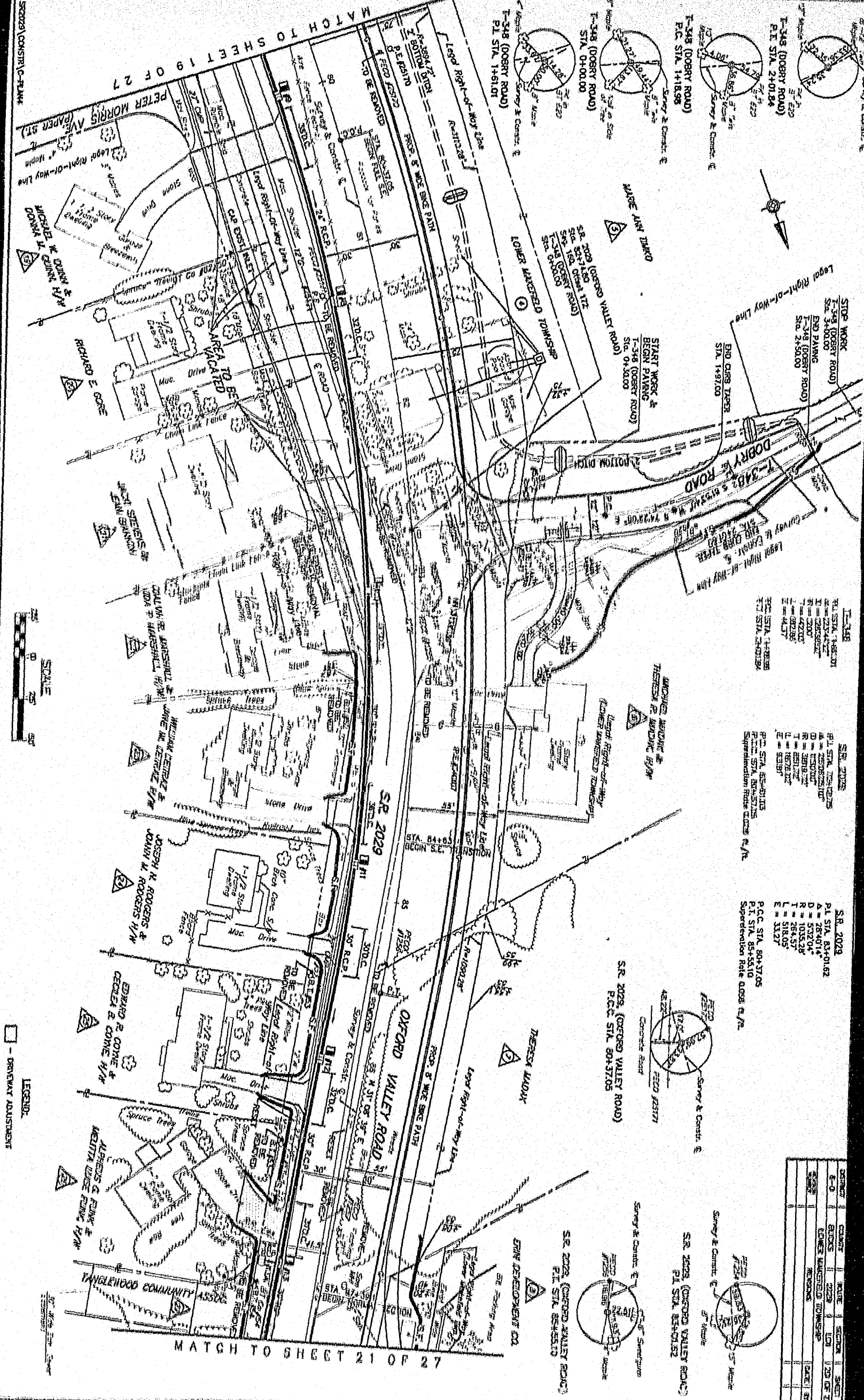
MATCH TO SHEET 18 OF 27

MATCH TO SHEET 20 OF 27

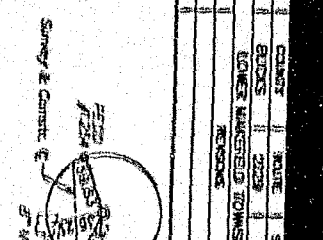
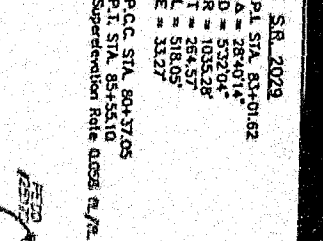
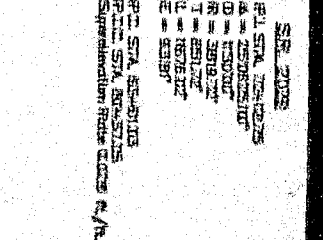
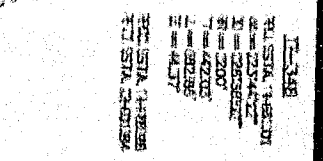
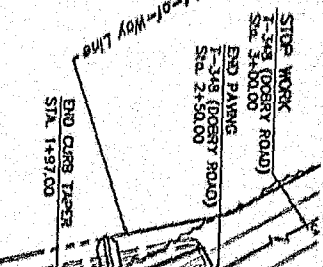
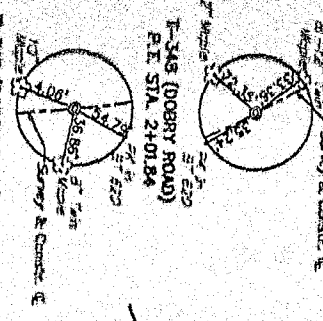
WAREFIELD CORPERS HOLDINGS
 WAREFIELD CORPERS
 SUBDIVISION



MATCH TO SHEET 19 OF 27



LEGEND:
 □ - DRIVEWAY ADJUSTMENT

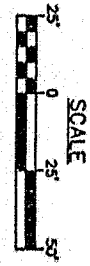
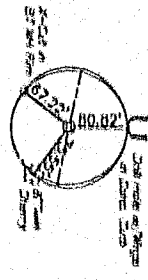
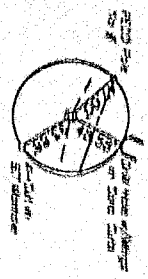


OWNER	COUNTY	ROUTE	SECTION	SHEET
E-O	BOONVILLE	2029	100	20 OF 27
OWNER	LOWER WASHINGTON TOWNSHIP	ROUTE		
DATE				
BY				

MATCH TO SHEET 21 OF 27

SR 2029 (OXFORD VALLEY ROAD)
 PL STA 91+19.15

SR 2029 (OXFORD VALLEY ROAD)
 P.C.C. STA 92+40.20



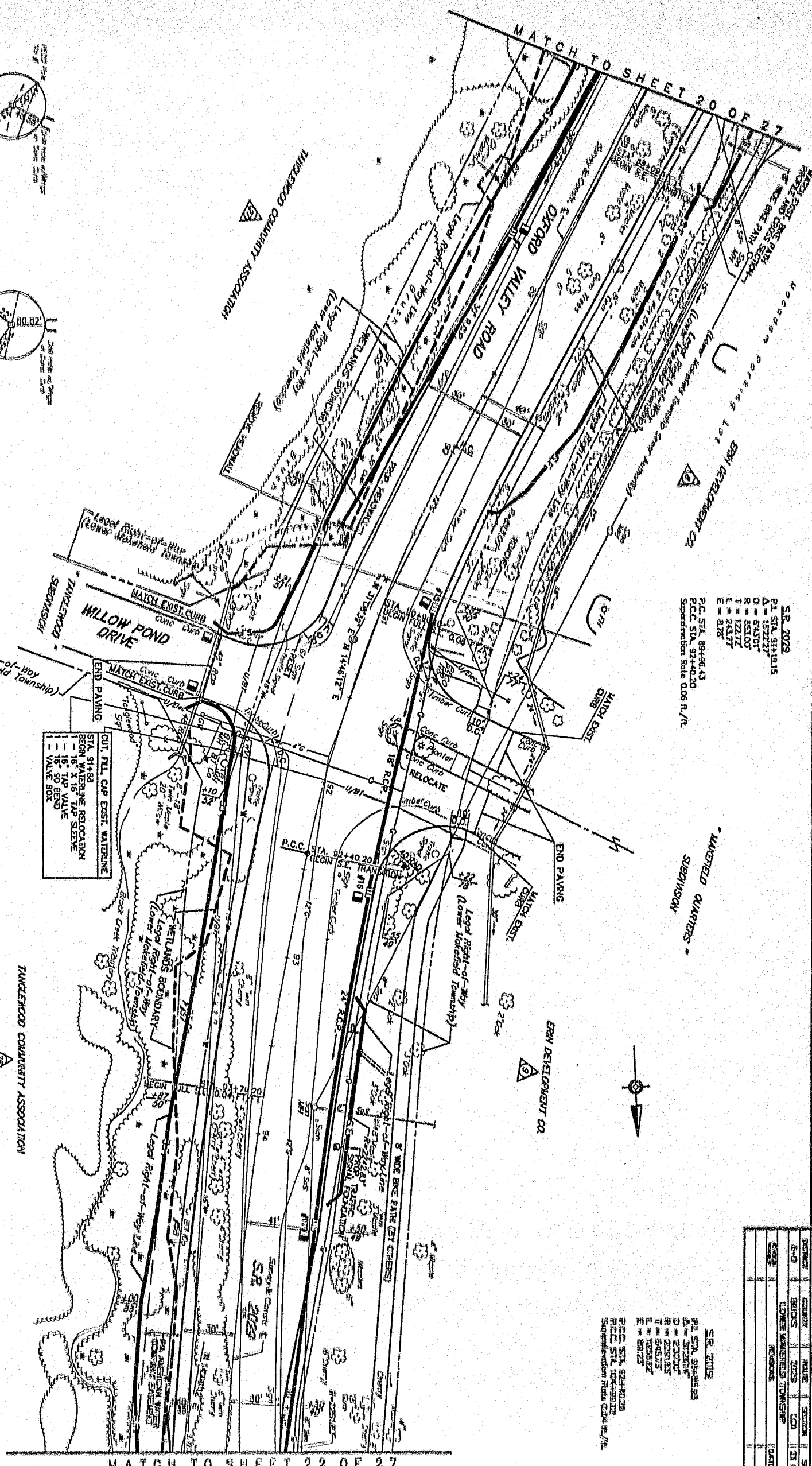
SCALE

- CUT FILL CAP EXIST WATERLINE
- STA. 91+82
- BEGIN WATERLINE RELOCATION
- 15' X 15' TAP VALVE
- 15' 90 BEND
- VALVE BOX

TANGLEWOOD COMMUNITY ASSOCIATION



* PA American Water Company Easement
 (2522-1150)



