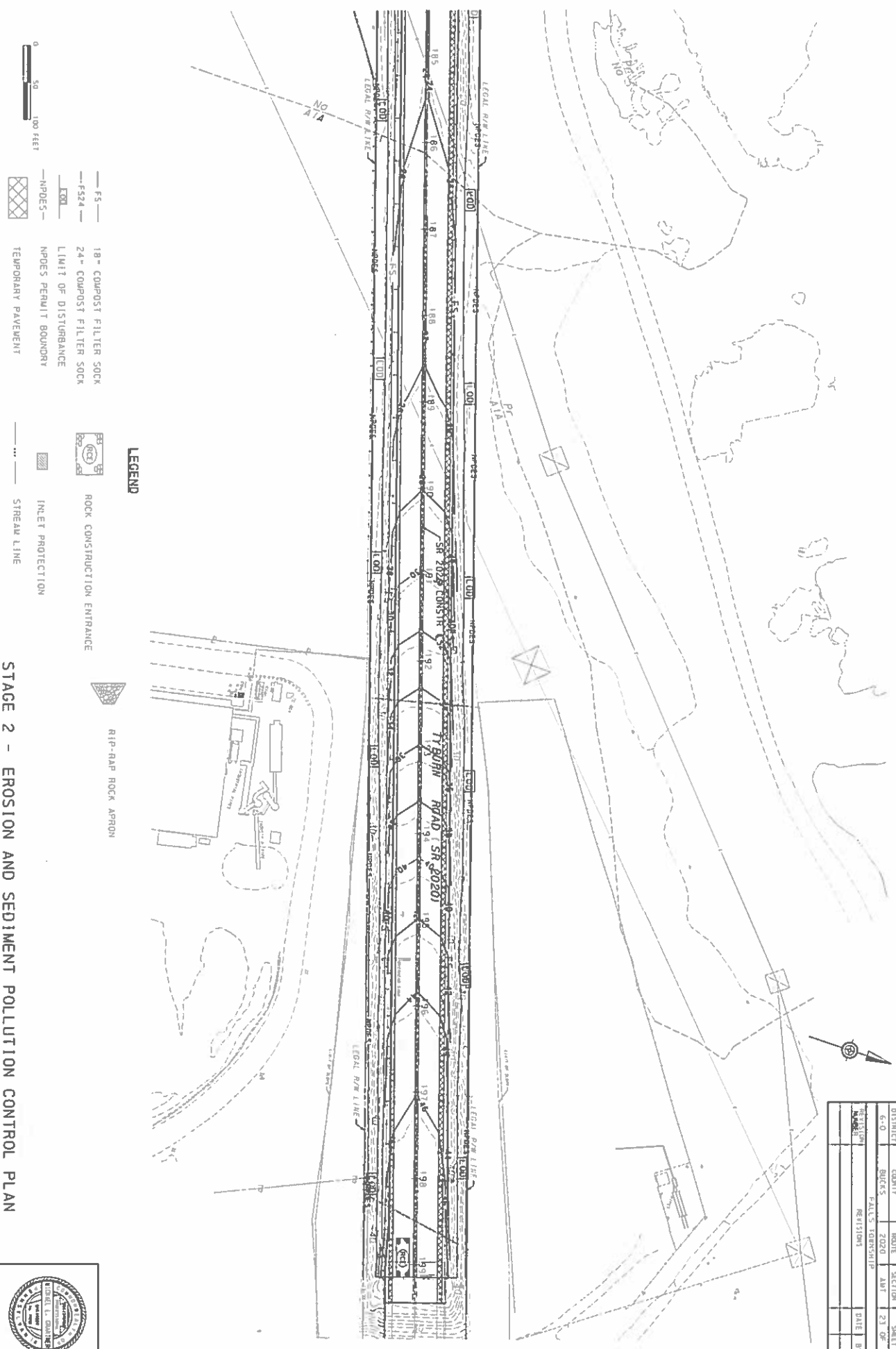


STAGE 2 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



DISTRICT	COMPR	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	AMT	22 OF 31
NO. 10000	FALLS	MEMBERSHIP	REVISIONS	DATE BY



STAGE 2 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	AWT	21 OF 31
REVISION	FALLS TOWNSHIP			
REVISION	REVISION	DATE	BY	



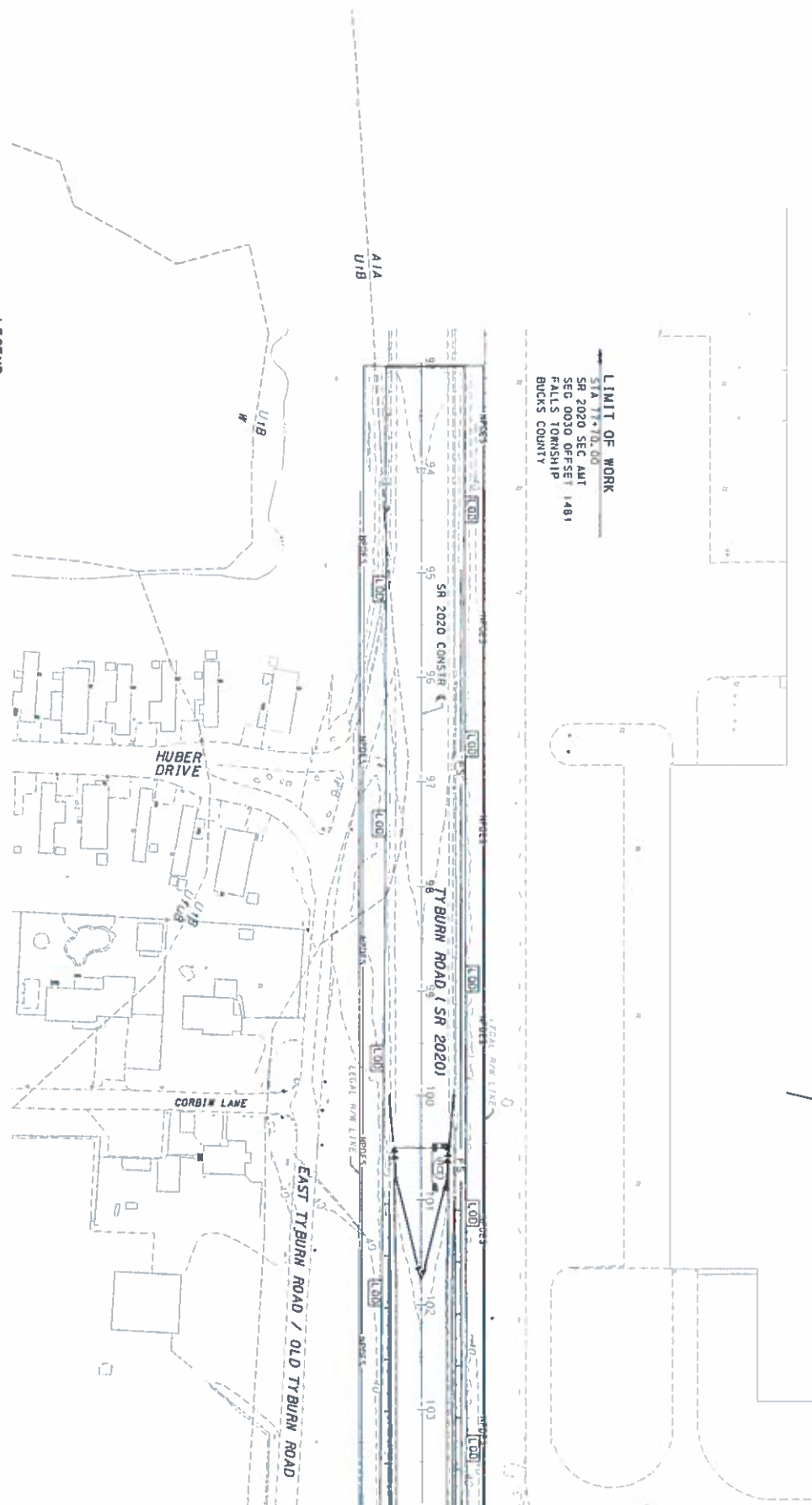
- F3 — 18" COMPOST FILTER SOCK
- F54 — 24" COMPOST FILTER SOCK
- L01 — LIMIT OF DISTURBANCE
- NPDES — NPDES PERMIT BOUNDARY
- TEMPORARY PAVEMENT

