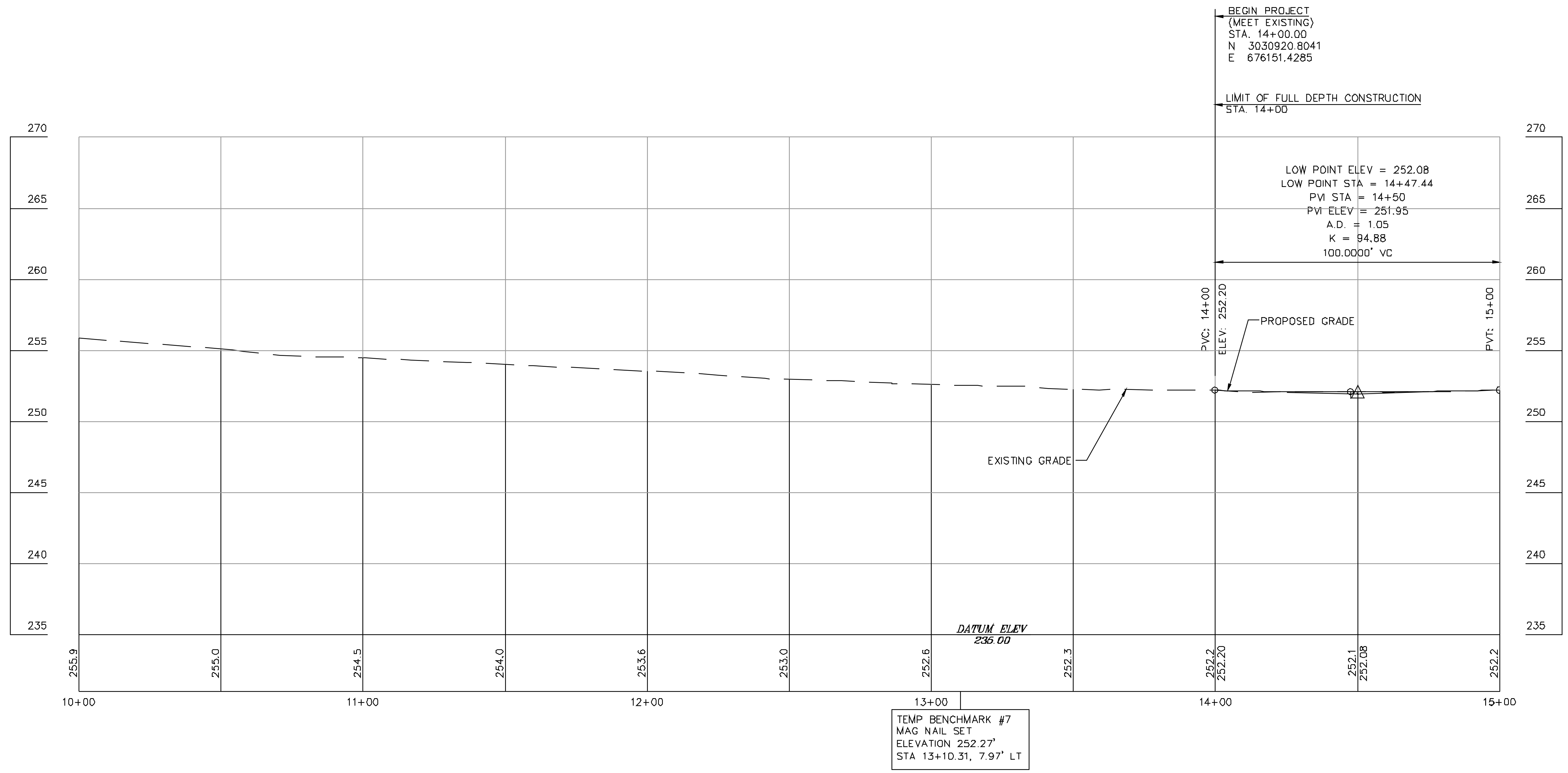
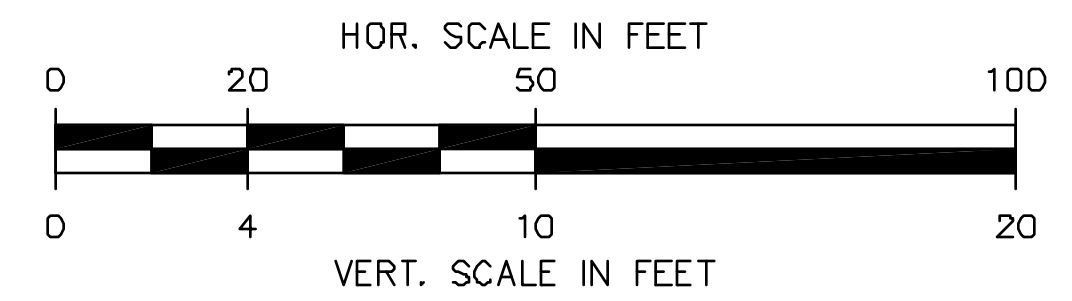


WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	20	136
PROJECT FILE NO.		604809	

**PROFILE  
LITTLETON ROAD  
PART 1 OF 8**



CONT. ON  
SHEET NO. 21

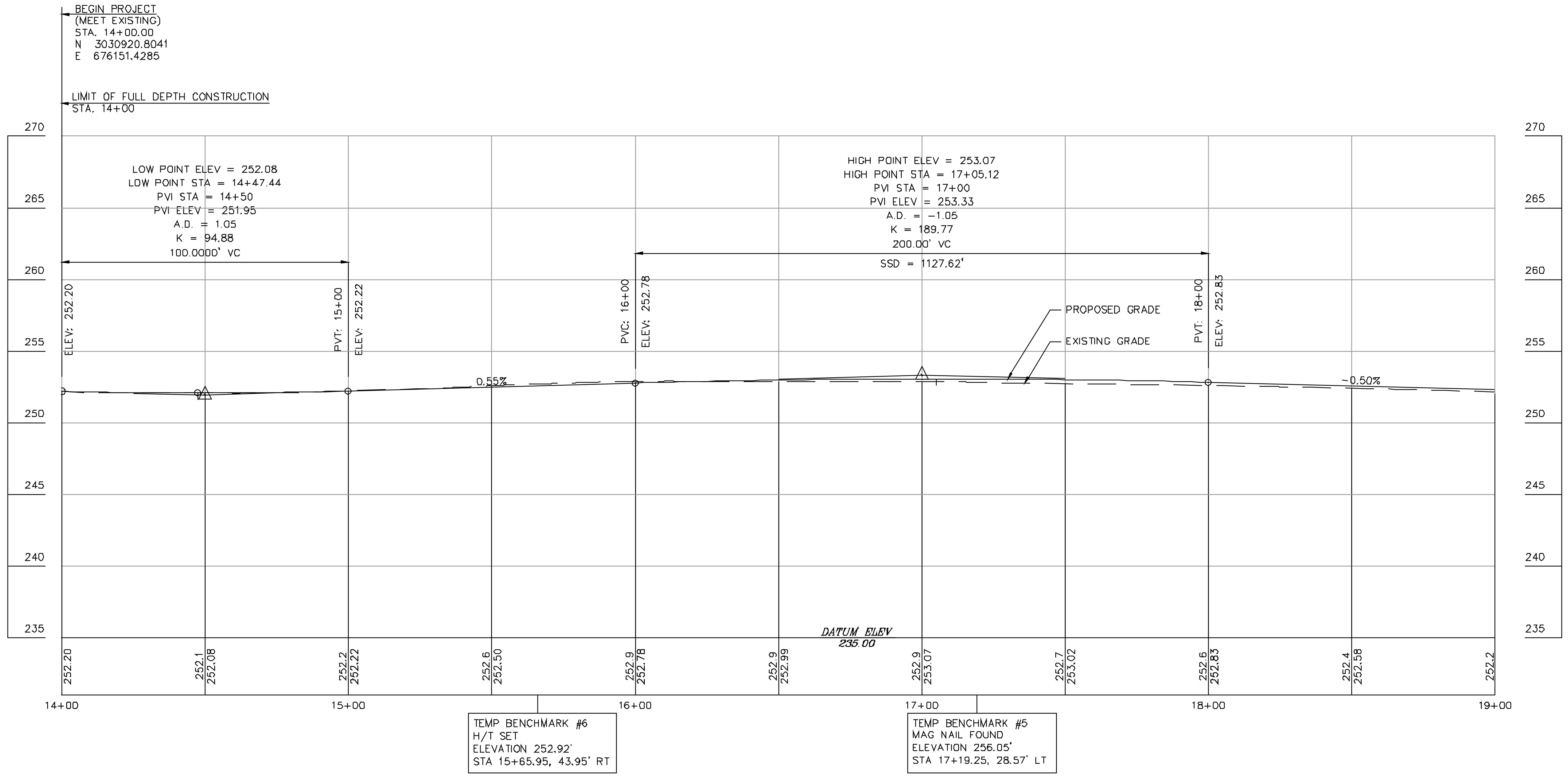


FOR CONSTRUCTION PLAN SEE SHEET NO. 10

PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

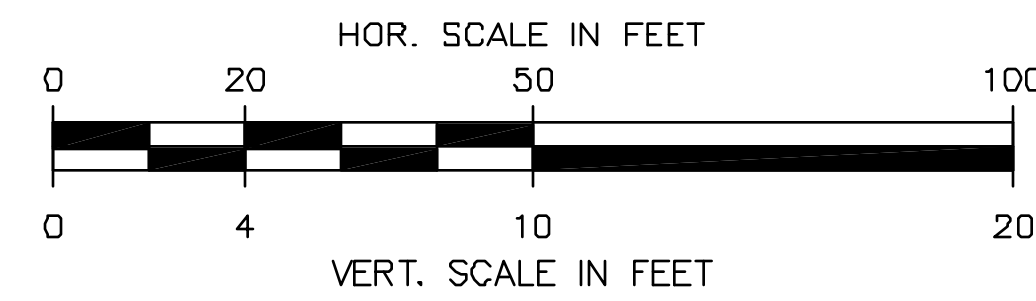
WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH5I/STP-002S(433)X	21	136
PROJECT FILE NO.		604809	

**PROFILE  
LITTLETON ROAD  
PART 2 OF 8**



CONT. ON  
SHEET NO. 20

CONT. ON  
SHEET NO. 22

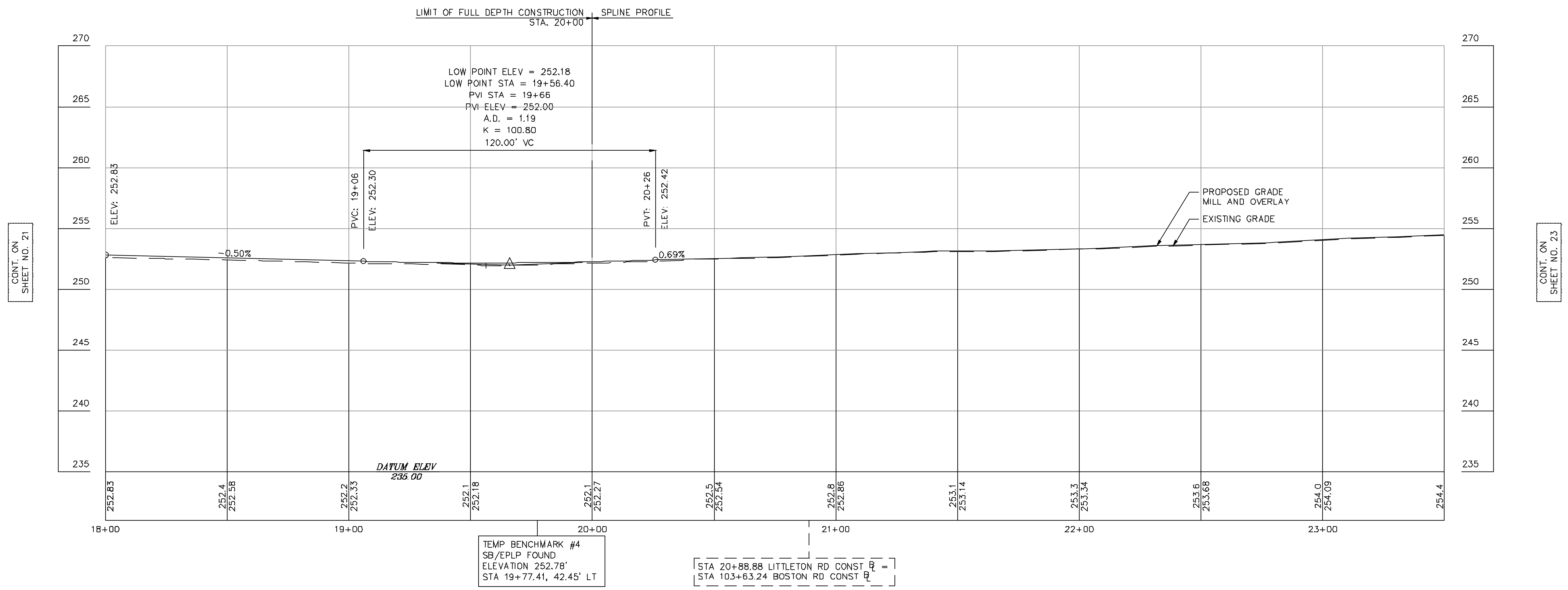


PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

FOR CONSTRUCTION PLAN SEE SHEET NO. 11

WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)K	22	136
PROJECT FILE NO.		604809	