SR 2029
 PL STA 91+19.15
 A = 152227
 O = 673018
 R = 681008
 T = 112177
 L = 24317
 E = 218

SR 2029
 P.C. STA 92+40.20
 Superelevation Rate 0.06 R/L

SR 2029
 P.L. STA 91+19.15
 A = 152227
 O = 673018
 R = 681008
 T = 112177
 L = 24317
 E = 218

NO.	DESCRIPTION	DATE	BY
1	DESIGN		
2	CONSTRUCTION		
3	AS-BUILT		

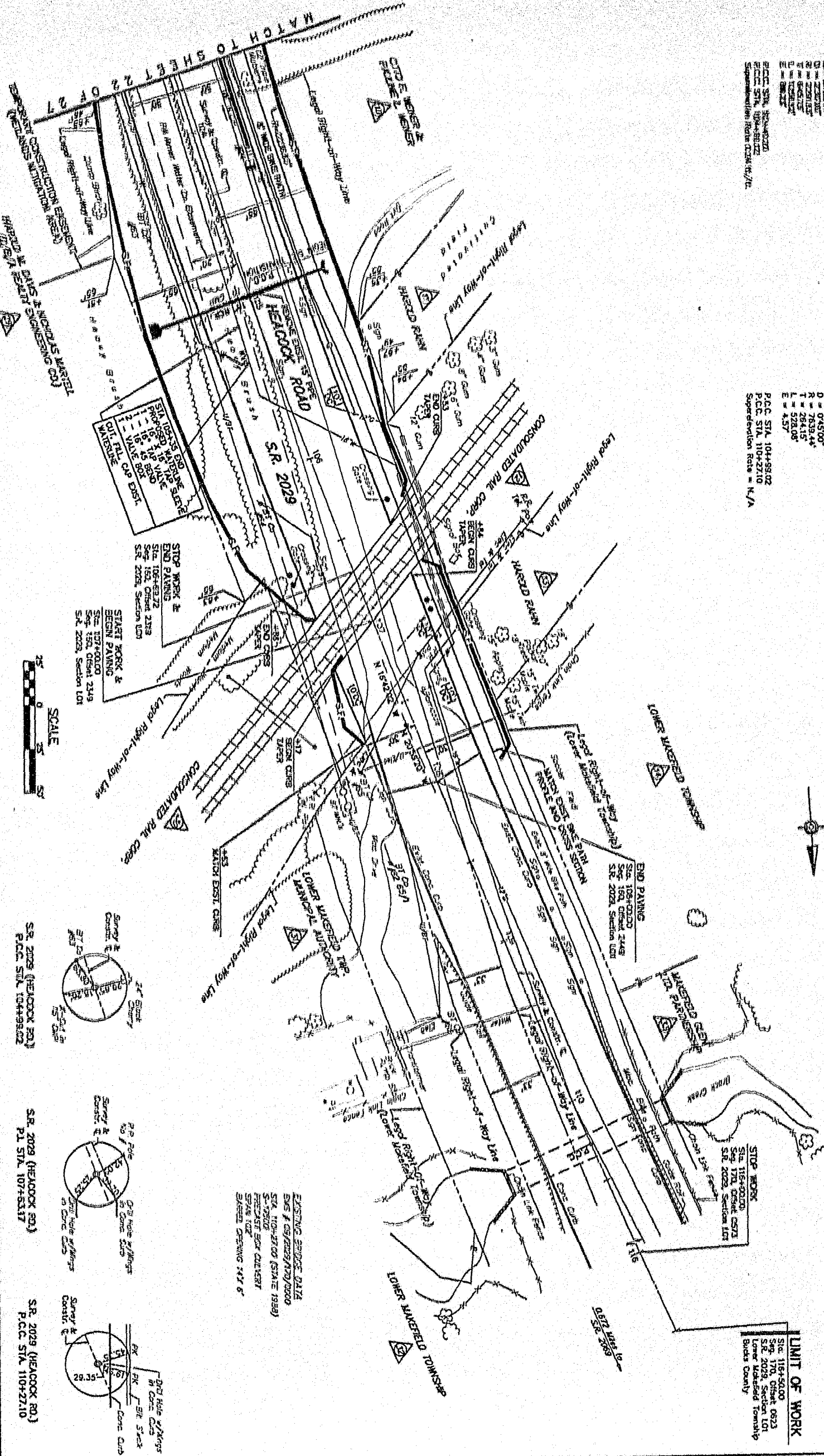
S.R. 2029
 P.I. STA. 107+63.17
 A = 35738.20'
 D = 0.45100'
 R = 7639.44'
 T = 26.415'
 L = 522.08'
 E = 38.22'
 P.C.C. STA. 104+93.02
 P.C.C. STA. 110+27.10
 Superelevation Rate = N/A

S.R. 2029
 P.I. STA. 107+63.17
 A = 35738.20'
 D = 0.45100'
 R = 7639.44'
 T = 26.415'
 L = 522.08'
 E = 38.22'
 P.C.C. STA. 104+93.02
 P.C.C. STA. 110+27.10
 Superelevation Rate = N/A

NOTE:
 ALL RAILROAD CROSSING SIGNALS AND
 RELATED UTILITIES TO BE RELOCATED
 BY OTHERS, CONSISTENT WITH P.U.C.
 COMPLAINT DOCKET NO. A-00110138.

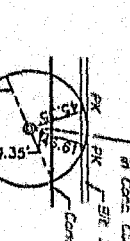
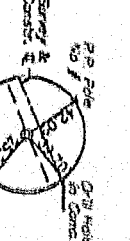
BLOCK	COUNTY	TOWNSHIP	SECTION	SHEET
6-0	BOYD	LOWER MAHERFIELD TOWNSHIP	101	23 OF 27
6-0	BOYD	LOWER MAHERFIELD TOWNSHIP	101	23 OF 27
6-0	BOYD	LOWER MAHERFIELD TOWNSHIP	101	23 OF 27

LIMIT OF WORK
 Sta. 110+00.00
 S.R. 2029, Section 101
 Lower Maherfield Township
 Boyd County



STOP WORK &
 BEGIN PAVING
 STA. 104+93.02
 S.R. 2029, Section 101

START WORK &
 BEGIN PAVING
 STA. 110+27.10
 S.R. 2029, Section 101

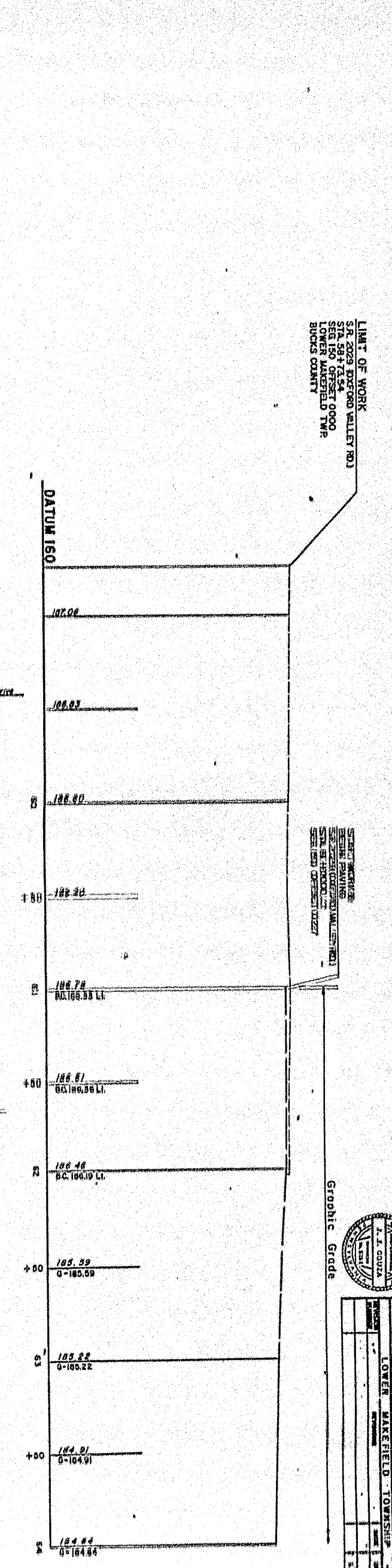
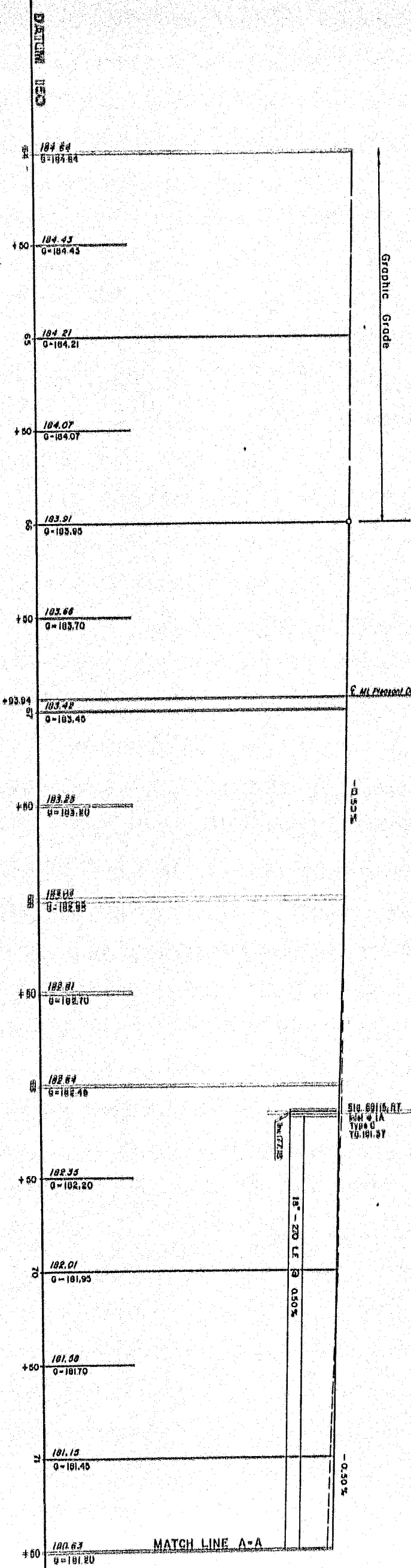


