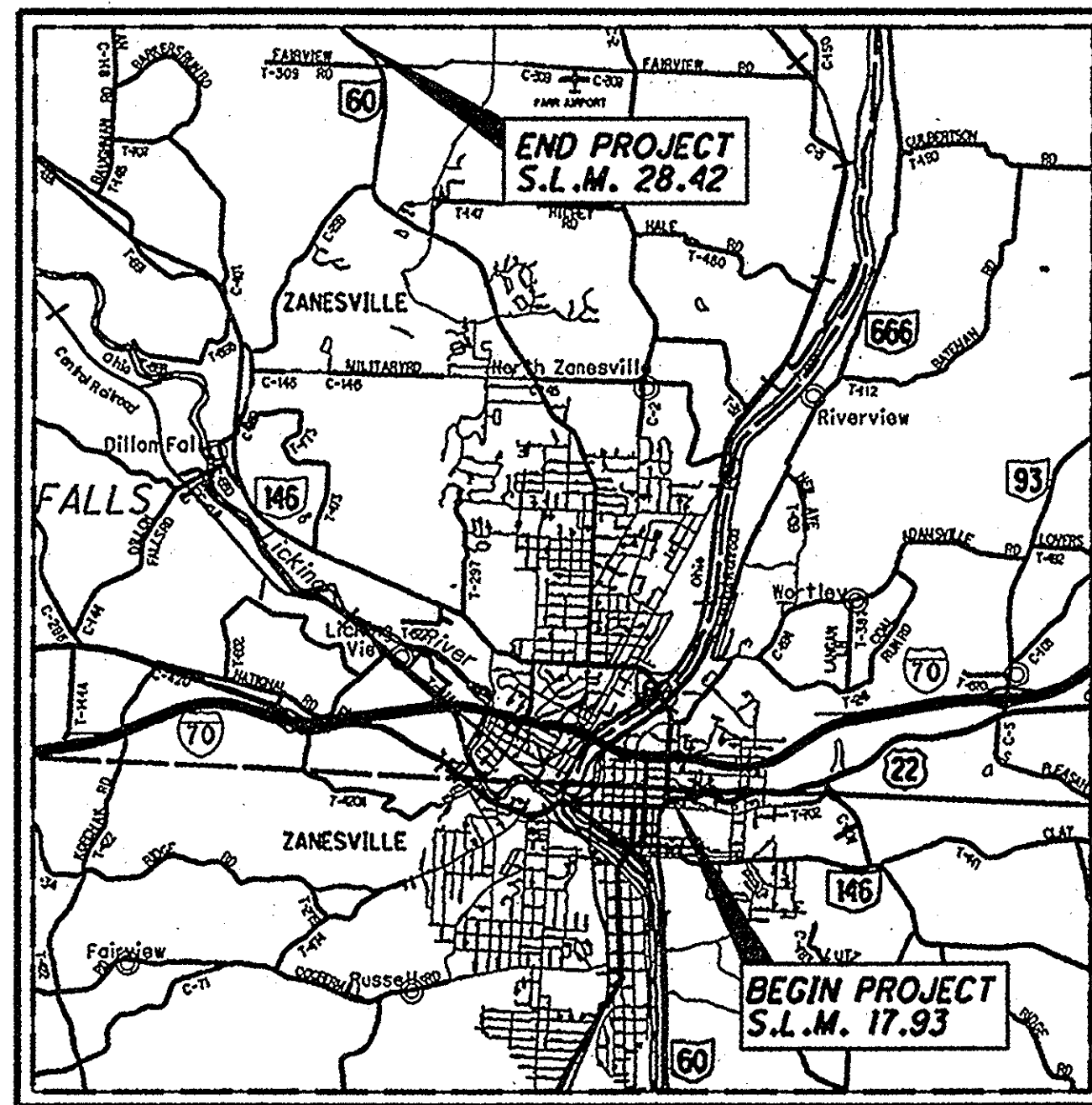


STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

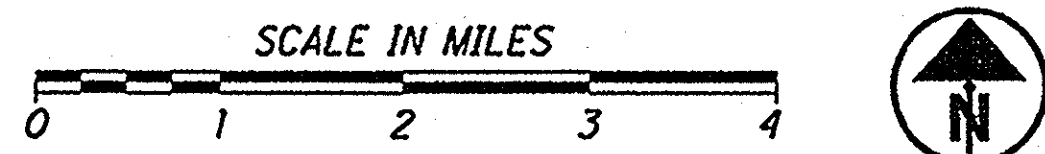
**MUS-60-17.93**

CITY OF ZANESVILLE  
FALLS TOWNSHIP  
MUSKINGUM COUNTY



LOCATION MAP

LATITUDE: 39°57'31" N LONGITUDE: 82°00'36" W



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
STATE & FEDERAL ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	-----

DESIGN DESIGNATION

CURRENT ADT (2011)	27,850
DESIGN YEAR ADT (2021)	30,100
DESIGN HOURLY VOLUME (2021)	2,709
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	11%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN PRINCIPAL ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

**UNDERGROUND UTILITIES**  
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
BEFORE YOU DIG

CALL  
1-800-362-2764  
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE  
SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:  
Ohio Department of Transportation  
Dist. 5

INDEX OF SHEETS:

Title Sheet	1
Typical Sections	2-15
General Notes	16-18
General Summary	19
Calculations	20-29
Plan Sheets	30-108
Traffic Control Quantities	109-121

PROJECT DESCRIPTION

PAVEMENT PLANING AND RESURFACING  
S.R. 60 CORRIDOR THROUGH THE CITY OF ZANESVILLE  
FROM MAPLE ST. TO THE NORTHERN CORP., INCLUDING  
TO S.L.M. 28.42.

PROJECT EARTH DISTURBED AREA: 0.44 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: NA

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR  
THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED  
ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE  
DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF  
SECTION 5511.02 OF THE OHIO REVISED CODE.

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF  
OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING  
CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED  
IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT  
THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE  
THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT  
PROVISIONS FOR THE MAINTENANCE AND SAFETY OF  
TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND  
ESTIMATES.

ENGINEERS SEAL:	STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
<p>SIGNED: <i>Heather Ann Gilbert</i> DATE: 2-28-2011</p>	BP-3.1	10/19/07			800	4/15/11
	BP-4.1	7/16/04			832	5/5/09
	BP-7.1	10/15/10				
	MT-35.10	4/20/01				
	MT-95.31	7/17/09	TC-65.10	1/21/05		
	MT-95.32	7/17/09	TC-65.11	1/21/05		
	MT-101.90	1/16/09	TC-71.10	1/21/11		
	MT-105.10	1/16/09	TC-82.10	1/21/11		
					SPECIAL PROVISIONS	

APPROVED: *[Signature]*  
DATE: 3/17/11 DISTRICT DEPUTY DIRECTOR

APPROVED: *[Signature]*  
DATE: 3-25-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION

MUS - SR-60-17.93  
110394 PID - 79622  
Dist 5 6/16/2011  
Contract Proposal available  
@www.contracts.dot.  
state.oh.us/home

M060-GTS-001.DGN

FEDERAL PROJECT NO.  
E050965

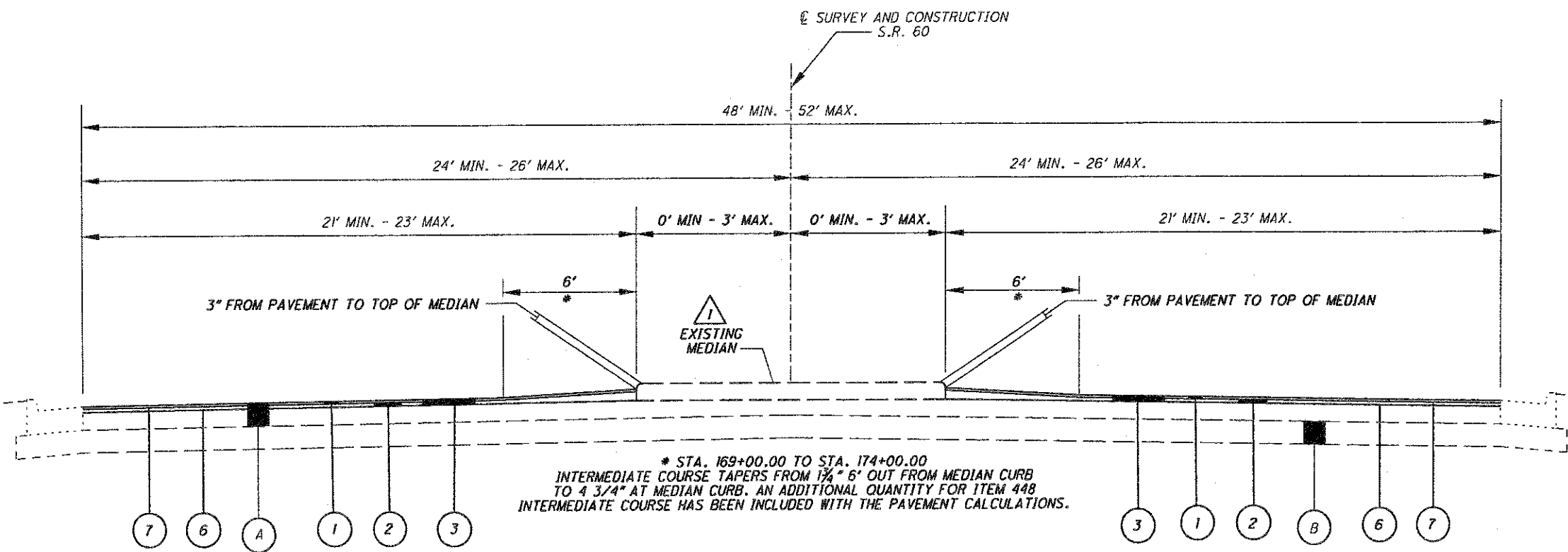
PID NO.  
79622

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
NONE

MUS-60-17.93

1/121



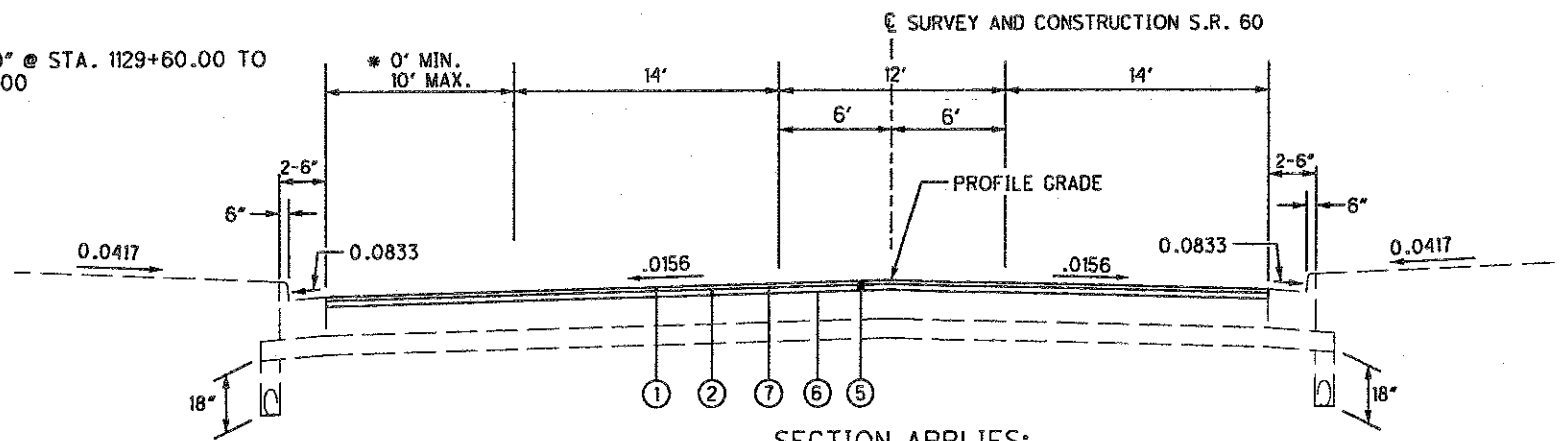
STA. 169+00.00 TO STA. 174+00.00 = 500.00 FT.

① TAPERS FROM 2' RT. @ STA. 169+00.00 TO 6' LT.  
@ STA. 169+20.00. 6' FROM STA. 169+20.00 TO STA. 174+00.00

- ① ITEM 448 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M
- ② ITEM 448 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22
- ③ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ④ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y.
- ⑤ ITEM 407 TACK COAT @ 0.075 GAL./S.Y.
- ⑥ ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
- ⑦ ITEM 407 TACK COAT, TRACKLESS TACK, SURFACE COURSE
- (A) 9% ASPHALT CONCRETE
- (B) 6% AGGREGATE BASE

79622.PTS-001.DGN 6-6-II.ADDENDA

\* VARIES FROM 10'-0" @ STA. 1129+60.00 TO 0' @ STA. 1132+50.00

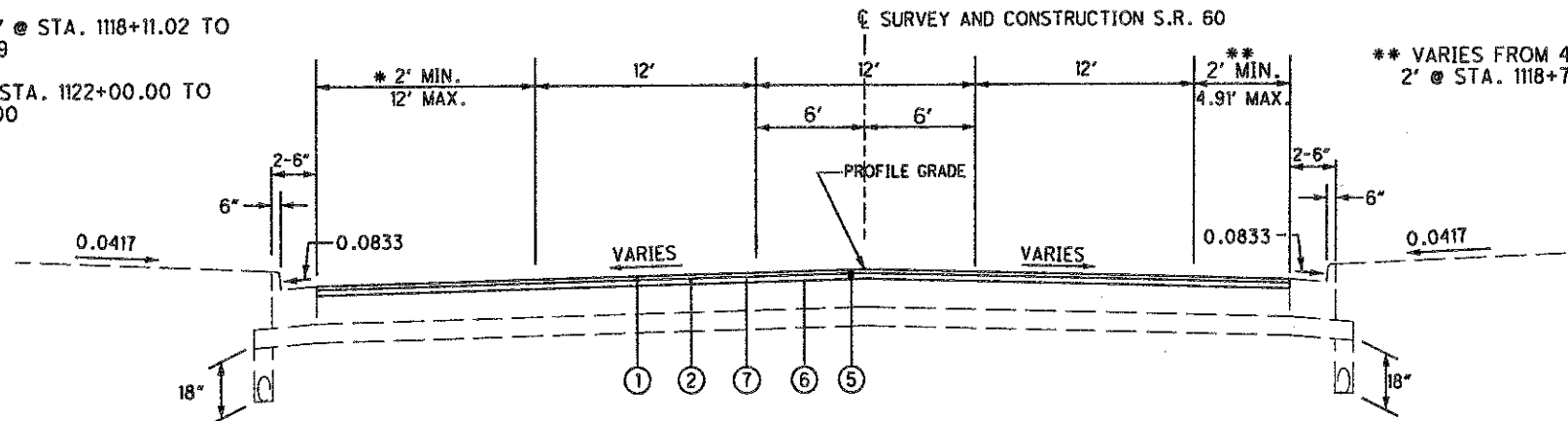


SECTION APPLIES:

STA. 1123+83.07 TO STA. 1134+05.30 = 1,022.23 FT.  
TOTAL 1,022.23 FT.