**PROFILE  
LITTLETON ROAD  
PART 3 OF 8**

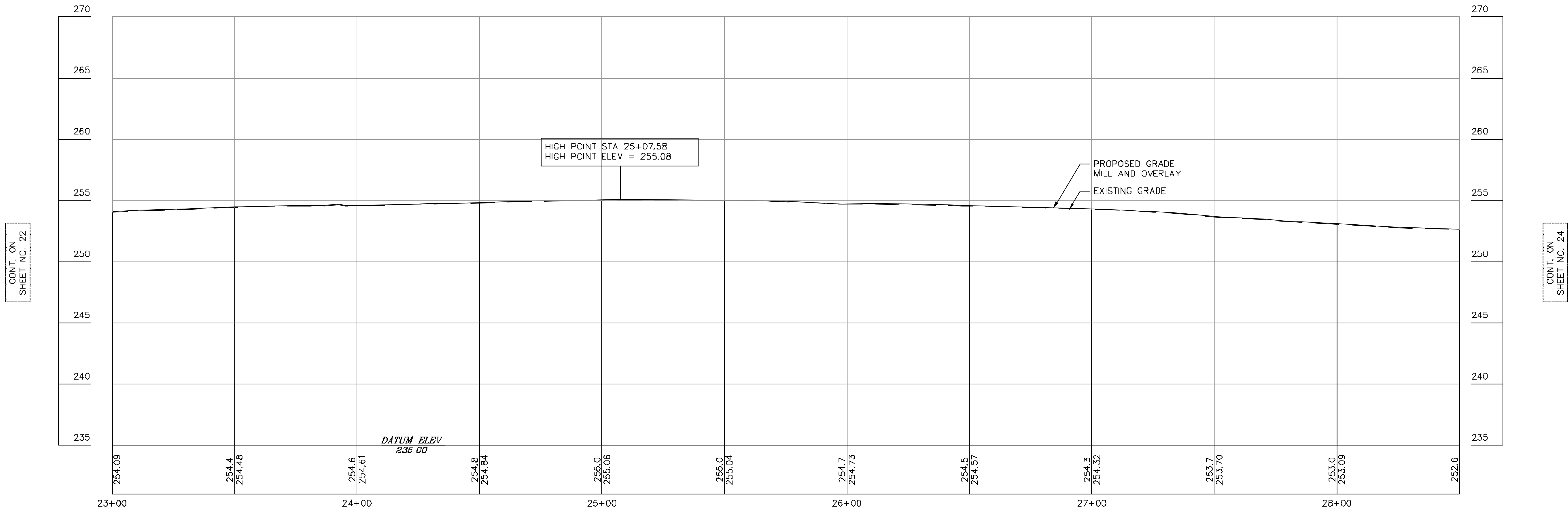


PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

FOR CONSTRUCTION PLAN SEE SHEET NO. 12

WESTFORD			
LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	23	136
PROJECT FILE NO.		604809	

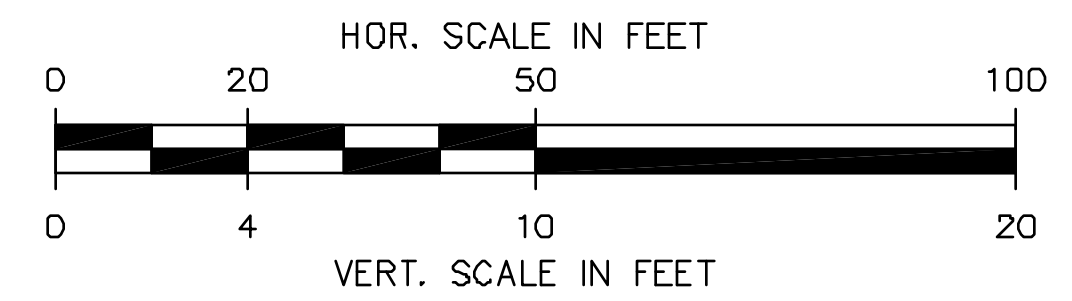
**PROFILE**  
**LITTLETON ROAD**  
**PART 4 OF 8**



CONT. ON  
SHEET NO. 22

CONT. ON  
SHEET NO. 24

FSMT PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

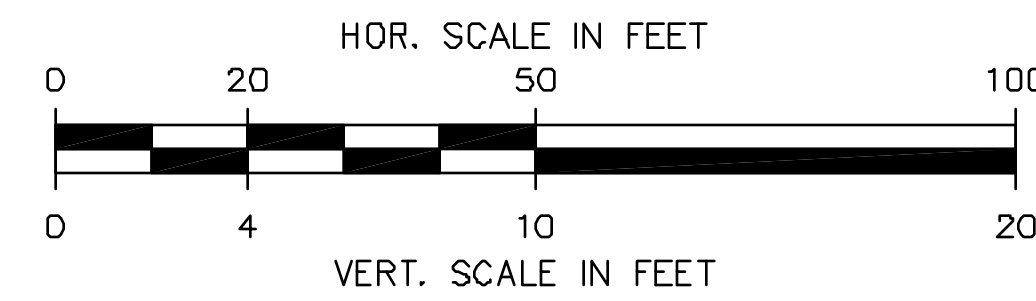
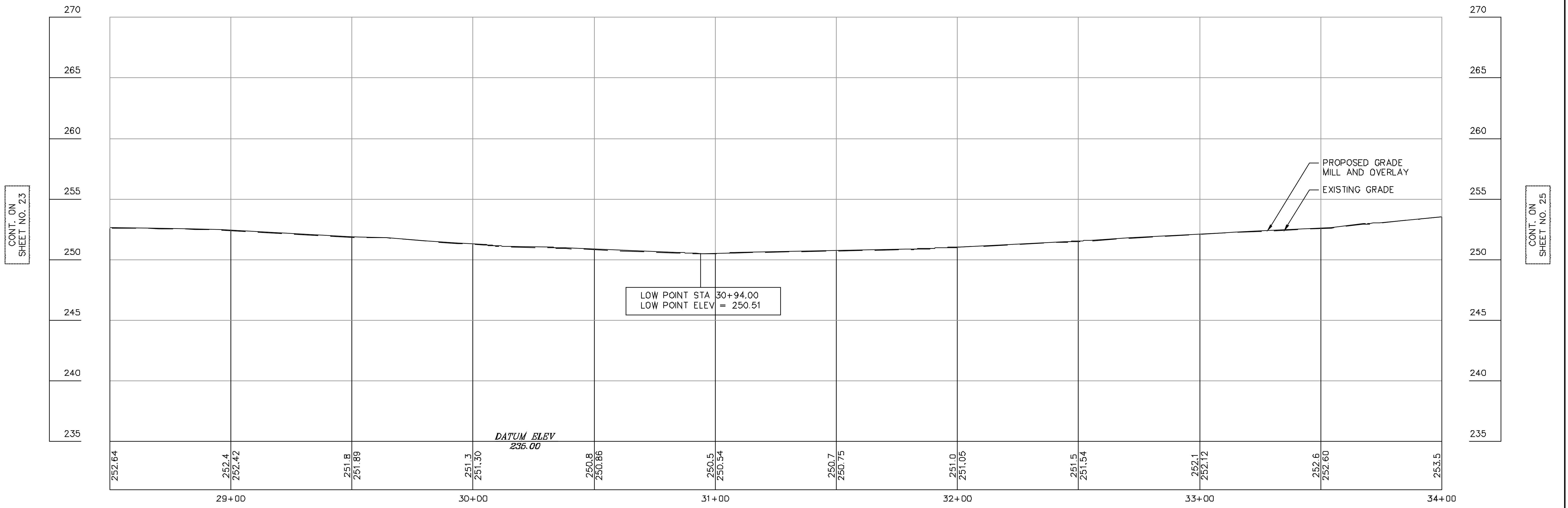


FOR CONSTRUCTION PLAN SEE SHEET NO. 13

**WESTFORD**  
**LITTLETON ROAD RECONSTRUCTION**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	24	136
PROJECT FILE NO. 604809			

**PROFILE**  
**LITTLETON ROAD**  
**PART 5 OF 8**

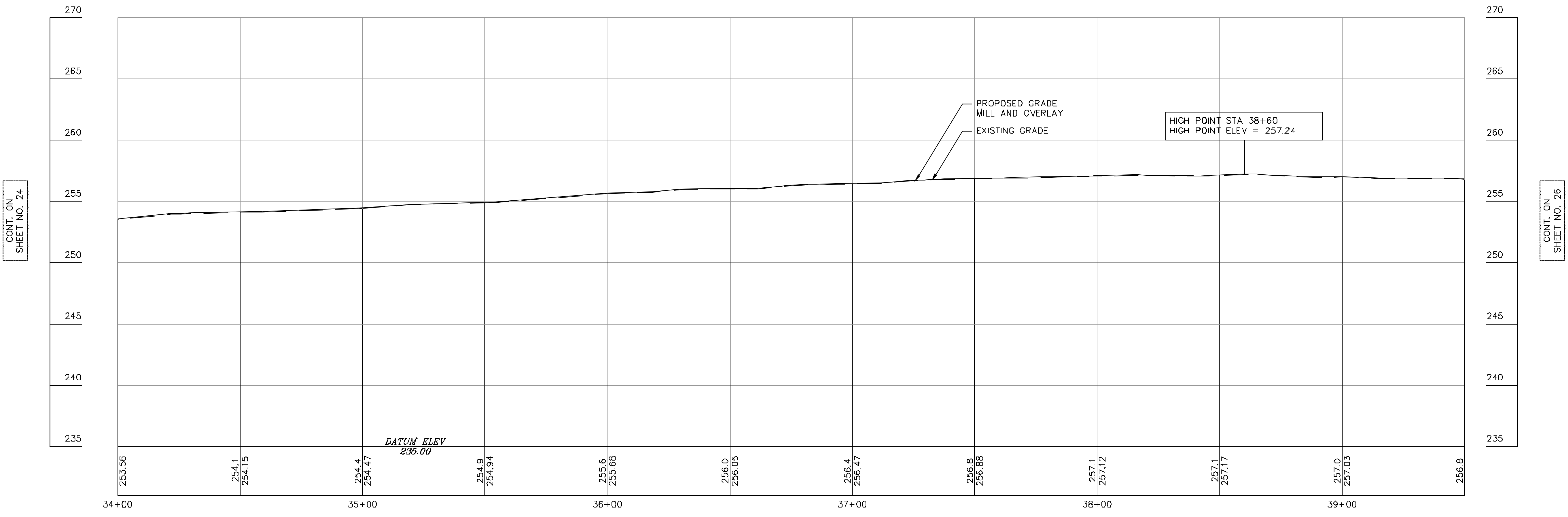


FOR CONSTRUCTION PLAN SEE SHEET NO. 14

PS&T PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	25	136
PROJECT FILE NO.		604809	

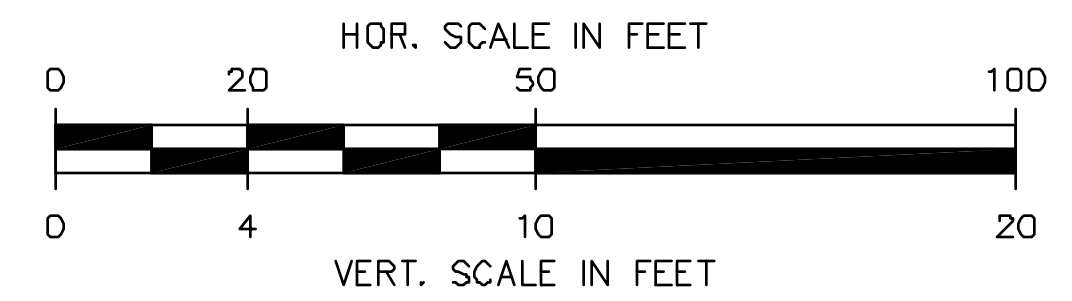
**PROFILE  
LITTLETON ROAD  
PART 6 OF 8**



CONT. ON  
SHEET NO. 24

CONT. ON  
SHEET NO. 26

PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

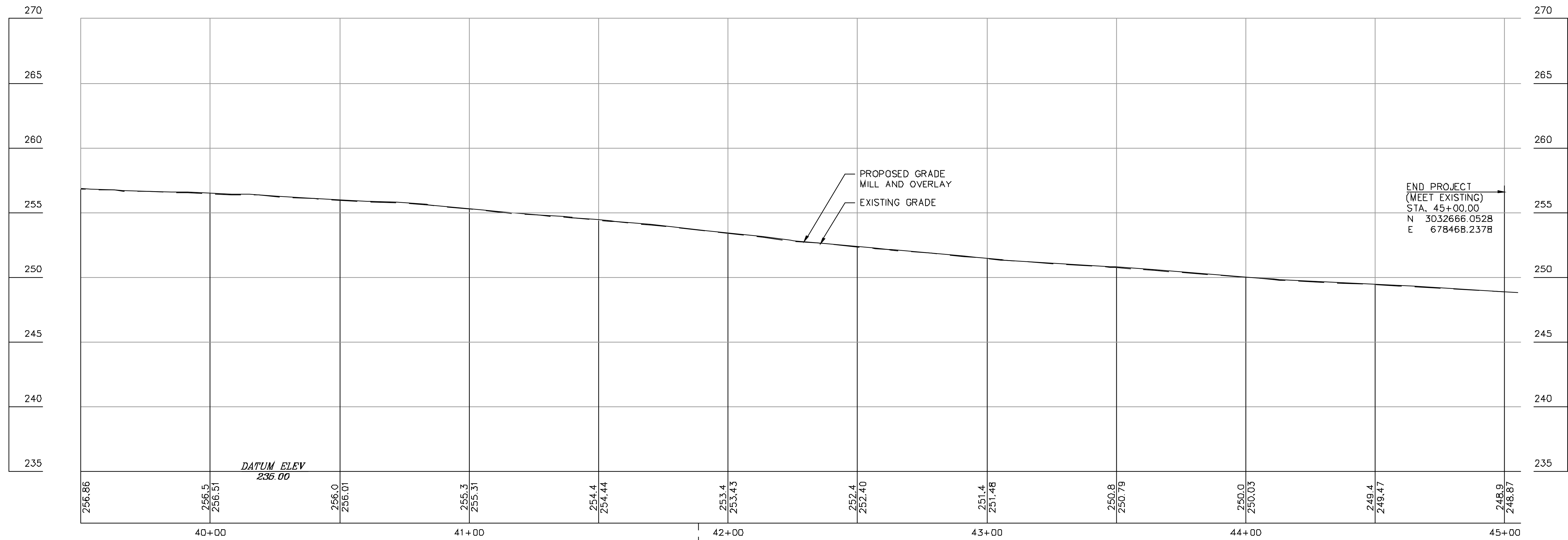


FOR CONSTRUCTION PLAN SEE SHEET NO. 15

**WESTFORD  
LITTLETON ROAD RECONSTRUCTION**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHHS/STP-002S(433)X	26	136
PROJECT FILE NO.		604809	