S.R. 2029 (HEARCOCK RD.)
 P.C.C. STA. 104+93.02

S.R. 2029 (HEARCOCK RD.)
 P.I. STA. 107+63.17

S.R. 2029 (HEARCOCK RD.)
 P.C.C. STA. 110+27.10

EXISTING SURVEY DATA
 DWS # 09/2009/170/2000
 STA. 110+27.10 (STATE 1988)
 S.R. 2029
 PRELIMINARY SURVEY
 SPAN FOR
 CHANNEL OPENING: 14' 6"



LIMIT OF WORK
 S.R. 2029 DIXFORD VALLEY RD J
 STA. 58+73.54
 SEG 150 OFFSET 0000
 LOWER MAFFIELD TWP
 BUCKS COUNTY

STATIONING
 BENCH MARKING
 S.R. 2029 DIXFORD VALLEY RD J
 STA. 58+73.54
 SEG 150 OFFSET 0000
 LOWER MAFFIELD TWP
 BUCKS COUNTY

Graphic Grade

Graphic Grade

G. M. PROCTOR Drive

510.69115 RT
 6'4" x 14"
 1YPA 0
 19.191.87

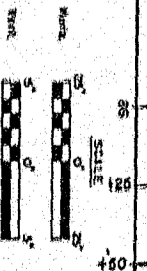
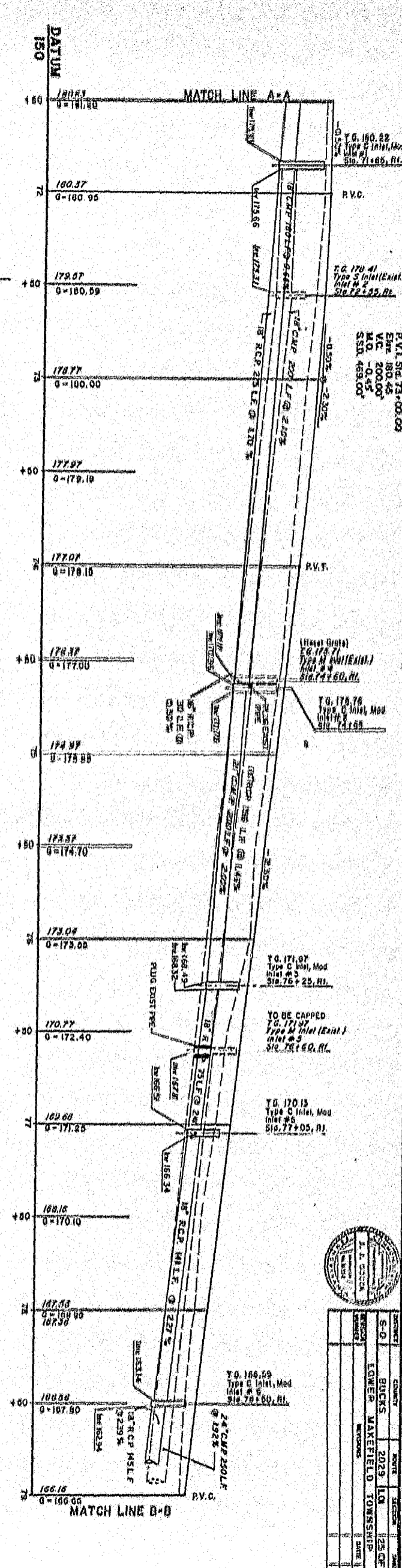
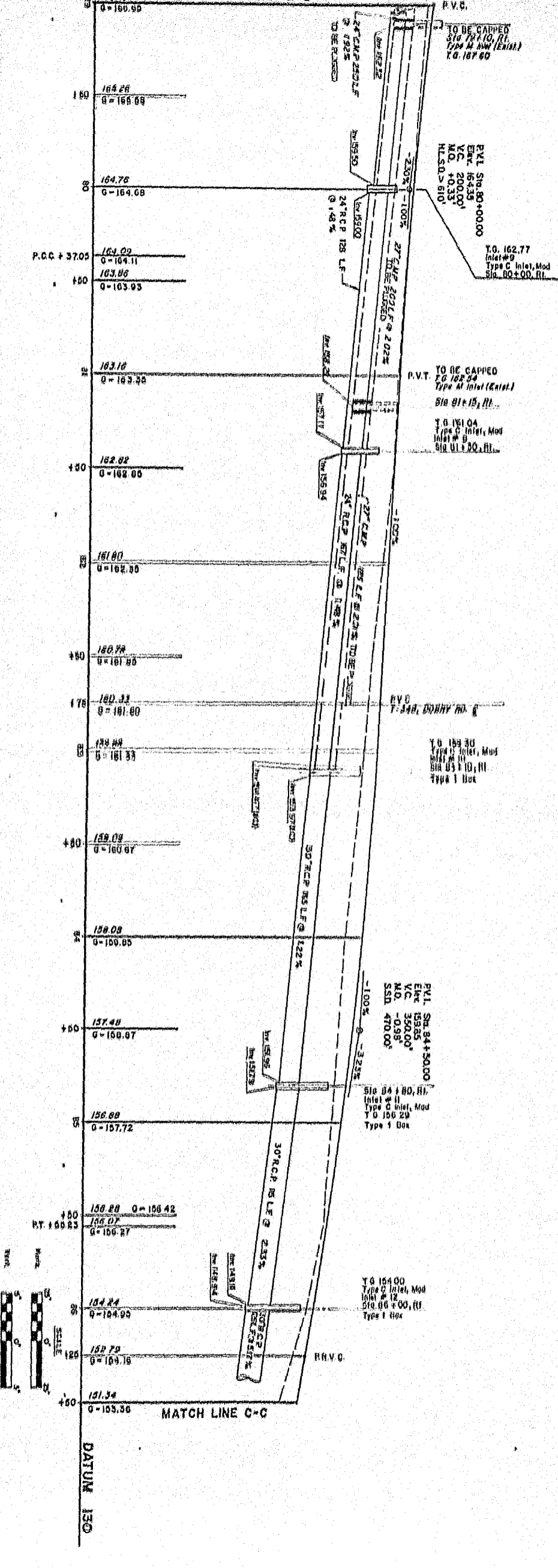
18" - 20" LF @ 0.50%

- 0.50%

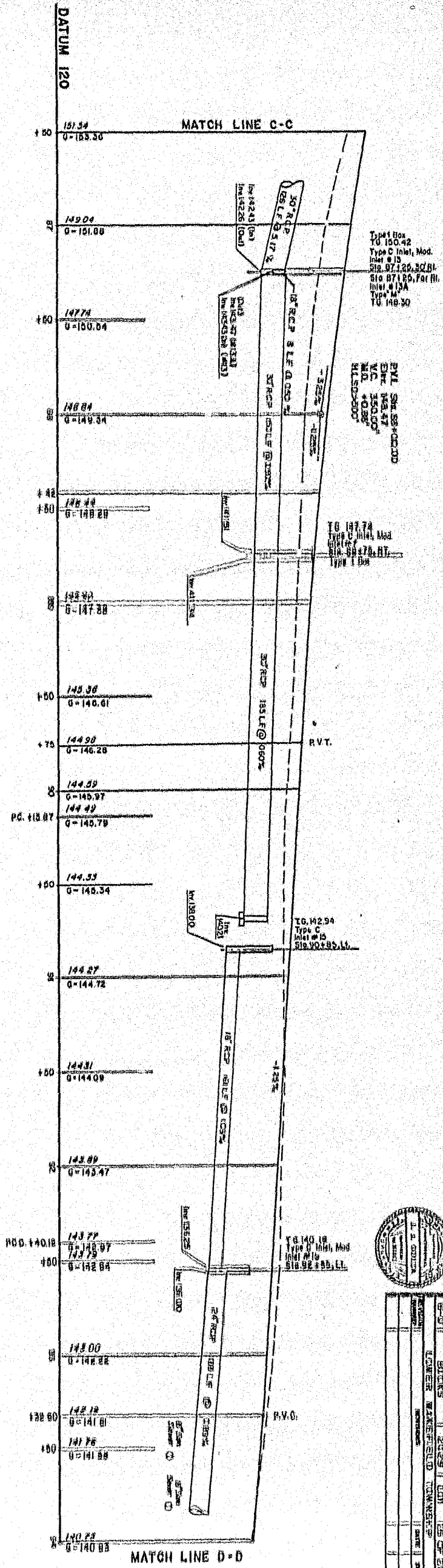
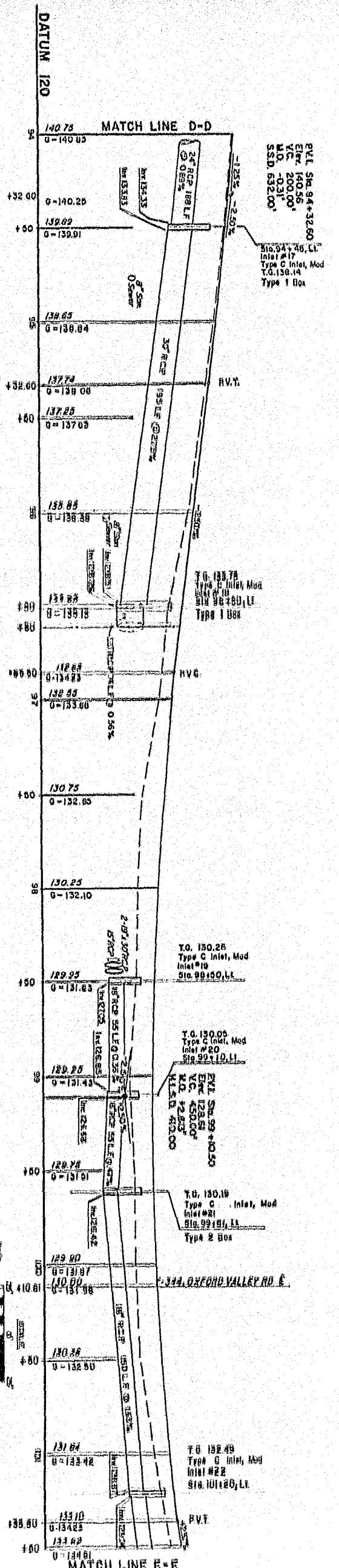
MATCH LINE A-A