- ROCK CONSTRUCTION ENTRANCE
- INLET PROTECTION
- STREAM LINE

— RIP-RAP ROCK APPROX

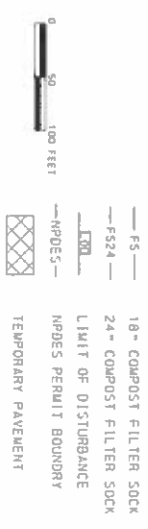
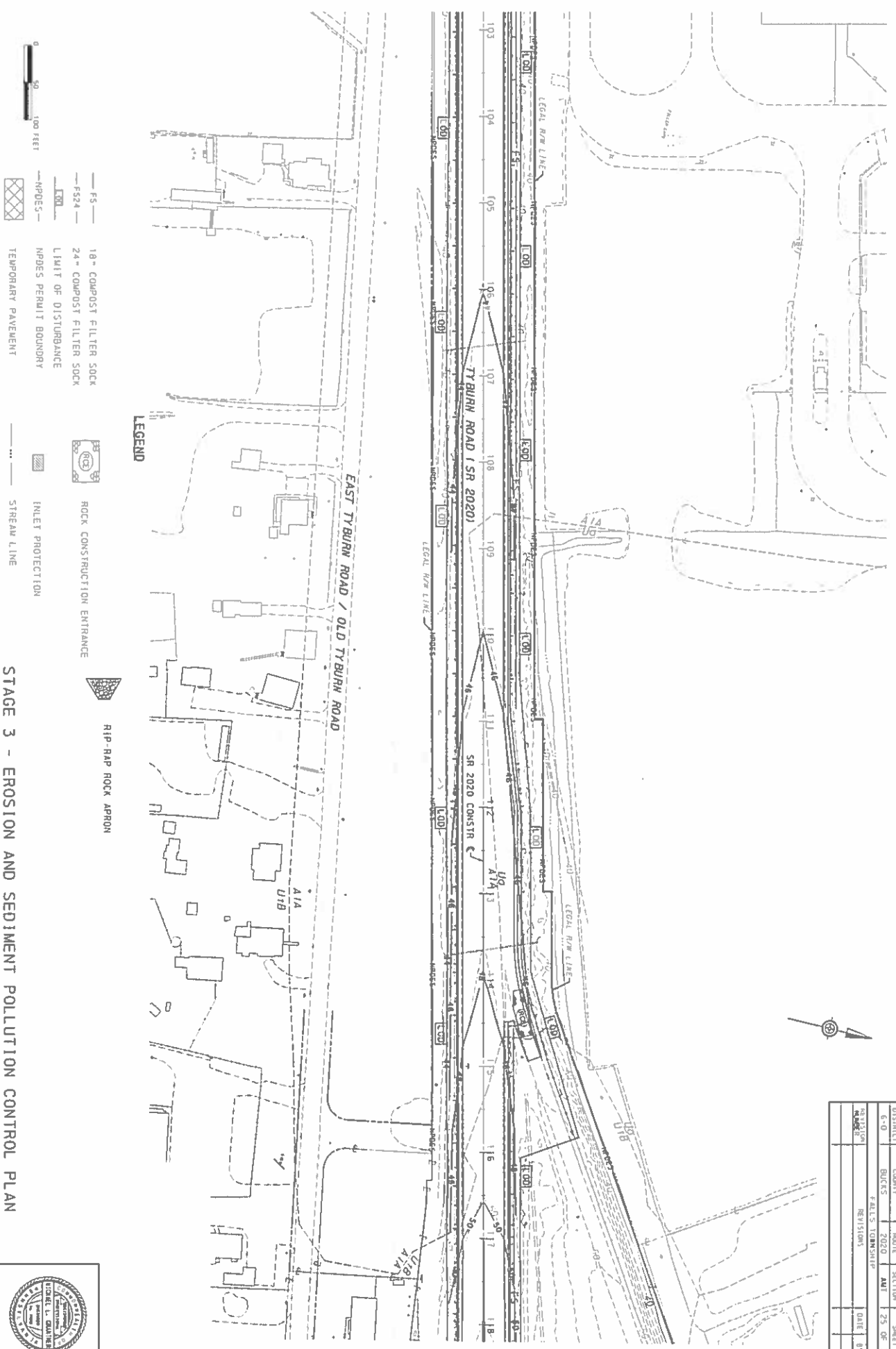
LEGEND

STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



LIMIT OF WORK
STA 77+70.00
SR 2020 SEC APT
SEO 0030 OFFSET 1481
FALLS TOWNSHIP
BUCKS COUNTY

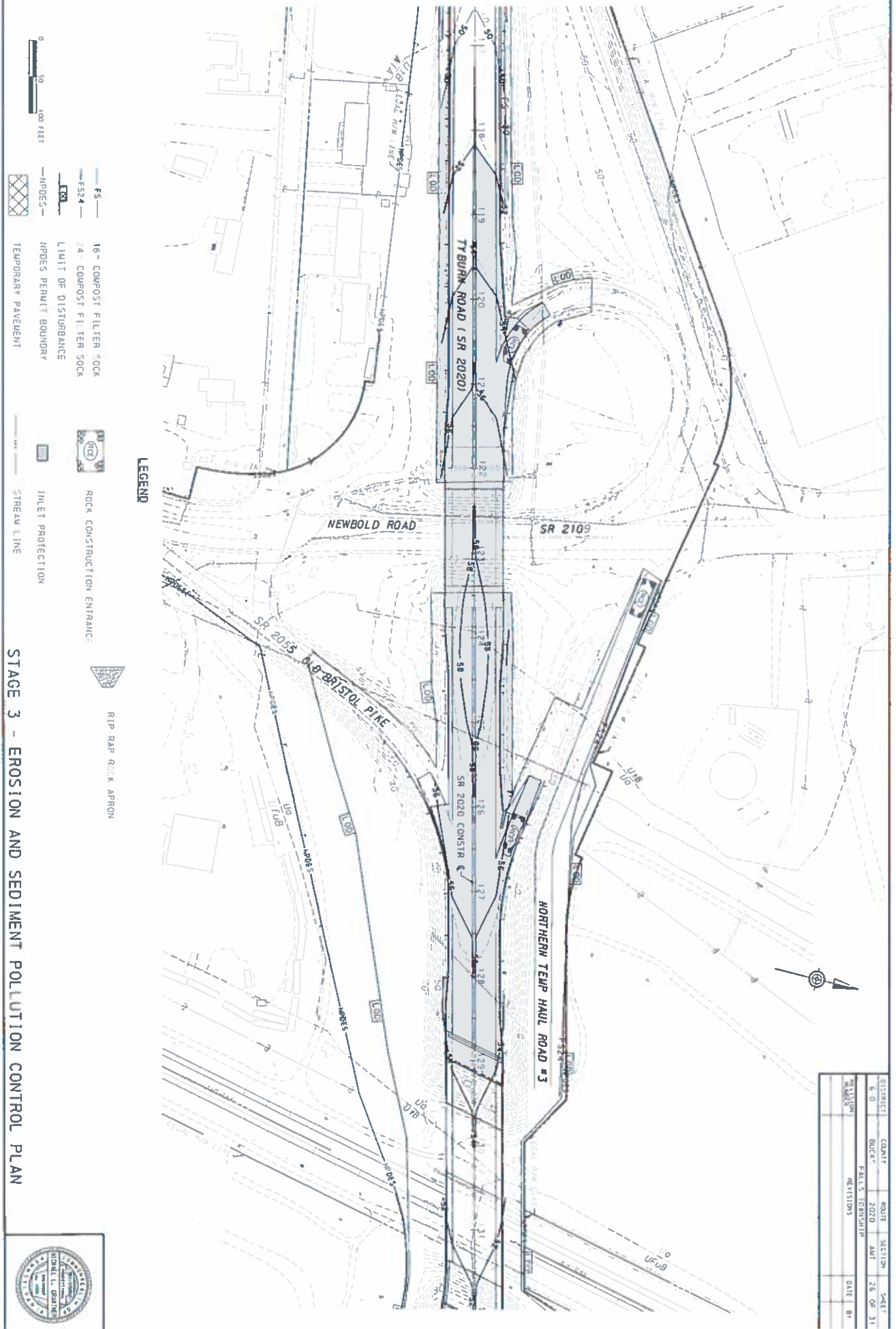
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	AV7	24 OF 31
PROJECT		FALLS TOWNSHIP		
REVISIONS		DATE	BY	



STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	AM	25 OF 31
PROJECT NO.	F.A.L.S. TOWNSHIP	REVISIONS	DATE	BY



LEGEND

- FS — 18" COMPOST FILTER SOCK
- CS24 — 24" COMPOST FILTER SOCK
- 18" LIMIT OF DISTURBANCE
- NPDES — NPDES PERMIT BOUNDARY
- TEMPORARY PAVEMENT
- INLET PROTECTION
- STREAM LINE
- ROCK CONSTRUCTION ENTRANCE
- RIP RAP ROCK APRON

STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN

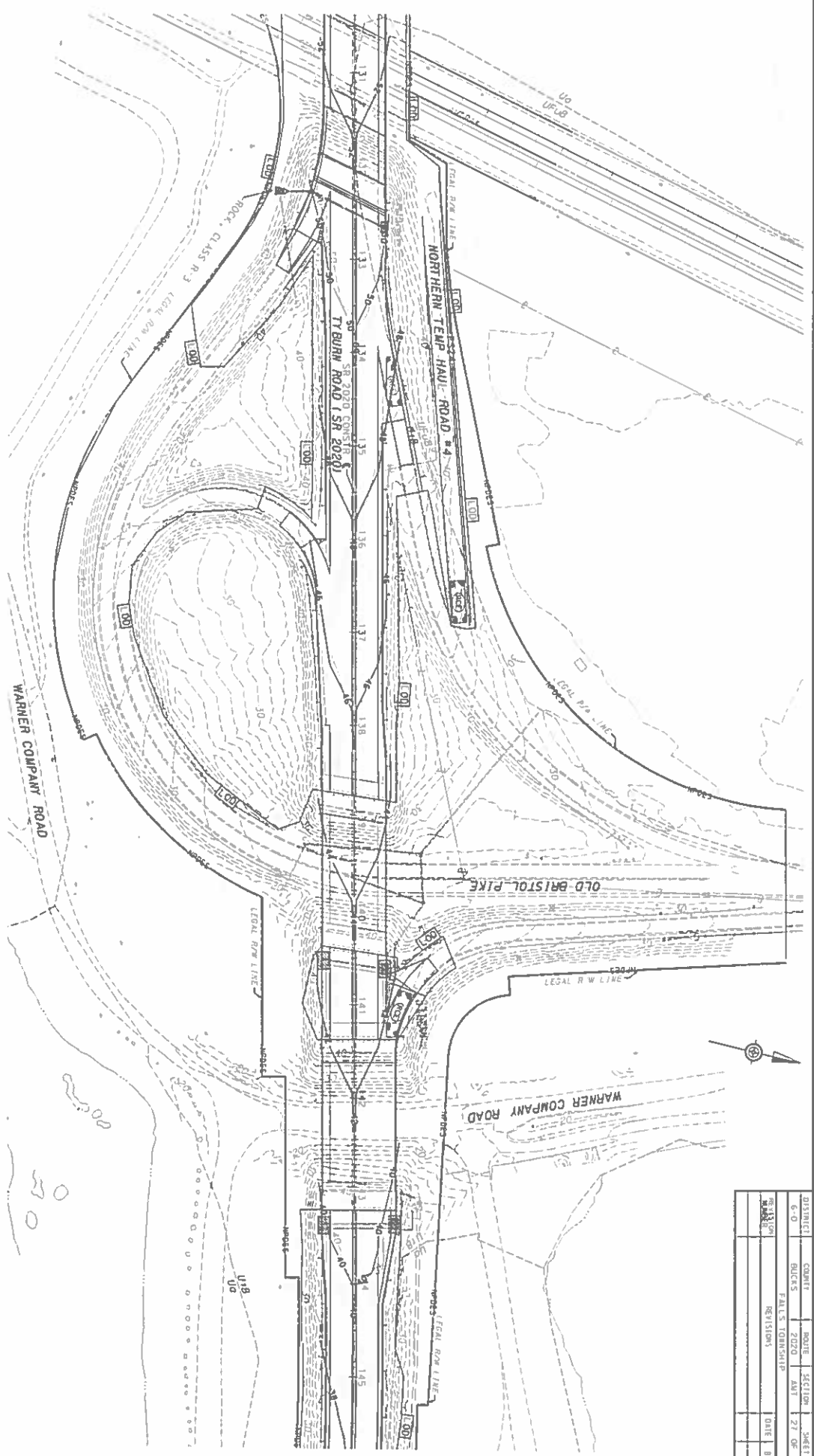


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6.0	BUCK	2020	AVT	26 OF 31
FALLS TOWNSHIP				
REVISION	DATE			

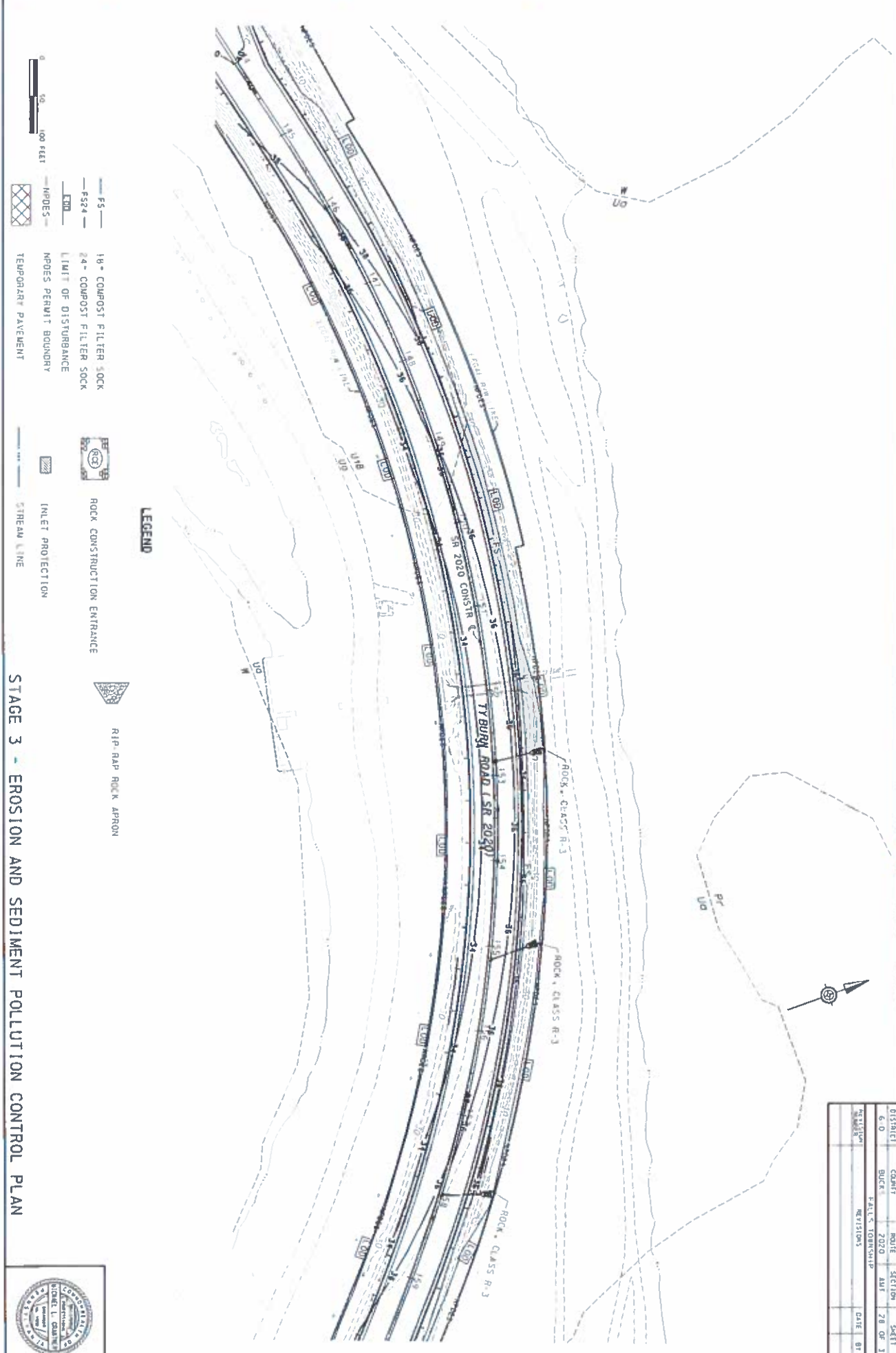


- LEGEND**
- 18" COMPOST FILTER SOCK
 - 24" COMPOST FILTER SOCK
 - LIMIT OF DISTURBANCE
 - NPDES PERMIT BOUNDARY
 - TEMPORARY PAVEMENT
 - RIP-RAP ROCK APRON
 - ROCK CONSTRUCTION ENTRANCE
 - INLET PROTECTION
 - STREAM LINE

STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BLUES	2020	AVT	27 OF 31
REVISION	DATE	BY		



- F5 — 18" COMPOST FILTER SOCK
- 6524 — 24" COMPOST FILTER SOCK
- LWD — LIMIT OF DISTURBANCE
- NPDES — NPDES PERMIT BOUNDARY
- TEMPORARY PAVEMENT

- ROCK CONSTRUCTION ENTRANCE
- INLET PROTECTION
- STREAM LINE

- RIP-RAP ROCK APRON

LEGEND

STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN

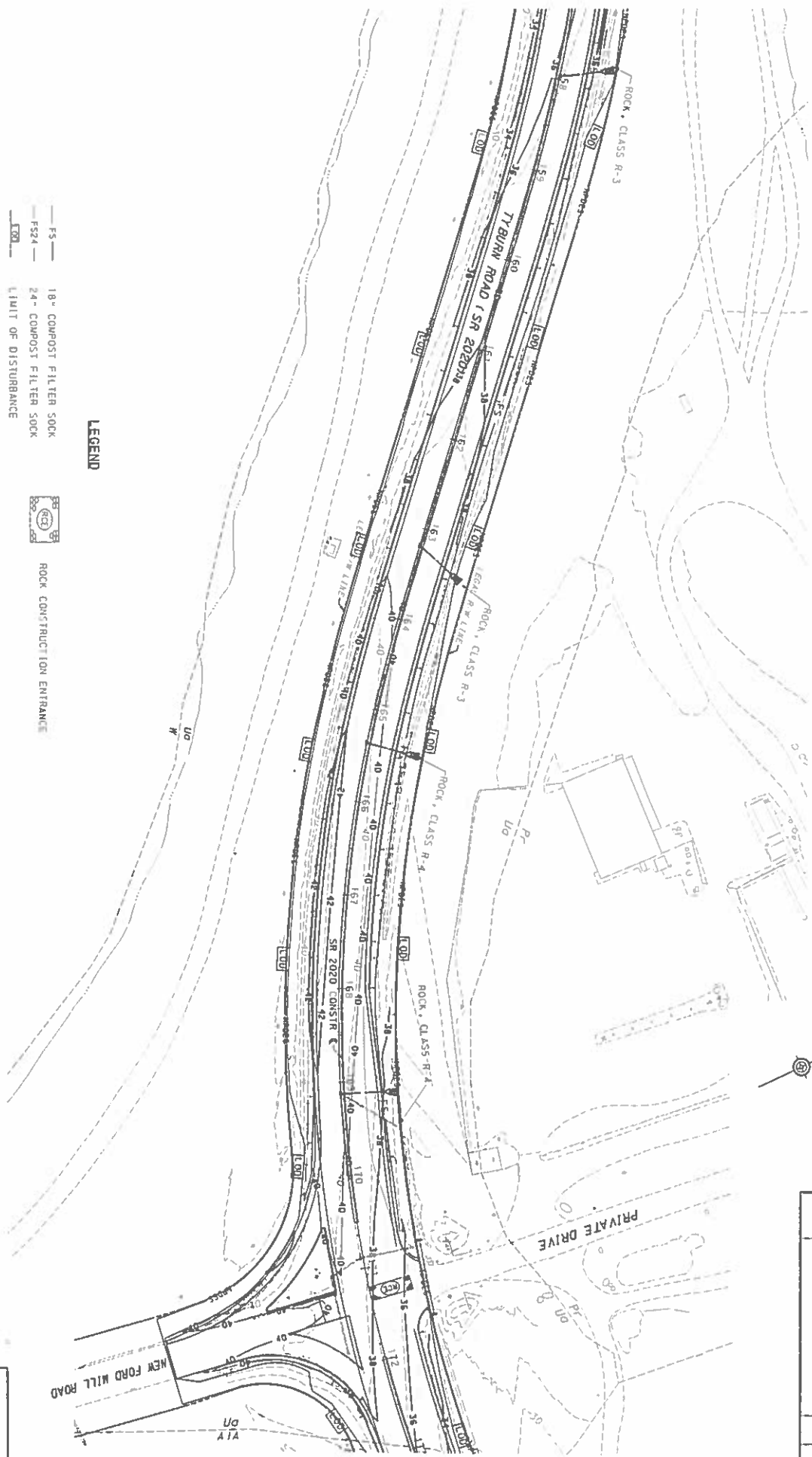


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCK	2020	AMT	78 OF 117
PROJECT NAME	FALLS TOWNSHIP		DATE	01
REVISIONS				