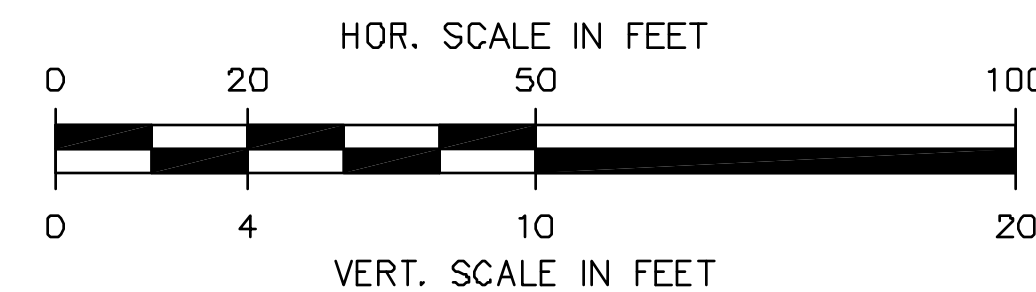
**PROFILE  
LITTLETON ROAD  
PART 7 OF 8**



END PROJECT  
(MEET EXISTING)  
STA. 45+00.00  
N 3032666.0528  
E 678468.2378

DATUM ELEV  
235.00

STA 41+88.52 LITTLETON RD CONST R =  
STA 103+63.24 NIXON RD CONST R =



CONT. ON  
SHEET NO. 25

CONT. ON  
SHEET NO. 27

PS&T PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

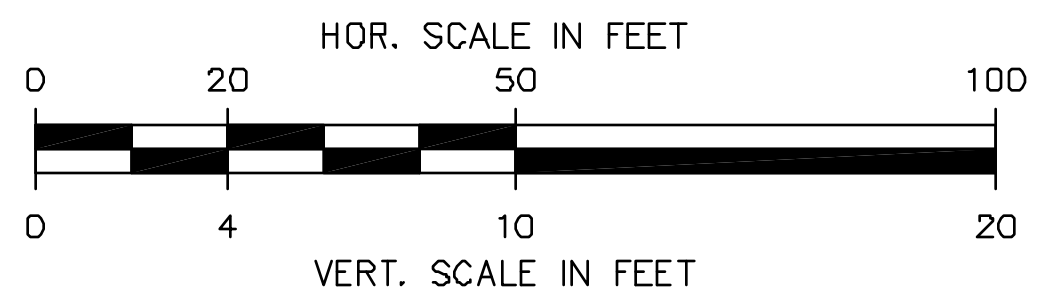
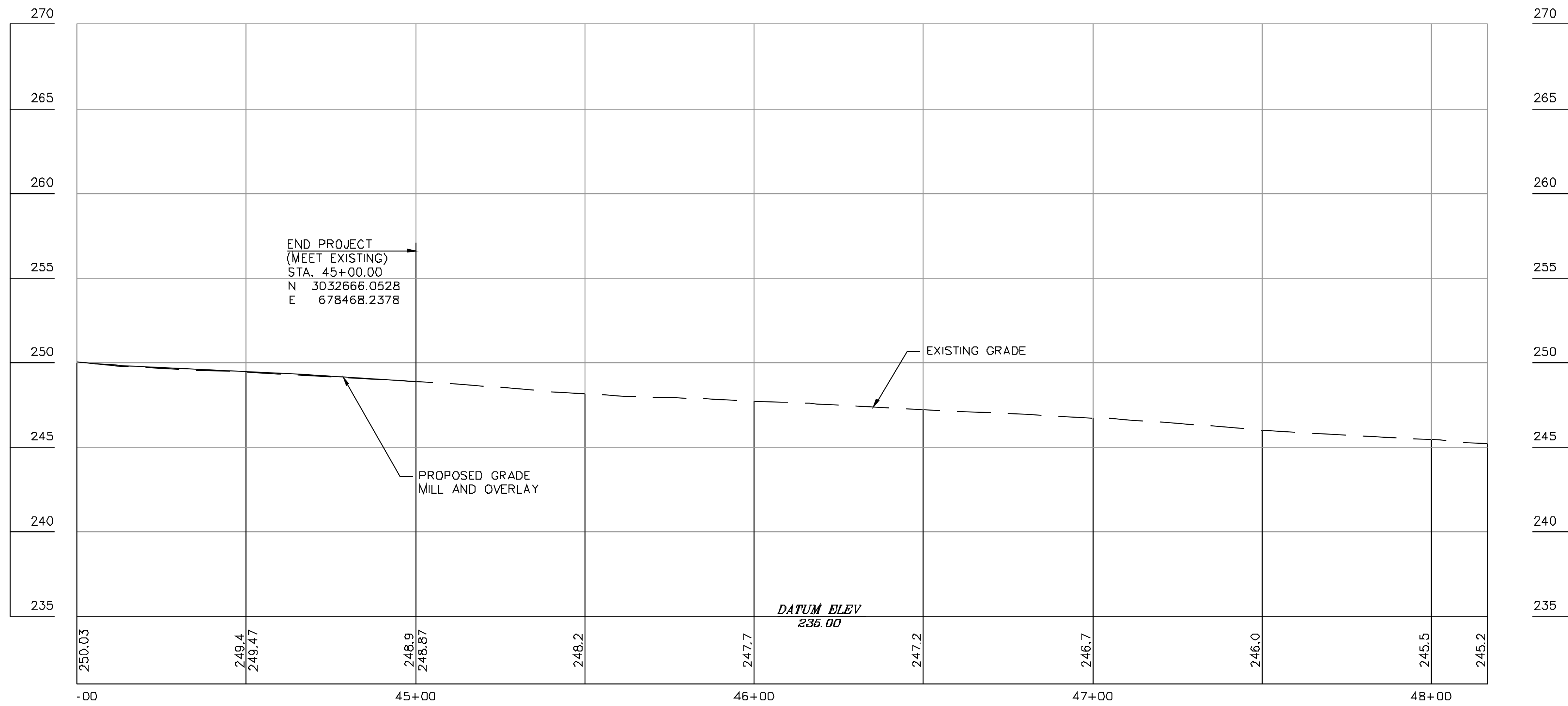
FOR CONSTRUCTION PLAN SEE SHEET NO. 16

**WESTFORD  
LITTLETON ROAD RECONSTRUCTION**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	27	136
PROJECT FILE NO. 604809			

**PROFILE  
LITTLETON ROAD  
PART 8 OF 8**

CONT. ON  
SHEET NO. 26



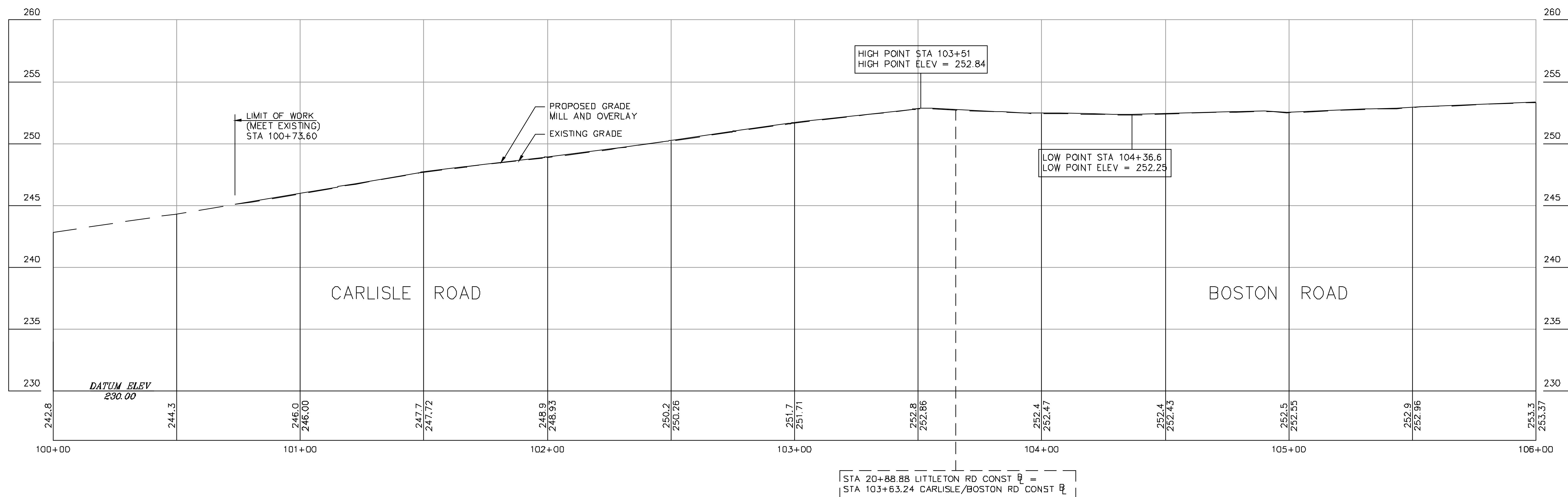
FSMT PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

FOR CONSTRUCTION PLAN SEE SHEET NO. 17



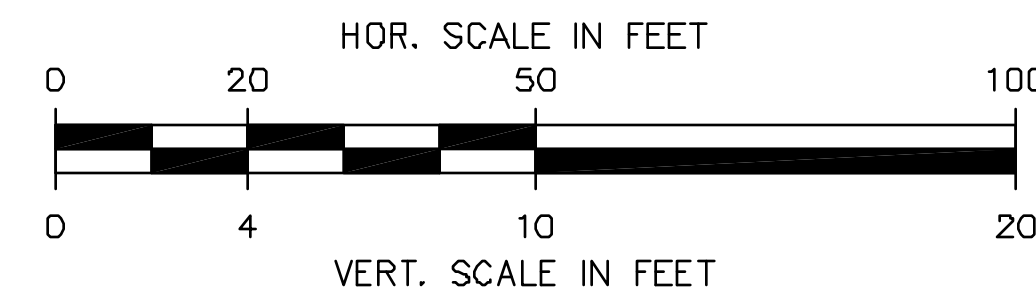
WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSH/STP-002S(433)X	28	136
PROJECT FILE NO.		604809	

**PROFILE  
CARLISLE/BOSTON ROAD  
PART 1 OF 2**



CONT. ON  
SHEET NO. 29

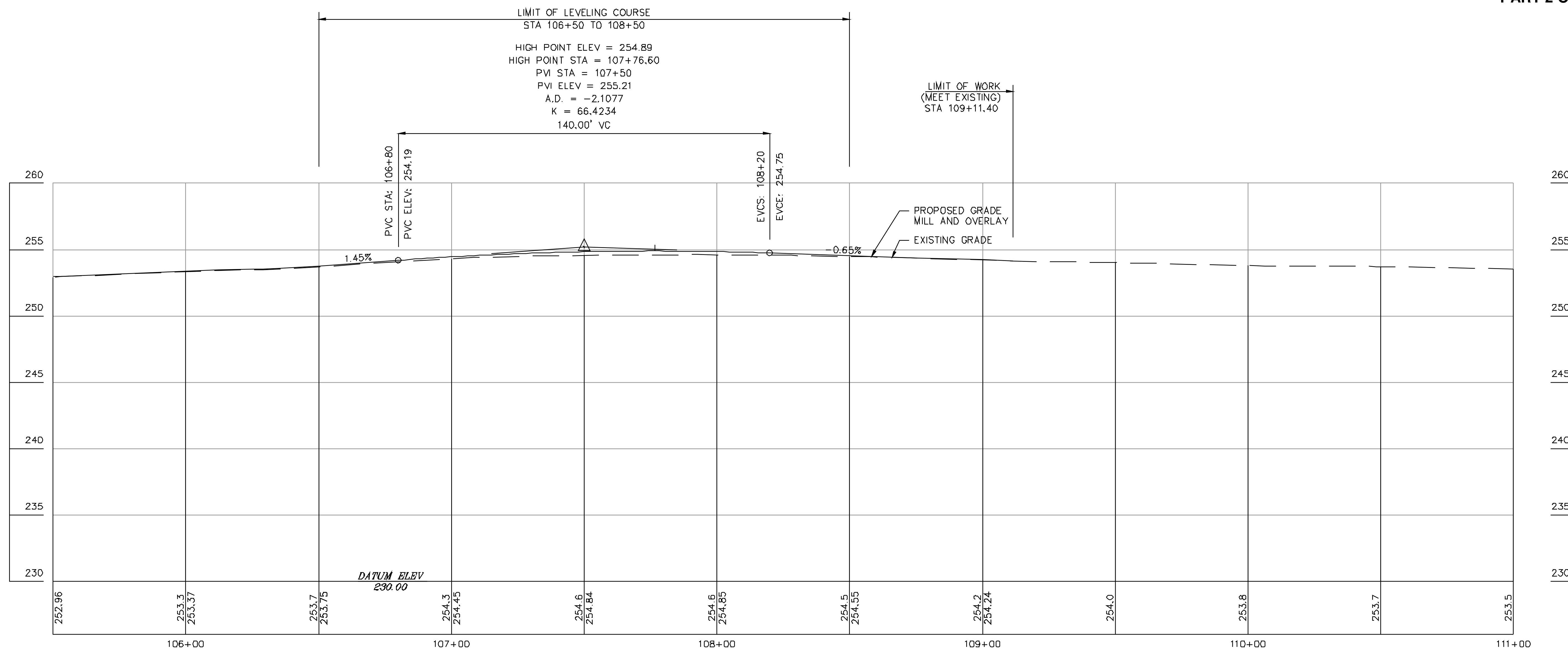
PROJECT NO.			
QW-023			
DES	JAS	CHK	JKH
DR	JAS	CHK	JKH
EST	JAS	CHK	JKH
ENGINEER IN CHARGE			