\* VARIES FROM 12'-0" @ STA. 1118+11.02 TO 2' @ STA. 1118+52.69

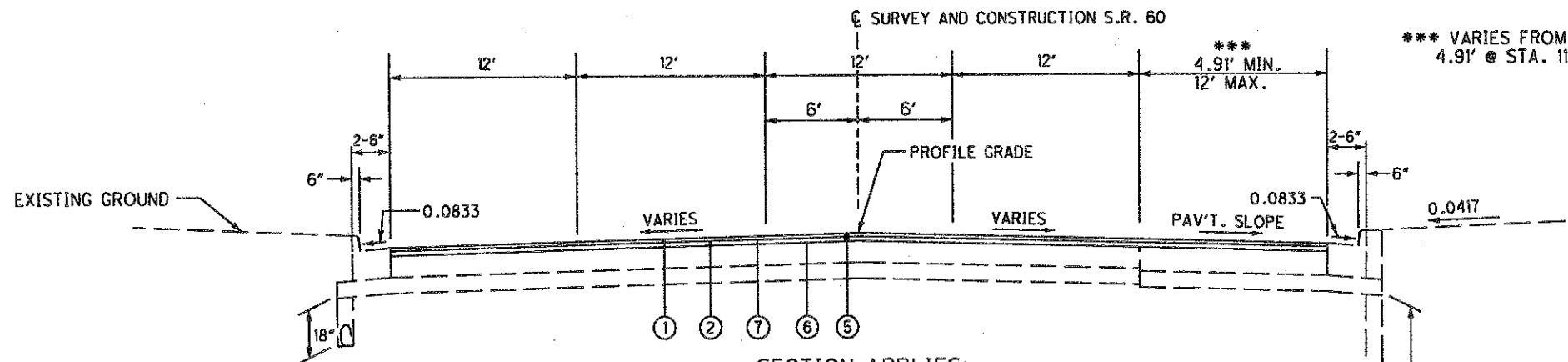
VARIES FROM 12' @ STA. 1122+00.00 TO 2' @ STA. 1123+30.00



SECTION APPLIES:

STA. 1118+11.02 TO STA. 1123+83.07 = 572.05 FT.  
TOTAL 572.05 FT.

\*\* VARIES FROM 4.91' @ STA. 1118+11.02 TO 2' @ STA. 1118+71.72

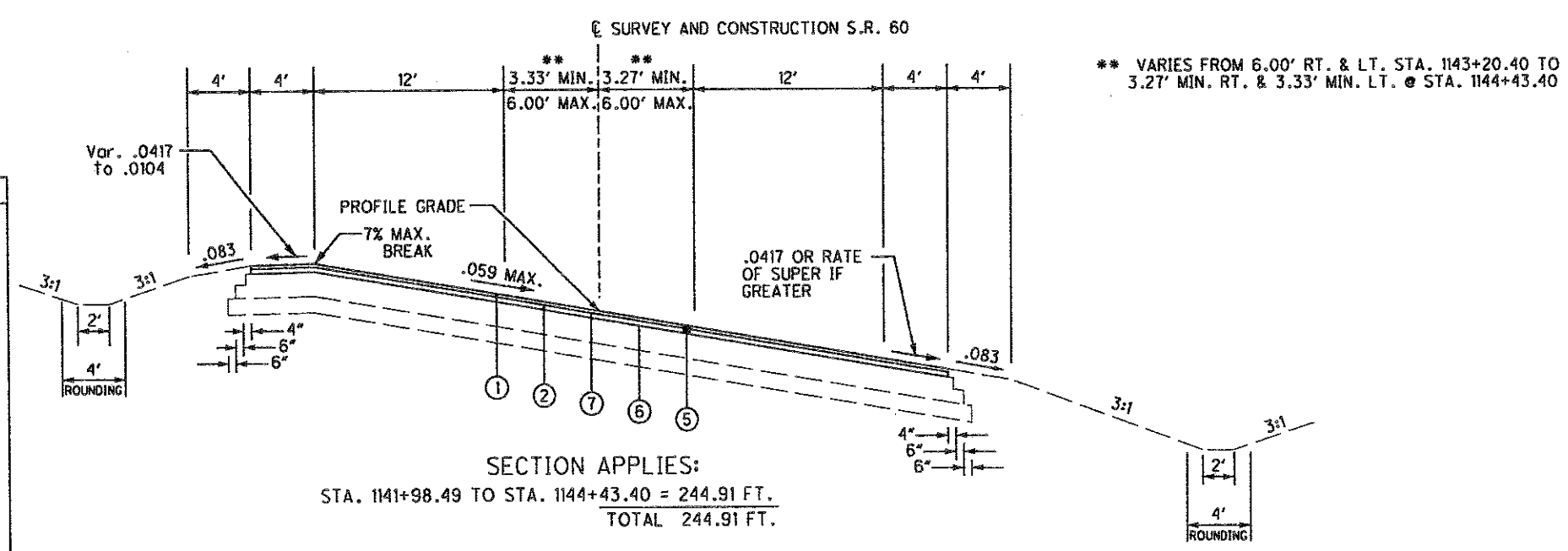
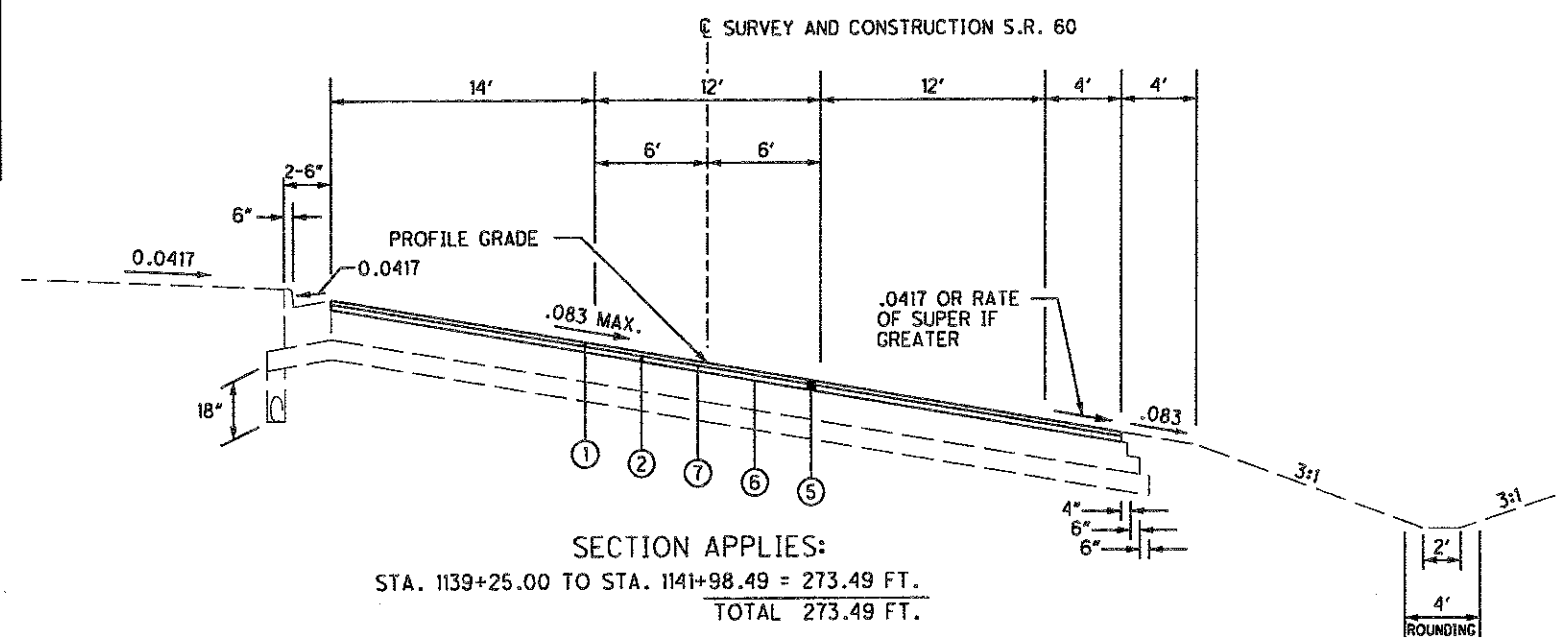
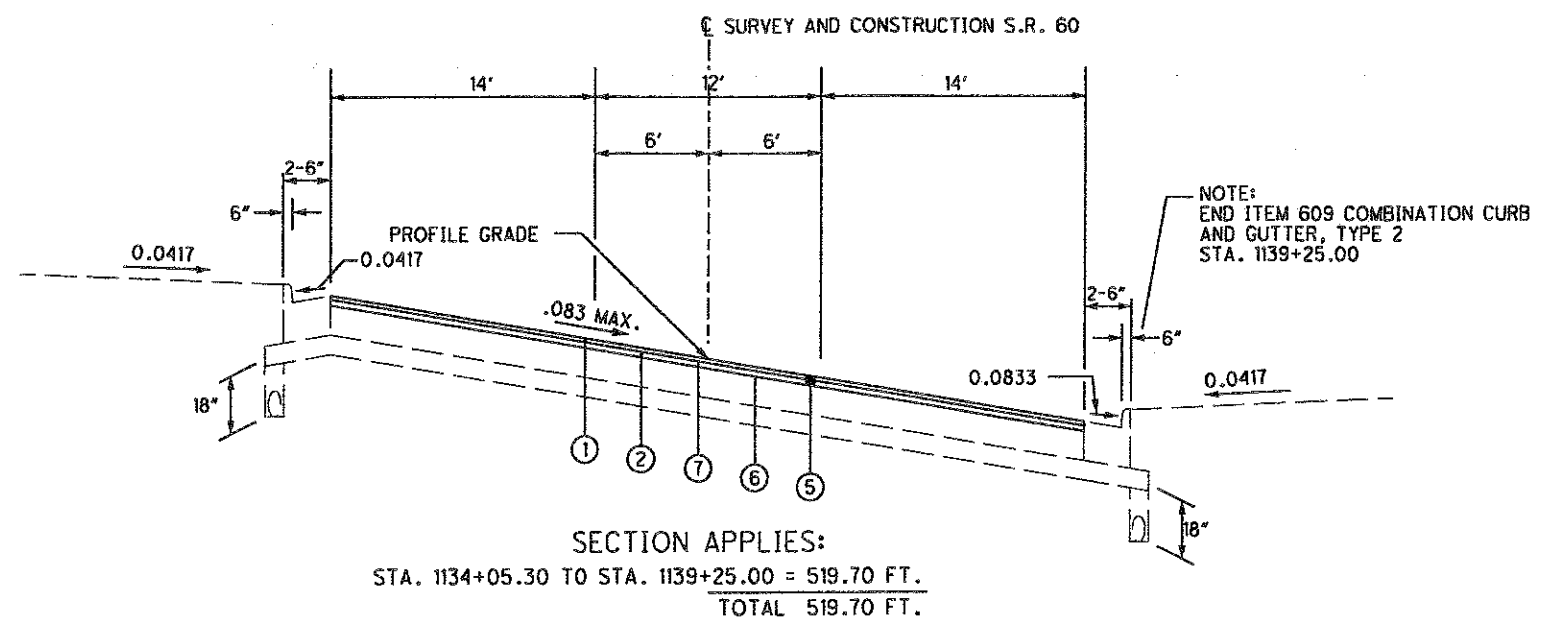
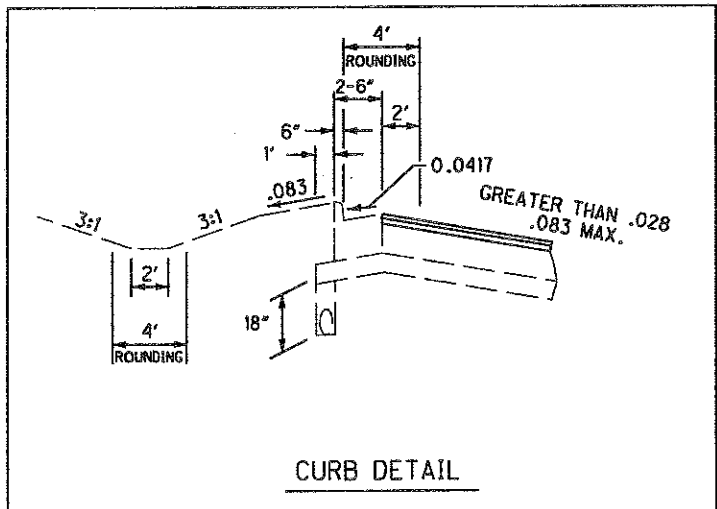


SECTION APPLIES:

STA. 1116+63.39 TO STA. 1118+11.02 = 147.63 FT.  
TOTAL 147.63 FT.

\*\*\* VARIES FROM 12' @ STA. 1116+63.39 TO 4.91' @ STA. 1118+11.02

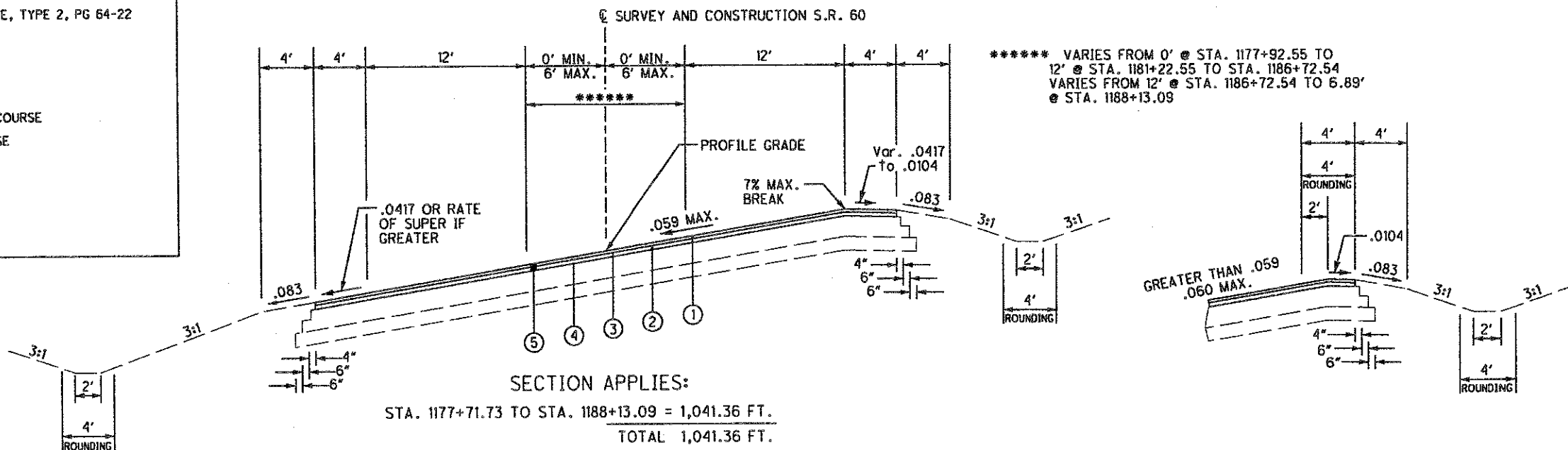
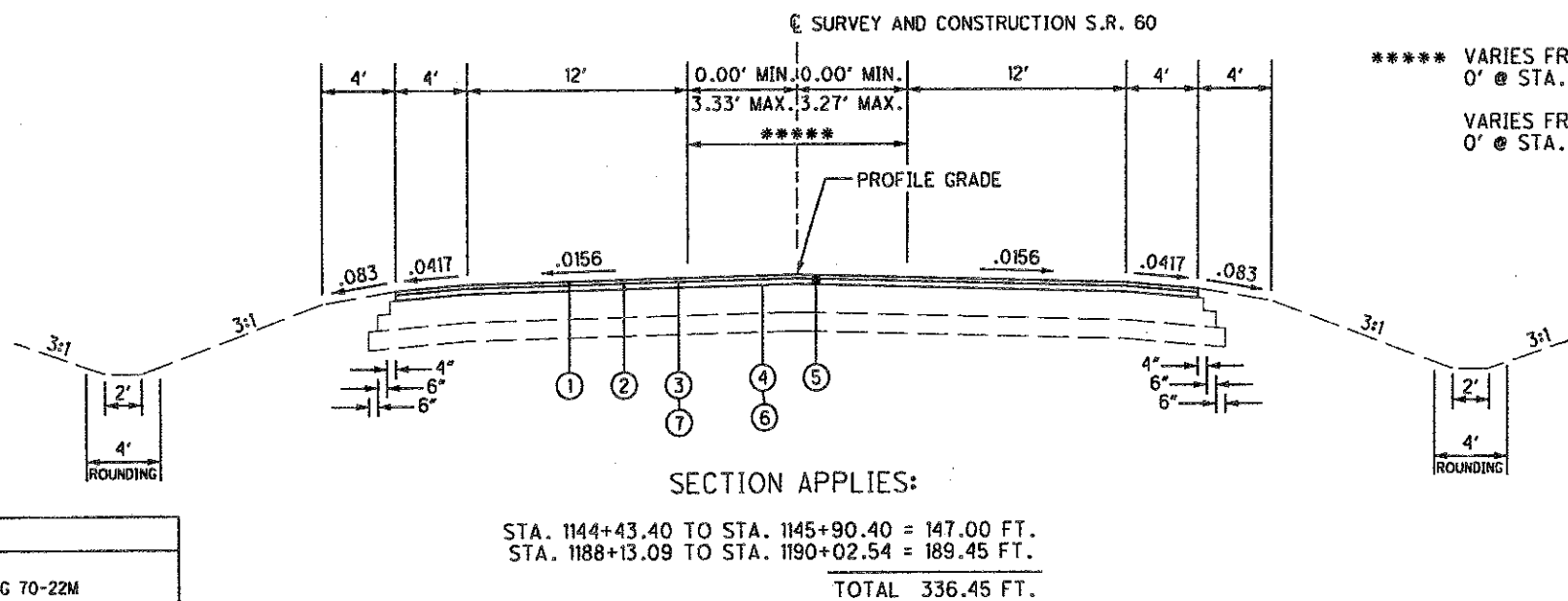
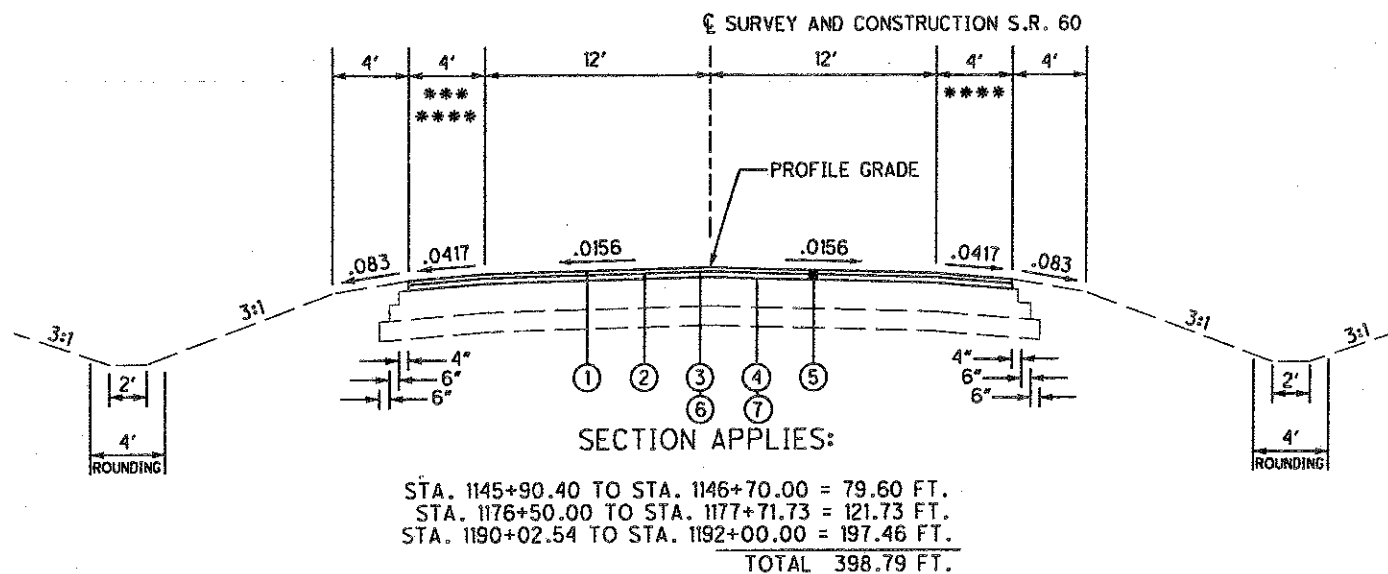
MARK	ITEM	DESCRIPTION
①	448	1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE
⑥	407	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
⑦	407	TACK COAT, TRACKLESS TACK, SURFACE COURSE



MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE
⑥	407	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
⑦	407	TACK COAT, TRACKLESS TACK, SURFACE COURSE

M0802183.DGN 6-6-11 ADDENDA

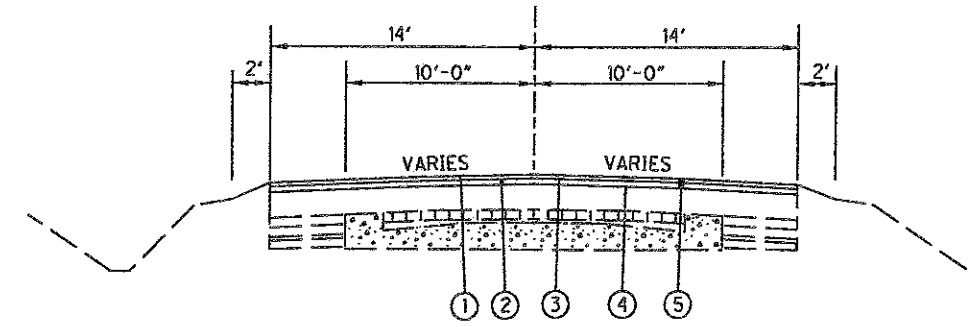




MARK	ITEM	DESCRIPTION
①	446	1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE
⑥	407	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE
⑦	407	TACK COAT, TRACKLESS TACK, SURFACE COURSE

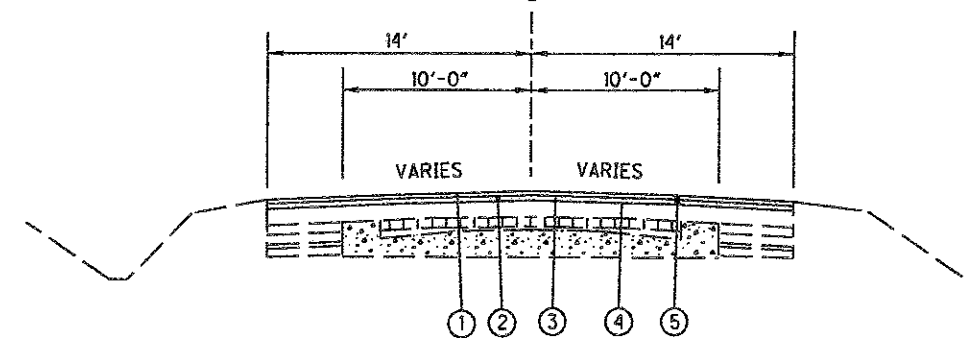
### RESURFACING

☒ SURVEY & CONSTRUCTION S.R. 60



SECTION APPLIES:  
STA. 1146+70.00 TO STA. 1176+50.00 = 2,980.00 FT.  
TOTAL = 2,980.00 FT.

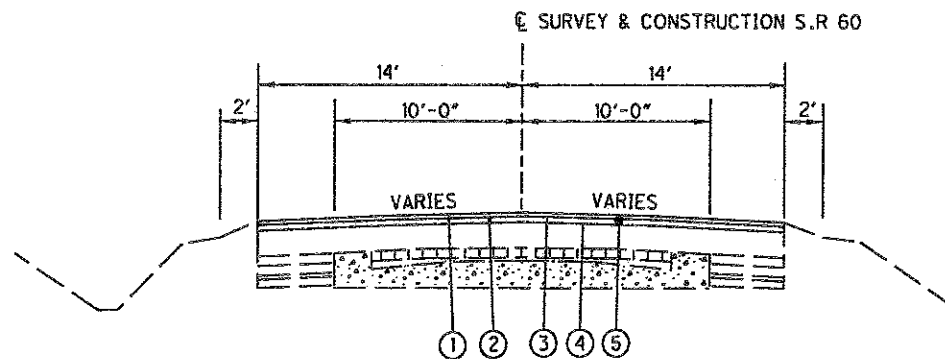
☒ SURVEY & CONSTRUCTION S.R. 60



SECTION APPLIES:  
STA. 1192+00.00 TO STA. 1192+50.00 = 50.00 FT.  
TOTAL = 50.00 FT.

MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

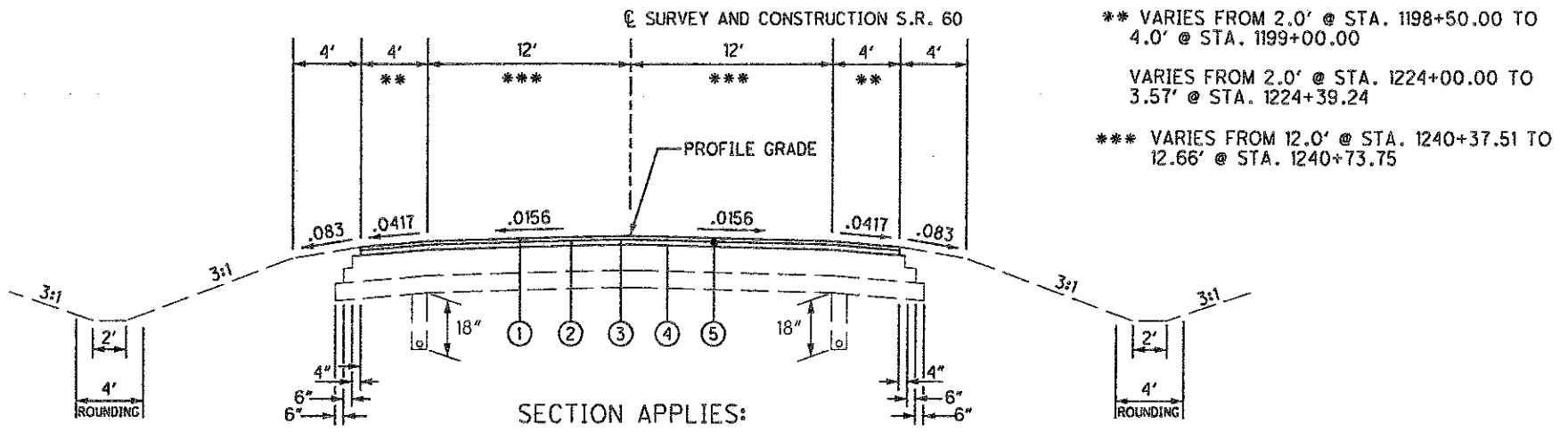
M0602103.DGN 10/03/87



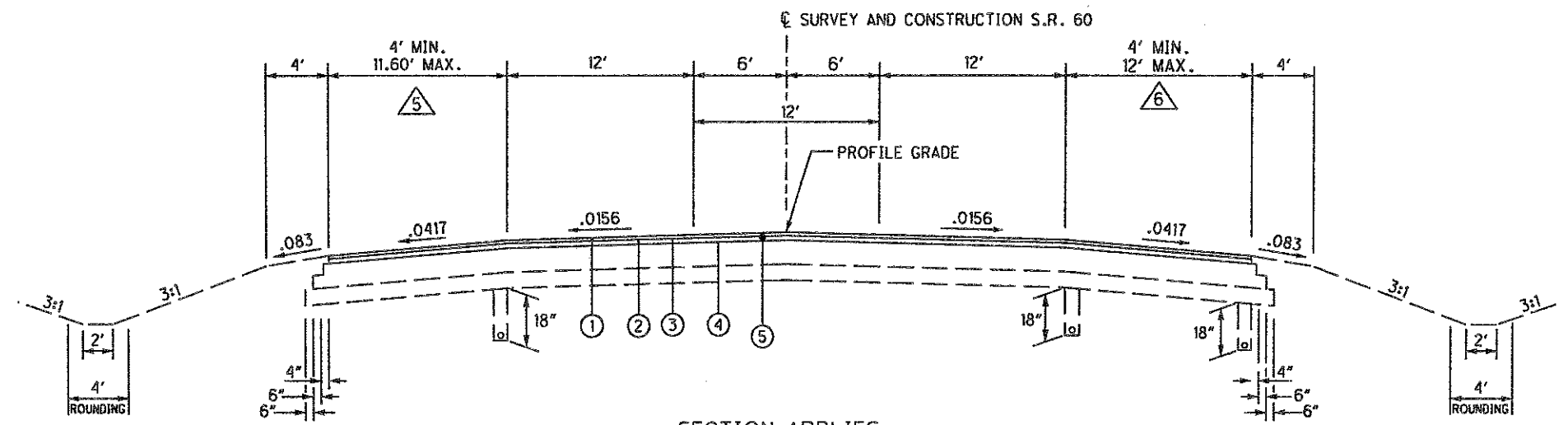
SECTION APPLIES:  
 STA. 1192+50.00 TO STA. 1198+50.00 = 600.00 FT.  
 STA. 1212+25.00 TO STA. 1224+00.00 = 1,175.00 FT.  
 TOTAL 1,775.00 FT.

MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

MB0RESURFTYP01.DGN



SECTION APPLIES:  
 STA. 1198+50.00 TO STA. 1198+65.11 = 15.11 FT.  
 STA. 1224+00.00 TO STA. 1224+39.24 = 39.24 FT.  
 STA. 1231+02.28 TO STA. 1240+73.75 = 971.47 FT.  
 STA. 1494+40.17 TO STA. 1500+50.00 = 609.83 FT.  
 TOTAL 1,635.65 FT.



SECTION APPLIES:  
 STA. 1249+57.70 TO STA. 1250+74.54 = 116.84 FT.  
 STA. 1265+24.45 TO STA. 1268+21.04 = 296.59 FT.  
 STA. 1282+11.95 TO STA. 1282+54.58 = 42.63 FT.  
 TOTAL 456.06 FT.

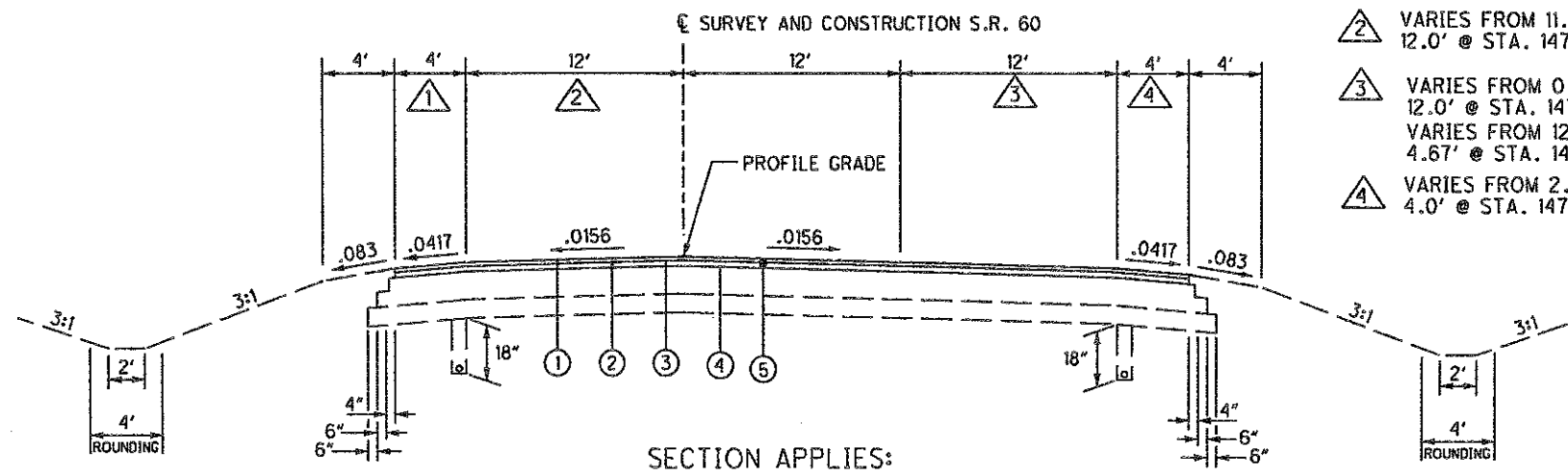
5 11.60' FROM STA. 1281+86.06 TO STA. 1282+54.58  
 6 12.00' FROM STA. 1282+11.95 TO STA. 1282+54.58

STATION EQUATION:  
 STA. 1283+16.48 (BACK) =  
 STA. 1283+00.00 (AHEAD)

APPROACH SLAB  
 STA. 1282+54.58 TO STA. 1282+69.58 = 15.00 FT.

BRIDGE LIMITS  
 STA. 1282+69.58 TO STA. 1283+04.25 = 34.67 FT.

APPROACH SLAB  
 STA. 1283+04.25 TO STA. 1283+02.77 (AH) = 15.00 FT.



SECTION APPLIES:  
 STA. 1470+62.29 TO STA. 1486+10.00 = 1,547.71 FT.  
 TOTAL 1,547.71 FT.