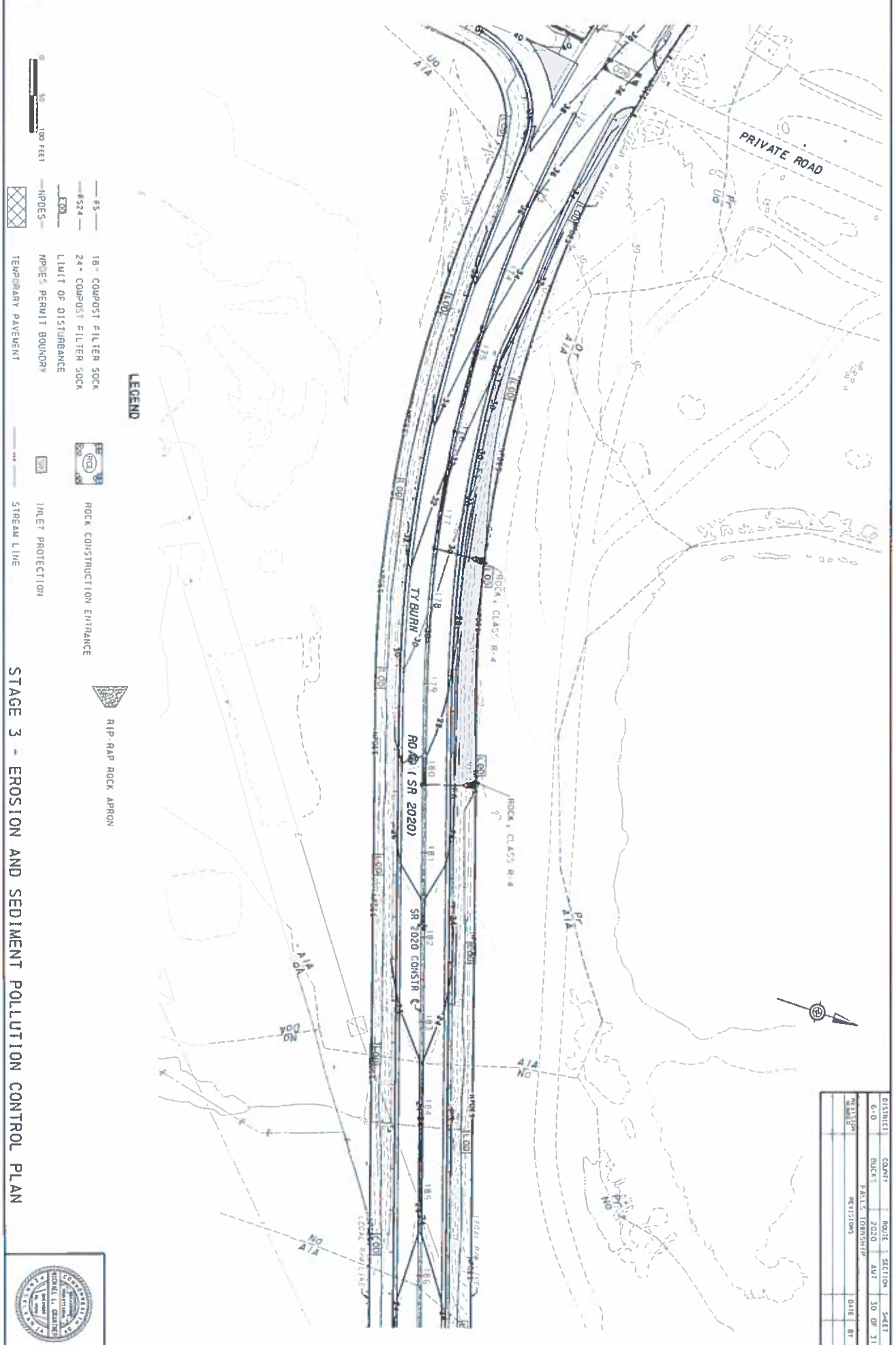


- LEGEND**
- FS — 18" COMPOST FILTER SOCK
 - FS24 — 24" COMPOST FILTER SOCK
 - L100 — LIMIT OF DISTURBANCE
 - NPDES- — NPDES PERMIT BOUNDARY
 - TEMPORARY PAVEMENT
 - RIP RAP ROCK APRON
 - ROCK CONSTRUCTION ENTRANCE
 - INLET PROTECTION
 - STREAM LINE

STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



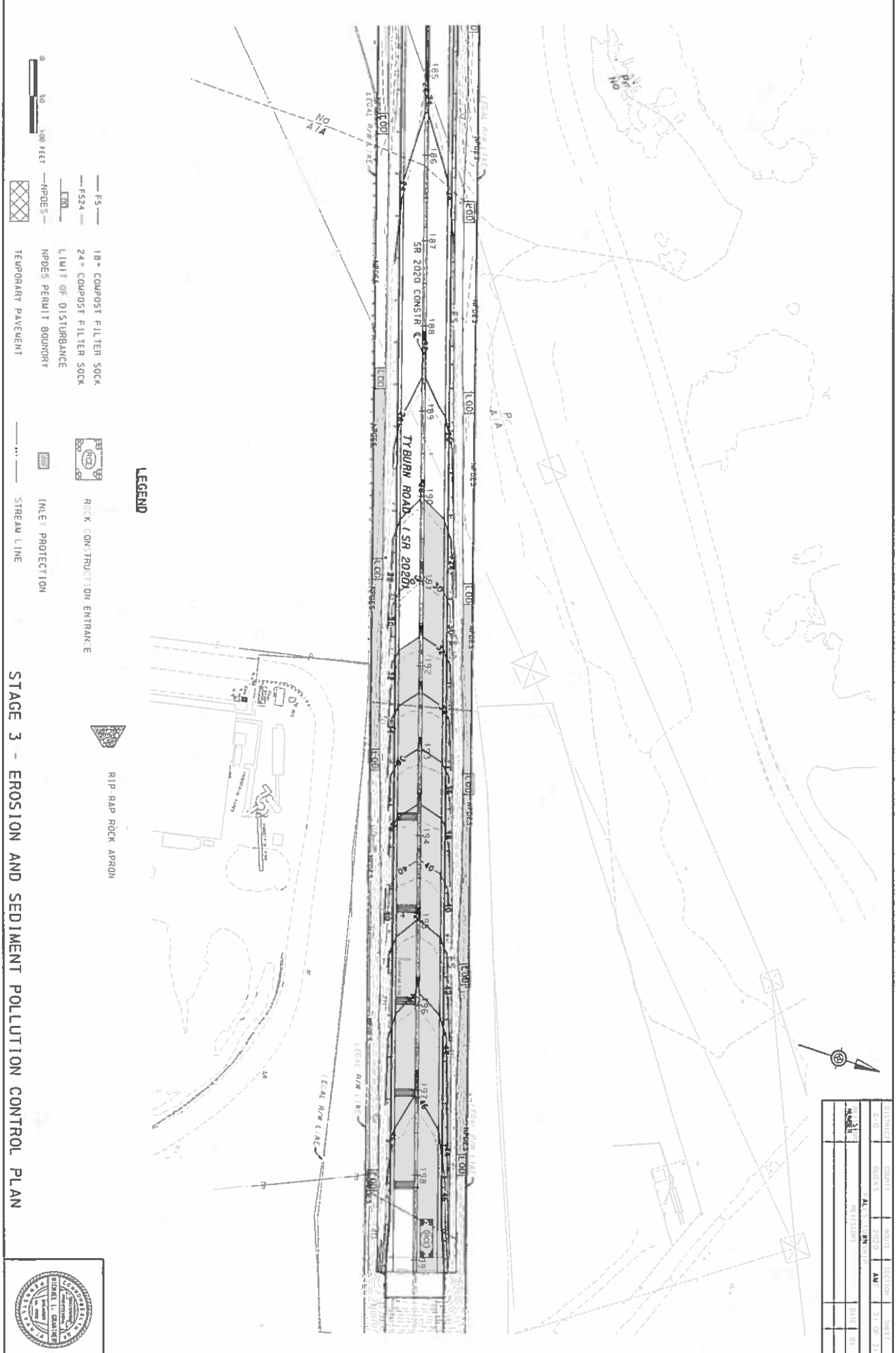
DISTRICT	COMMITTEE	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	AWT	29 OF 31
REVISION	PAUL'S TOWNSHIP		DATE	BY
REVISIONS				