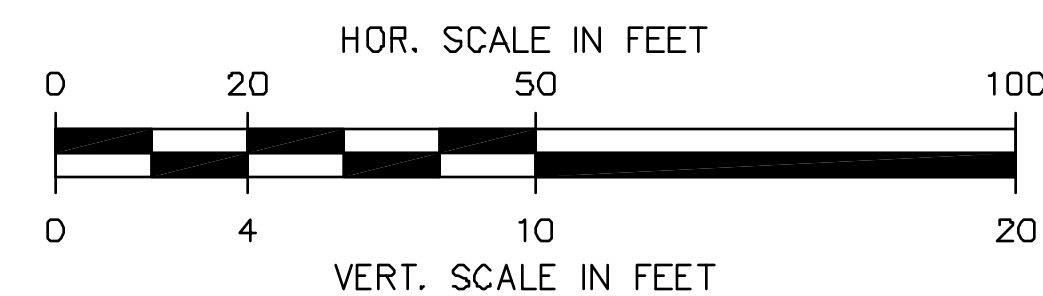
FOR CONSTRUCTION PLAN SEE SHEET NOS. 12 AND 18

**PROFILE**  
**CARLISLE/BOSTON ROAD**  
**PART 2 OF 2**

CONT ON SHEET NO 28



FSMT PROJECT NO.			
QW-023			
DES	JAS	CHK	JKH
DR	JAS	CHK	JKH
EST	JAS	CHK	JKH
ENGINEER IN CHARGE			



FOR CONSTRUCTION PLAN SEE SHEET NO 19

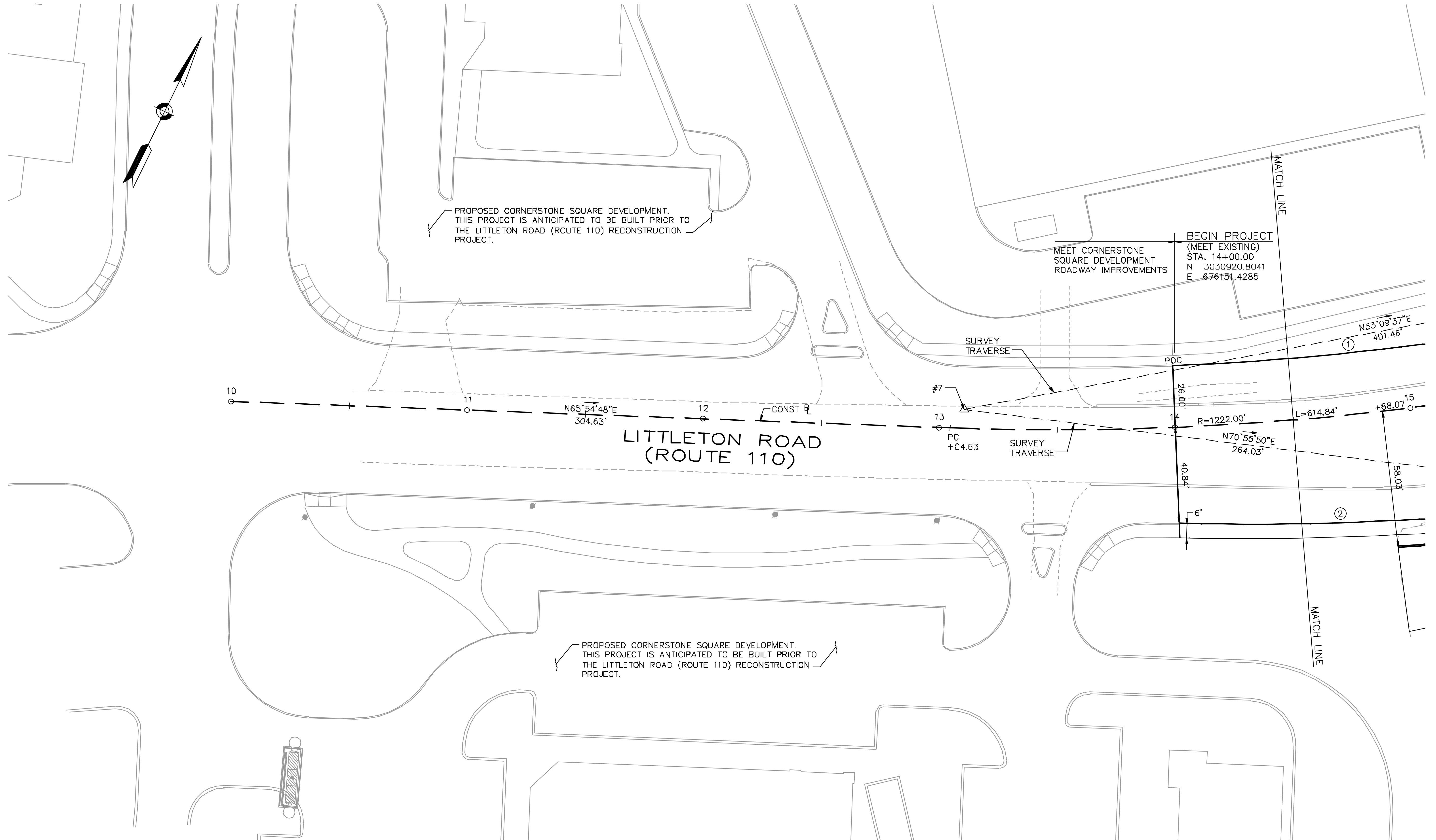
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSI/STP-002S(433)X	30	136
PROJECT FILE NO. 604809			

CURB TIE AND ALIGNMENT PLAN  
PART 1 OF 10

LITTLETON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
BEG STA 10+00.00	N 65°54'48"E L=304.63'	3030754.2003	675787.8634
PC STA 13+04.63	R=1222.00' Δ=28°49'40"	3030878.5266	676065.9710
PT STA 19+19.47	L=614.84' TAN=314.07'	3031257.2543	676542.0854

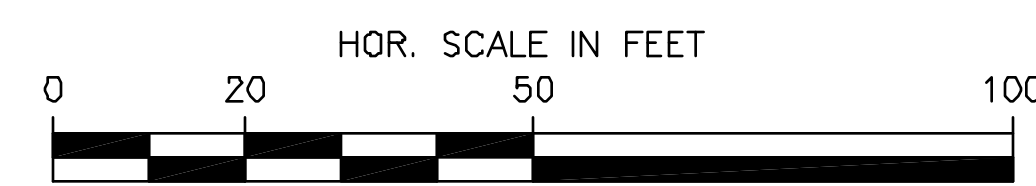
CURB/EDGE OF PAVEMENT DATA				
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
1	1196.00'	451.42'	228.43'	21°37'32"
2	1268.00'	284.46'	142.83'	12°51'13"

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
7	252.27'	3030888.1178	676067.8627	MAG NAIL SET



CONT. ON SHEET NO. 31

PS&T PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			



- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVEWAY NUMBER
  - # CURVE NUMBER

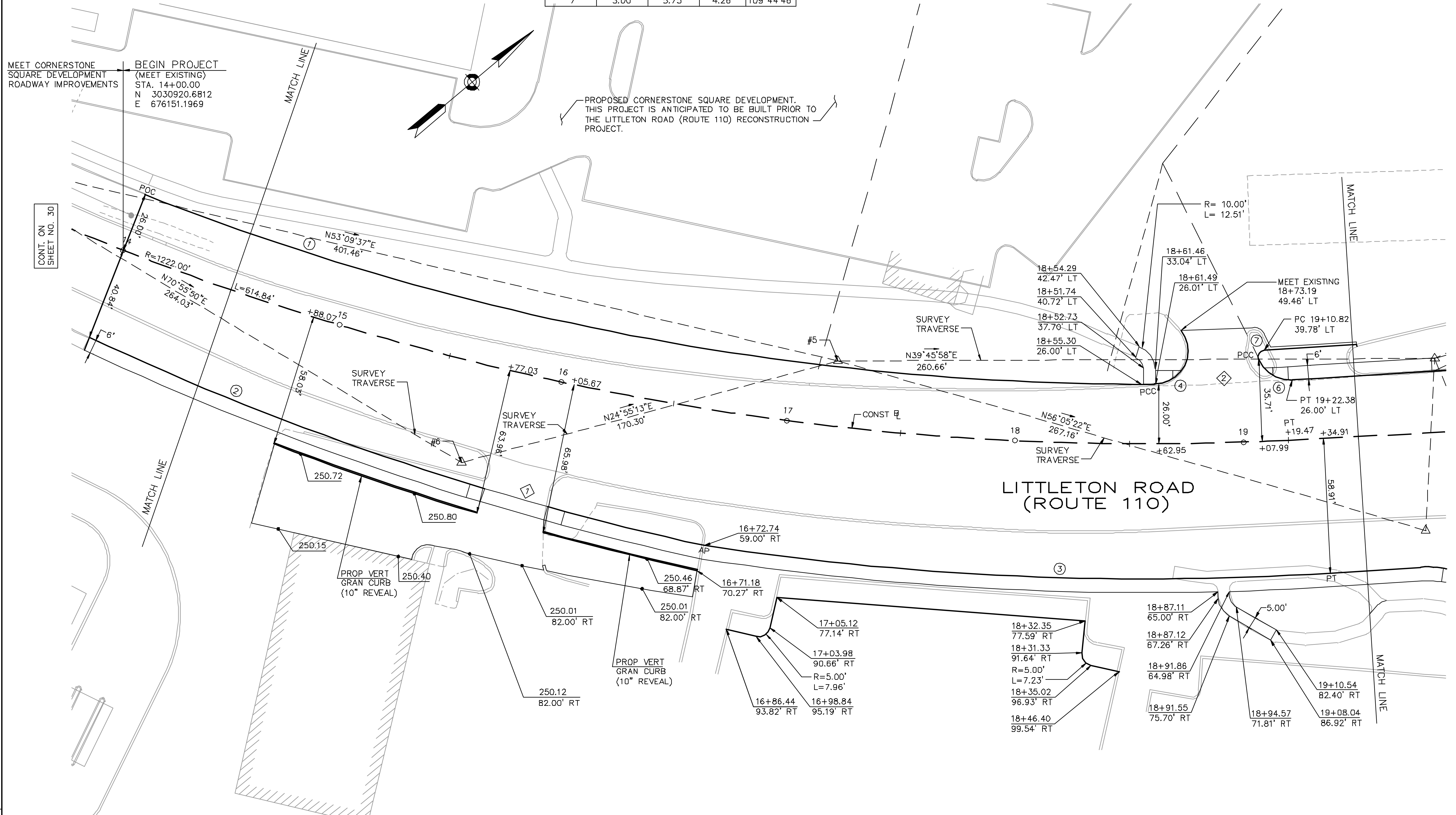
LITTLETON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PC STA 13+04.63	R=1222.00' Δ=28°49'40"	3030878.5266	676065.9710
PT STA 19+19.47	L=614.84' TAN=314.07'	3031257.2543	676542.0854
	N 37°05'07"E L=217.08'		

CURB/EDGE OF PAVEMENT DATA				
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
1	1196.00'	451.42'	228.43'	21°37'32"
2	1268.00'	284.46'	142.83'	12°51'13"
3	1281.00'	274.09'	137.57'	12°15'33"
4	15.00'	32.79'	30.55'	129°02'56"
6	15.00'	18.21'	10.43'	69°34'06"
7	3.00'	5.75'	4.26'	109°44'46"

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
2	253.29'	3031329.1854	676555.8930	STONE BOUND/EPLP FND
4	252.78'	3031277.8764	676610.8819	STONE BOUND/EPLP FND
5	256.05'	3031128.8261	676389.1601	MAG NAIL FND
6	252.92'	3030974.3791	676317.4021	H/T SET

WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH/S/STP-002S(433)K	31	136
PROJECT FILE NO. 604809			

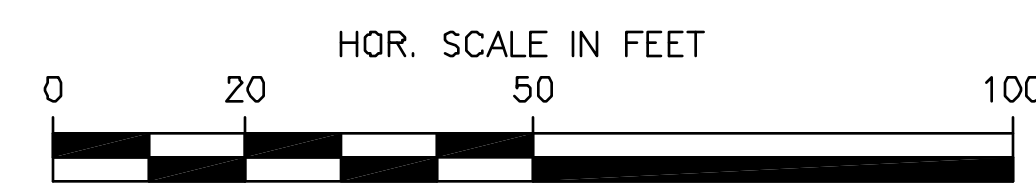
**CURB TIE AND ALIGNMENT PLAN  
PART 2 OF 10**