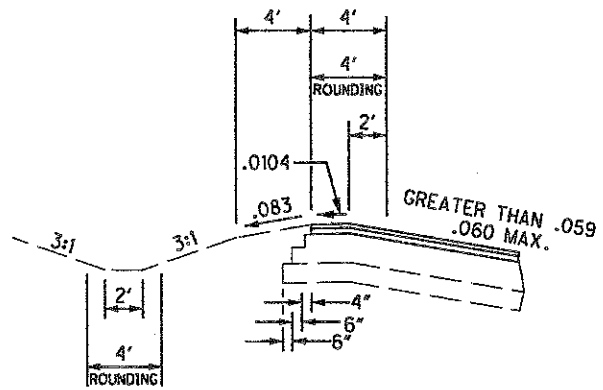
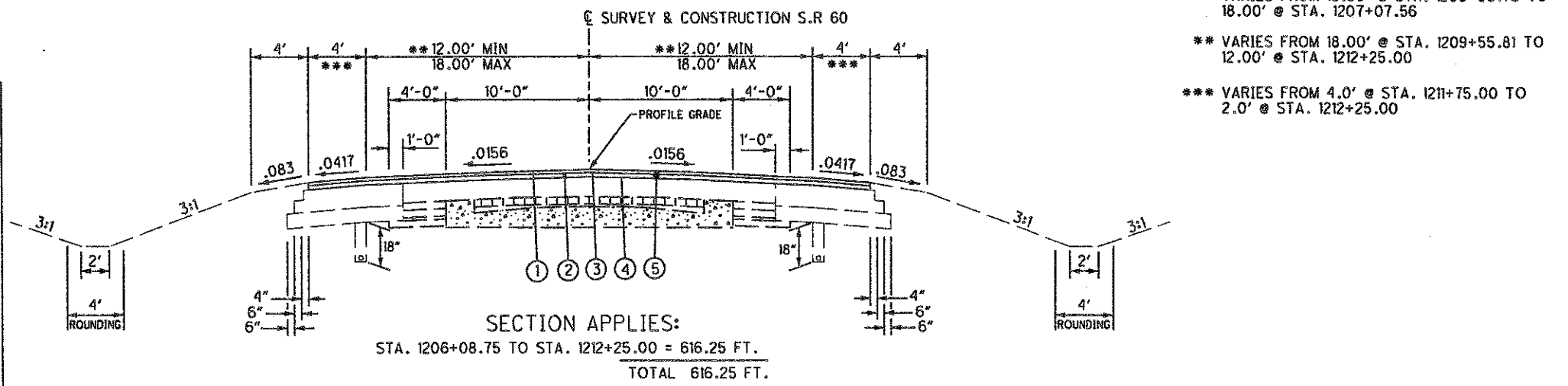
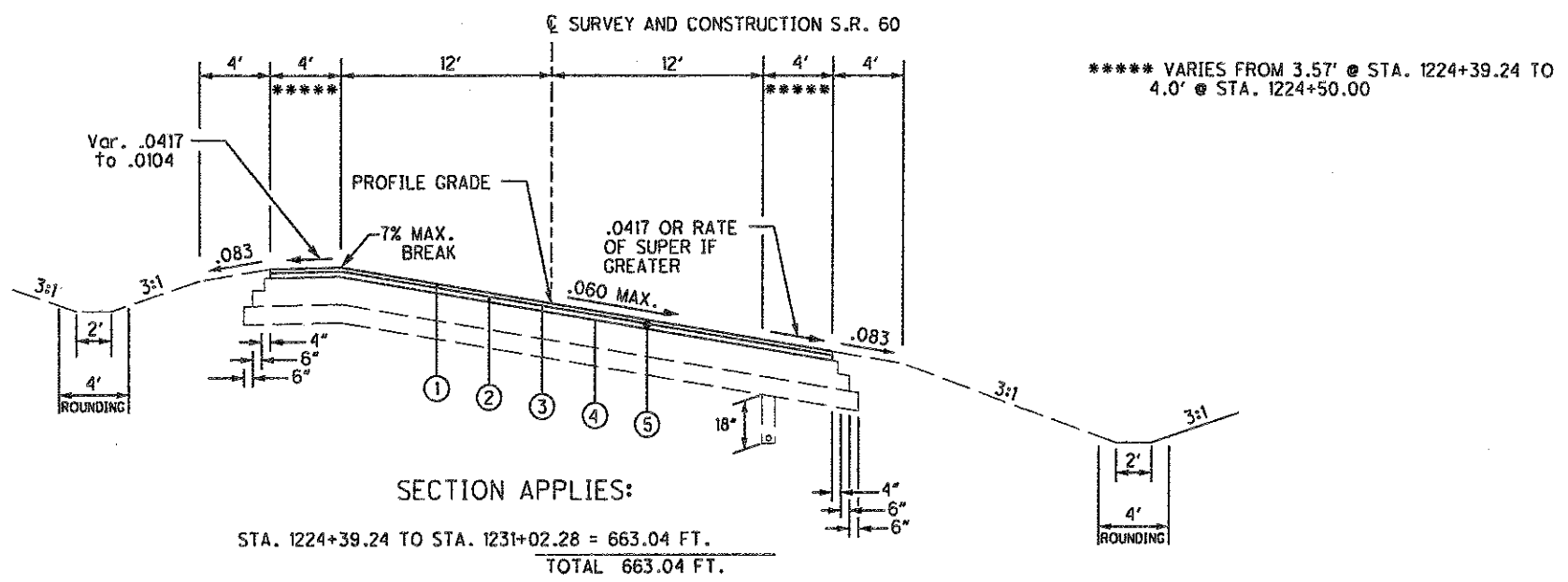
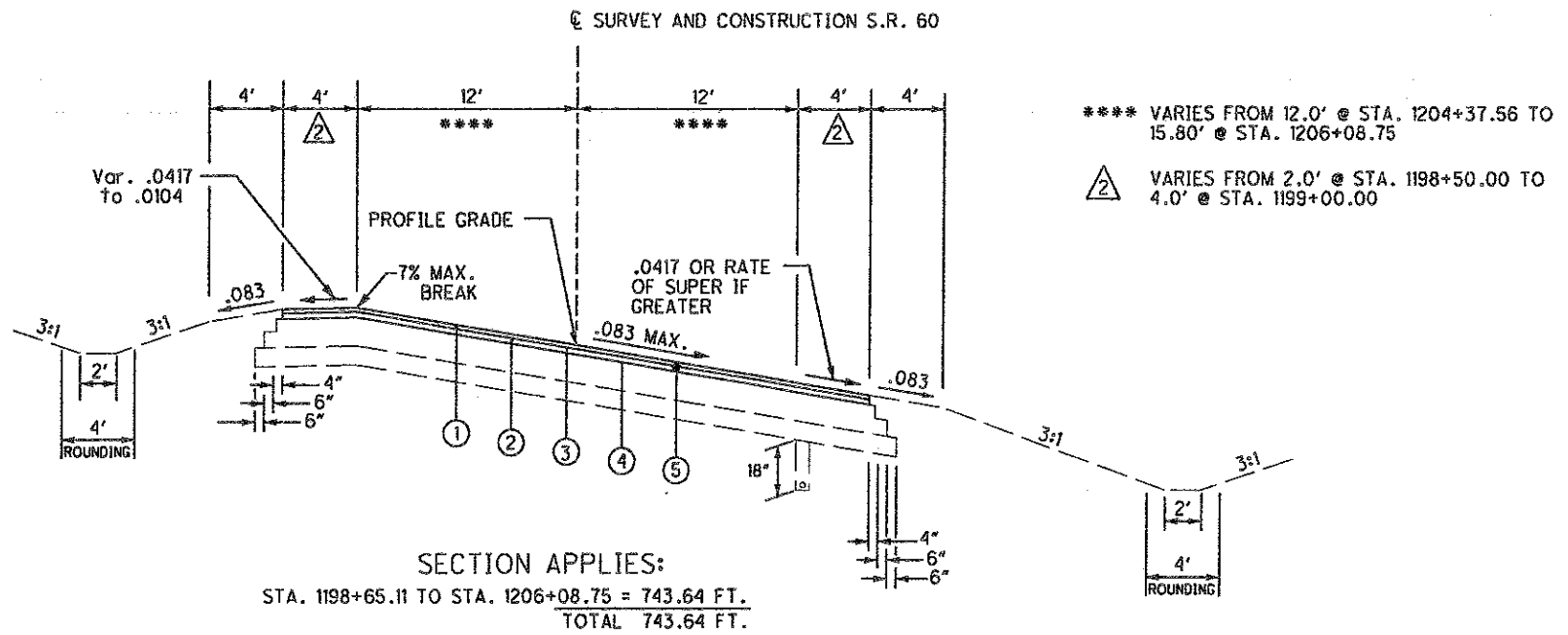
1 VARIES FROM 2.70' @ STA. 1470+62.29 TO 4.0' @ STA. 1471+00.00  
 2 VARIES FROM 11.41' @ STA. 1470+62.29 TO 12.0' @ STA. 1471+00.00  
 3 VARIES FROM 0.00' @ STA. 1470+62.29 TO 12.0' @ STA. 1477+22.29  
 VARIES FROM 12.0' @ STA. 1482+06.85 TO 4.67' @ STA. 1486+10.00  
 4 VARIES FROM 2.95' @ STA. 1470+62.29 TO 4.0' @ STA. 1471+00.00

MARK	ITEM	DESCRIPTION
①	448	1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

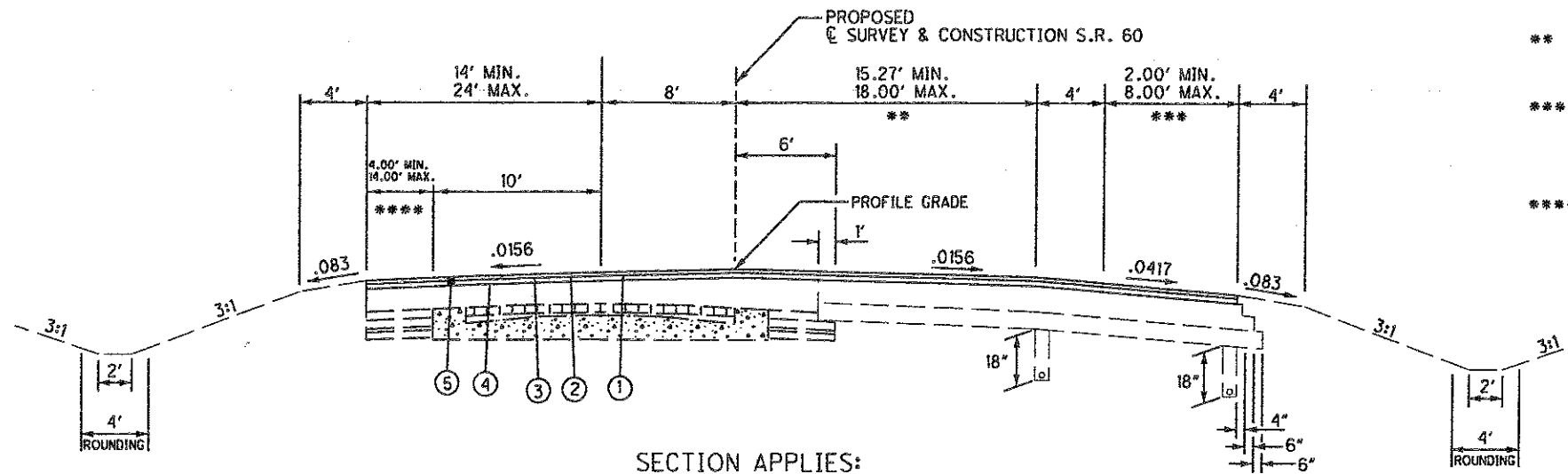
M0602343.DGN 08/12/98

PROPOSED TYPICAL SECTIONS

MUS-60-17.93

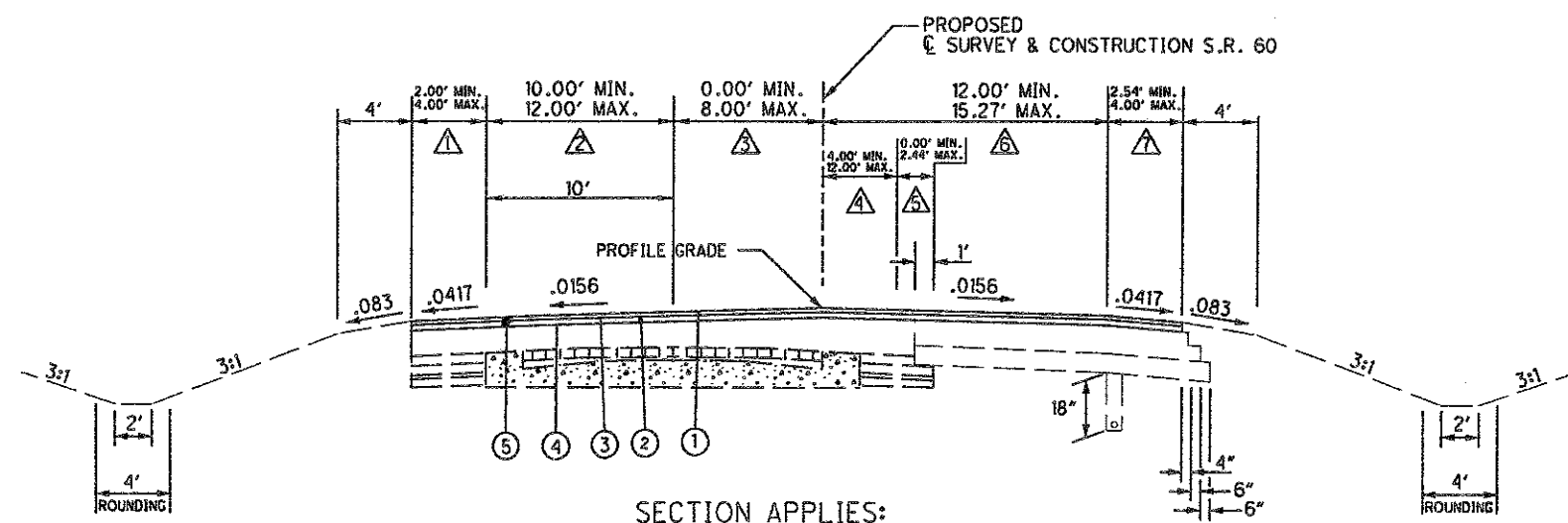


MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
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③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE



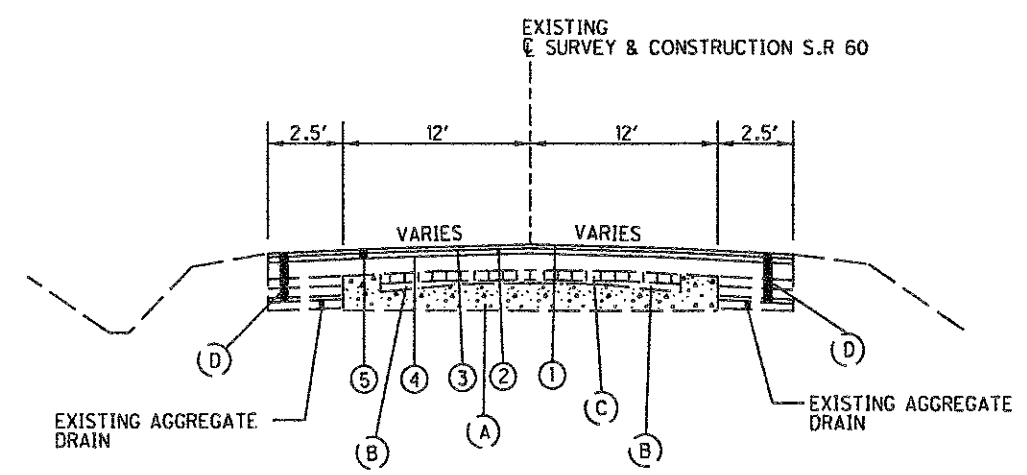
SECTION APPLIES:  
 STA. 1250+74.54 TO STA. 1256+14.42 = 539.88 FT.  
 STA. 1283+02.77 (AH) TO STA. 1304+97.39 = 2,194.62 FT.  
 TOTAL 2,734.50 FT.