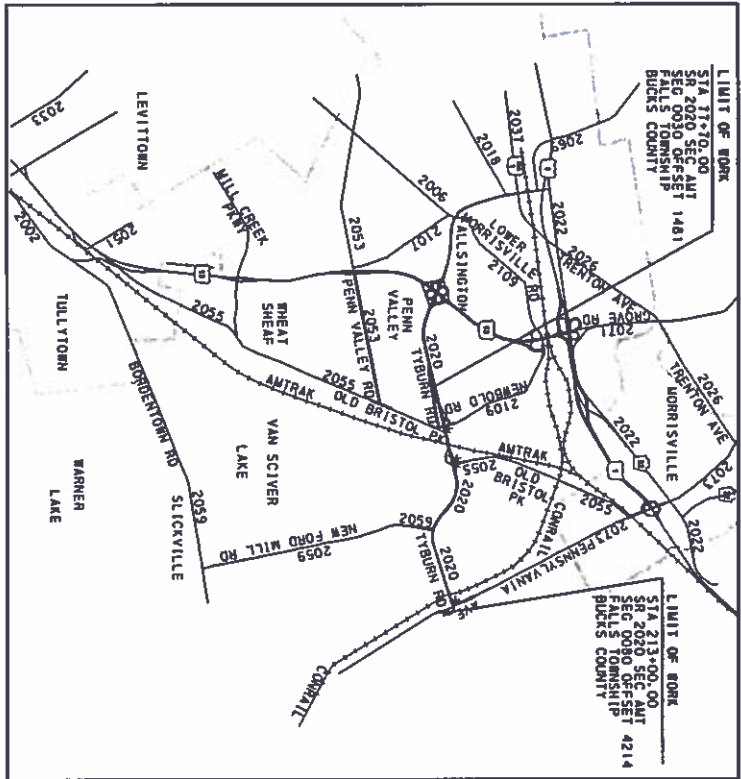


STAGE 3 - EROSION AND SEDIMENT POLLUTION CONTROL PLAN



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-10	BUCKS	2020	A17	30 OF 31
PROJECT NO.	FALLS TOWNSHIP		DATE	BT
REVISIONS				





GENERAL NOTES

THIS PROJECT IS NOT ADDING ANY ADDITIONAL IMPERVIOUS AREA, AND THE FLOWS FROM THE PROPOSED CONDITIONS WILL LEAVE THE SITE IN THE SAME MANNER AS THE PREDEVELOPMENT CONDITION (CHAPTER 187-20B). AS A RESULT THIS PROJECT IS EXEMPT FROM THE PROVISIONS OF CHAPTER 187.

THIS PROJECT IS LOCATED IN THE WATERSHEDS OF PIDCOCK-MILLCREEK CHAPTER 93 CLASSIFIES THE DELAWARE RIVER AS BWF.

PLAQUE CALL: 1-800-242-1176
SERIAL NOS.: 090289, 090276, 091183
SERIAL NOS.: 091219, 091231
FALLS TOWNSHIP, BUCKS COUNTY

THIS PROJECT IS CONSIDERED A PGM LEVEL 1 PROJECT AS PER PENNDOT PUBLICATION 13W, CHAPTER 13.

ALL STORMWATER MANAGEMENT FACILITIES WITHIN THE PROJECT BOUNDARY WILL BE OWNED, AND MAINTAINED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION.



INSTALLATION

FOLLOW THE SEQUENCE OF CONSTRUCTION IN THE EROSION CONTROL PLAN WHEN CONSTRUCTING THE PROJECT DRAINAGE FACILITIES.

OPERATION

PIPES, INLETS AND THE OUTFALL STRUCTURES SHOULD BE FREE OF DEBRIS AND SEDIMENT AND FUNCTIONAL AT ALL TIMES.

MAINTENANCE NOTES

REPEAT THE ABOVE PROCEDURE AFTER EACH STORM UNTIL NO ADDITIONAL SIGNS OF EROSION ARE EVIDENT. AT REGULAR INTERVALS HEREAFTER, INSPECT AND CLEAN AS NECESSARY. REMOVE SILT THAT HAS ACCUMULATED, ALLOW TO DRY AND THEN USE AS FILL WHEREVER REQUIRED ON THE SITE.

DISPOSE OF TRASH THAT IS REMOVED FROM ANY OF THE CONTROL DEVICES AT AN APPROVED MUNICIPAL DISPOSAL AREA.

CONSTRUCTION DOCUMENTS WILL INCLUDE COPIES OF PERMITS AND APPROPRIATE INSTRUCTIONS REGARDING CONSTRUCTION OF STORMWATER MANAGEMENT BMP'S.

ON-SITE INSPECTION WILL OCCUR DURING CONSTRUCTION TO ENSURE PROPER INSTALLATION OF ALL BMP'S.

PERMANENT STABILIZATION NOTES:

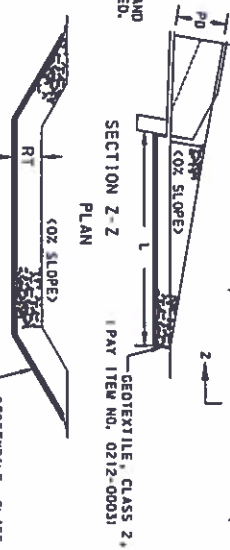
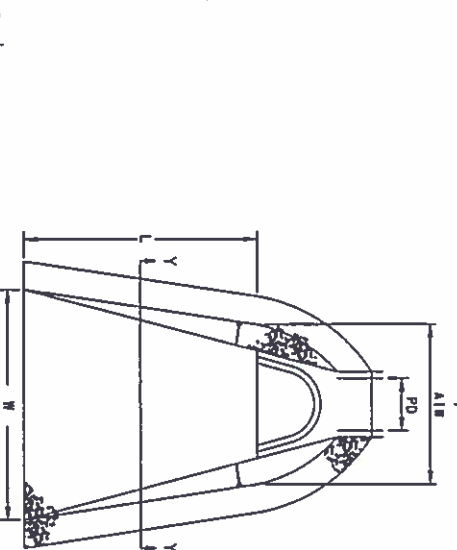
UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR AT ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.

EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL THE PERMANENT STABILIZATION IS COMPLETED.

FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING:

- A MINIMUM UNIFORM 10% PERENNIAL VEGETATING COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION.
- AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.

DISTRICT	QUART	ROUTE	SECTION	SHEET
6-0	BUCKS	2020	A11	1 OF 19
SECTION FALLS TOWNSHIP REVISIONS				
NO.	DATE	BY		



ROCK APRONS AT PIPE OUTLETS WITH FLARED END SECTIONS

NOT TO SCALE

ROCK APRON PROTECTION

OUTLET NUMBER	PIPE DIA. (IN.)	TAILWATER (MIN./MAX.)	FLOW (CFS)	VELOCITY (FPS)	ROCK SIZE (FT.)	L (FT.)	W (FT.)
132+25	18	MIN	17.10	7.26	R-4	12.5	9.5
182+80	18	MIN	8.15	4.62	R-3	8	8.9
155+00	18	MIN	14.88	4.42	R-3	11	8.9
157+90	18	MIN	9.41	3.70	R-3	8	7.7
163+18	18	MIN	6.66	1.92	R-3	8	7.7
165+35	18	MIN	19.40	6.70	R-4	16	10.9
169+50	18	MIN	18.82	6.13	R-4	16	10.9
177+50	18	MIN	23.29	6.05	R-4	18	11.7
180+25	18	MIN	23.29	6.73	R-4	18	11.7

CONTOUR GRADING AND DRAINAGE PLAN

PREPARED BY
McCormick Taylor
Engineers & Planners
Since 1948
PHIL ADEL PH. I., P.A.

PROFESSIONAL ENGINEER
DATE: 10/11/12

1) SEE SUMMARY SHEET FOR COMPLETE ITEM NUMBERS

TABULATION OF QUANTITIES

DRAINAGE

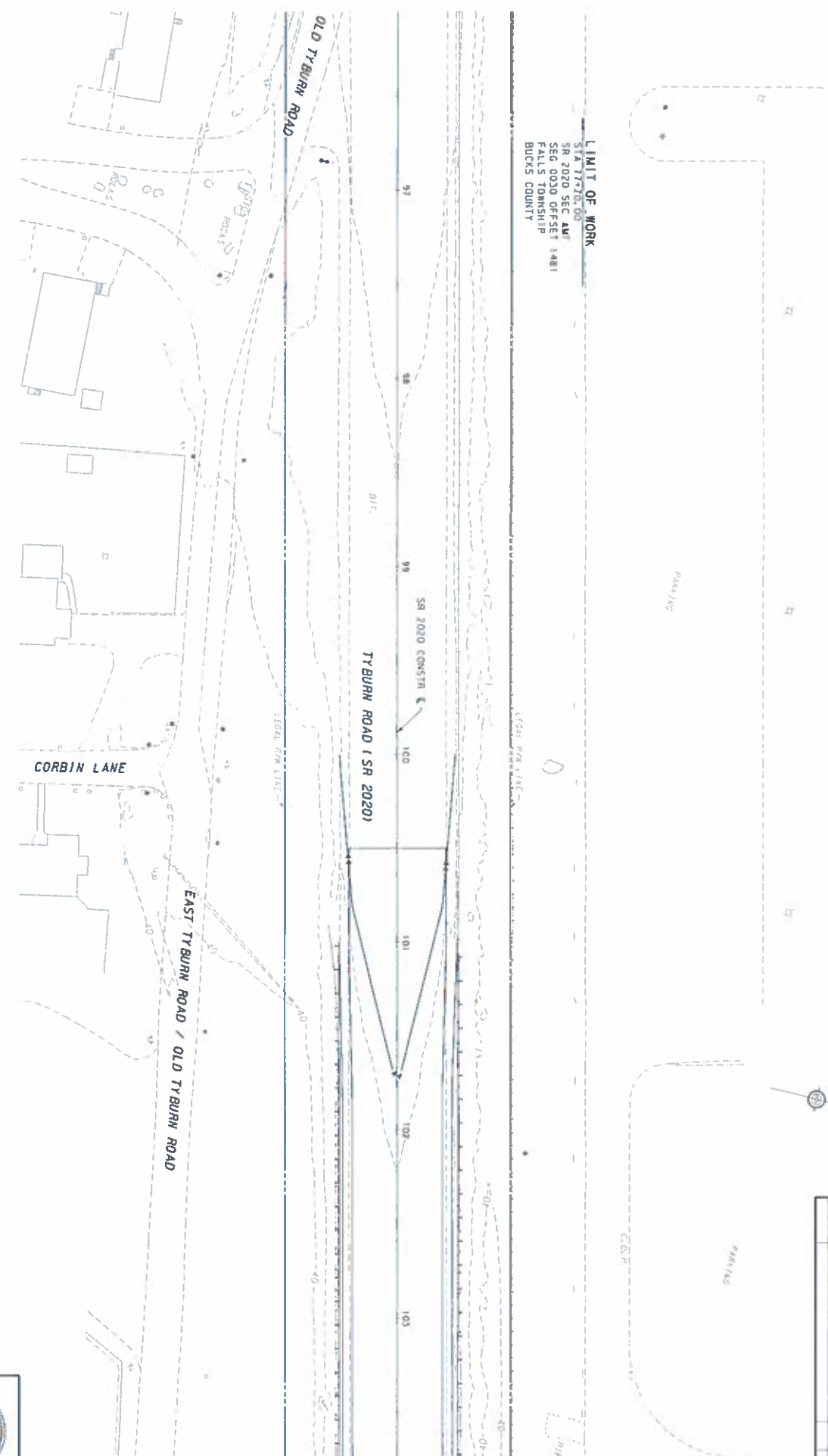
REVISION NO.	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				6-0	BLOCKS	2020	MAJL	2 OF 15
						FALLS TOWNSHIP		