CONT. ON SHEET NO. 30

CONT. ON SHEET NO. 32

PS&T PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			



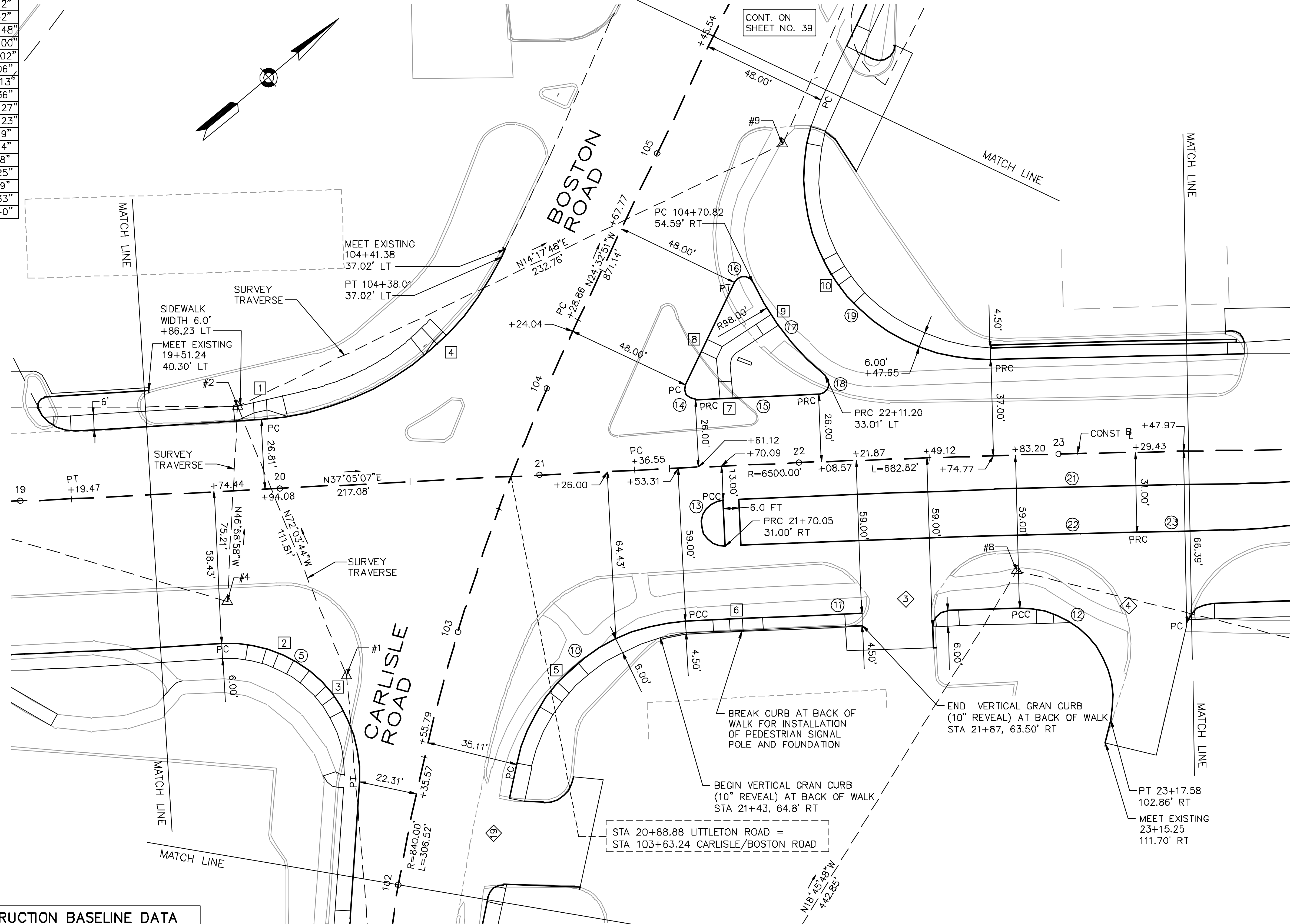
- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVEWAY NUMBER
  - ① CURVE NUMBER

**CURB TIE AND ALIGNMENT PLAN  
PART 3 OF 10**

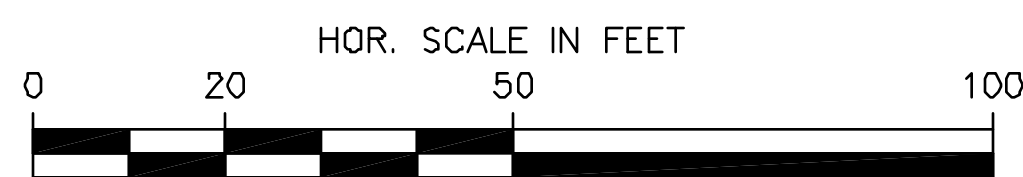
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
3	1281.00'	274.09'	137.57'	12°15'33"
4	15.00'	32.79'	30.55'	129°02'56"
5	50.00'	85.09'	57.02'	97°30'29"
6	15.00'	18.21'	10.43'	69°34'06"
7	3.00'	5.75'	4.26'	109°44'46"
10	70.00'	91.66'	53.74'	75°01'32"
11	6441.00'	128.70'	64.35'	01°08'42"
12	35.00'	64.03'	45.46'	104°48'48"
13	9.00'	28.27'	INFINITE	180°00'00"
14	4.00'	8.25'	6.68'	118°09'02"
15	6526.00'	47.64'	23.82'	00°25'06"
16	4.00'	9.10'	8.64'	130°19'13"
17	98.00'	45.80'	23.33'	26°46'36"
18	4.00'	9.68'	10.62'	138°43'27"
19	70.00'	132.02'	96.45'	108°03'23"
20	6537.00'	218.00'	109.01'	01°54'39"
21	6487.00'	197.95'	98.98'	01°44'54"
22	6469.00'	158.62'	79.31'	01°24'18"
23	3976.00'	31.70'	15.85'	00°27'25"
24	10.00'	13.12'	7.70'	75°11'39"
25	400.00'	47.77'	23.91'	06°50'33"
26	400.00'	35.45'	17.74'	05°04'40"

LITTLETON RD CONSTRUCTION BASELINE DATA				
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING	
PC STA 13+04.63	R=1222.00' Δ=28°49'40"	3030878.5266	676065.9710	
PT STA 19+19.47	L=614.84' TAN=314.07'	3031257.2543	676542.0854	
	N 37°05'07"E L=217.08'			
PC STA 21+36.55	R=6500.00' Δ=06°01'08"	3031430.4239	676672.9830	
PT STA 28+19.37	L=682.82' TAN=341.73'	3031952.5307	677112.5571	

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	251.53'	3031294.7491	676662.2704	STONE BOUND/EPLP FND
2	253.29'	3031329.1854	676555.8930	STONE BOUND/EPLP FND
4	252.78'	3031277.8764	676610.8819	STONE BOUND/EPLP FND
8	254.16'	3031518.1807	676797.2033	MAG NAIL SET
9	253.22'	3031554.7391	676613.3726	STONE BOUND/EPLP FND



CARLISLE RD/BOSTON RD CONSTRUCTION BASELINE DATA				
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING	
BEG STA 100+00.00	N 45°27'18"W L=122.34'	3031115.4495	676876.7098	
PC STA 101+22.34	R=840.00' Δ=20°54'27"	3031201.2690	676789.5160	
PT STA 104+28.86	L=306.52' TAN=154.98'	3031450.9619	676614.6707	
	N 24°32'51"W L=871.14'			
END STA 113+00.00		3032243.3621	676252.7596	



**LEGEND**

- # WHEELCHAIR RAMP NUMBER
- ◇ DRIVEWAY NUMBER
- # CURVE NUMBER

**NOTES**

1. FOR GRADING PLAN, SEE SHEET 40.

FSBT PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

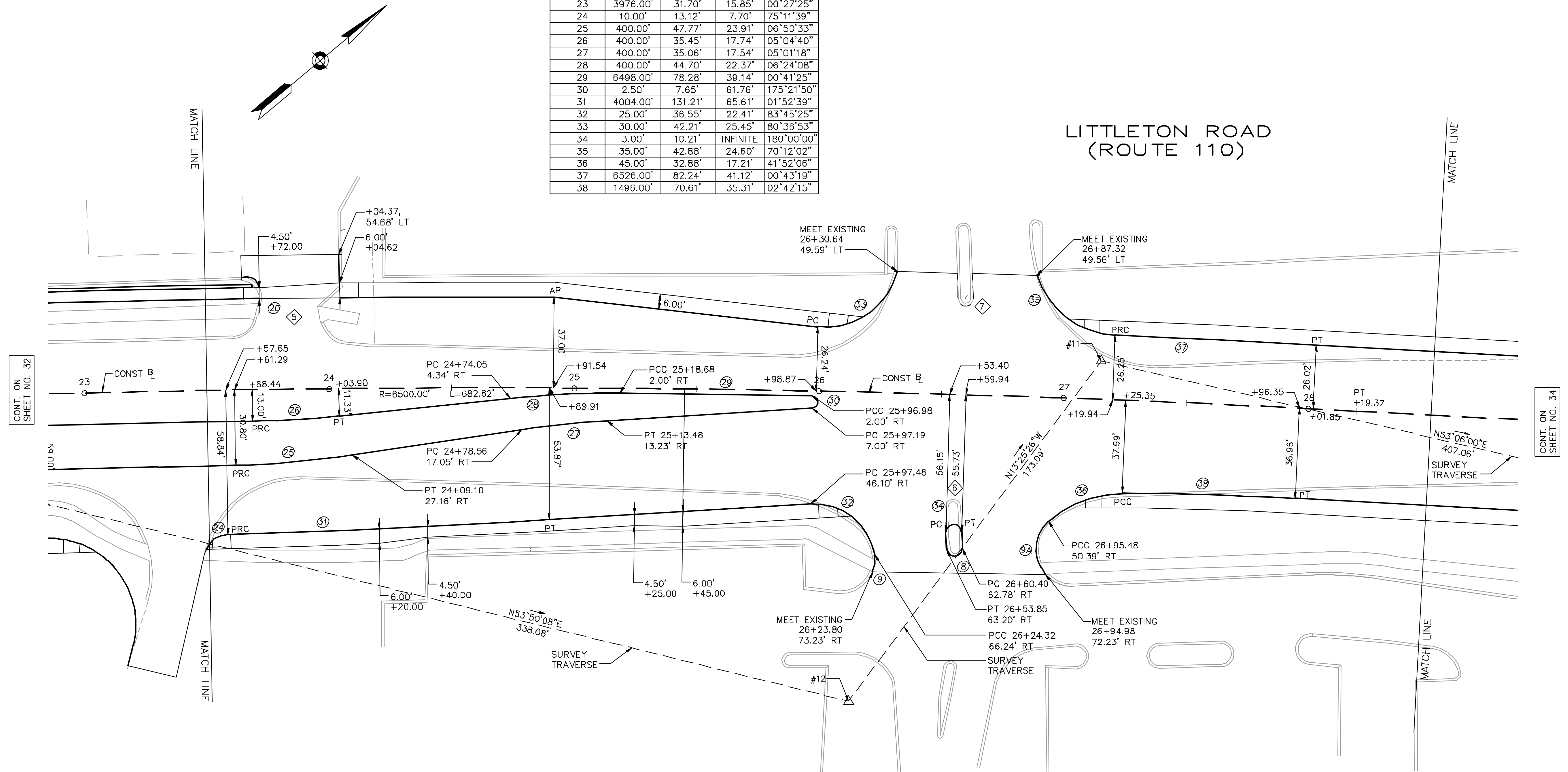
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH/S/STP-002S(433)K	33	136
PROJECT FILE NO.			604809

CURB TIE AND ALIGNMENT PLAN  
PART 4 OF 10

LITTLETON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PC STA 21+36.55	R=6500.00' Δ=06°01'08"	3031430.4239	676672.9830
PT STA 28+19.37	L=682.82' TAN=341.73'	3031952.5307	677112.5571
	N 43°06'15"E L=831.60'		

CURB/EDGE OF PAVEMENT DATA				
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
8	3.00'	10.21'	INFINITE	180°00'00"
9	10.00'	7.15'	3.73'	39°58'11"
9A	15.00'	20.65'	12.34'	78°53'18"
12	35.00'	64.03'	45.46'	104°48'48"
20	6537.00'	218.00'	109.01'	01°54'39"
21	6487.00'	197.95'	98.98'	01°44'54"
22	6469.00'	158.62'	79.31'	01°24'18"
23	3976.00'	31.70'	15.85'	00°27'25"
24	10.00'	13.12'	7.70'	75°11'39"
25	400.00'	47.77'	23.91'	06°50'33"
26	400.00'	35.45'	17.74'	05°04'40"
27	400.00'	35.06'	17.54'	05°01'18"
28	400.00'	44.70'	22.37'	06°24'08"
29	6498.00'	78.28'	39.14'	00°41'25"
30	2.50'	7.65'	61.76'	175°21'50"
31	4004.00'	131.21'	65.61'	01°52'39"
32	25.00'	36.55'	22.41'	83°45'25"
33	30.00'	42.21'	25.45'	80°36'53"
34	3.00'	10.21'	INFINITE	180°00'00"
35	35.00'	42.88'	24.60'	70°12'02"
36	45.00'	32.88'	17.21'	41°52'06"
37	6526.00'	82.24'	41.12'	00°43'19"
38	1496.00'	70.61'	35.31'	02°42'15"

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
11	254.11'	3031886.0445	677029.9610	PK NAIL SET
12	250.73'	3031717.6829	677070.1448	PUNCH MARK FND

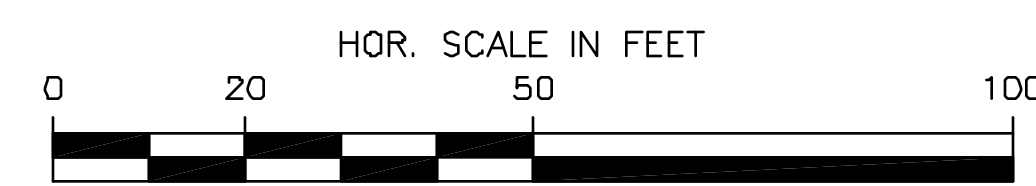


LITTLETON ROAD  
(ROUTE 110)

CONT. ON SHEET NO. 32

CONT. ON SHEET NO. 34

PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			



- LEGEND
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVEWAY NUMBER
  - CURVE NUMBER