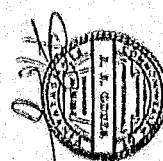
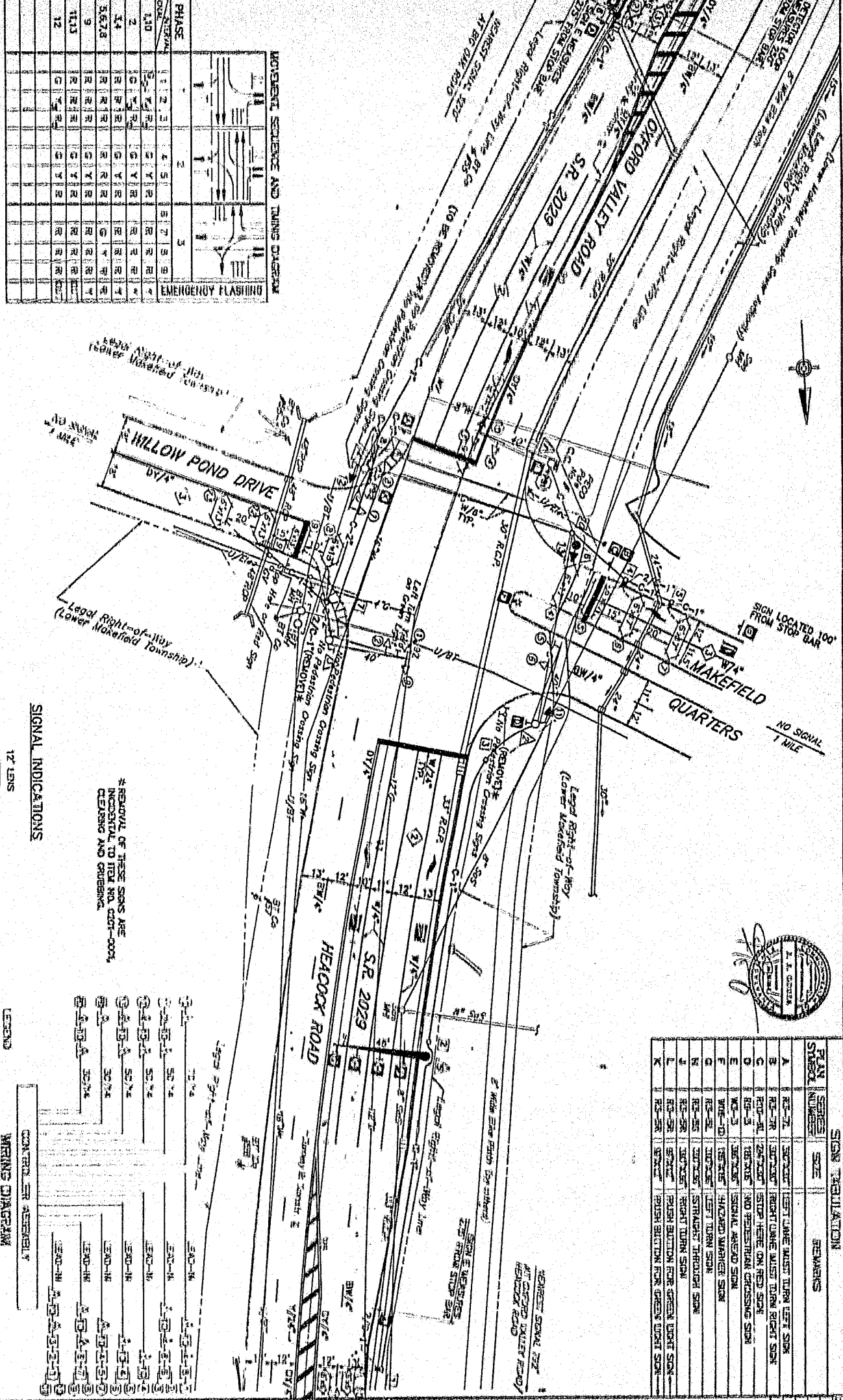
DATE	PROJECT	SCALE	BY	CHKD
6-0	BUCKS COUNTY	1/2" = 1'	JJC	JJC
1	2029			
1	LOWER MAFFIELD TOWNSHIP			
1	STATIONING			



NO.	DATE	DESCRIPTION
1	2023	ISSUED FOR PERMIT
2	2023	REVISED
3	2023	REVISED
4	2023	REVISED
5	2023	REVISED



NO.	DATE	DESCRIPTION
01	2-23-10	ISSUED FOR PERMIT
02	1-15-11	REVISED
03	1-15-11	REVISED
04	1-15-11	REVISED
05	1-15-11	REVISED
06	1-15-11	REVISED
07	1-15-11	REVISED
08	1-15-11	REVISED
09	1-15-11	REVISED
10	1-15-11	REVISED



PLAN SYMBOL	SIGNAL SERIES	SIZE	REMARKS
A	RS-7A	30"x30"	LEFT TURN WEST TURN LEFT SIGN
B	RS-7B	30"x30"	RIGHT TURN WEST TURN RIGHT SIGN
C	RD-AL	30"x30"	STOP HERE ON RED SIGN
D	RS-3	30"x30"	PERMIT AND RESTRICTION CROSSING SIGN
E	RS-2	30"x30"	SIGNAL ARMED SIGN
F	WR-10	30"x30"	HAZARD WARNER SIGN
G	WR-2	30"x30"	LEFT TURN SIGN
H	WR-2S	30"x30"	STANDARD THROUGH SIGN
I	WR-2R	30"x30"	RIGHT TURN SIGN
J	WR-2L	30"x30"	PUSH BUTTON FOR GREEN LIGHT SIGN
K	WR-2R	30"x30"	PUSH BUTTON FOR GREEN TURN SIGN

TRAFFIC SIGNAL NOTES
DO NOT LOCKY INSTALLATION WITHOUT PROPER WRITTEN APPROVAL.
ALL SIGNS AND PAVEMENT MARKINGS INDICATED ARE PART OF THE PERMIT, INSTALL AND MAINTAIN IN ACCORDANCE WITH PUBLICATION 68.
POST MOUNTED SIGNALS: INSTALL WITH A MINIMUM SIGNAL CLEARANCE OF 2 FEET BEHIND FACE OF CURB OR EDGE OF SHOULDER; AND, 8 FEET ABOVE SIDEWALK OR PAVEMENT GRADE.
OVERHEAD SIGNALS: SIGNAL HEAD CLEARANCE OF 15 FEET ABOVE ROADWAY; RIGIDLY MOUNT, TOP AND BOTTOM, AND EQUIP WITH BACKPLATES. PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN SIGNALS AS MEASURED AT RIGHT ANGLES TO THE APPROACH.
PERMITTEE WITH A PENNDOT REPRESENTATIVE, DETERMINE THE EXACT LOCATION OF DETECTORS PRIOR TO INSTALLATION.
CONSULT WITH LOCAL OFFICIALS, AND UTILITIES TO RESOLVE CONFLICTS PRIOR TO CONSTRUCTION.
COMPLY WITH PROVISIONS OF ACT 38 FOR PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 12, 1991.

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.5.7.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.5.7.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

LETTERS	12' LENS	12' LENS	12' LENS	12' LENS	5' LENS
RIGHT WALK	(R)	(R)	(R)	(R)	(R)
LEFT WALK	(L)	(L)	(L)	(L)	(L)
WALK	(W)	(W)	(W)	(W)	(W)

CONTRACTOR ASSEMBLY	MARKING DIAGRAM
1. Signal Head	(Symbol)
2. Junction Box	(Symbol)
3. Signal Support	(Symbol)

LEGEND

- East West Arm with Identifying Length
- Prop. West Arm with Identifying Length
- East Loop Detector
- Presence & Directional
- From Loop Detector
- Presence & Directional
- Signal Head with Arrow Section & Identifying Number
- Phase
- Excit. Conduit
- Excit. Conduit Assembly
- Prop. Conduit/Size
- Solid White Line/Width
- Broken White Line/Width
- Solid Yellow Line/Width
- Broken Yellow Line/Width
- Dashed Solid Yellow Line/Width

COUNTY: **BUCKS COUNTY**

MUNICIPALITY: **LOWER MAKEFIELD TOWNSHIP**

INTERSECTION: **SR 2029 (OXFORD VALLEY RD.) & WILLOW POND DRIVE AND EN/EXIT MAKEFIELD QUARTERS**

RECOMMENDED: **11/6/94**

DISTRICT TRAFFIC ENGINEER: **Devin Miller**

DATE: **11/6/94**

SCALE: **1" = 25'**

TRAFFIC SIGNAL SUPPORTS

ITEM NUMBER	STRUCT. NO.	ROUTE	STATION	SIDE	OFFSET	H	K	MAST ARM											
								ARM "A"						ARM "B"					
								L	M	N	O	P	R	S	T	U	V	W	
5	0951-0120																		
5	0951-0130																		
5	0951-0140																		
5	0951-0145																		
5	0951-4018	SR 2029	6+00	LT	4'	16'		45'											

TRENCH, CONDUIT, JUNCTION BOX, ELECTRICAL ITEMS

DESCRIPTION	UNIT	741	745	750	60	194	833	400	7	2	1050
1 INCH CONDUIT	L.F.										
2 INCH CONDUIT	L.F.										
3 INCH CONDUIT	L.F.										
4 INCH CONDUIT	L.F.										
5 INCH CONDUIT	L.F.										
6 INCH CONDUIT	L.F.										
7 INCH CONDUIT	L.F.										
TRENCH AND BACKFILL, TYPE I	L.F.										
TRENCH AND BACKFILL, TYPE III	L.F.										
TRENCH AND BACKFILL, TYPE IV	L.F.										
SIGNAL CABLE 14 AWG - 3 CONDUCTOR	L.F.										
SIGNAL CABLE 14 AWG - 5 CONDUCTOR	L.F.										
SIGNAL CABLE 14 AWG - 7 CONDUCTOR	L.F.										
JUNCTION BOX JB - 26	EACH										
JUNCTION BOX JB - 27	EACH										
ELECTRICAL SERVICE TYPE B	EACH										
DETECTOR LEAD IN CABLE	L.F.										