\*\* VARIES FROM 18.00' @ STA. 1303+47.39 TO 15.27' @ STA. 1304+97.39  
 \*\*\* 8.00' FROM STA. 1283+02.77 (AH) TO STA. 1285+00.00  
 TAPERS FROM 8.00' AT STA. 1285+00.00 TO 2.00' AT STA. 1285+50.00  
 \*\*\*\* 14.00' FROM STA. 1283+02.77 (AH) TO STA. 1284+72.25  
 4.00' FROM STA. 1285+44.25 TO STA. 1304+97.39



SECTION APPLIES:  
 STA. 1304+97.39 TO STA. 1311+17.46 = 620.07 FT.  
 TOTAL 620.07 FT.

△ TAPERS FROM 4.00' @ STA. 1304+97.39 TO 2.11' @ STA. 1309+37.46  
 VARIES FROM 2.11' @ STA. 1309+37.46 TO 2.00' @ STA. 1311+17.46  
 △ TAPERS FROM 10.00' @ STA. 1304+97.39 TO 12.00' @ STA. 1309+37.46  
 △ TAPERS FROM 8.00' @ STA. 1304+97.39 TO 0.00' @ STA. 1309+37.46  
 △ TAPERS FROM 4.00' @ STA. 1304+97.39 TO 12.00' @ STA. 1309+37.46  
 △ VARIES FROM 2.00' @ STA. 1304+97.39 TO 2.44' @ STA. 1309+83.10  
 TAPERS FROM 2.44' @ STA. 1309+83.10 TO 0.00' @ STA. 1311+17.46  
 △ TAPERS FROM 15.27' @ STA. 1309+37.46 TO 12.00' @ STA. 1311+17.46  
 △ TAPERS FROM 4.00' @ STA. 1310+67.46 TO 2.54' @ STA. 1311+17.46



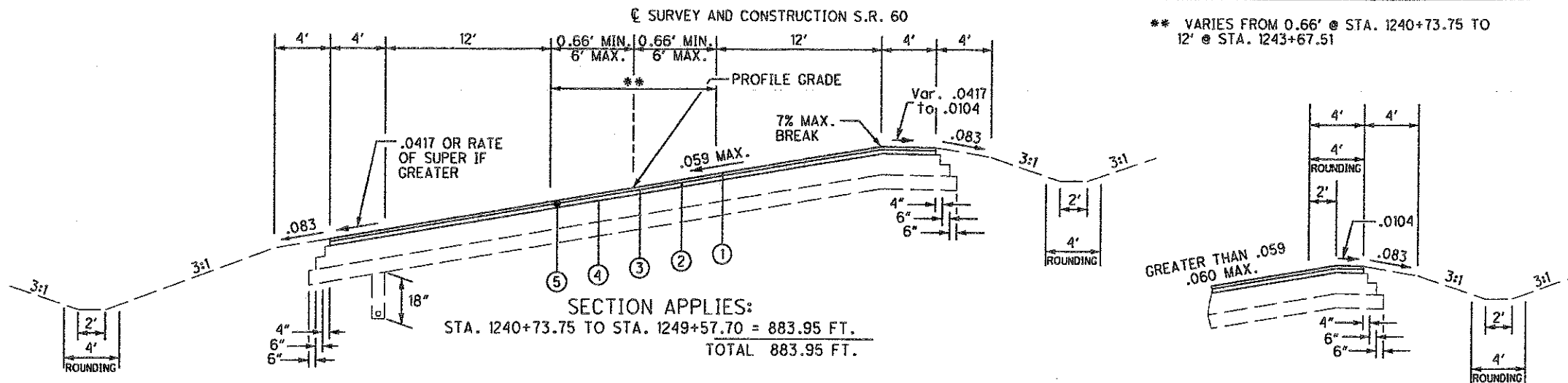
SECTION APPLIES:  
 STA. 1311+17.46 TO STA. 1470+62.29 = 15,944.83 FT.  
 TOTAL = 15,944.83 FT.

LEGEND

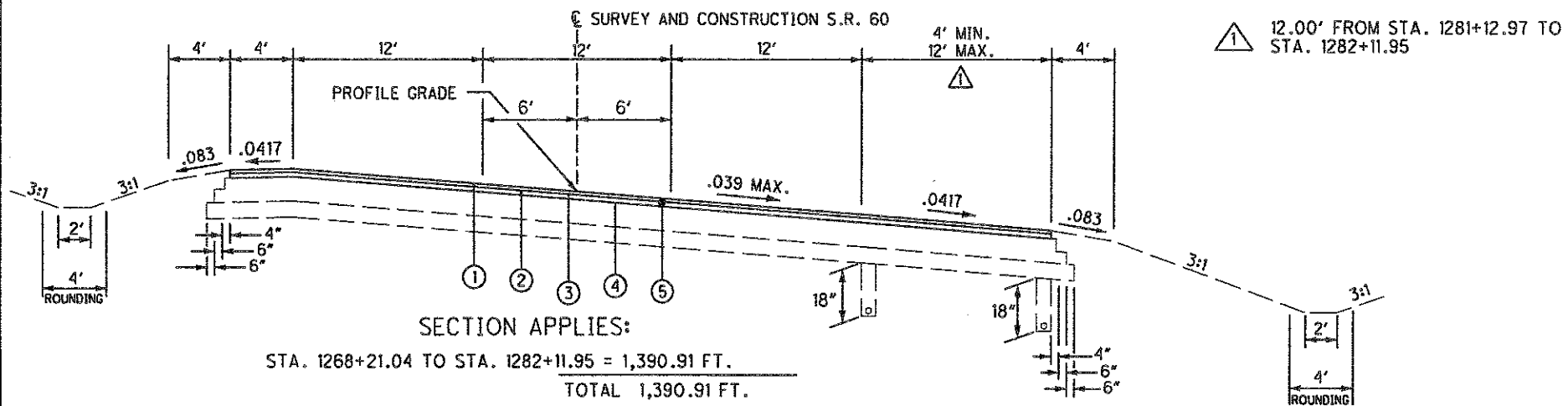
- (A) EXISTING CONCRETE PAVEMENT
- (B) EXISTING SAND LEVELING COURSE
- (C) EXISTING BRICK
- (D) EXISTING ASPHALT CONCRETE

MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
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④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

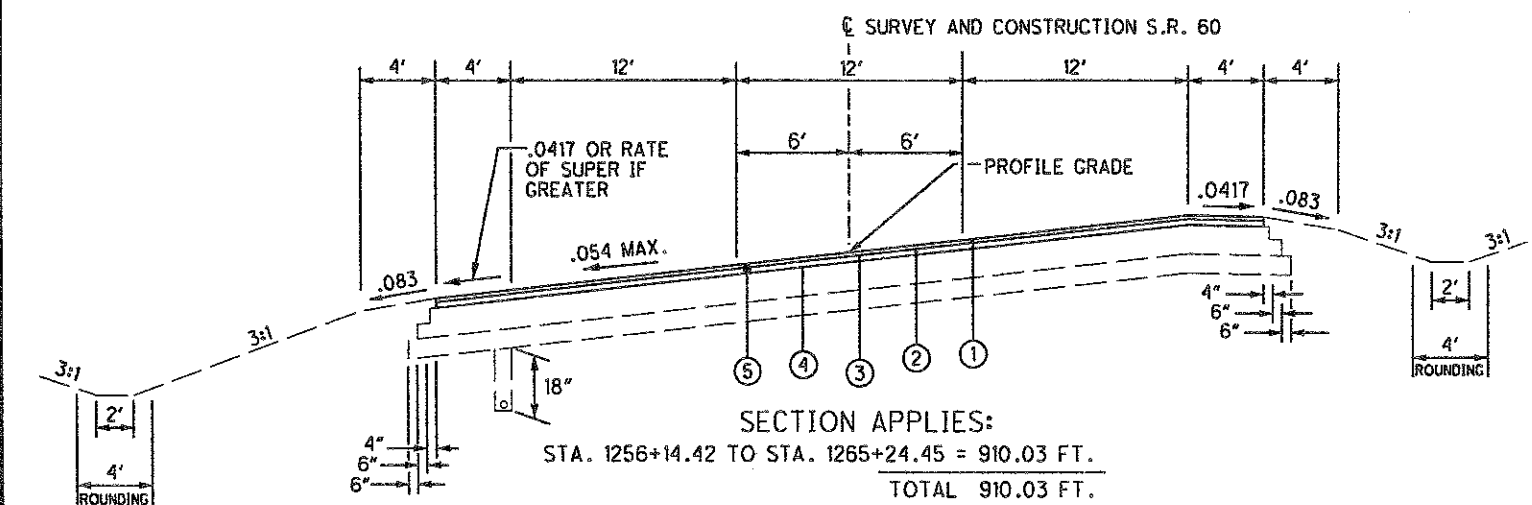
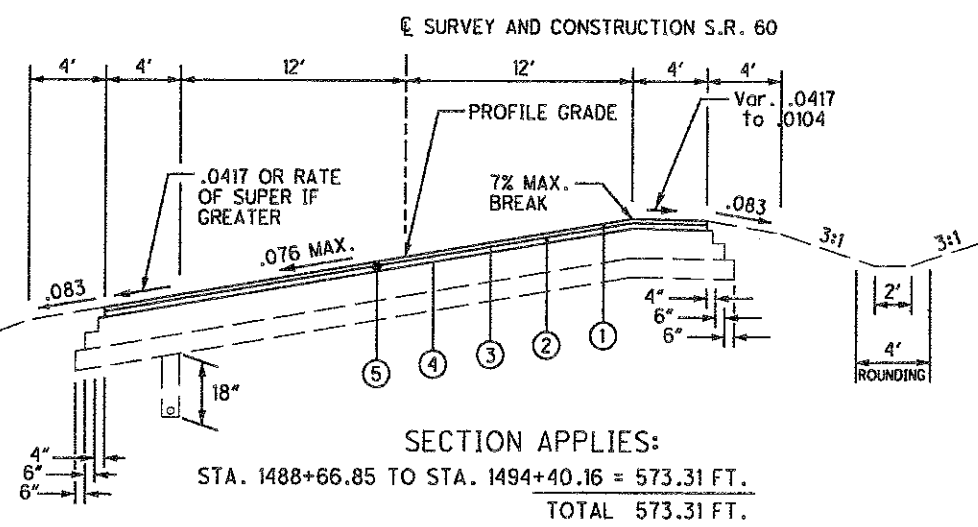




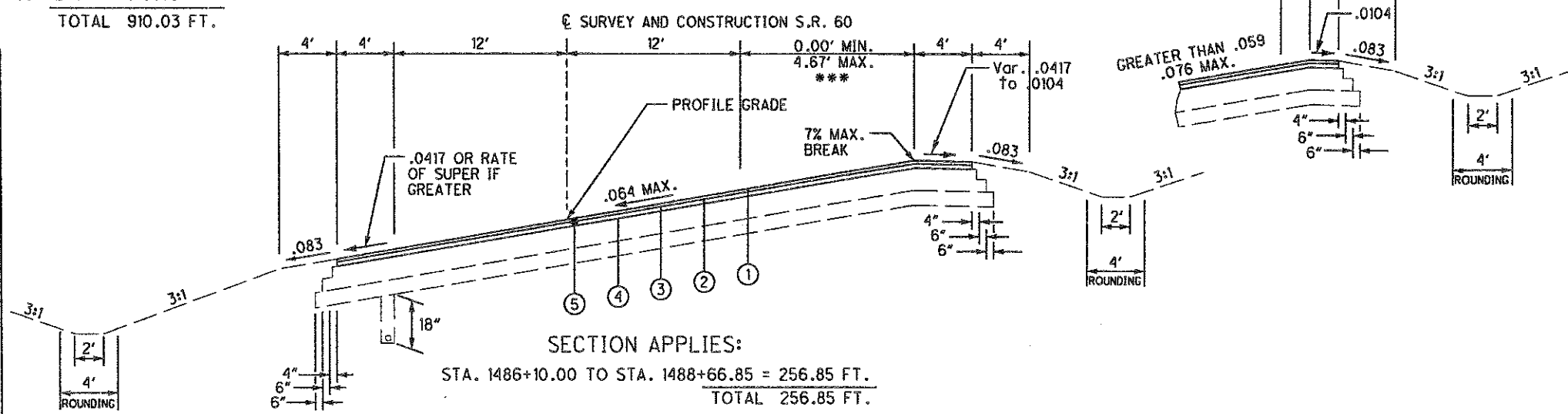
\*\* VARIES FROM 0.66' @ STA. 1240+73.75 TO 12' @ STA. 1243+67.51



12.00' FROM STA. 1281+12.97 TO STA. 1282+11.95

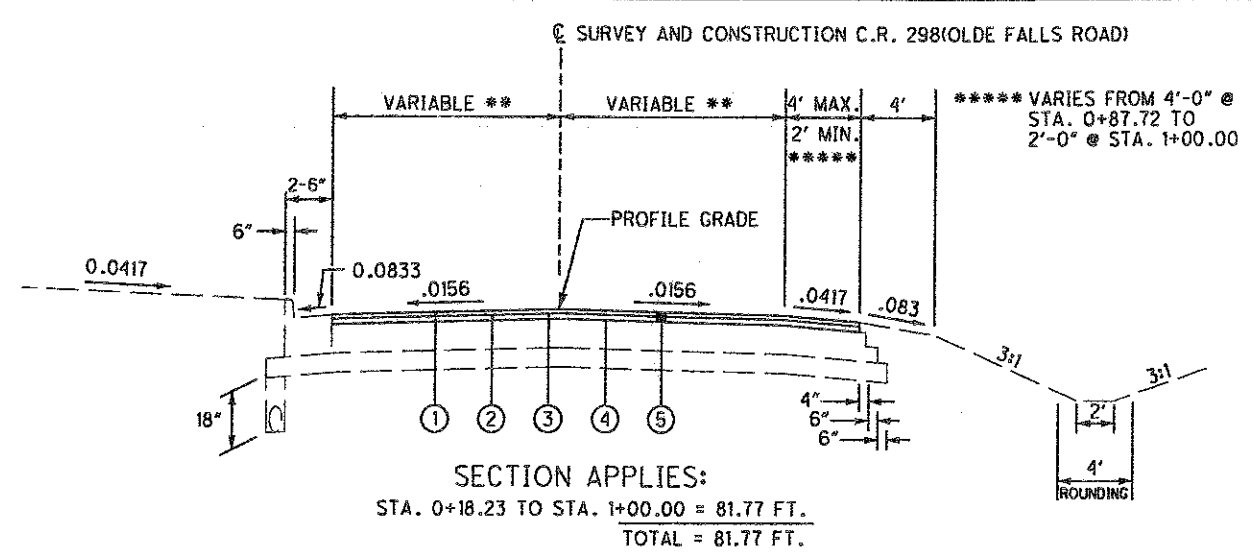
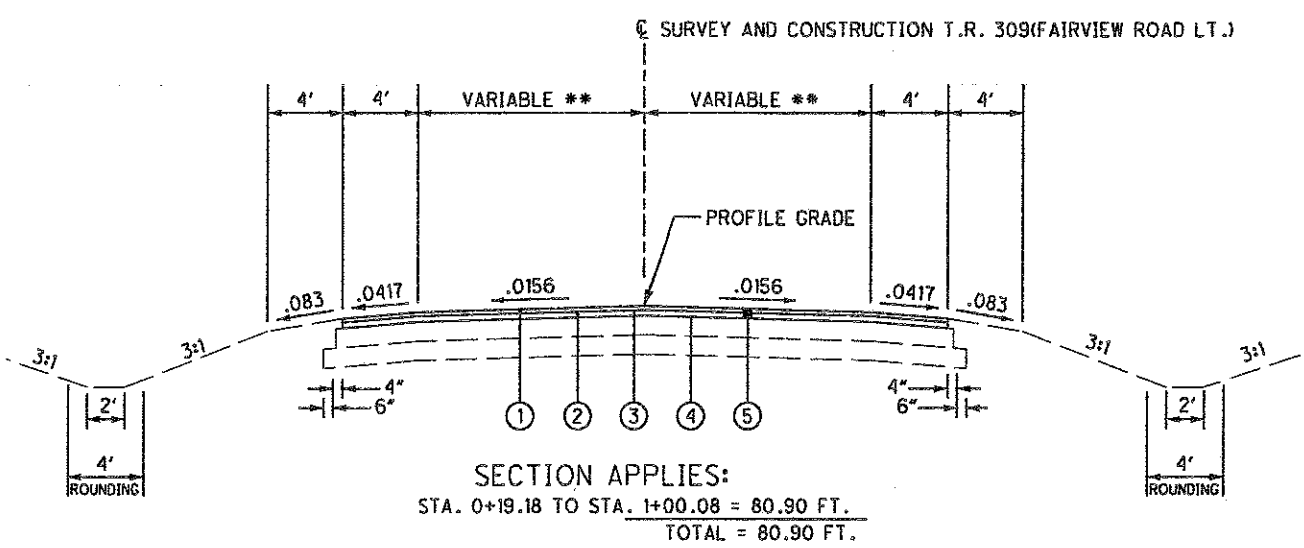