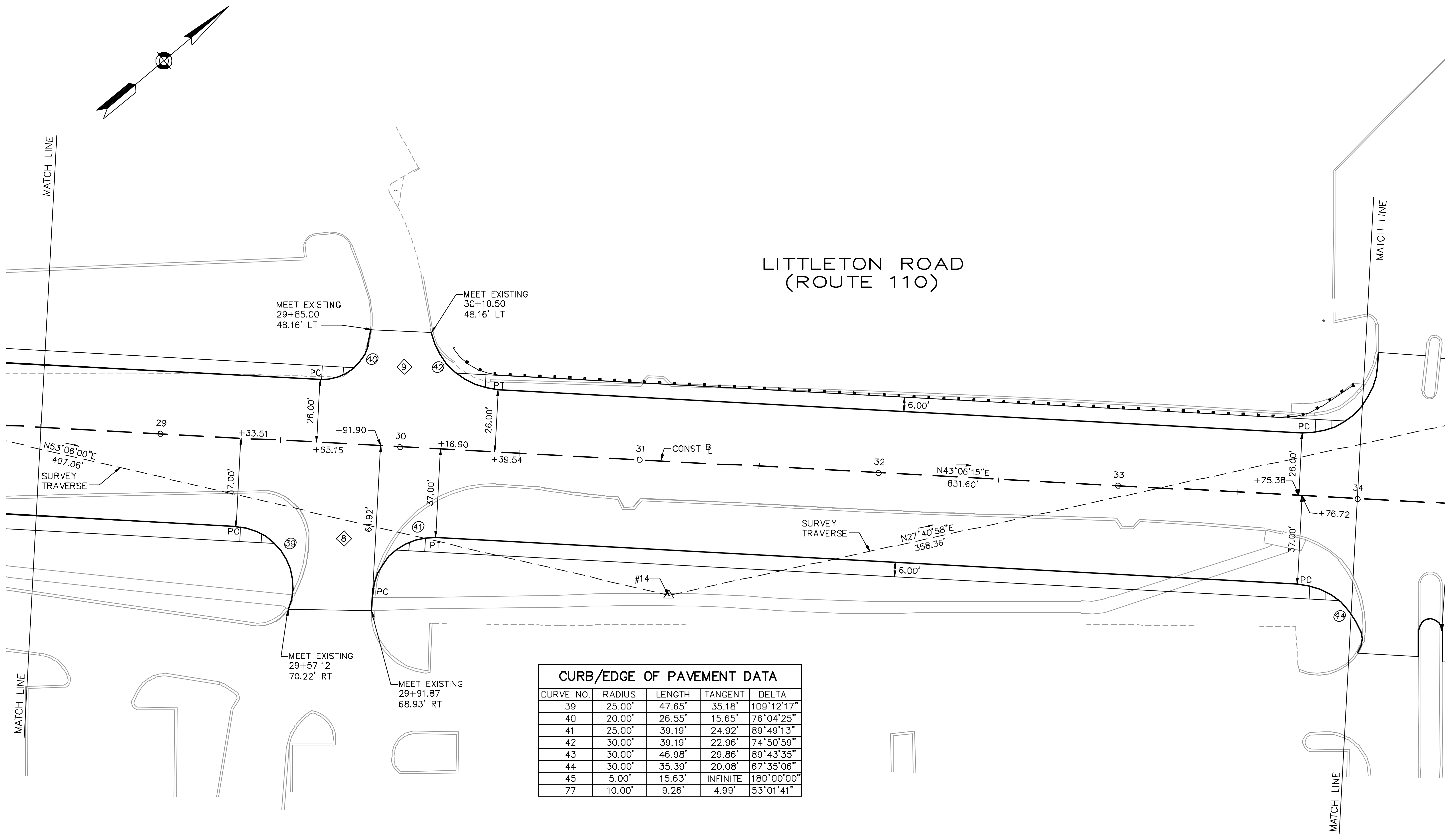
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH/S/STP-002S(433)X	34	136

PROJECT FILE NO. 604809

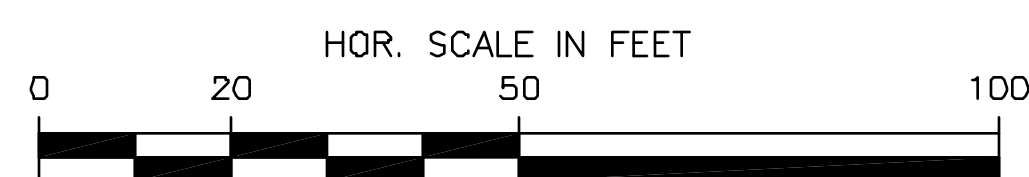
CURB TIE AND ALIGNMENT PLAN  
PART 5 OF 10

LITTLETON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PT STA 28+19.37	N 43°06'15"E L=831.60'	3031952.5307	677112.5571
PC STA 36+50.97		3032559.6914	677680.8132

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
14	251.08'	3032130.4521	677355.4799	PK NAIL SET



CURB/EDGE OF PAVEMENT DATA				
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
39	25.00'	47.65'	35.18'	109°12'17"
40	20.00'	26.55'	15.65'	76°04'25"
41	25.00'	39.19'	24.92'	89°49'13"
42	30.00'	39.19'	22.96'	74°50'59"
43	30.00'	46.98'	29.86'	89°43'35"
44	30.00'	35.39'	20.08'	67°35'06"
45	5.00'	15.63'	INFINITE	180°00'00"
77	10.00'	9.26'	4.99'	53°01'41"



LEGEND

- # WHEELCHAIR RAMP NUMBER
- ◇ DRIVEWAY NUMBER
- # CURVE NUMBER

PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH5/STP-002S(433)K	35	136
PROJECT FILE NO.		604809	

**CURB TIE AND ALIGNMENT PLAN  
PART 6 OF 10**

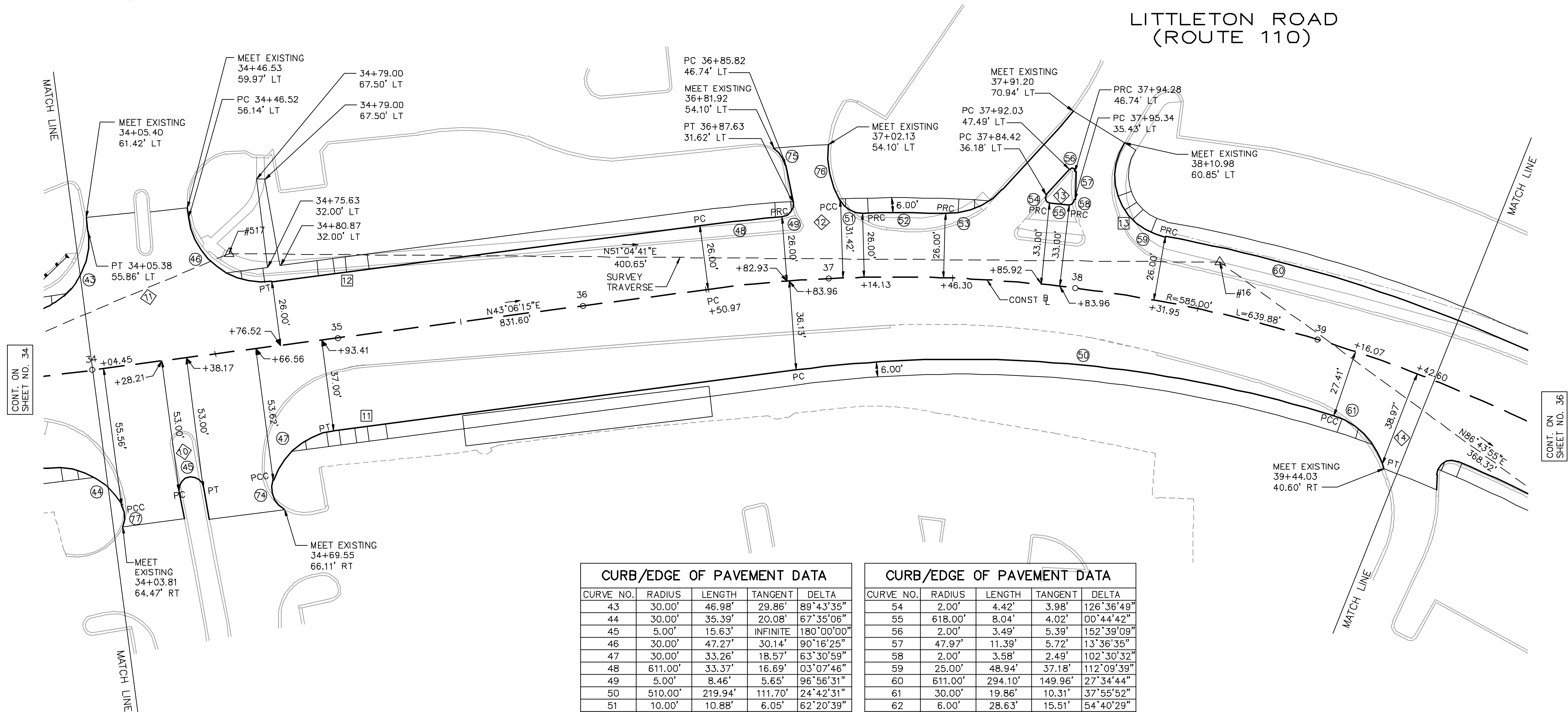
**LITTLETON RD CONSTRUCTION BASELINE DATA**

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PT STA 28+19.37		3031952.5307	677112.5571
	N 43°06'15"E L=831.60'		
PC STA 36+50.97	R=585.00' Δ=62°40'14"	3032559.6914	677680.8132
PT STA 42+90.85	L=639.88' TAN=356.18'	3032722.9118	678266.9656

**SURVEY TRAVERSE DATA**

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
16	258.49'	3032699.5009	677833.6684	MAG NAIL SET
517	254.92'	3032447.7905	677521.9642	MAG NAIL FND

**LITTLETON ROAD  
(ROUTE 110)**

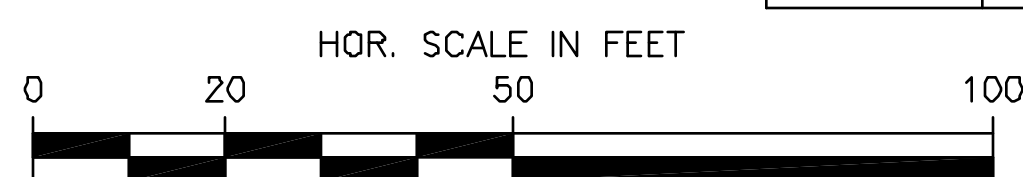


**CURB/EDGE OF PAVEMENT DATA**

CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
43	30.00'	46.98'	29.86'	89°43'35"
44	30.00'	35.39'	20.08'	67°35'06"
45	5.00'	15.63'	INFINITE	180°00'00"
46	30.00'	47.27'	30.14'	90°16'25"
47	30.00'	33.26'	18.57'	63°30'59"
48	611.00'	33.37'	16.69'	03°07'46"
49	5.00'	8.46'	5.65'	96°56'31"
50	510.00'	219.94'	111.70'	24°42'31"
51	10.00'	10.88'	6.05'	62°20'39"
52	611.00'	33.60'	16.81'	03°09'04"
53	30.00'	25.78'	13.75'	49°13'56"

**CURB/EDGE OF PAVEMENT DATA**

CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
54	2.00'	4.42'	3.98'	126°36'49"
55	618.00'	8.04'	4.02'	00°44'42"
56	2.00'	3.49'	5.39'	152°39'09"
57	47.97'	11.39'	5.72'	13°36'35"
58	2.00'	3.58'	2.49'	102°30'32"
59	25.00'	48.94'	37.18'	112°09'39"
60	611.00'	294.10'	149.96'	27°34'44"
61	30.00'	19.86'	10.31'	37°55'52"
62	6.00'	28.63'	15.51'	54°40'29"
74	10.00'	13.94'	8.37'	79°52'31"
75	11.00'	8.71'	4.60'	45°43'40"
76	39.00'	23.34'	12.03'	34°02'39"
77	10.00'	9.26'	4.99'	53°01'41"



- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVWAY NUMBER
  - ⊙ CURVE NUMBER