① POLE LOCATION AND OFFSETS AS SHOWN ARE APPROXIMATE.
 ② MAST ARMS TO BE DESIGNED BY MANUFACTURER TO ADEQUATELY SUPPORT LOADS AS SHOWN ON PLAN.

MISCELLANEOUS

ITEM NO.	QTY	DESCRIPTION	LOCATION
1	5	VEHICULAR SIGNAL HEAD, THREE 6" SECTIONS	POST 24'S
2	5	VEHICULAR SIGNAL HEAD, ONE 7" SECTION	POST 1
3	2	RECTANGULAR PUSH BUTTON	POST 1 & 2

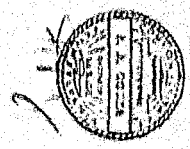
FLAT SHEET ALUMINUM SIGN FABRICATION

SERIES	SIZE	AREA	REMARKS	POST MOUNTED	POLE MOUNTED	STRUCTURE
1	6'x2'	12.00	LEFT TANK MUST TURN LEFT SIGN	2	2	2.50
2	6'x2'	12.00	RIGHT TANK MUST TURN RIGHT SIGN	2	2	2.50
3	6'x2'	12.00	STOP HERE ON RED SIGN	1	1	2.25
4	6'x2'	12.00	NO RESTRICTION CROSSING SIGN	1	1	2.25
5	6'x2'	12.00	SIGNAL HEAD SIGN	2	2	2.25
6	6'x2'	12.00	HANDICAPPED WORKER SIGN	1	1	2.25
7	6'x2'	12.00	LEFT TANK SIGN	1	1	2.50
8	6'x2'	12.00	STRAIGHT TRAFFIC SIGN	2	2	2.50
9	6'x2'	12.00	RIGHT TANK SIGN	1	1	2.50
10	6'x2'	12.00	PUSH BUTTON FOR GREEN LIGHT SIGN	1	1	2.25
11	6'x2'	12.00	PUSH BUTTON FOR GREEN LIGHT SIGN	1	1	2.25

DETECTORS

SENSOR NUMBER	LAYOUT	OPERATION	DIMENSIONS	0956-0101	0121
1	I	PRESENCE	5'x4'	14	*
2	I	PULSE	5'x6'	35	*
3	I	PULSE	5'x6'	43	*
4	I	PRESENCE	6'x7'	70	*
5	I	PRESENCE	6'x7'	64	*
6	I	PRESENCE	6'x7'	64	*
7	I	PRESENCE	6'x7'	64	*
8	I	PRESENCE	6'x7'	64	*
9	I	PRESENCE	6'x7'	64	*
10	I	PULSE	6'x6'	45	*
11	I	PULSE	6'x6'	58	*
12	I	EXISTING			
13	I	EXISTING			

* NOTE: THE FUSING CONTROLLER IS EQUIPPED WITH THREE COP AMPLIFIERS



COUNTY: BUCKS COUNTY

MUNICIPALITY: LOWER MAKEFIELD TOWNSHIP

INTERSECTION: SR 2029 (OXFORD VALLEY RD)

WILLOW FORD DRIVE & ENT./EXIT MAKEFIELD QUARTERS

REVIEWED: [Signature]

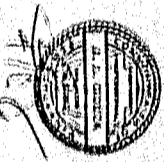
MUNICIPAL OFFICIAL: [Signature]

RECOMMENDED BY: [Signature]

DISTRICT TRAFFIC ENGINEER: [Signature]

DATE:

TOTAL LENGTH OF WIRE AND NUMBER OF AMPLIFIERS: 740 | 2



SIGN SYMBOL	SERIES NUMBER	SIZE	REMARKS
A	R3-7L	36"x30"	LEFT LANE MUST TURN LEFT SIGN
B	R3-7R	30"x30"	RIGHT LANE MUST TURN RIGHT SIGN
D	R3-3	18"x18"	NO PEDESTRIAN CROSSING SIGN
K	R10-3	9"x12"	PUSH BUTTON FOR GREEN LIGHT SIGN
L	R10-3R	9"x12"	PUSH BUTTON FOR GREEN LIGHT SIGN - LARGE DOUBLE ARROW SIGN
M	W-7	48"x24"	LARGE DOUBLE ARROW SIGN

TRACT	COUNTY	ROUTE	SECTION	SHEET
6-9	BOONVILLE	2029	1/4	3 OF 4
LOWER MARKETFIELD TOWNSHIP				
DATE: []				

TRAFFIC SIGNAL NOTES

DO NOT MODIFY INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ARE PART OF THE PERMIT INSTALL AND MAINTAIN IN ACCORDANCE WITH PENNSYLVANIA 88.

POST MOUNTED SIGNALS, INSTALL WITH A HORIZONTAL SIGNAL CLEANSING OF 2 FEET BEHIND FACE OF CURB OR EDGE OF SHOULDER AND 8 FEET ABOVE SHOULDER OR PAVEMENT GRADE.

OVERHEAD SIGNALS SIGNAL HEAD CLEARANCE OF 18 FEET FROM PAVEMENT. SIGNAL LUMENAR TOP AND BOTTOM AND EQUIP WITH 8000 KANSAS PROVIDED A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN SIGNALS AS REQUIRED AT RIGHT ANGLES TO THE APPROACH.

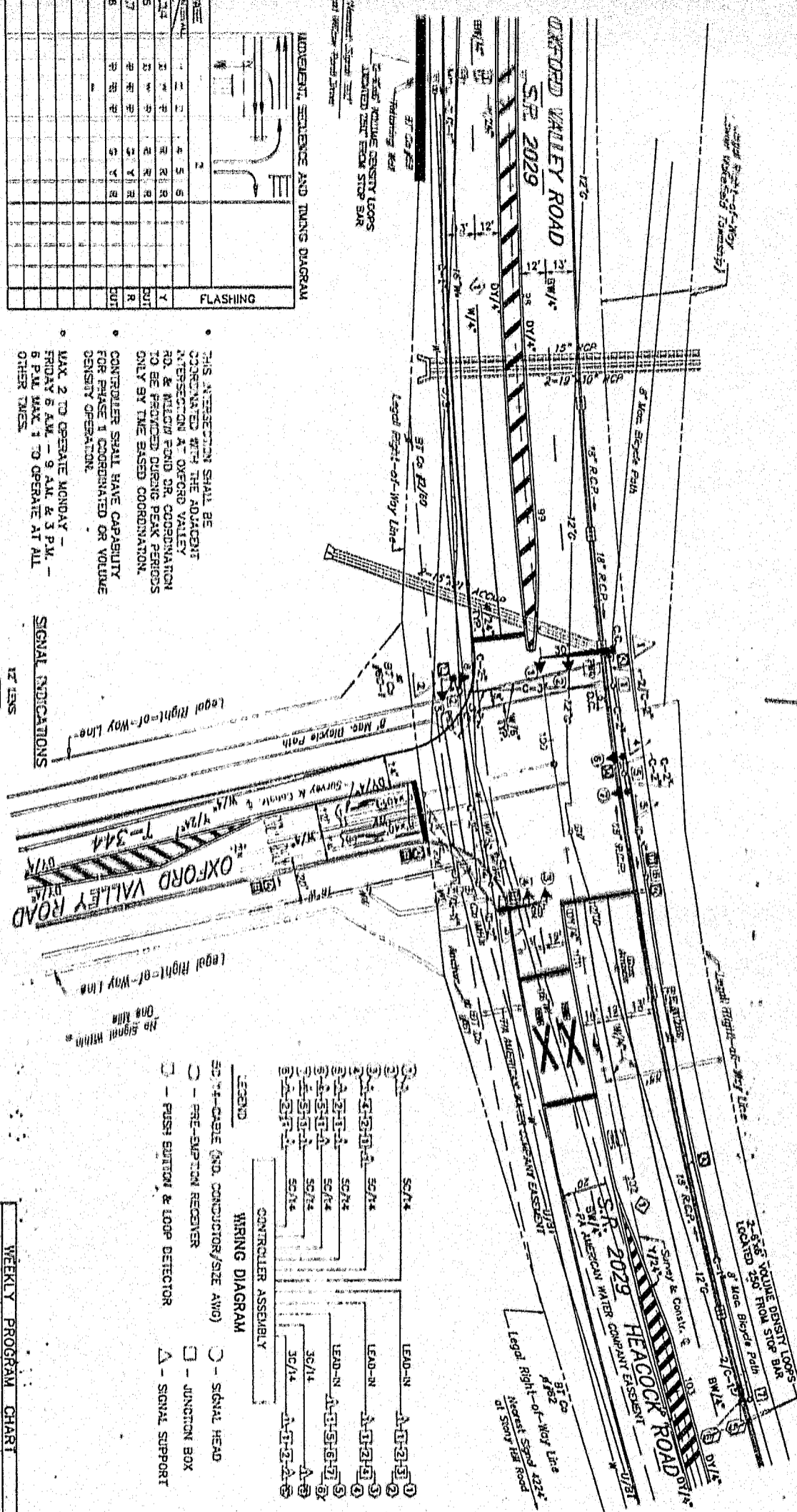
DETERMINE WITH A PENNDOT REPRESENTATIVE THE EXACT LOCATION OF DETECTORS PRIOR TO INSTALLATION.