\*\*\* VARIES FROM 4.67' @ STA. 1486+10.00 TO 0.00' @ STA. 1488+66.85

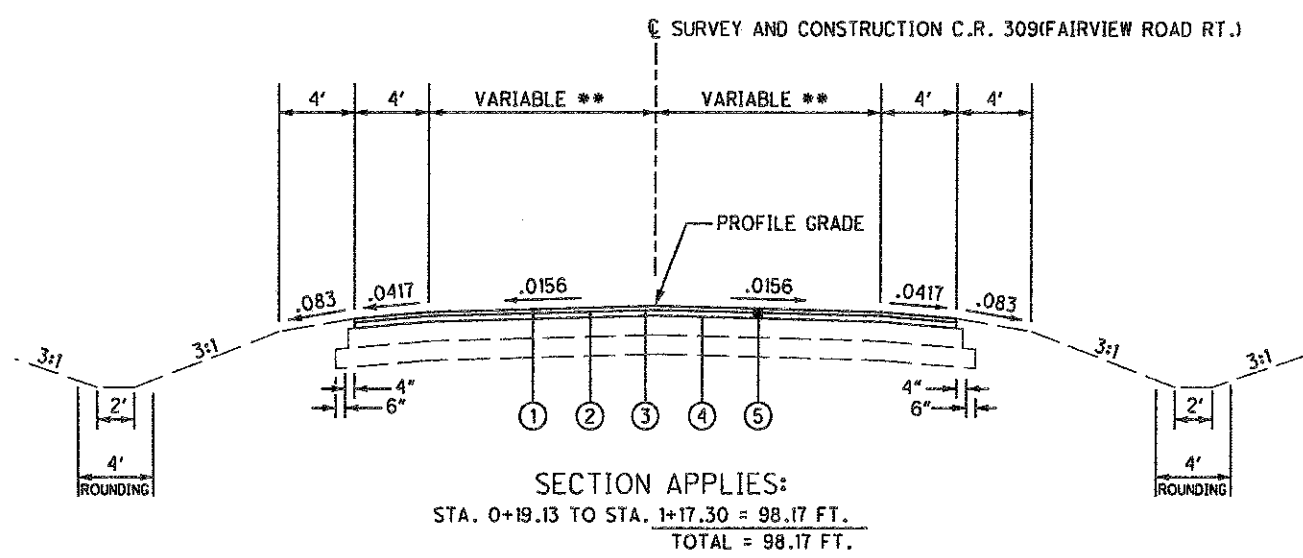


MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 1/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

CALCULATED  
J.C.  
10/17/97  
CHECKED  
J.S.  
10/17/97



\*\* - SEE PAVEMENT CALCULATION SHEETS

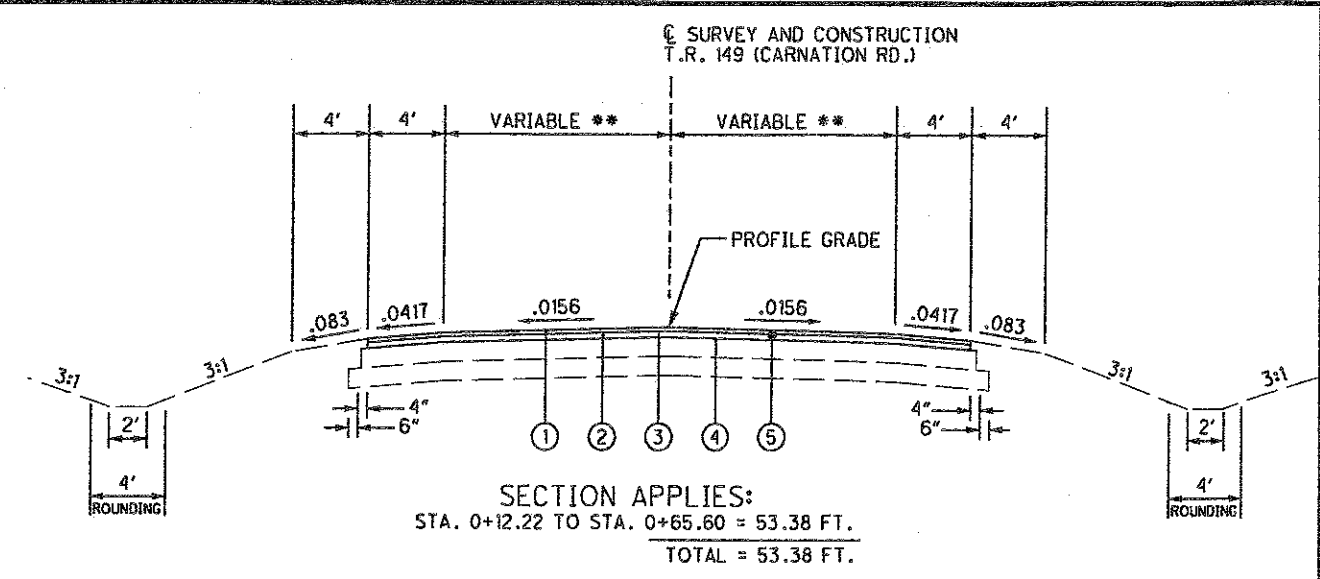
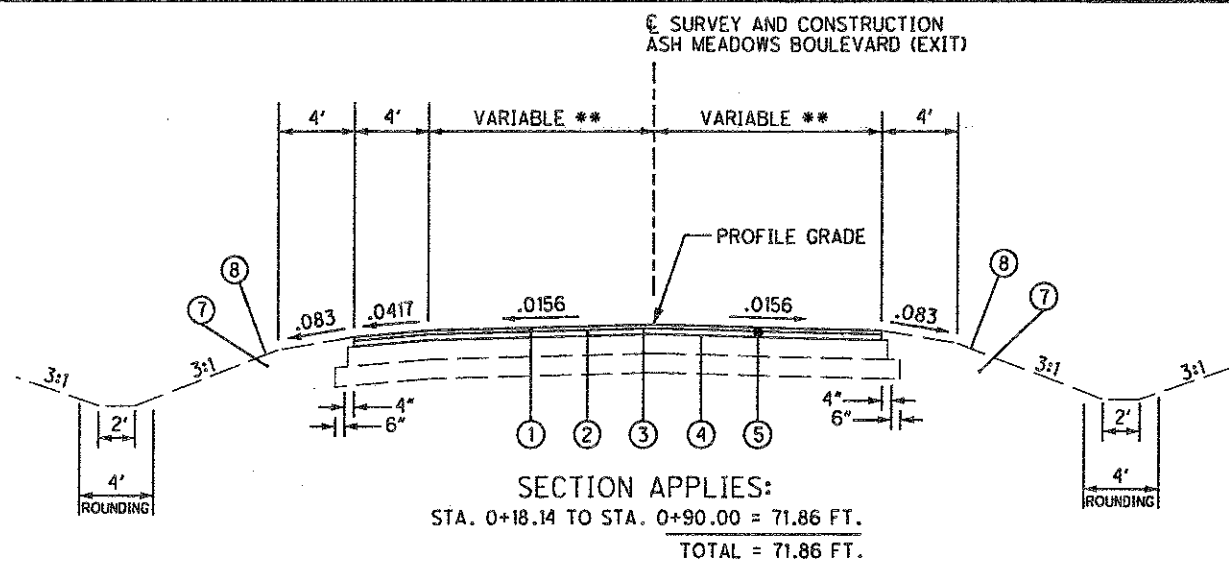


MARK	ITEM	DESCRIPTION
①	448	1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

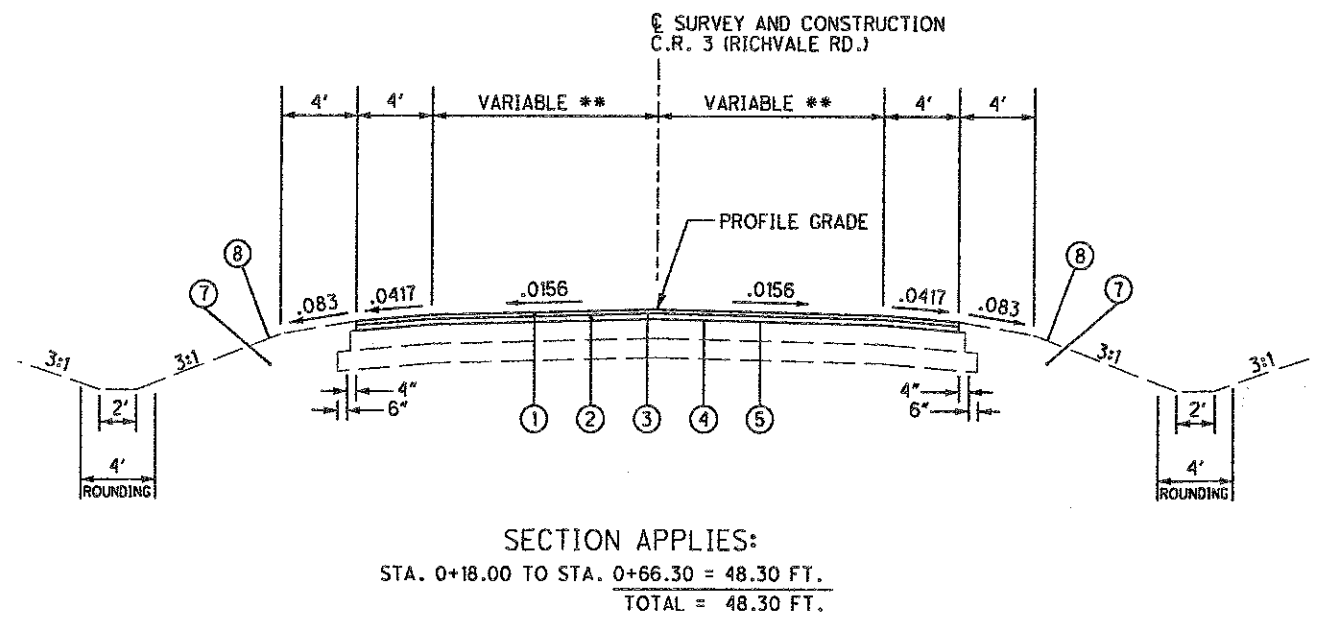
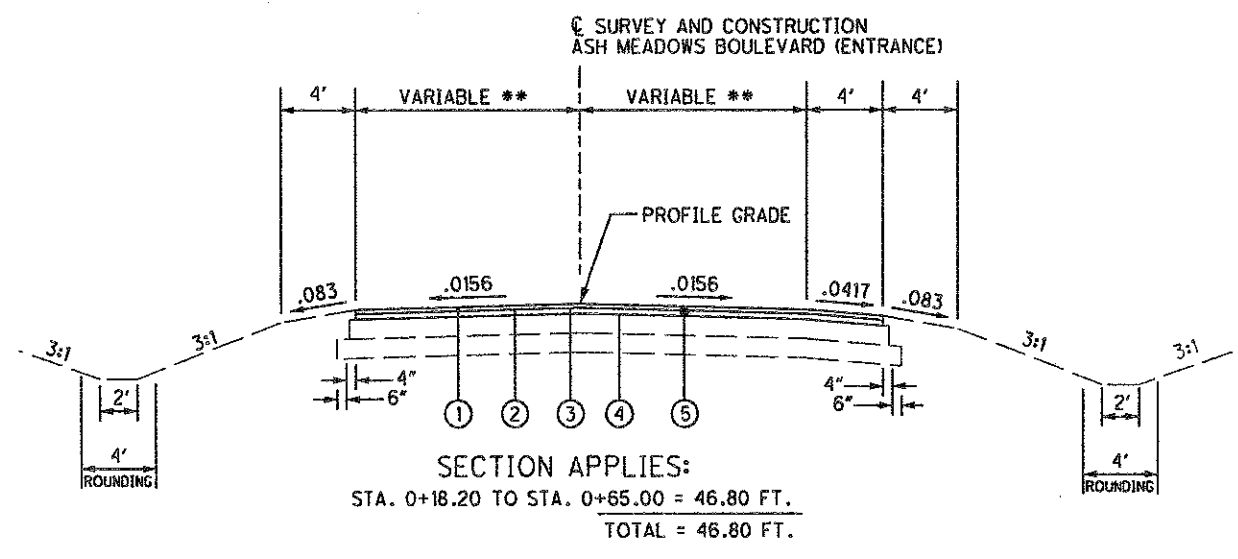
PROPOSED TYPICAL SECTIONS  
C.R. 298, C.R. 309, AND T.R. 309

MUS-60-17.93

MUS60203.DEN 10/10/97



\*\* - SEE PAVEMENT CALCULATION SHEETS



MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

PROPOSED TYPICAL SECTIONS  
APPROACHES

MUS-60-17.93

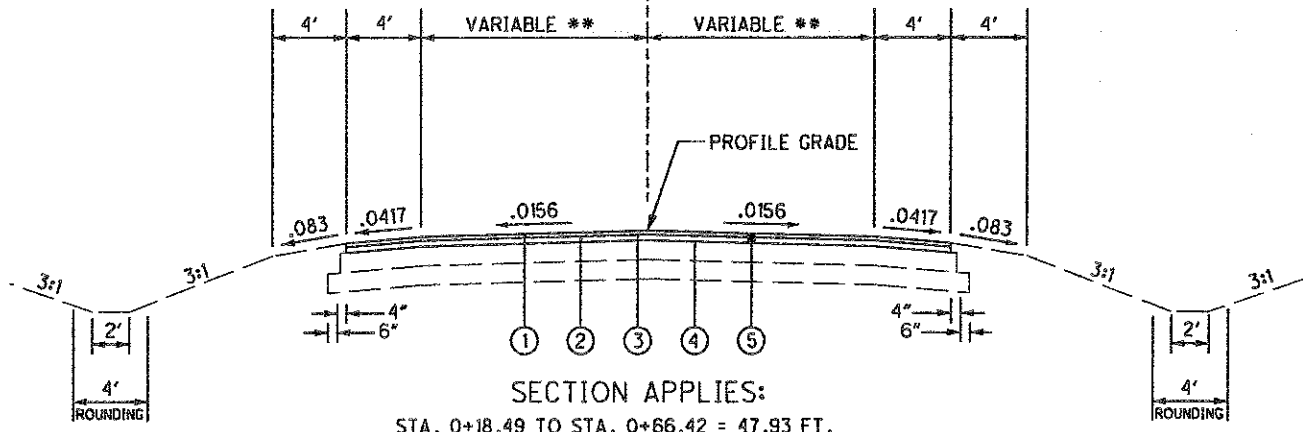
CALCULATED  
J.C.  
01/27/98  
CHECKED  
B.F.B.  
07/01/98

PROPOSED TYPICAL SECTIONS  
APPROACHES

MUS-60-17.93

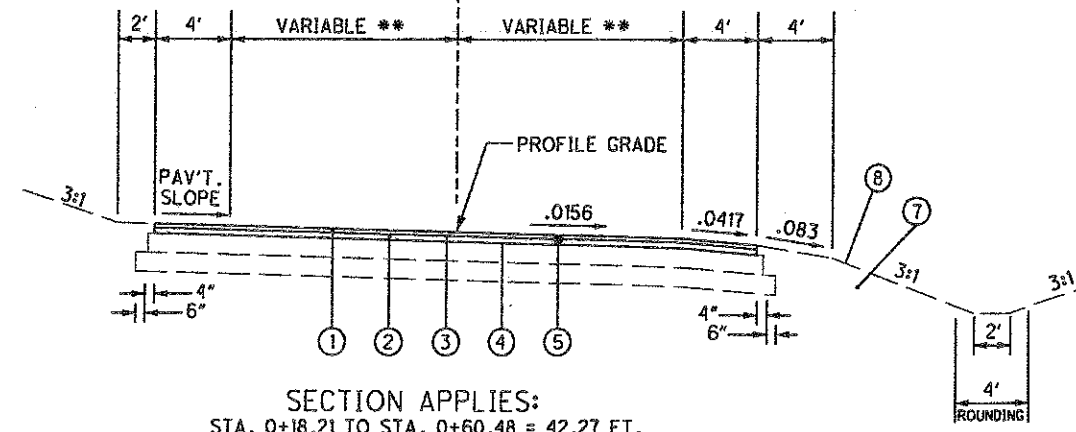
14  
121

☐ SURVEY AND CONSTRUCTION  
LISAKIM LANE



SECTION APPLIES:  
STA. 0+18.49 TO STA. 0+66.42 = 47.93 FT.  
TOTAL = 47.93 FT.