PROJECT NO. QW-023

DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM

ENGINEER IN CHARGE



**WESTFORD**  
LITTLETON ROAD RECONSTRUCTION

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH/S/STP-002S(433)K	36	136

PROJECT FILE NO. 604809

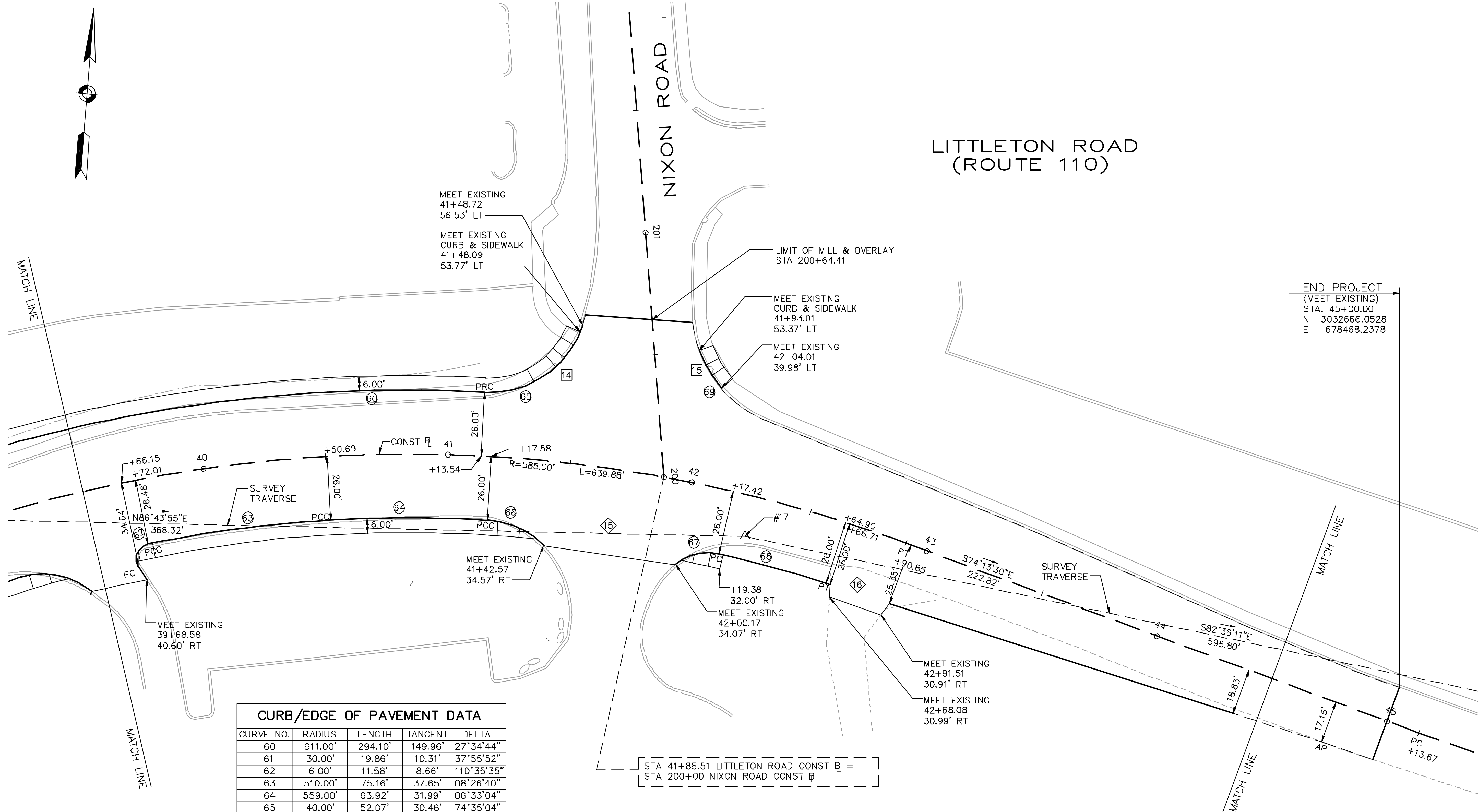
**CURB TIE AND ALIGNMENT PLAN**  
PART 7 OF 10

**LITTLETON RD CONSTRUCTION BASELINE DATA**

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PC STA 36+50.97	R=585.00' Δ=62°40'14"	3032559.6914	677680.8132
PT STA 42+90.85	L=639.88' TAN=356.18'	3032722.9118	678266.9656
PC STA 45+13.67	S 74°13'30"E L=222.82'	3032662.3358	678481.3955

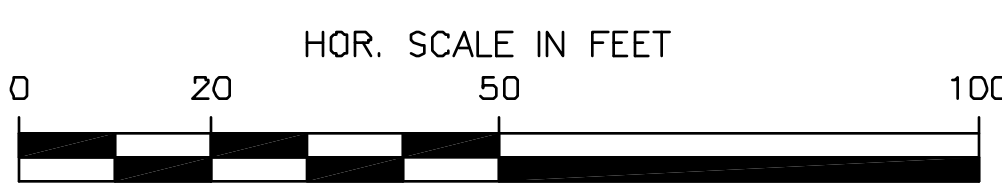
**SURVEY TRAVERSE DATA**

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
17	251.53'	3032720.4979	678201.3901	PK NAIL SET



**CURB/EDGE OF PAVEMENT DATA**

CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
60	611.00'	294.10'	149.96'	27°34'44"
61	30.00'	19.86'	10.31'	37°55'52"
62	6.00'	11.58'	8.66'	110°35'35"
63	510.00'	75.16'	37.65'	08°26'40"
64	559.00'	63.92'	31.99'	06°33'04"
65	40.00'	52.07'	30.46'	74°35'04"
66	35.00'	25.78'	13.51'	42°12'17"
67	20.00'	18.96'	10.26'	54°18'53"
68	559.00'	45.36'	22.69'	04°38'58"
69	49.00'	18.00'	9.10'	21°08'59"



- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVEWAY NUMBER
  - CURVE NUMBER

PROJECT NO. QW-023

DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM

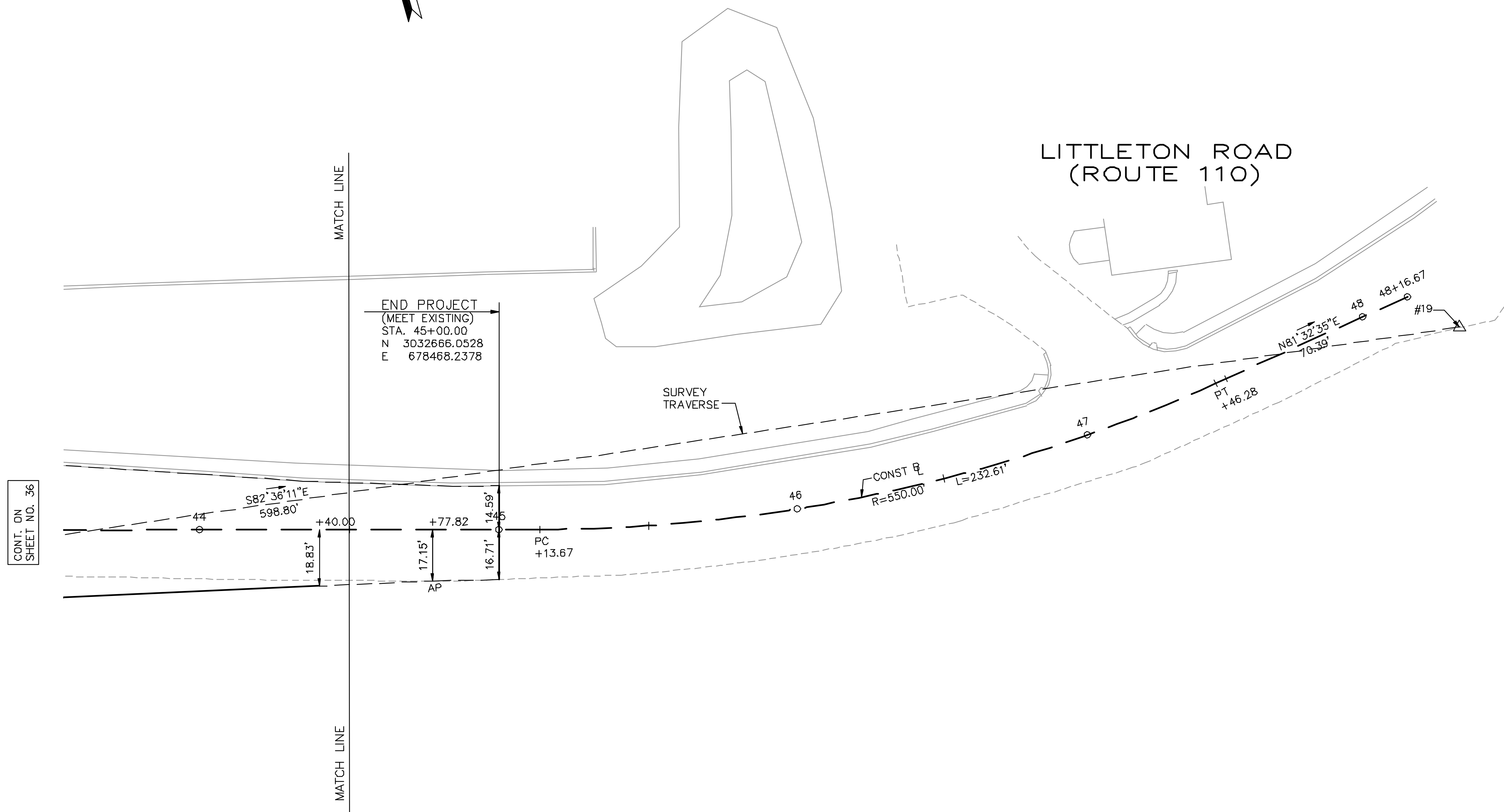
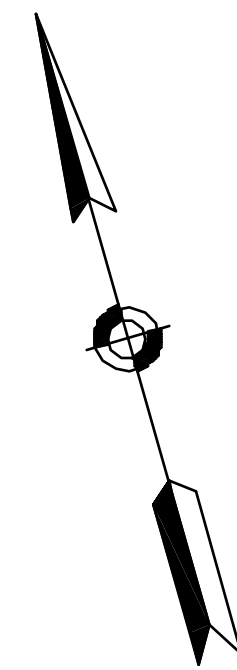
ENGINEER IN CHARGE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMHSP/STP-002S(433)K	37	136
PROJECT FILE NO.			604809

CURB TIE AND ALIGNMENT PLAN  
PART 8 OF 10

LITTLETON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PT STA 42+90.85	S 74°13'30"E L=222.82'	3032722.9118	678266.9656
PC STA 45+13.67	R=550.00' Δ=24°13'55"	3032662.3358	678481.3955
PT STA 47+46.28	L=232.61' TAN=118.07'	3032647.6018	678711.8045
END STA 48+16.67	N 81°32'35"E L=70.39'	3032657.9542	678781.4319

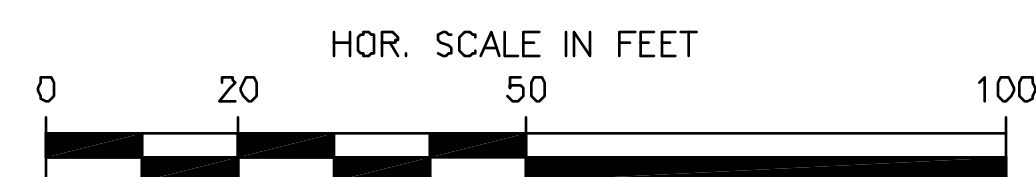
SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
19	245.68'	3032643.4065	678795.2109	PK NAIL SET



CONT. ON  
SHEET NO. 36

LEGEND

- # WHEELCHAIR RAMP NUMBER
- ◆ DRIVEWAY NUMBER
- # CURVE NUMBER



PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM

ENGINEER IN CHARGE

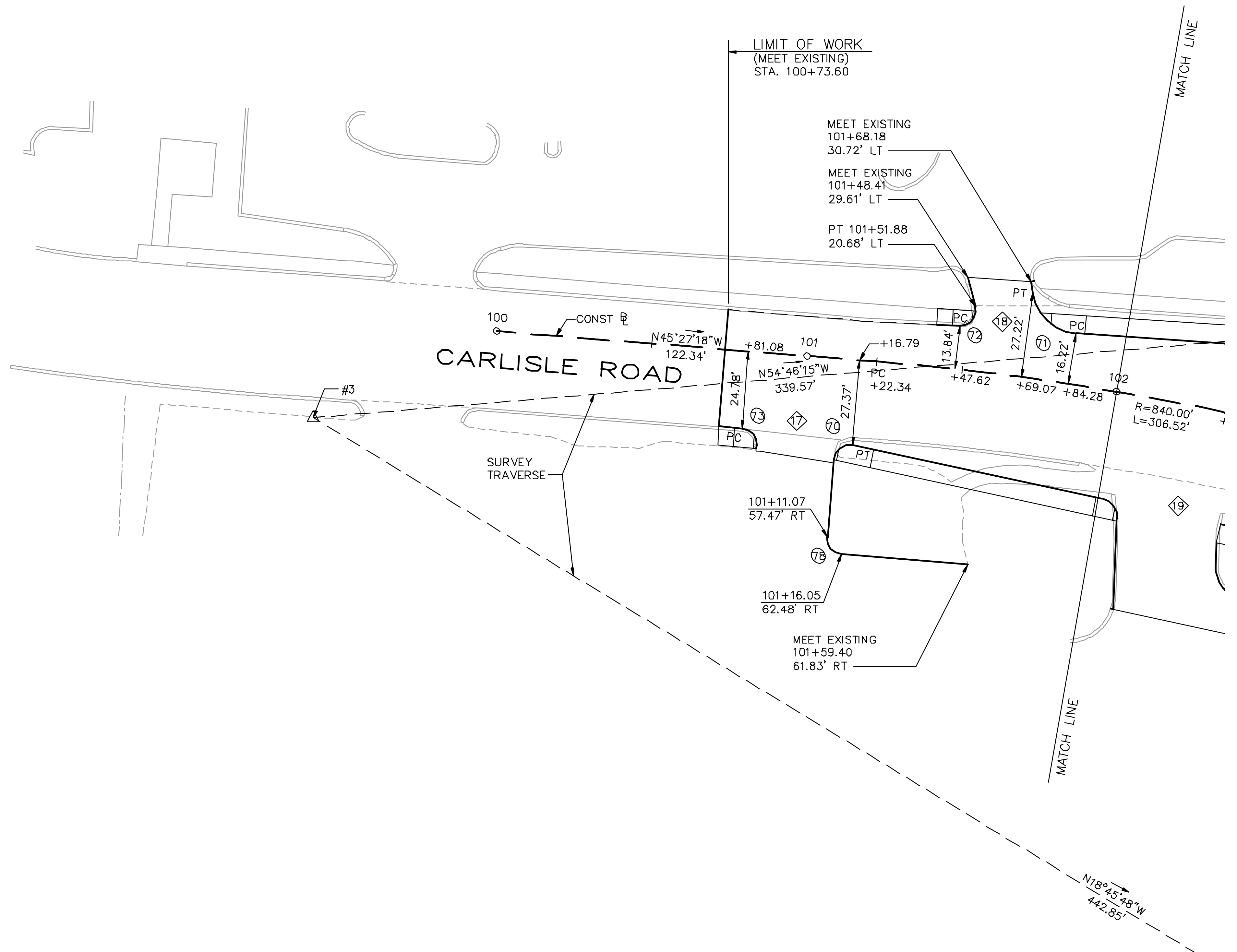
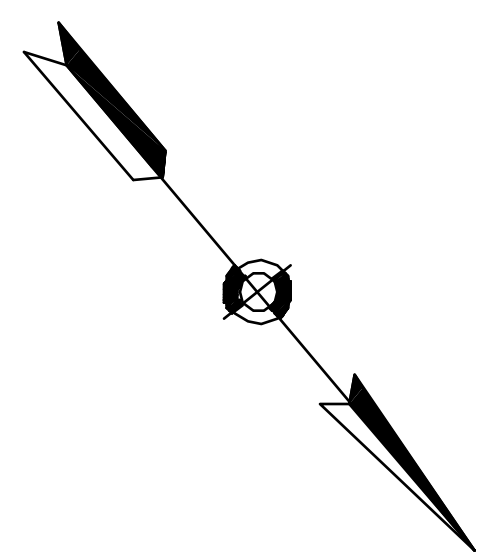
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH5/STP-002S(433)X	38	136
PROJECT FILE NO. 604809			