CONSULT WITH LOCAL OFFICIALS AND UTILITIES TO RESOLVE CONFLICTS PRIOR TO CONSTRUCTION. COMPANY WITH PROVISIONS OF ACT 38 FOR PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 12, 1997.

LEGEND

- 1 Signal Head with identifying number
- 2 Signal Head with arrow section and identifying number
- 3 Sign with identifying letter
- 4 Pedestrian Publication
- 5 Phase
- 6 Controller Assembly
- 7 Junction Box
- 8 Conduit/Size
- 9 Solid White Line/Width
- 10 Solid Yellow Line/Width
- 11 Solid Yellow Line/Width
- 12 Double Solid Yellow Line/Width

COUNTY: BOONVILLE
 WINDUPFACTORY: LOWER MARKETFIELD TOWNSHIP
 INTERSECTION: SR 2029(OXFORD VALLEY RD.) & T-344(OXFORD VALLEY RD.)
 SR 2029(HEACOCK RD.) & T-344(OXFORD VALLEY RD.)
 REVIEWED: [Signature]
 MUNICIPAL OFFICIAL: [Signature]
 RECOMMENDED: [Signature]
 DISTRICT TRAFFIC ENGINEER: [Signature]
 DATE: []



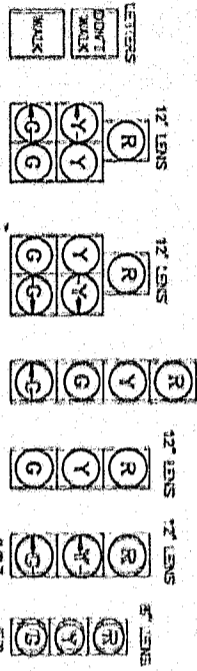
MOVEMENT, SEQUENCE AND TIMING DIAGRAM

THIS INTERSECTION SHALL BE COORDINATED WITH THE ADJACENT INTERSECTION AT OXFORD VALLEY RD. & HECOCK ROAD OR COORDINATION TO BE PROVIDED DURING PEAK PERIODS ONLY BY TIME BASED COORDINATION.

CONTROLLER SHALL HAVE CAPABILITY FOR PHASE 1 COORDINATION OR VOLUME DENSITY OPERATION.

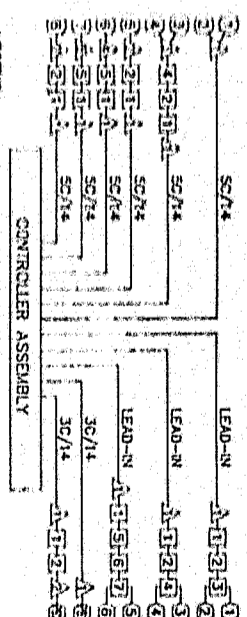
MAX 2 TO OPERATE MONDAY - FRIDAY 6 A.M. - 9 A.M. & 3 P.M. - 6 P.M. MAX 1 TO OPERATE AT ALL OTHER TIMES.

SIGNAL INDICATIONS



WIRING DIAGRAM

- LEGEND
- SC/TX - CABLE (AND CONDUCTOR/SIZE ANY)
 - PRE-SUPPORT RECEIVER
 - PUSH BUTTON & LOOP DETECTOR
 - Signal Head
 - JUNCTION BOX
 - Signal Support



SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS AND LOWERS

EVENT DAY TIME	CYCLE	OFFSET *	MAX.	REMARKS
1 1-5 0800	95 Sec.	5 Sec.	2	
2 1-5 0900	90 Sec.	Free	1	Volume Density
3 1-5 1300	95 Sec.	5 Sec.	2	
4 1-5 1800	90 Sec.	Free	1	Volume Density
5 1-7 0000	90 Sec.	Free	1	Volume Density

EVENT DAY TIME	CYCLE	OFFSET *	MAX.	REMARKS
1 1-5 0800	95 Sec.	5 Sec.	2	
2 1-5 0900	90 Sec.	Free	1	Volume Density
3 1-5 1300	95 Sec.	5 Sec.	2	
4 1-5 1800	90 Sec.	Free	1	Volume Density
5 1-7 0000	90 Sec.	Free	1	Volume Density

SCALE: 1" = 25'

TRAFFIC SIGNAL SUPPLIES

ITEM NO.	ITEM NUMBER	ROUTE	STATION	SIDE	OFFSET	ASST AREA		SIGNAL POLE		SHAFT	SPAN STRUCTURE	SIGNAL LOCATION		SIGNAL LOCATION	AREA	SHAFT
						W	E	H	K			H	K			
1	0951-0120															
2	0951-0120															
3	0951-4008															
4	0951-4012															
5																
TOTALS																

① POLE LOCATION AND OFFSETS AS SHOWN ARE APPROXIMATE.
 ② MUST BE DESIGNED BY MANUFACTURER TO SPECIFICATIONS.
 ③ STRAIN POLE TO BE DESIGNED BY MANUFACTURER TO SPECIFICATIONS.
 ④ SIGNAL LOADS AS SHOWN ON THE PLAN.

TRENCH, CONDUIT, JUNCTION BOX, ELECTRICAL ITEMS

DESCRIPTION	ITEM NUMBER	UNIT	QTY	PRICE	TOTAL	DESCRIPTION	ITEM NUMBER	UNIT	QTY	PRICE	TOTAL
1 INCH CONDUIT	0954 0011	L.F.	40	1.75	70.00	TRENCH AND BACKFILL, TYPE I	0954 0181	L.F.	70	1.00	70.00
2 INCH CONDUIT	0954 0012	L.F.	7	10.00	70.00	TRENCH AND BACKFILL, TYPE III	0954 0183	L.F.	85	1.00	85.00
3 INCH CONDUIT	0954 0013	L.F.	2	25.00	50.00	TRENCH AND BACKFILL, TYPE IV	0954 0184	L.F.	5	10.00	50.00
SIGNAL CABLE 14 AWG 3 CONDUCTOR	0954 0201	L.F.	150	4.40	660.00	SIGNAL CABLE 14 AWG 5 CONDUCTOR	0954 0202	L.F.	1	1.00	1.00
JUNCTION BOX JB # 26	0954 0301	EACH	2	10.00	20.00	JUNCTION BOX JB # 27	0954 0302	EACH	1	10.00	10.00
ELECTRICAL SERVICE TYPE II	0954 0302	EACH	1	10.00	10.00	WET-THE-LEAD IN GAULE	0954 0303	L.F.	1	10.00	10.00
TOTALS					561						253

MISCELLANEOUS

ITEM NO.	QUANTITY	DESCRIPTION	LOCATION
1	EACH	CONTROLLER ASSEMBLY, SOLID STATE, ACTUATED WITH VOLUME DENSITY, 2-4 PHASE TYPE II MOUNTING WITH TIME-BASED COORDINATOR	POLE 1
2	EACH	VERTICAL SIGNAL HEAD, THREE 8" SECTIONS	POLE 2
5	EACH	VEHICULAR SIGNAL HEAD, THREE 12" SECTIONS	POLES 1&4,5
2	EACH	PEDESTRIAN PUSH BUTTON	POLES 1,2

FLAT SHEET ALUMINUM SIGN TABULATION

ITEM NO.	SIZE	AREA EACH SQ. FT.	REMARKS	POST MOUNTED	POLE MOUNTED	STRUCTURE TYPE
1	30"X10"	6.25	LEFT LANE MUST TURN LEFT SIGN	2	2	12591
2	30"X10"	6.25	RIGHT LANE MUST TURN RIGHT SIGN	2	2	12591
3	18"X18"	2.25	NO PEDESTRIAN CROSSING SIGN	1	1	2251
4	18"X18"	2.25	PUSH BUTTON FOR GREEN LIGHT SIGN	1	1	2251
5	9"X12"	0.75	PUSH BUTTON FOR GREEN LIGHT SIGN	1	1	*
6	48"X24"	8.00	LARGE DOUBLE ARROW SIGN	1	1	800
TOTALS				5	3	35,251

DETECTORS

SENSOR NUMBER	LAYOUT	OPERATION	DIMENSIONS	QTY
1	I	PULSE	6"X6"	40
2	I	PULSE	6"X6"	40
3	I	PULSE	6"X6"	40
4	I	PULSE	6"X6"	40
5	I	PULSE	6"X6"	40
6	I	PULSE	6"X6"	40

TOTAL LENGTH OF WIRE AND NUMBER OF AMPLETERS: 588 3

COUNTY: BUCKS

MUNICIPALITY: LOWER MERKEFIELD TOWNSHIP

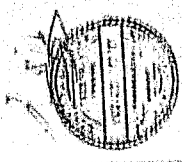
INTERSECTION: SR 2029 (GEORGE WALKER RD.) & T-24 (GEORGE WALKER VALLEY RD.)

SR 2029 (HEADLOCK RD.) & T-24 (GEORGE WALKER VALLEY RD.)