ITEM	QUANTITY	UNIT	MINIMUM FILL HEIGHT	MAXIMUM FILL HEIGHT	REMARKS	SIDE	STATIONS	
0203 0001 CY	35		1.5	2.5		RT	132+26.00 TO 132+38.00	
0204 0001 CY	50		1.5	4.7		L/RT	132+38.00 TO 132+42.00	
0304 0150 CY	44		2.0	5.0		L/RT	150+78.00 TO 150+83.00	
0601 (-) LF	42		1.5	1.5		L/RT	150+88.00 TO 150+88.00	
0601 (-) LF	33		1.5	1.5		L/RT	153+42.00 TO 153+48.00	
0605 1480 EACH	29		1.5	3.5		L/RT	154+97.00 TO 154+11.00	
0605 2710 SET	24		1.5	4.0		L/RT	187+83.00 TO 187+86.00	
0605 2730 SET	33		1.5	3.5		L/RT	183+18.00 TO 183+38.00	
0605 2850 EACH	23		1.5	2.0		L/RT	165+38.00 TO 165+38.00	
	19		2.1	3.4		L/RT	168+12.00 TO 168+48.00	
	21		1.5	2.1		L/RT	183+12.00 TO 183+54.00	
	81		1.5	1.8		L/RT	183+12.00 TO 179+00.00	
	20					L/RT	179+80.00 TO 179+80.00	
	49		1.5	1.6		RT	171+22.00 TO 171+27.00	
	389		1.5	1.5		RT	174+78.00 TO 175+86.00	
	450		1.5	3.1		RT	176+02.00 TO 177+38.00	
	32		1.5	4.7		L/RT	177+48.00 TO 177+48.00	
	31		1.5	4.5		L/RT	180+20.00 TO 180+20.00	
TOTALS								



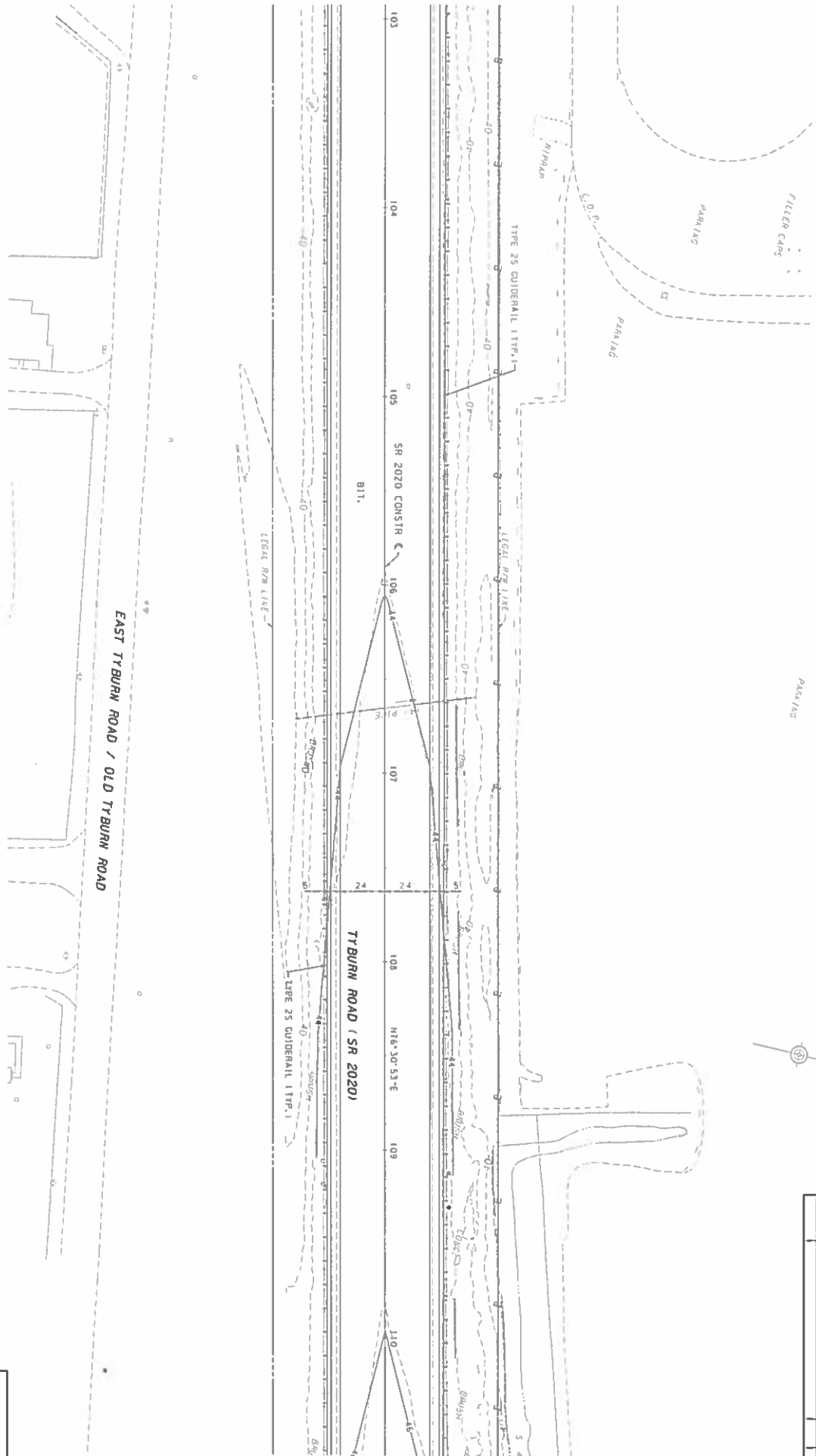
CONTOUR GRADING AND DRAINAGE PLAN



DISTRICT	ROUTE	SECTION	SHEET						
6-0	BUCKS	2020 AVT	3 OF 19						
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DATE	BY	REVISIONS							