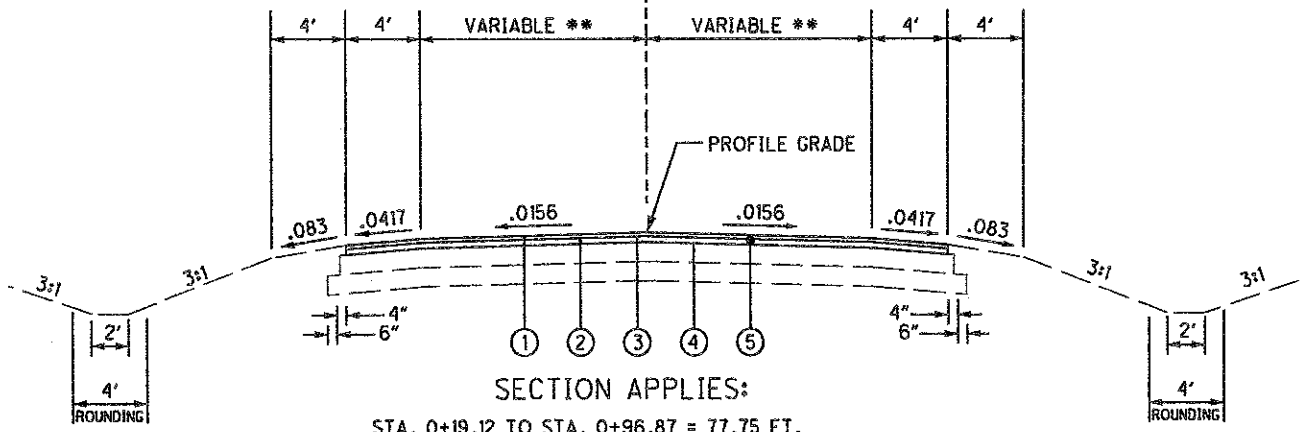
☐ SURVEY AND CONSTRUCTION  
CHARDONN RD.



SECTION APPLIES:  
STA. 0+18.21 TO STA. 0+60.48 = 42.27 FT.  
TOTAL = 42.27 FT.

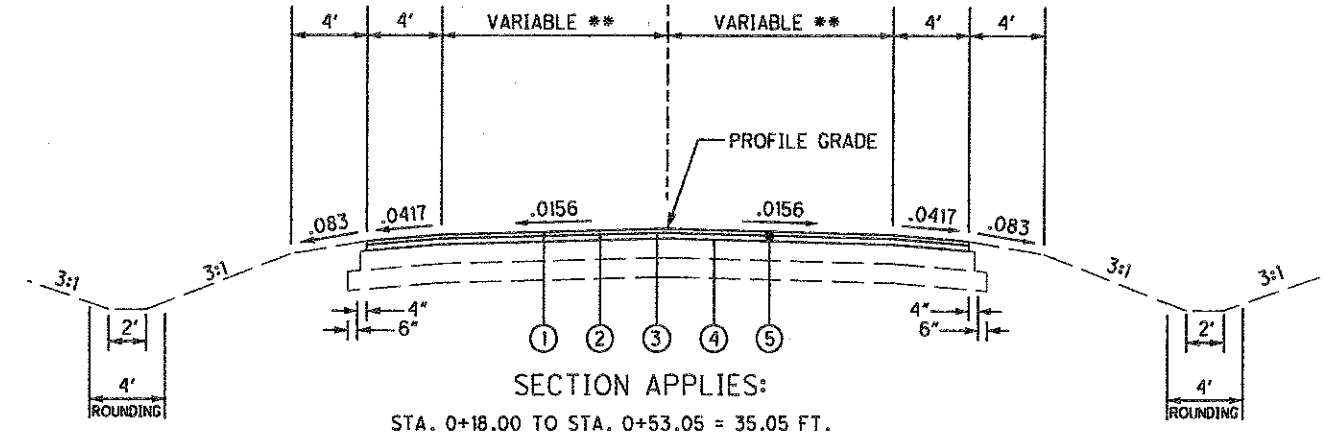
\*\* - SEE PAVEMENT CALCULATION SHEETS

☐ SURVEY AND CONSTRUCTION  
C.R. 500 (CREAMERY RD.)



SECTION APPLIES:  
STA. 0+19.12 TO STA. 0+96.87 = 77.75 FT.  
TOTAL = 77.75 FT.

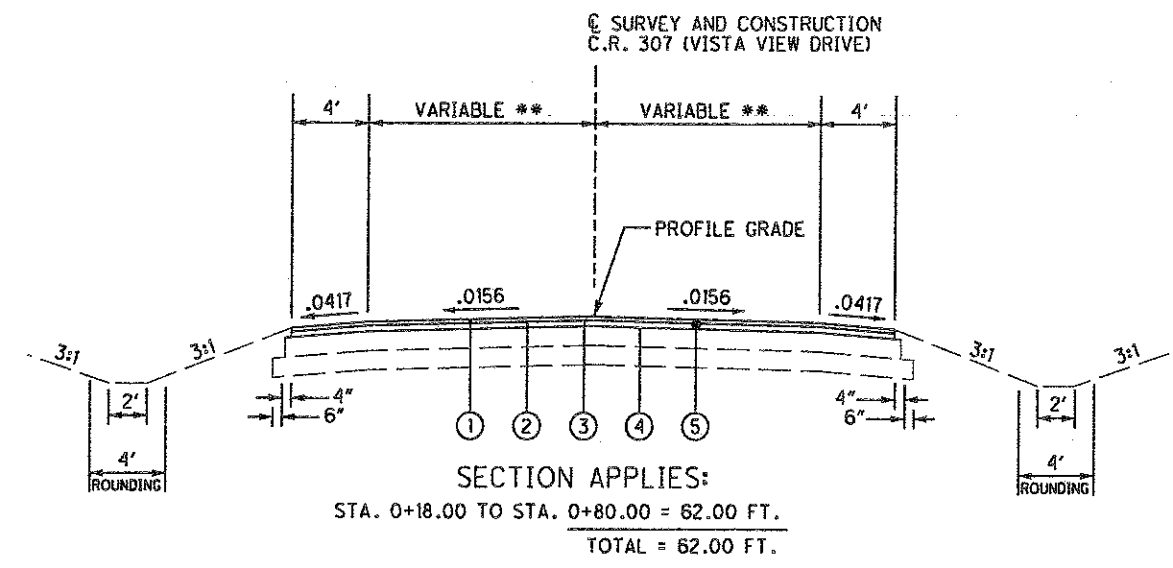
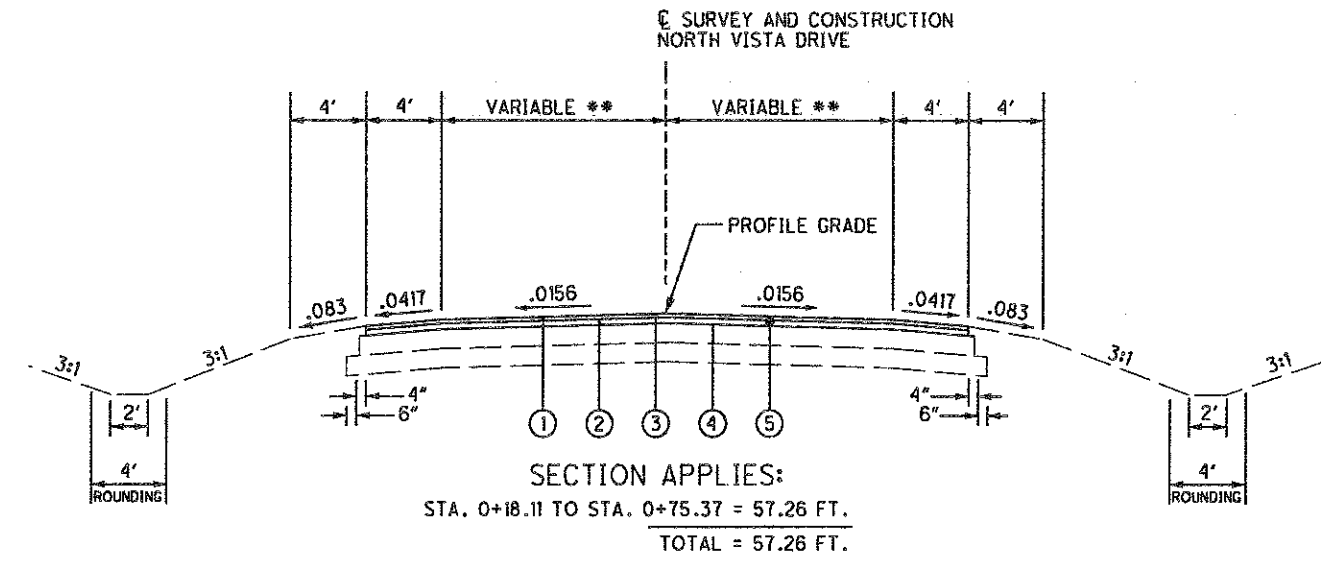
☐ SURVEY AND CONSTRUCTION  
VIRGINIA RD.



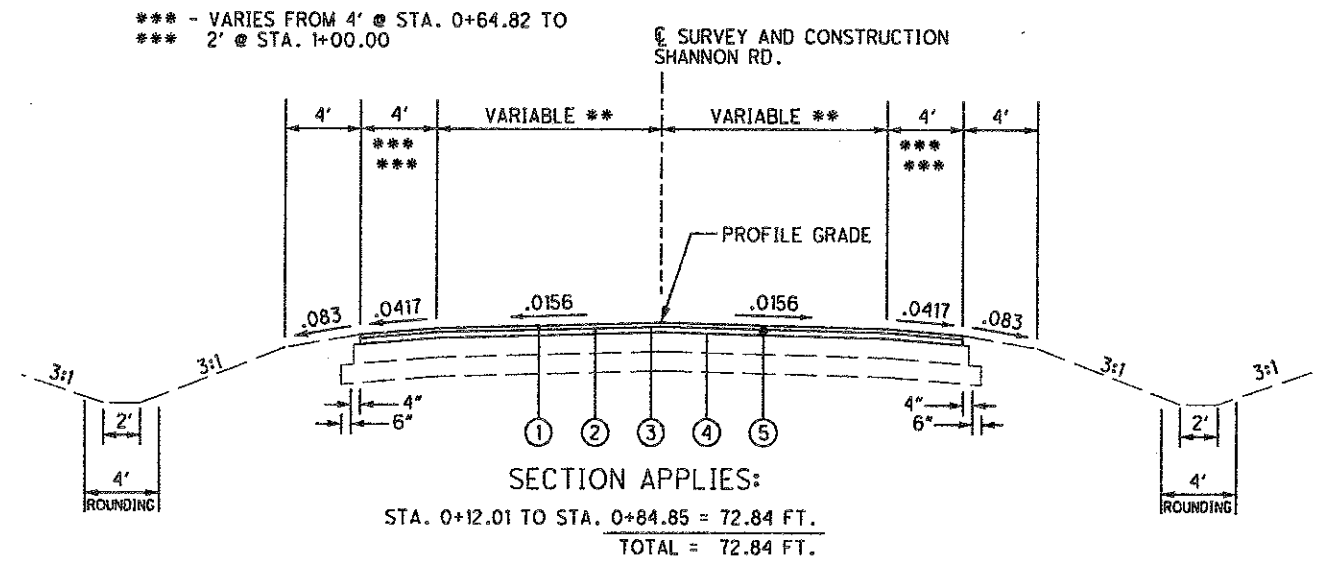
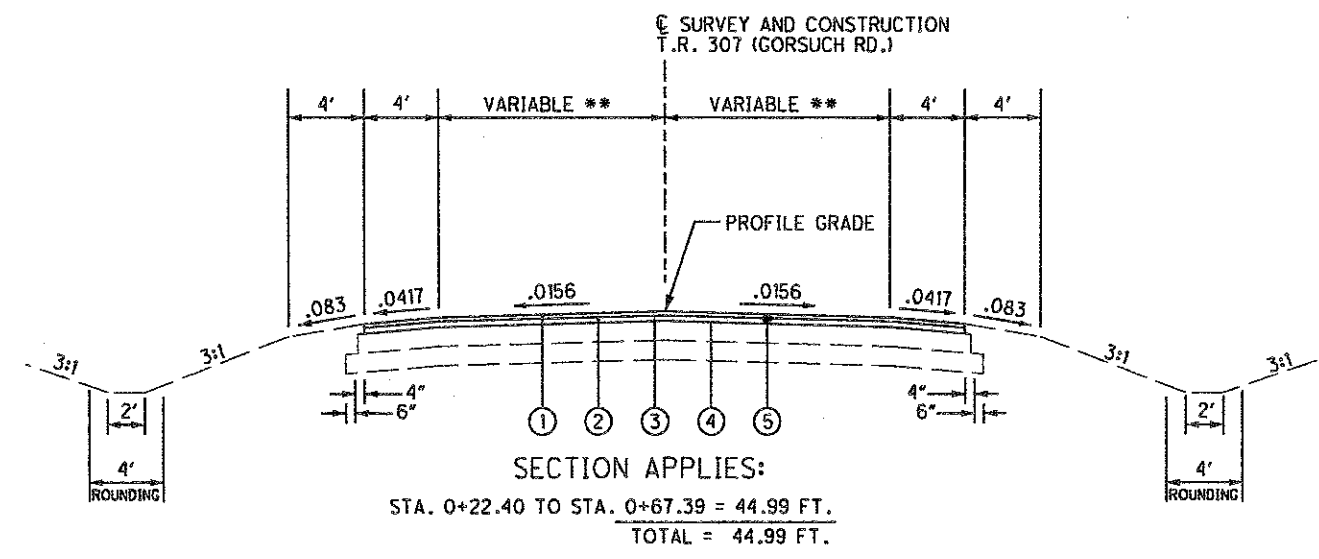
SECTION APPLIES:  
STA. 0+18.00 TO STA. 0+53.05 = 35.05 FT.  
TOTAL = 35.05 FT.

MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

MUS-60-17.93



\*\* - SEE PAVEMENT CALCULATION SHEETS



MARK	ITEM	DESCRIPTION
①	448	1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 70-22M
②	448	1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, PG 64-22
③	407	TACK COAT FOR INTERMEDIATE COURSE
④	407	TACK COAT
⑤	254	PAVEMENT PLANING, ASPHALT CONCRETE

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T Ohio  
160 North Sixth Street  
Zanesville, Ohio 43701  
Attn: Sandy Randolph  
740-454-3455

American Electric Power Co.  
850 Tech Center Drive  
Gahanna, Ohio 43230  
Attn: Paul Paxton

City of Zanesville Water/Waste Water  
401 Market Street  
Zanesville, Ohio 43701  
Attn: Paul Mills  
740-455-0631

Columbia Gas of Ohio  
2429 Linden Avenue  
Zanesville, Ohio 43701  
Attn: Craig Flynn  
740-450-1205

Muskingum County Water  
P.O. Box 2005  
Zanesville, Ohio 43701  
Attn: Don Madden  
740-607-8743

Time Warner Cable  
3760 Interchange Drive  
Columbus, Ohio 43204  
Attn: Terry Allen  
614-255-6349

**UNDERGROUND UTILITIES**

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE. ODOT ASSUMES NO RESPONSIBILITY FOR THE LOCATION OR THE DEPTHS OF THE UNDERGROUND FACILITIES SHOWN ON THESE PLANS.