REVIEWED: [Signature] DATE: 11/11/2023

RECOMMENDED BY: [Signature] DATE: 11/11/2023

DISTRICT TRAFFIC ENGINEER: [Signature] DATE: 11/11/2023



PAVEMENT MARKING & SIGNING PLAN

NO.	DATE	BY	REVISIONS
1	10/1/23	JLD	ISSUED FOR PERMIT
2	10/1/23	JLD	REVISED

- LEGEND**
- W/C 2" - Solid White Line/Width
 - BW/C - Broken White Line/Width
 - Y/C 2" - Solid Yellow Line/Width
 - DY/C - Double Solid Yellow Line/Width
 - BW/C 2" - Broken White Line/Width
 - White Legend "TEXT"
 - White Legend "ARROW"

BIG OAK ROAD
S.R. 2024

BIG OAK ROAD
T-348

MATCH LINE THIS SHEET

12' LANE
10' LANE
13' LANE
12' LANE

OXFORD VALLEY ROAD

S.R. 2023

R3-9B
R3-9C
(30"x48")

SPEED LIMIT
40
(30"x36")

STOP
(10"x10")

DOBRY ROAD
T-348

MT. PLEASANT DRIVE

OXFORD VALLEY ROAD

R3-7L
(30"x30")

R3-7L
(30"x30")

R3-10
(30"x30")

R3-9B
(30"x30")

R3-9B
(30"x30")

S.R. 2023 Seg. 150 Sheet 172
S.R. 2023 Seg. 150 Sheet 172
S.R. 2023 Seg. 150 Sheet 172
S.R. 2023 Seg. 150 Sheet 172

12' LANE
10' LANE
13' LANE
12' LANE

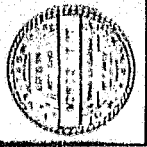
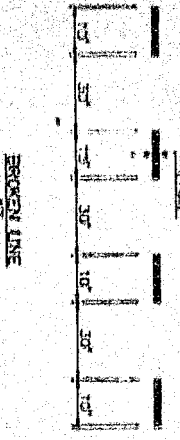
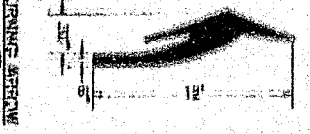
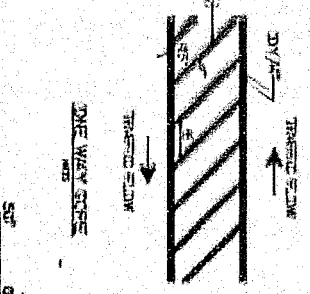
MATCH LINE THIS SHEET

BROKEN LINE

TRAVELING ARROW

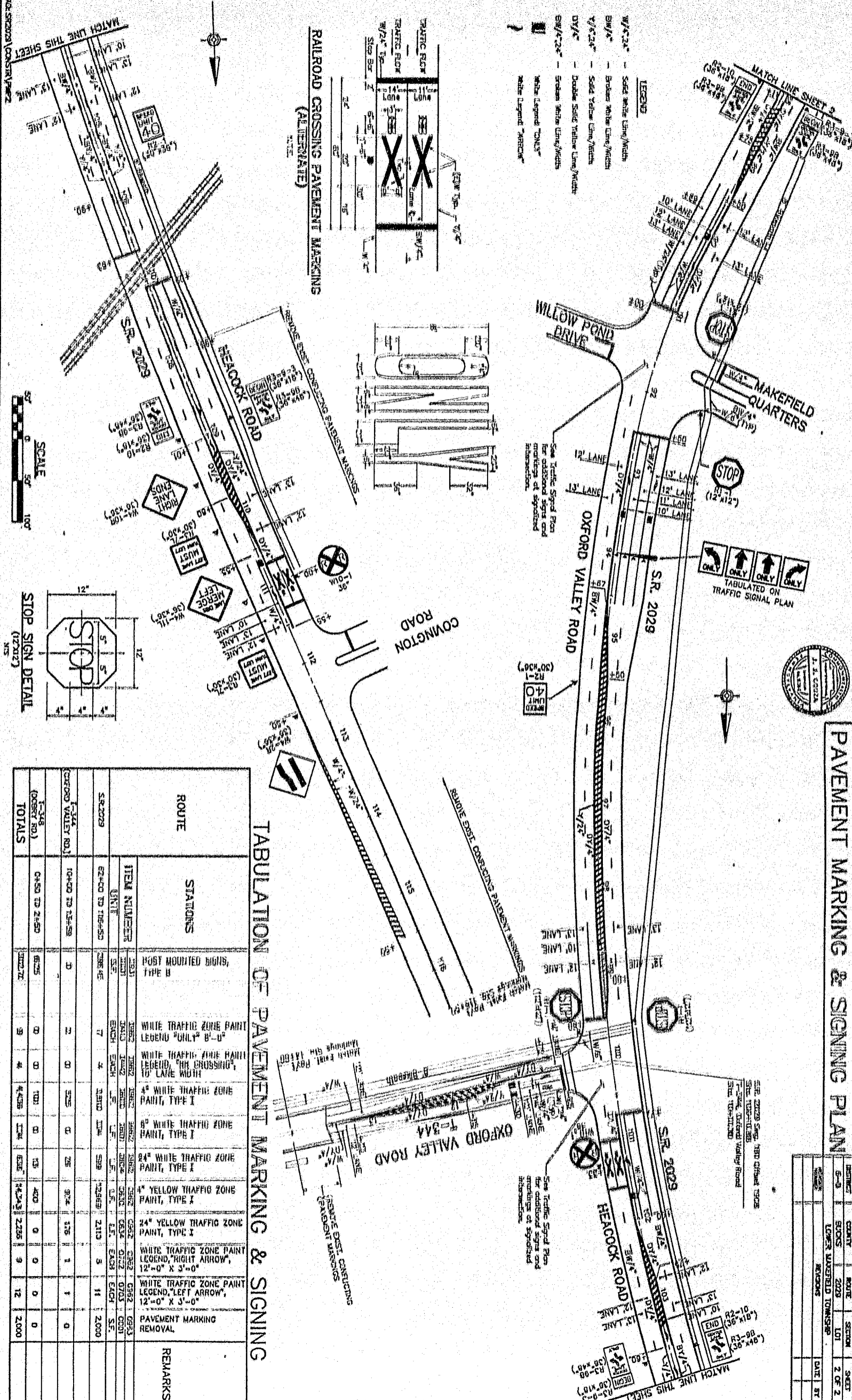
SCALE
1" = 50'

TYPICAL LEGEND PLACEMENT



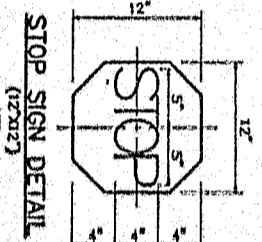
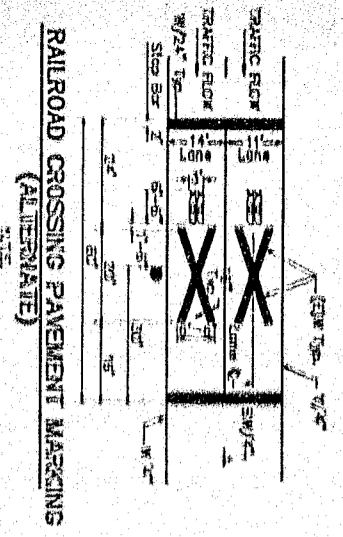
PAVEMENT MARKING & SIGNING PLAN

SECTION	SHEET
101	2 OF 2
DATE	BY



LEGEND

- W/4" 2" - Solid White Line/Width
- BW/4" - Broken White Line/Width
- Y/4" 2" - Solid Yellow Line/Width
- DY/4" - Double Solid Yellow Line/Width
- BW/4" 2" - Broken White Line/Width
- White Legend "ONUS"
- White Legend "ARROW"
- White Legend "X"



TABULATION OF PAVEMENT MARKING & SIGNING

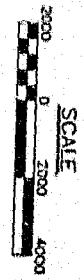
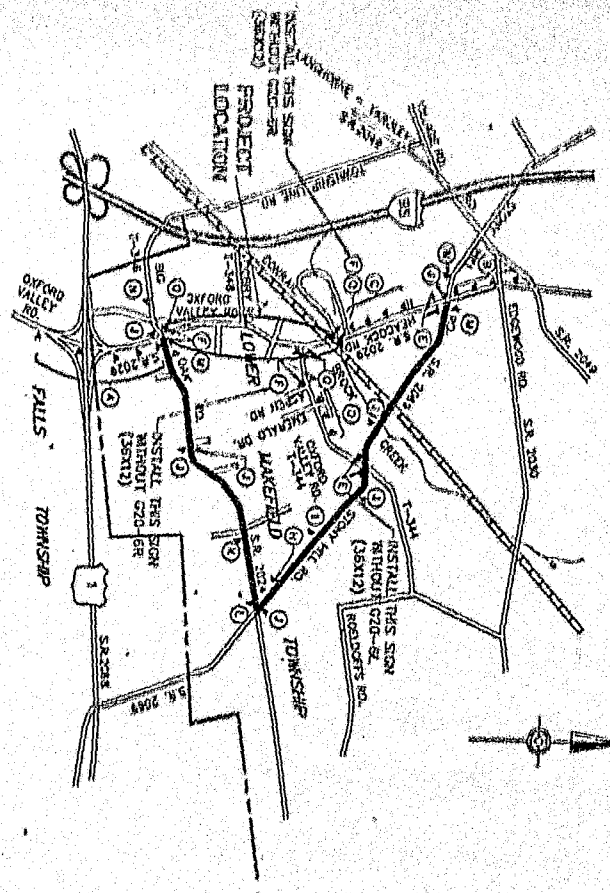
ROUTE	STATIONS	ITEM NUMBER		REMARKS
		UNIT	QTY	
SR 2029	0+50 TO 2+50	1031	1	POST MOUNTED SIGNS, TYPE B
		1032	2	WHITE TRAFFIC ZONE PAINT LEGEND "ONLY" 8'-0" x 3'-0"
		1033	2	WHITE TRAFFIC ZONE PAINT LEGEND "OR CROSSING" 10' LANE WIDTH
		1034	4	4" WHITE TRAFFIC ZONE PAINT, TYPE I
		1035	4	6" WHITE TRAFFIC ZONE PAINT, TYPE I
		1036	4	8" WHITE TRAFFIC ZONE PAINT, TYPE I
		1037	4	24" WHITE TRAFFIC ZONE PAINT, TYPE I
		1038	4	4" YELLOW TRAFFIC ZONE PAINT, TYPE I
		1039	4	24" YELLOW TRAFFIC ZONE PAINT, TYPE I
		1040	3	WHITE TRAFFIC ZONE PAINT LEGEND "RIGHT ARROW", 12'-0" x 3'-0"
		1041	11	WHITE TRAFFIC ZONE PAINT LEGEND "LEFT ARROW", 12'-0" x 3'-0"
		1042	1	PAVEMENT MARKING REMOVAL
		1043	1	
		1044	12	
TOTALS				

SR 2029 Supp. 1980 Official 2008
 SR 2029 (10-2008)
 SR 2029 Oxford Valley Road
 SR 102-111-100