SEE SHEET NO. 3

25 FEET 0 25 FEET



CONTOUR GRADING AND DRAINAGE PLAN

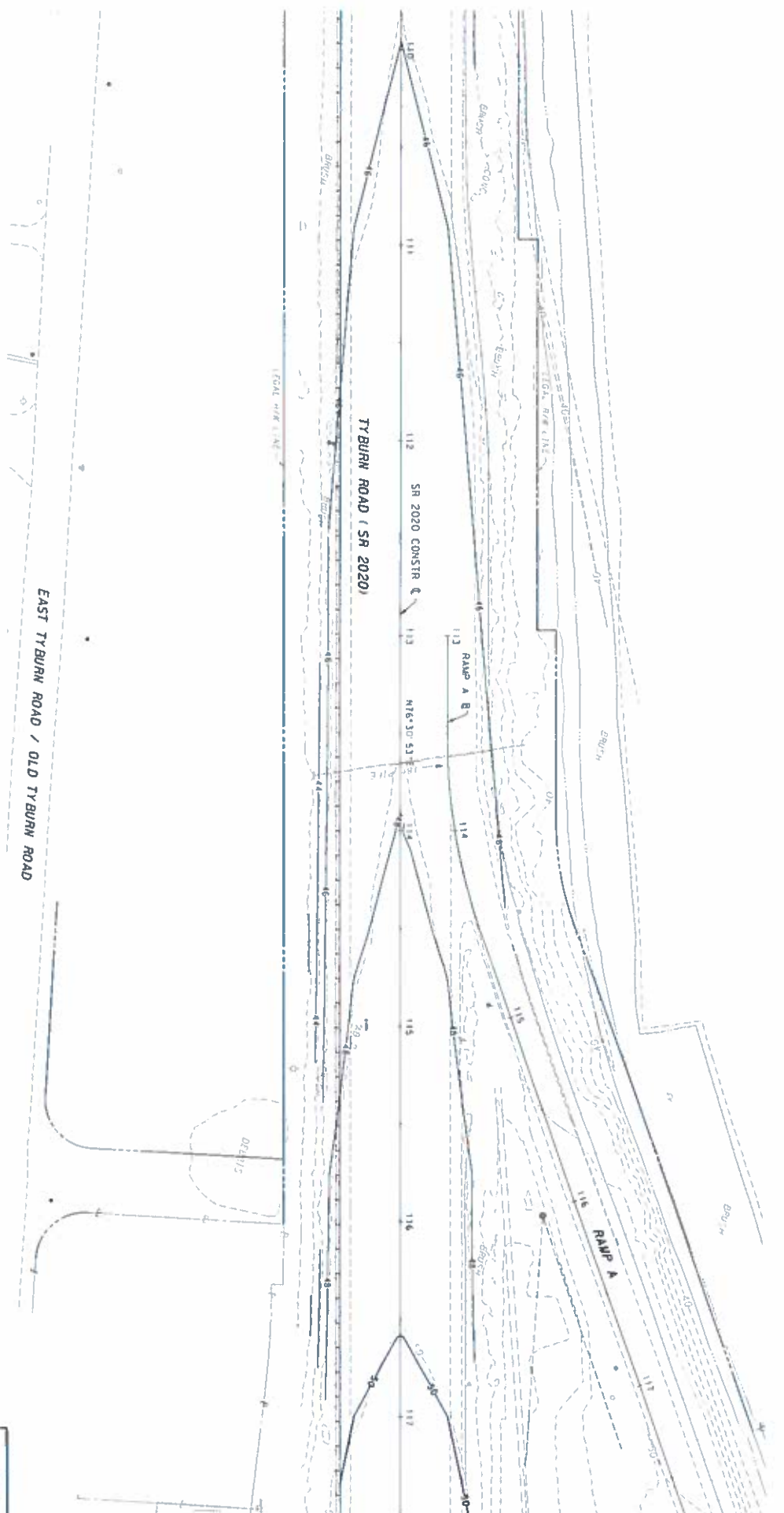


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-D	BUCKS	2020	AWI	4 OF 19
SECTION	FALLS TOWNSHIP			
REVISIONS	DATE: BR			

SEE SHEET NO. 5

SEE SHEET NO. 4

25 FEET 0 25 FEET



CONTOUR GRADING AND DRAINAGE PLAN

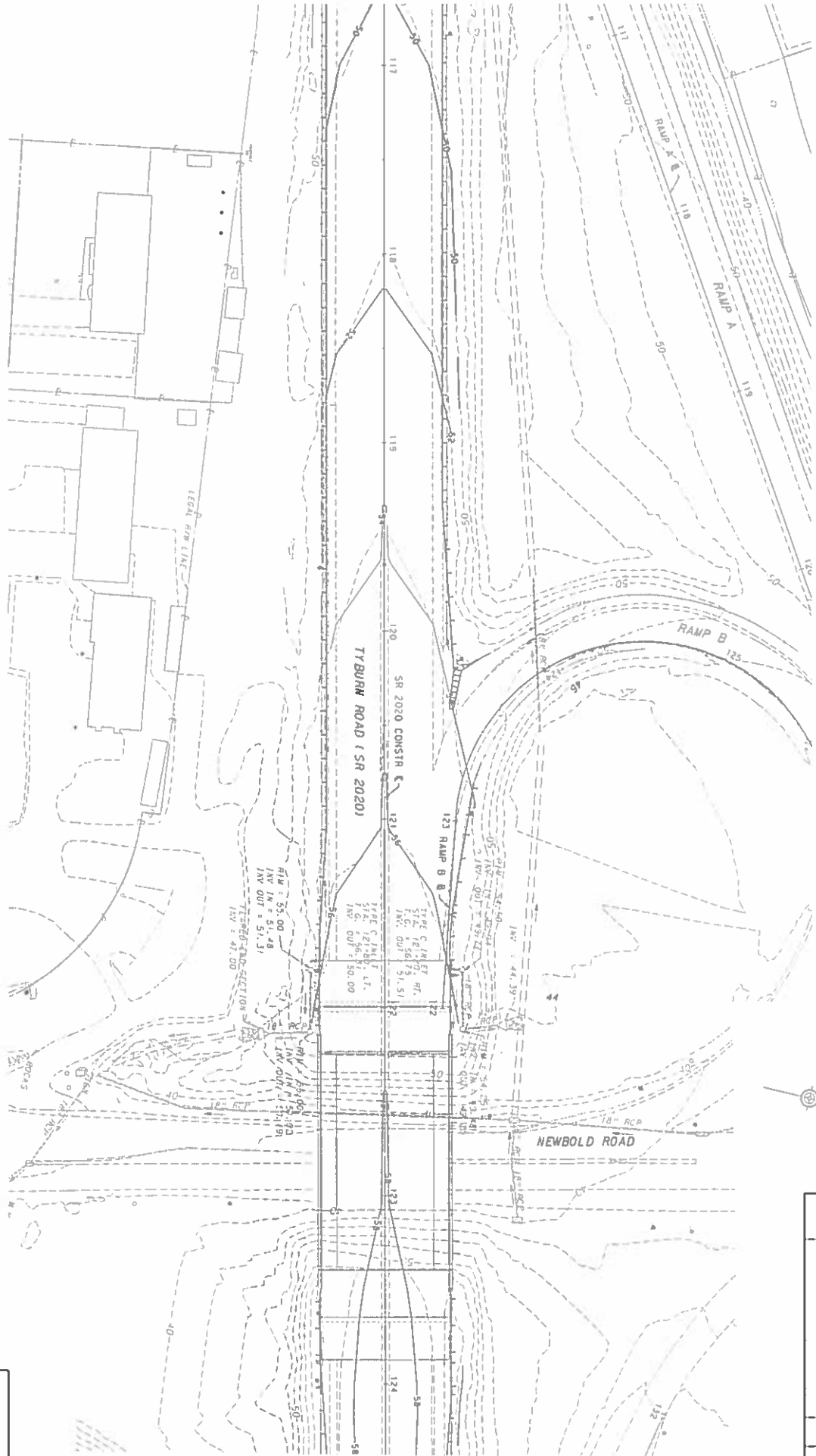


SEE SHEET NO. 6

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6.0	BROWN	2020	AW1	5 OF 19
PROJECT INFORMATION				DATE
REVISIONS				BY

SEE SHEET NO. 5

25 FEET 0
25 FEET



CONTOUR GRADING AND DRAINAGE PLAN



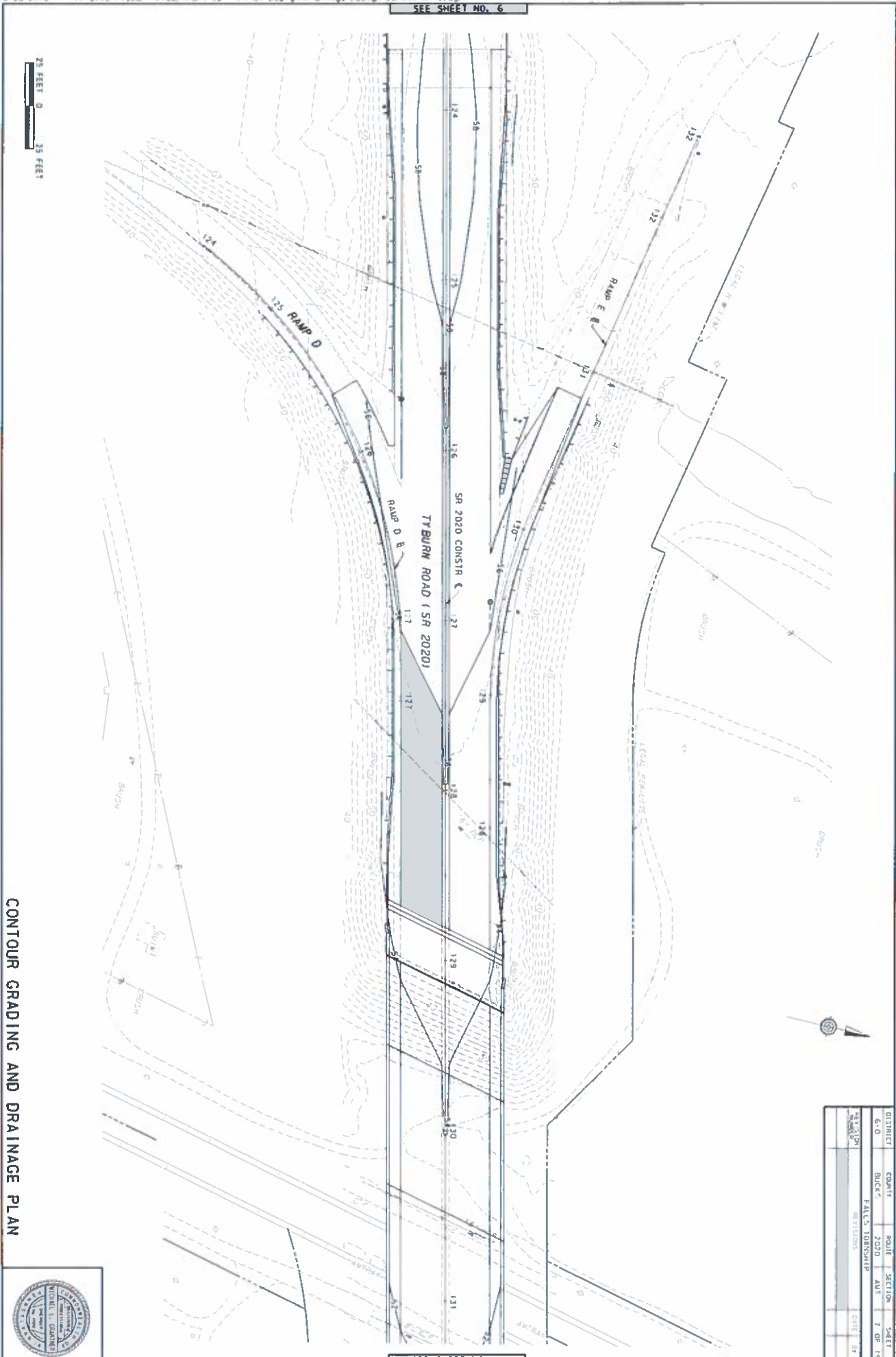
SEE SHEET NO. 7

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
670	ROCKS	2020	A11	6 OF 19
PROJECT	FALLS TOWNSHIP	DATE	BT	
REVISIONS				