**CURB TIE AND ALIGNMENT PLAN  
PART 9 OF 10**

CARLISLE RD/BOSTON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
BEG STA 100+00.00	N 45°27'18"W L=122.34'	3031115.4495	676876.7098
PC STA 101+22.34	R=840.00' Δ=20°54'27"	3031201.2690	676789.5160
PT STA 104+28.86	L=306.52' TAN=154.98'	3031450.9619	676614.6707

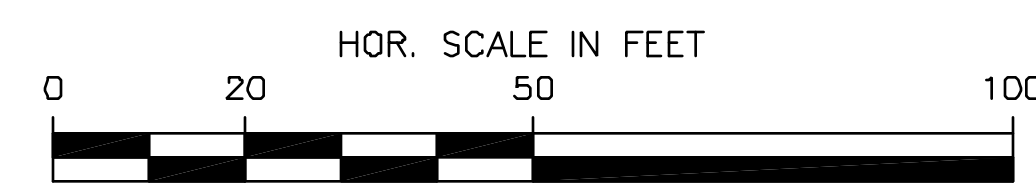
CURB/EDGE OF PAVEMENT DATA				
CURVE NO.	RADIUS	LENGTH	TANGENT	DELTA
70	5.00'	8.51'	5.70'	97°31'13"
71	15.00'	20.69'	12.37'	79°02'33"
72	5.00'	9.46'	6.93'	108°22'27"
73	5.00'	7.85'	5.00'	90°00'00"
78	5.00'	7.85'	5.00'	90°00'00"

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
3	242.48'	3031098.8681	676939.6501	PK NAIL SET



CONT. ON SHEET NO. 32

PROJECT NO.			
QW-023			
DES	PGM	CHK	JCM
DR	PGM	CHK	JCM
EST	PGM	CHK	JCM
ENGINEER IN CHARGE			



- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVEWAY NUMBER
  - ⊙ CURVE NUMBER

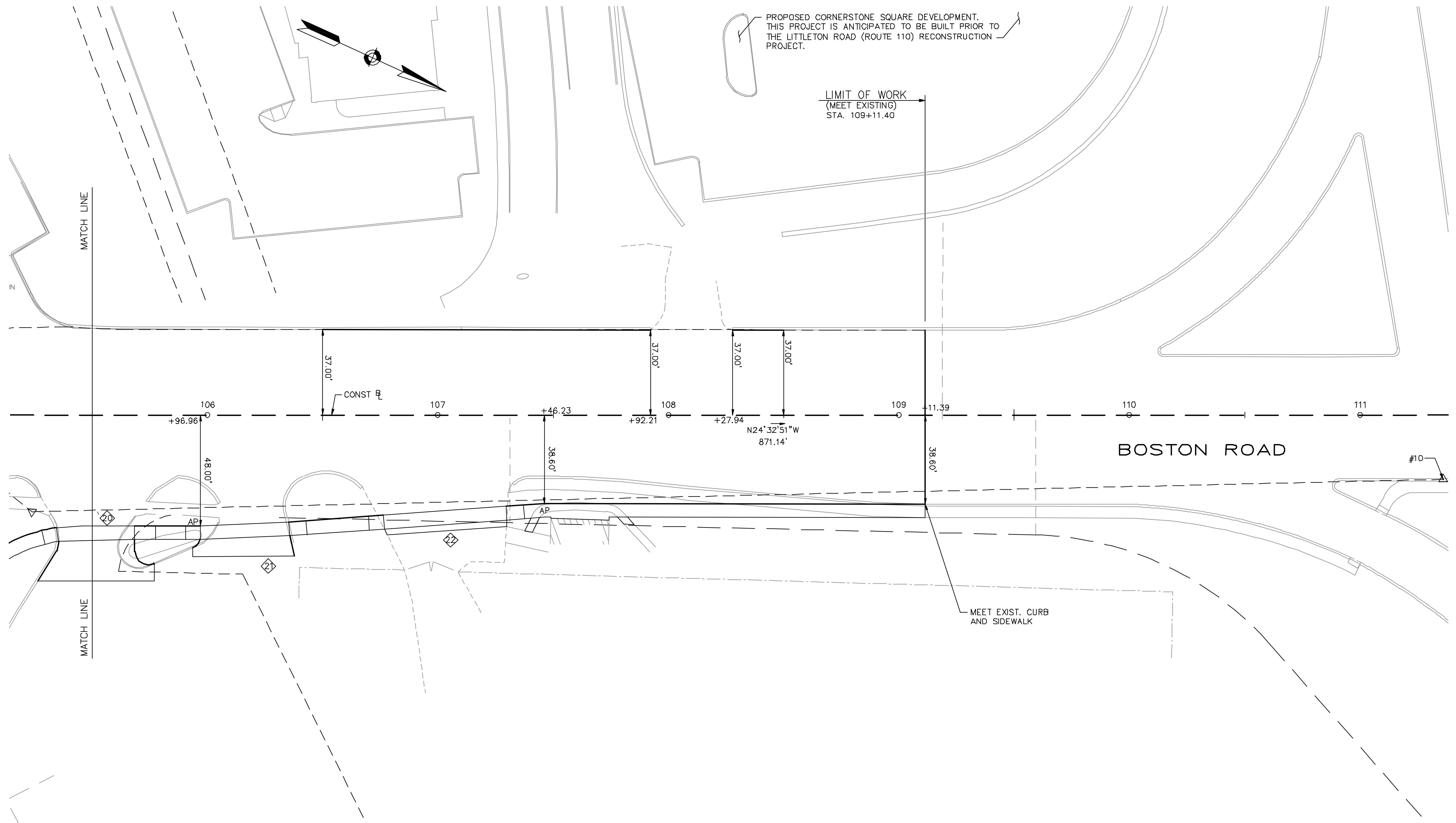
**WESTFORD**  
LITTLETON ROAD RECONSTRUCTION

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH5/STP-002S(433)K	39	136
PROJECT FILE NO. 604809			

**CURB TIE AND ALIGNMENT PLAN**  
PART 10 OF 10

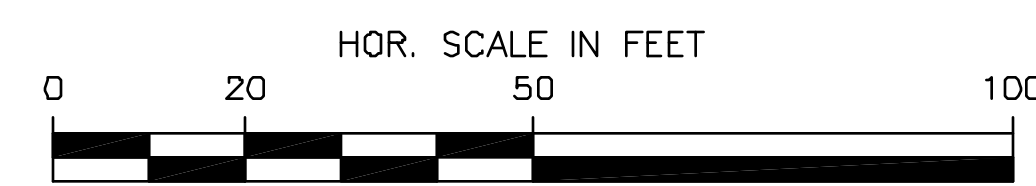
CARLISLE RD/BOSTON RD CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
PT STA 104+28.86		3031450.9619	676614.6707
	N 24°32'51"W L=871.14'		
END STA 113+00.00		3032243.3621	676252.7596

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
9	253.22'	3031554.7391	676613.3726	STONE BOUND/EPLP FND
10	253.03'	3032105.9865	676346.2213	MAG NAIL SET



CONT. ON SHEET NO. 32

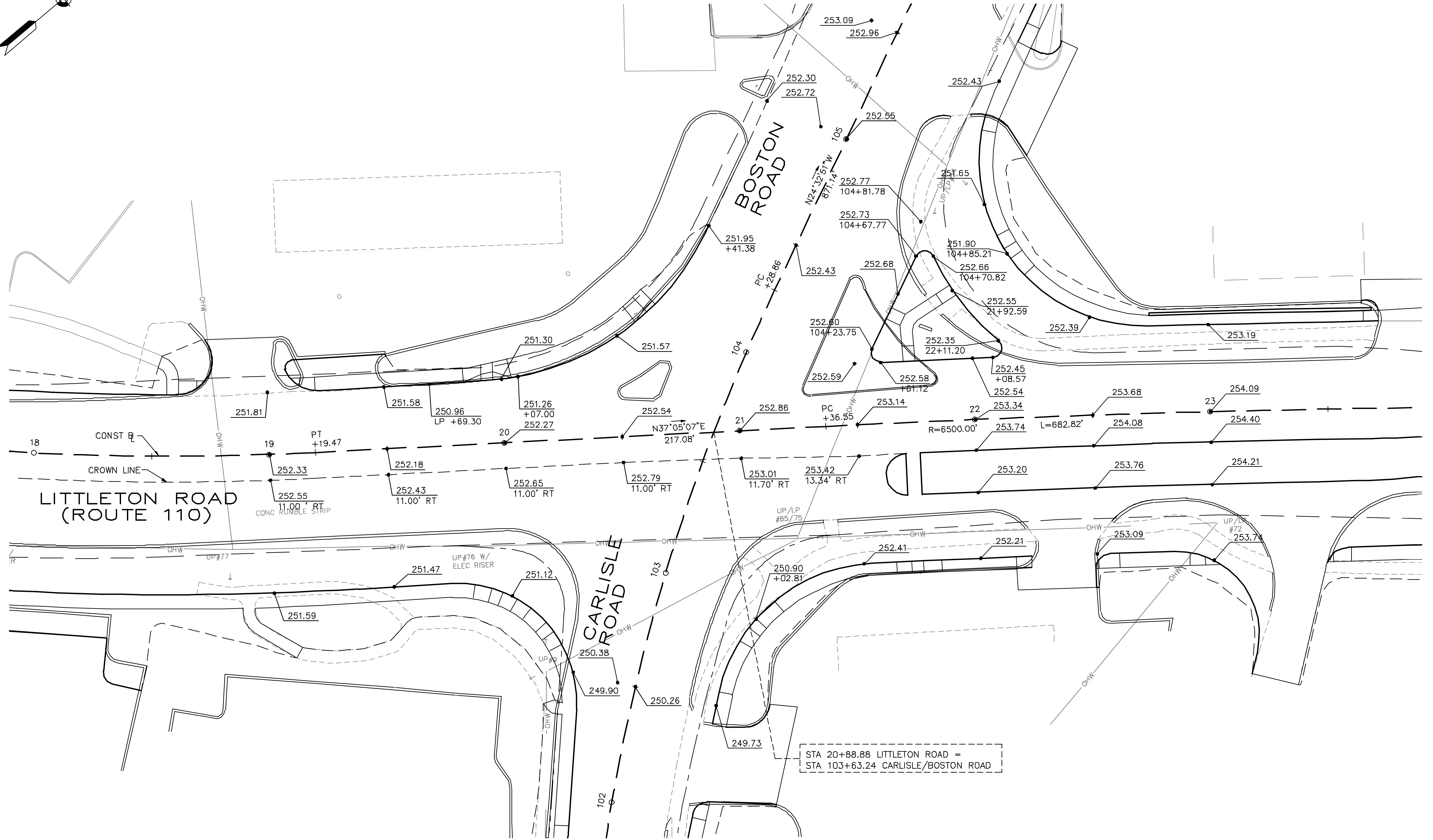
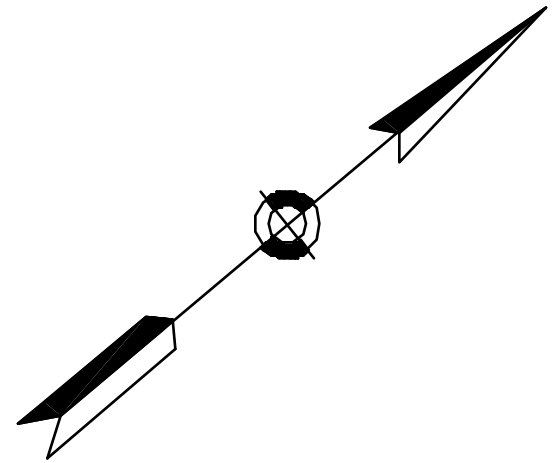
PROJECT NO.			
QW-023			
DES	PGM	CHK	JKH
DR	PGM	CHK	JKH
EST	MJH	CHK	JKH
ENGINEER IN CHARGE			



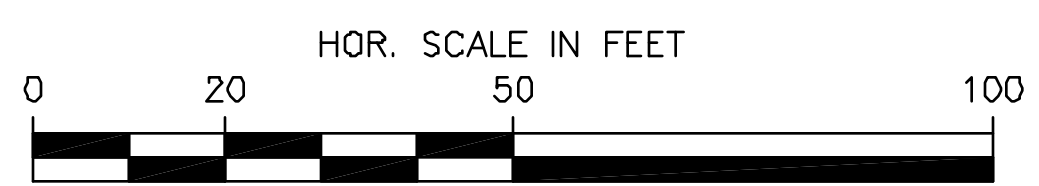
- LEGEND**
- # WHEELCHAIR RAMP NUMBER
  - ◇ DRIVWAY NUMBER
  - # CURVE NUMBER

WESTFORD LITTLETON ROAD RECONSTRUCTION			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	CMH/S/STP-002S(433)K	40	136
PROJECT FILE NO.		604809	

**GRADING PLAN**



STA 20+88.88 LITTLETON ROAD =  
STA 103+63.24 CARLISLE/BOSTON ROAD



PROJECT NO.				
QW-023				
DES	PGM	CHK	JCM	
DR	PGM	CHK	JCM	
EST	PGM	CHK	JCM	
ENGINEER IN CHARGE				