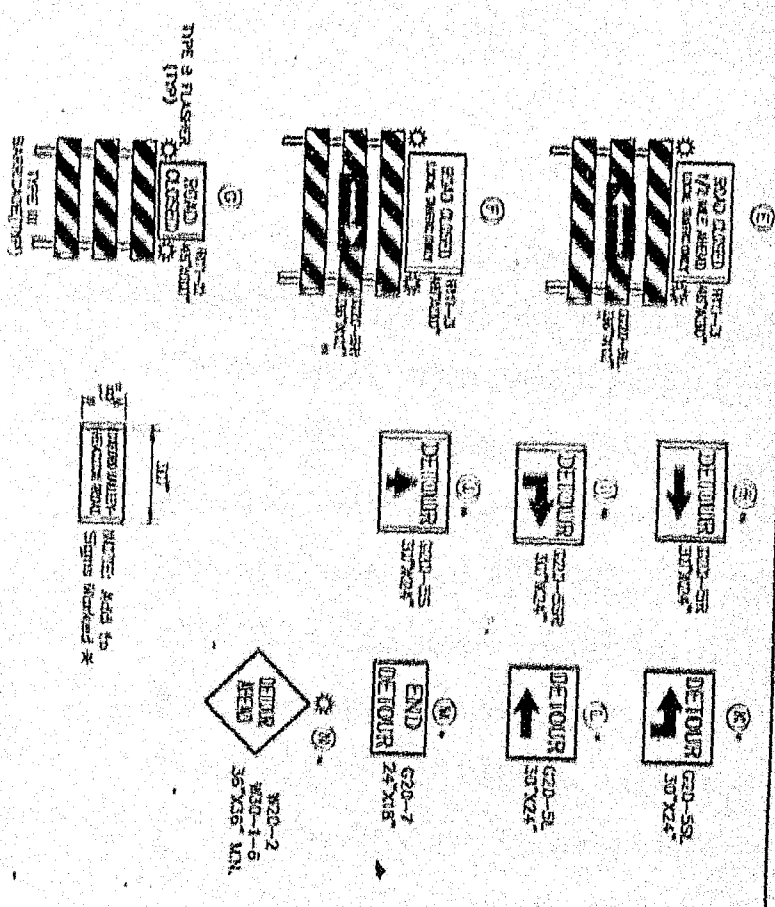
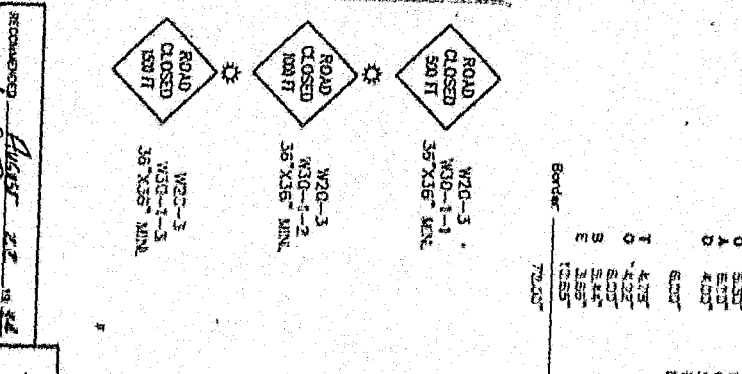
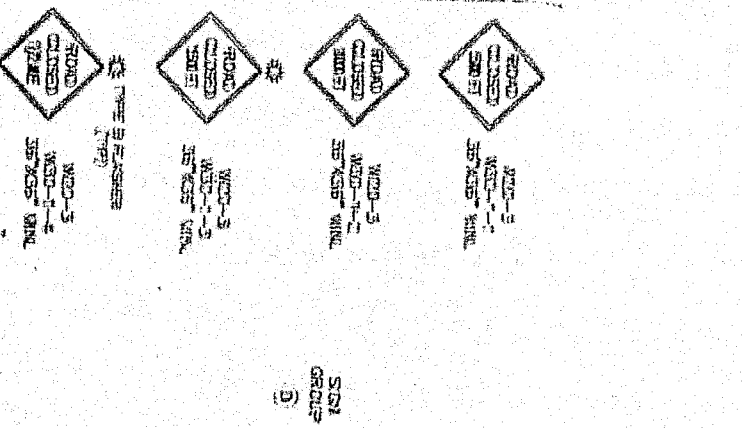
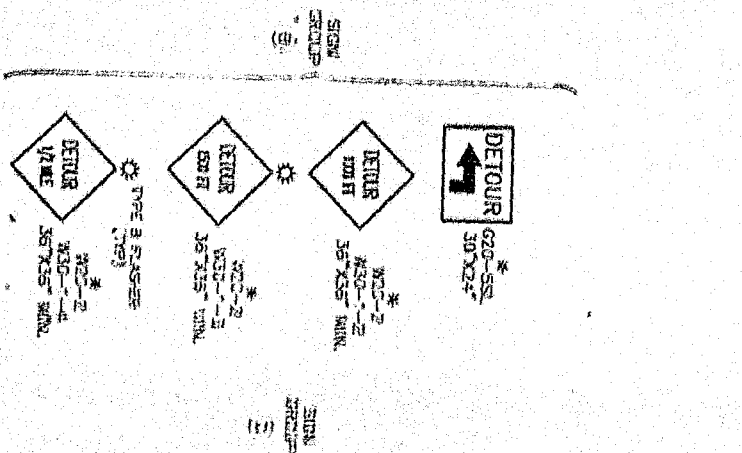
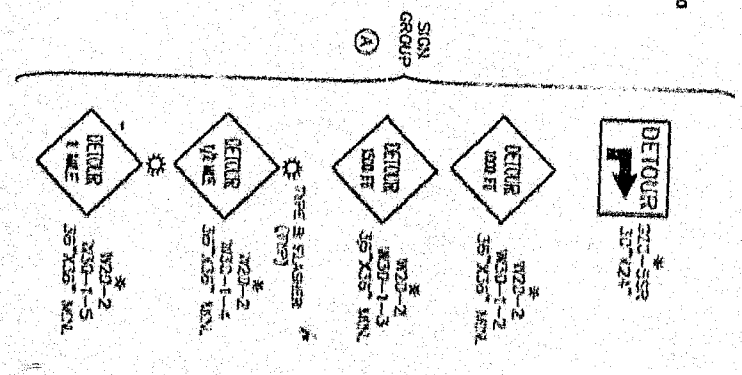
See Traffic Sign Plan for additional signs and markings of specified dimensions.

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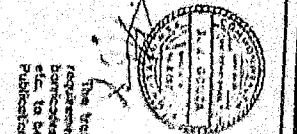
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DETOUR ROUTE



Color	Height	Width	Notes
R	5.07"	6.02"	PLATE APPLICATION (4x4)
O	5.65"	6.21"	
A	6.13"	6.81"	
D	6.81"	7.41"	
I	7.41"	8.01"	
O	8.01"	8.61"	
E	8.61"	9.21"	
E	9.21"	9.81"	
B	9.81"	10.41"	
E	10.41"	11.01"	



GENERAL NOTES

The traffic control sign and device layout are the minimum requirements for this project. Additional signs, barricades, drums, pavement markings, cones, etc., may be provided in accordance with Permit Specifications, Publication 428.

The Contractor will furnish, erect, place and maintain the traffic signs and devices and maintain the traffic signs and devices in accordance with the methods indicated on these drawings and the following: 1. The speed provisions of the Illinois Traffic Code, Chapter 201, Part 201.002, 201.003, 201.004, 201.005, 201.006, 201.007, 201.008, 201.009, 201.010, 201.011, 201.012, 201.013, 201.014, 201.015, 201.016, 201.017, 201.018, 201.019, 201.020, 201.021, 201.022, 201.023, 201.024, 201.025, 201.026, 201.027, 201.028, 201.029, 201.030, 201.031, 201.032, 201.033, 201.034, 201.035, 201.036, 201.037, 201.038, 201.039, 201.040, 201.041, 201.042, 201.043, 201.044, 201.045, 201.046, 201.047, 201.048, 201.049, 201.050, 201.051, 201.052, 201.053, 201.054, 201.055, 201.056, 201.057, 201.058, 201.059, 201.060, 201.061, 201.062, 201.063, 201.064, 201.065, 201.066, 201.067, 201.068, 201.069, 201.070, 201.071, 201.072, 201.073, 201.074, 201.075, 201.076, 201.077, 201.078, 201.079, 201.080, 201.081, 201.082, 201.083, 201.084, 201.085, 201.086, 201.087, 201.088, 201.089, 201.090, 201.091, 201.092, 201.093, 201.094, 201.095, 201.096, 201.097, 201.098, 201.099, 201.100, 201.101, 201.102, 201.103, 201.104, 201.105, 201.106, 201.107, 201.108, 201.109, 201.110, 201.111, 201.112, 201.113, 201.114, 201.115, 201.116, 201.117, 201.118, 201.119, 201.120, 201.121, 201.122, 201.123, 201.124, 201.125, 201.126, 201.127, 201.128, 201.129, 201.130, 201.131, 201.132, 201.133, 201.134, 201.135, 201.136, 201.137, 201.138, 201.139, 201.140, 201.141, 201.142, 201.143, 201.144, 201.145, 201.146, 201.147, 201.148, 201.149, 201.150, 201.151, 201.152, 201.153, 201.154, 201.155, 201.156, 201.157, 201.158, 201.159, 201.160, 201.161, 201.162, 201.163, 201.164, 201.165, 201.166, 201.167, 201.168, 201.169, 201.170, 201.171, 201.172, 201.173, 201.174, 201.175, 201.176, 201.177, 201.178, 201.179, 201.180, 201.181, 201.182, 201.183, 201.184, 201.185, 201.186, 201.187, 201.188, 201.189, 201.190, 201.191, 201.192, 201.193, 201.194, 201.195, 201.196, 201.197, 201.198, 201.199, 201.200.

TRAFFIC CONTROL PLAN
DETOUR ROUTE

APPROVED: August 22, 1982
DORIS H. HAYES, Engineer