SEE SHEET NO. 5

25 FEET 0' 35 FEET 1'

CONTOUR GRADING AND DRAINAGE PLAN



SEE SHEET NO. 8

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BLICK	2020	AV #	7 OF 19
F.A.L.S. TOWNSHIP				
REVISIONS				
NO. & DATE	BY	DATE	BY	DATE



SEE SHEET NO. 7

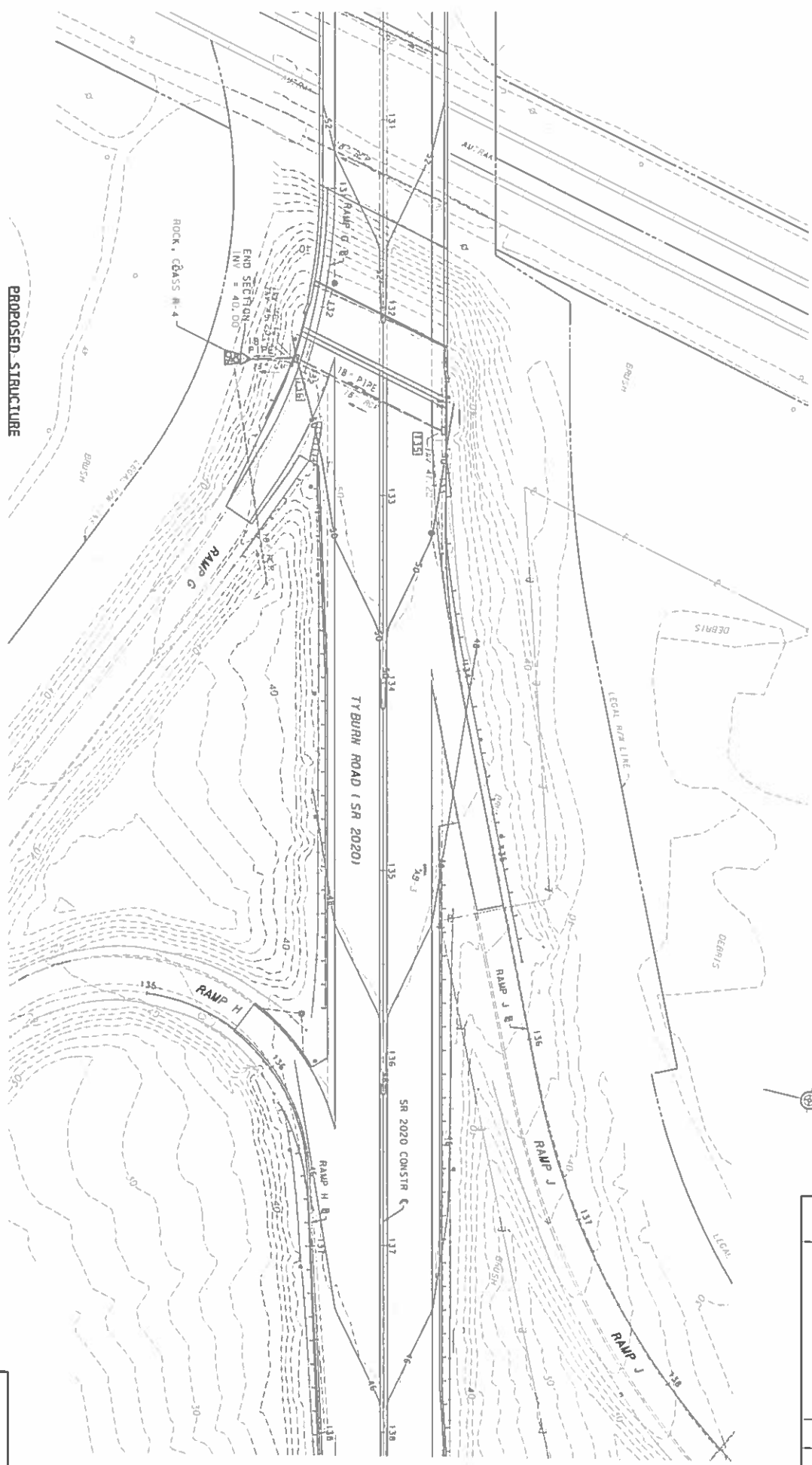


INLET 1-15
TYPE C
STANDARD BOX
INVERT = 45.75

INLET 1-16
TYPE C
STANDARD BOX
INVERT = 41.35

PROPOSED STRUCTURE

CONTOUR GRADING AND DRAINAGE PLAN

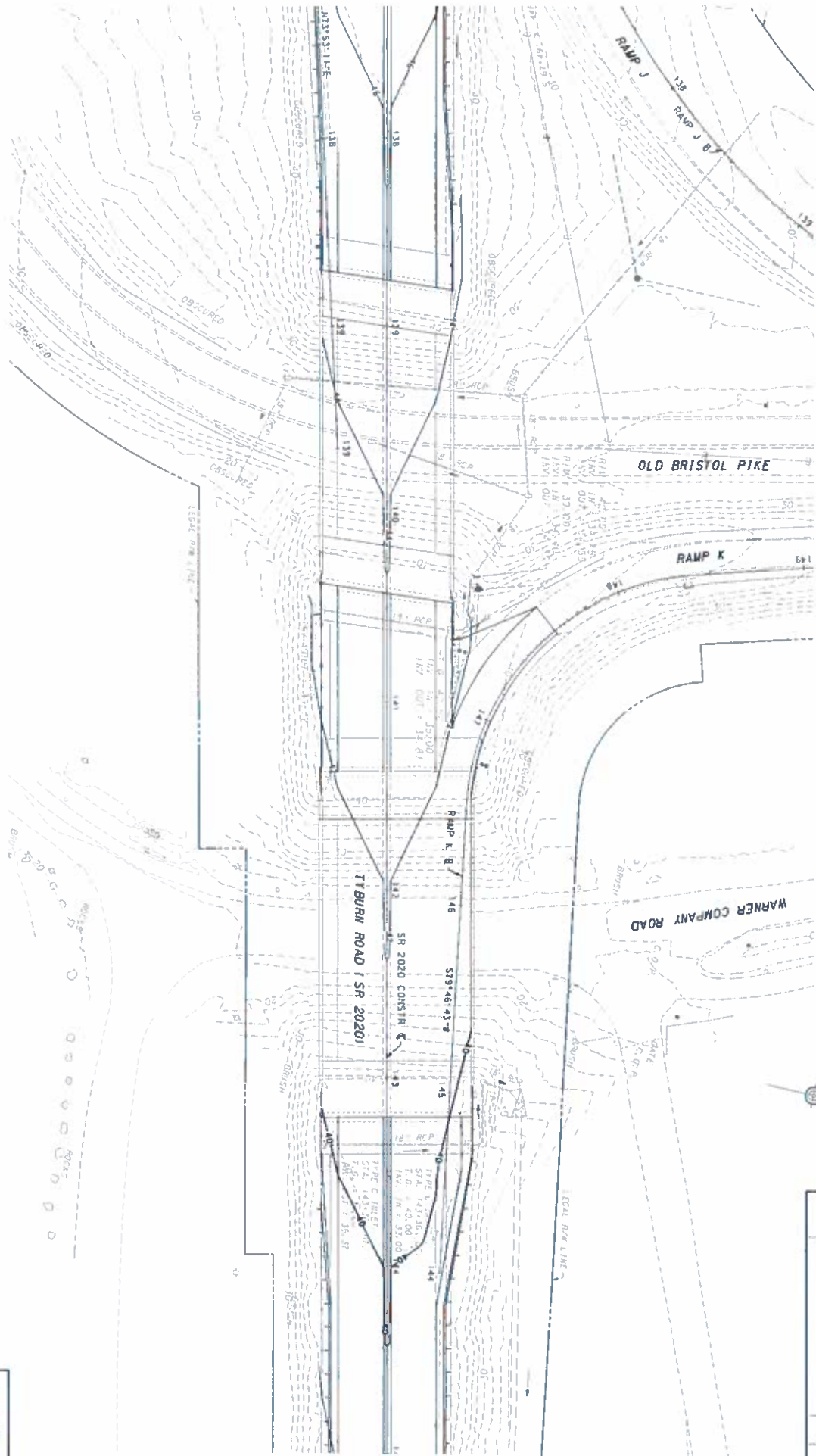


SEE SHEET NO. 9

LISTSHEET	COUNTY	ROUTE	SECTION	SHEET
670	BRUCE	2020	AUT	8 OF 19
REVISION	REVISIONS	DATE	BY	

SEE SHEET NO. 8

25 FEET 0 25 FEET



CONTOUR GRADING AND DRAINAGE PLAN



SEE SHEET NO. 10

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-D	BUCK	2020	AMT	9 OF 19
PROJECT	FALLS TOWNSHIP REVISIONS			
DATE	8/1			