AT LEAST 48 HOURS BEFORE DIGGING, THE CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE AT THE NUMBER LISTED ON THE TITLE SHEET. NON-MEMBER UTILITY COMPANIES MUST BE CALLED DIRECTLY. THE NAMES AND ADDRESSES OF THE UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS ARE LISTED ABOVE. THE CONTRACTOR SHALL ALSO CALL FRED BUCK, AT PHONE 740-819-4586, FOR LOCATION OF CITY OF ZANESVILLE EXISTING SIGNAL CONDUIT THAT IS UNDERGROUND.

**PROFILE AND ALIGNMENT**

THE PROPOSED PAVEMENT RESURFACING SHALL CLOSELY FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

**FEATHERING**

FEATHERING OF THE ASPHALT CONCRETE SHALL BE DONE IN ACCORDANCE WITH SCD DRAWING BP-3.1.

**AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS**

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 120 FT. . . IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

Express Processing Center  
The Federal Aviation Administration  
Southwest Regional Office  
Air Traffic Airspace Branch ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-4298

Ohio Department of Transportation  
Office of Aviation  
2829 West Dublin-Granville Road  
Columbus, Ohio 43235  
614-387-2346

**NOTIFICATION OF ROAD CLOSURE OR RESTRICTION**

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR WILL NOTIFY (IN WRITING) THE DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:

DISTRICT 5 HIGHWAY MANAGEMENT  
ADMINISTRATOR  
P.O. BOX 306  
JACKSONTOWN, OH. 43030  
PHONE: (740) 323-4400

**ITEM 604 MANHOLE ADJUSTED TO GRADE  
ITEM 638 VALVE BOX ADJUSTED TO GRADE**

EXISTING MANHOLES AND VALVE BOXES THAT ARE TO BE ADJUSTED TO GRADE ARE LISTED BELOW, THESE NUMBERS ARE TAKEN FROM FIELD COUNTS, HOWEVER THE ACTUAL NUMBER THAT ARE TO BE ADJUSTED TO GRADE WILL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION; PAYMENT SHALL BE FOR THE ACTUAL NUMBERS OF EACH ITEM THAT ARE ADJUSTED TO GRADE AS DETERMINED BY THE ENGINEER. WHEN ADJUSTING MANHOLES EXTREME CARE SHALL BE TAKEN WHEN REMOVING CONCRETE, SO AS NOT TO DAMAGE MANHOLE COVERS AND FRAMES. MANHOLES SHALL BE ADJUSTED USING CONCRETE SHOWN IN DRAWING BP-3.1. WHEN ADJUSTING MANHOLES AND VALVE BOXES ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND ANY OTHER INCIDENTALS AND REMOVAL OF THE EXISTING CONCRETE SHALL BE PAID FOR UNDER EACH ITEM AS SHOWN ON THE GENERAL SUMMARY.

ITEM 604 MANHOLE ADJUSTED TO GRADE 88 EACH  
ITEM 604 GAS VALVE BOX ADJUSTED TO GRADE 33 EACH  
ITEM 638 VALVE BOX ADJUSTED TO GRADE 56 EACH

**RESIDENCE AND COMMERCIAL DRIVES**

AN ESTIMATED QUANTITY OF ITEM 448 ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL TYPICALLY EXTEND 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT). THERE ARE 5 TYPES OF DRIVES: CONCRETE, ASPHALT, GRAVEL, GRAVEL WITH ASPHALT APRON, AND FIELD/OIL WELL DRIVES. FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK 4' INTO THE DRIVEWAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (PREFERRED 4') AS DIRECTED BY THE ENGINEER SO AS TO PROVIDE A SMOOTH TRANSITION. GRAVEL DRIVES WITH ASPHALT APRONS SHALL ALSO HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (4' MAX) BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER AS DIRECTED BY THE ENGINEER. IF THE ASPHALT APRON CANNOT BE PAVED OVER (FOR EXAMPLE, BROKEN INTO SMALL PIECES) AS DETERMINED BY THE ENGINEER, IT SHALL BE REMOVED BEFORE BEING PAVED BACK 4' INTO THE DRIVEWAY. ALL GRADING, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M AND ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22.

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 75 CU.YD.  
ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M 60 CU.YD.

**MAIL BOX TURN OUTS**

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN OUTS. TURN OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1. ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M AND ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22.

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 140 CU.YD.  
ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M 110 CU.YD.

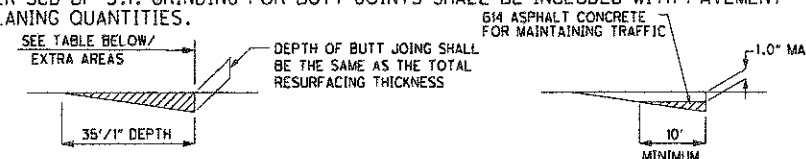
**ITEM 253 - PAVEMENT REPAIR**

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER. THE DEPTH OF REPAIR SHALL BE SIX INCHES TO FOUR INCHES IN DEPTH (6"±4"). ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR. THIS OPERATION WILL BE PERFORMED BEFORE THE PAVEMENT PLANING OPERATION OCCURS.

ITEM 253 PAVEMENT REPAIR 600 CU.YD.  
(LOCATION: S.L.M. 17.93 TO S.L.M. 21.00)

**BUTT JOINT**

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT EXTRA AREAS WITH WEARING COURSE REMOVED. AFTER THE JOINT IS CONSTRUCTED, THE DROP OFF CREATED SHALL BE ELIMINATED BY IMMEDIATELY PLACING THE PROPOSED INTERMEDIATE COURSE TO WITHIN 1.0" OF EXISTING PAVEMENT ELEVATION AFTER PLANING OPERATION OR BY PLACING AN ASPHALT CONCRETE WEDGE. BUTT JOINTS SHALL BE AS PER SCD BP-3.1. GRINDING FOR BUTT JOINTS SHALL BE INCLUDED WITH PAVEMENT PLANING QUANTITIES.



COUNTY	ROUTE	DESCRIPTION	ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU.YD.
MUS	S.R. 60	BEGIN WORK	2
		APPROACH ROADS	30
		BRIDGES	6
MUS	S.R. 80	END WORK	2
<b>TOTAL</b>			<b>40</b>

CALCULATED J.C. CHECKED H.C. GENERAL NOTES MUS-60-17.93 16/121

SR16\_CGN\_001.DGN 12/10/09



**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWINGS MT-95.31 & MT-95.32.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR THE PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIME TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL CONFLICTING SIGNS AND PAVEMENT MARKINGS, WHETHER INSIDE OR OUTSIDE THE WORK LIMITS, SHALL BE COVERED OR REMOVED. WHERE APPLICABLE, AND WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE TEMPORARY SIGNS OR TEMPORARY PAVEMENT MARKING AT THESE LOCATIONS.

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, AS PER 614.03.

THE CONTRACTOR SHALL BE REQUIRED TO CONTACT THE PROPERTY OWNERS AT LEAST 24 HOURS PRIOR TO ALL DRIVE CLOSURES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, MAINTAINING TRAFFIC LUMP

**ITEM 614 MAINTAINING TRAFFIC**

ALL PLANNED SURFACES SHALL BE OVERLAYED WITH AT LEAST ASPHALT CONCRETE INTERMEDIATE COURSE BEFORE OPENING TO TRAFFIC. TRAFFIC SHALL NOT BE MAINTAINED ON A PLANNED SURFACE. EITHER TEMPORARY OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE OPENING ANY LANES TO TRAFFIC.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**ITEM 632 DETECTOR LOOP, AS PER PLAN**

ALL DETECTOR LOOPS SHALL BE CUT INTO THE PLANNED SURFACE OR THE PROPOSED INTERMEDIATE COURSE AT A DEPTH OF 4" FROM THE PROPOSED SURFACE ELEVATION. IF THE CONTRACTOR SO CHOOSES, THEY MAY CUT THE DETECTOR LOOPS INTO THE EXISTING ASPHALT SURFACE COURSE BEFORE PLANING BUT SHALL MAKE SURE THE MATERIAL USED TO FILL THE SAW CUT IS LEFT FAR ENOUGH BELOW THE SURFACE COURSE THAT IT WILL NOT BE DISTURBED DURING THE PLANING OPERATION. THE CONTRACTOR SHALL TEST ALL LEAD-IN CABLES PRIOR TO MAKING FINAL SPLICE. PLACEMENT SHALL BE AS PER SPECIFICATION 632.10. FINAL LOCATIONS, SIZE AND ORIENTATION WILL BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632 DETECTOR LOOP, AS PER PLAN.

ITEM 632 DETECTOR LOOP, AS PER PLAN 6 EACH

**ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)**

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

MEMORIAL DAY  
FOURTH OF JULY  
LABOR DAY

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$500.00 DOLLARS FOR EACH HOUR THAT THE CONTRACTOR IS NONCOMPLIANT WITH THE REQUIREMENTS LISTED ABOVE.

**WORK ZONE MARKINGS**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF CMS 614.11.

ITEM 614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT 16.34 MILE  
ITEM 614 WORK LANE LINE, CLASS I, 642 PAINT 4.64 MILE  
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT 5,911 FT.  
ITEM 614 WORK ZONE, STOP LINE, CLASS I, 642 PAINT 2,638 FT.  
ITEM 614 WORK ZONE, CROSSWALK LINE, CLASS I, 642 PAINT 3,894 FT.

**ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE AND SURFACE COURSE**

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION.

ALTERNATE PRODUCTS TO BE USED MUST BE ON FILE WITH THE NEW PRODUCT ENGINEER AT THE TIME OF THE ADVERTISEMENT DATE OF THE PROJECT PLANS. PLEASE CONTACT BRAD YOUNG, ODOT NEW PRODUCT ENGINEER, 614-351-2882.

THIS WORK IS CONSIDERED AN EXPERIMENTAL CONSTRUCTION FEATURE FOR EVALUATION OF PRODUCTS THAT ARE ON FILE WITH THE NEW PRODUCT ENGINEER.

MEET ALL REQUIREMENTS OF ODOT 407 TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

A MANUFACTURER'S REPRESENTATIVE MUST BE AT THE PROJECT SITE DURING THE FIRST TWO DAYS OF APPLICATION OF TRACKLESS TACK.

MATERIAL: IF USING BLACKLIDGE TRACKLESS TACK THE MATERIAL WILL CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	AASHTO T59	15	100
STORAGE STABILITY, 24 HRS, %	AASHTO T59	-	1
STORAGE STABILITY, 5 DAYS, %	AASHTO T59	-	5
RESIDUE BY DISTILLATION, %	AASHTO T59	50	-
OIL DISTILLATE, %	AASHTO T59	-	1
SIEVE TEST, %	AASHTO T59	-	0.30
<b>TEST ON RESIDUE</b>			
PENETRATION, @ 25°C	AASHTO T49	-	20
SOFTENING POINT RANGE DEG C	AASHTO T53	65	-
SOLUBILITY, %	AASHTO T44	97.5	-
ORIGINAL BINDER DSR@82°C G/SIN @ 10 RAD/SEC	AASHTO T315	1.00	-

FOR TRACKLESS TACK OTHER THAN BLACKLIDGE TRACKLESS TACK, THE MATERIAL WILL CONFORM TO THE PHYSICAL PROPERTIES SUPPLIED BY THE NEW PRODUCT ENGINEER FOR THE TESTS LISTED BELOW.

PARAMETER	TEST METHOD
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	AASHTO T59
STORAGE STABILITY, 24 HRS, %	AASHTO T59
STORAGE STABILITY, 5 DAYS, %	AASHTO T59
RESIDUE BY DISTILLATION, %	AASHTO T59
OIL DISTILLATE, %	AASHTO T59
SIEVE TEST, %	AASHTO T59
<b>TEST ON RESIDUE</b>	
PENETRATION, @ 25°C	AASHTO T49
SOFTENING POINT RANGE DEG C	AASHTO T53
SOLUBILITY, %	AASHTO T44
ORIGINAL BINDER DSR@82°C G/SIN @ 10 RAD/SEC	AASHTO T315

NOTE: TRACKLESS TACK SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC.

ACCEPTANCE AND SAMPLING OF MATERIALS: FOR ALL TRACKLESS TACK SUPPLY CERTIFIED TEST DATA FROM AN INDEPENDENT LABORATORY TO THE ENGINEER AND TO THE DISTRICT LABORATORY SHOWING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS THE PROPERTIES SUPPLIED BY THE NEW PRODUCT ENGINEER.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF 2 QUARTS OF TRACKLESS TACK SAMPLED FROM THE DISTRIBUTOR ON THE FIRST DAY OF APPLICATION. CLEARLY MARK ON THE SAMPLES THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

ADDITIONAL SAMPLING OF BLACKLIDGE TRACKLESS TACK WILL FOLLOW THE REQUIREMENTS OF ITEM 407. FOR ALTERNATE TRACKLESS TACK MATERIAL, 2 QUARTS OF MATERIAL WILL BE SAMPLED EACH DAY THE MATERIAL IS USED.

EQUIPMENT: SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL: UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR

REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.08 GALLONS PER SQUARE YARD. RECOMMENDED APPLICATION TEMPERATURE IS 160°F TO 180°F. DO NOT EXCEED 180°F. THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

PERFORMANCE OF TRACKLESS TACK: FOR ANY TRACKLESS TACK USED SUPPLY DATA FOR SHEAR AND TENSILE BOND STRENGTH ACCORDING TO METHODS DESCRIBED IN VIRGINIA TRANSPORTATION RESEARCH COUNCIL REPORT VTRC 09-R21. RANDOMLY TAKE 8-1 INCH DIAMETER CORES FROM THE PROJECT AND PERFORM 3 SHEAR AND 3 TENSILE BOND STRENGTH TESTS. BE SURE CORES TAKEN INCLUDE BOTH AN ASPHALT LAYER ABOVE AND ASPHALT LAYER BELOW THE TRACKLESS TACK LAYER.

DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO THE DET AND NEW PRODUCT ENGINEER, BRAD YOUNG 614-351-2882.

IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY BLACKLIDGE TRACKLESS TACK FOR THE REMAINDER OF THE PROJECT AT NO COST TO THE DEPARTMENT.

ANY FAILING EXPERIMENTAL TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE NEW PRODUCT ENGINEER'S LIST.

IN THE EVENT THE PRODUCT FAILS TO PERFORM TO THE SATISFACTION OF THE DEPARTMENT, THE MANUFACTURER MAY PERFORM THE FOLLOWING ITEMS IN ORDER TO BE CONSIDERED FOR FUTURE EXPERIMENTAL CONSTRUCTION FEATURE PROJECTS:

1. SUBMIT IN WRITING TO THE DEPARTMENT THE REASON(S) WHY THE PRODUCT FAILED TO PERFORM AND DETAIL CHANGES THAT WILL BE MADE TO ELIMINATE THE CAUSE(S) OF FAILURE, AND
2. PROPOSE CHANGES TO THE PRODUCT'S SPECIFICATIONS, AND
3. SUBMIT SAMPLES OF THE REDEVELOPED PRODUCT TO THE LABORATORY FOR TESTING TO THE NEW SPECIFICATIONS, AND
4. DEMONSTRATE TO THE DEPARTMENT SUCCESSFUL USE OF THE MATERIAL ON AT LEAST ONE NON-ODOT PROJECT.

WHEN THE ABOVE ITEMS ARE COMPLETED TO THE DEPARTMENT'S SATISFACTION, THE REDEVELOPED AND FIELD TESTED PRODUCT MAY BE PUT BACK ON FILE WITH THE NEW PRODUCT ENGINEER AND EVALUATED ON FUTURE ODOT PROJECTS USING THE EXPERIMENTAL CONSTRUCTION FEATURE PROCESS.

CALCULATED  
J.C.  
CHECKED  
H.G.

GENERAL NOTES

MUS-60-17.93

**ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF CMS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614,

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THIS LIST IS AVAILABLE ON THE ODOT WEB SITE AT [HTTP://WWW.DOT.STATE.OH.US/TEST LAB/APPLISTS/MISC/PCMS.HTM](http://www.dot.state.oh.us/test_lab/applists/misc/pcms.htm). THE LIST CURRENTLY CONTAINS CLASS I, II, AND III UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 1250 FT., 850 FT. AND 650 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE WILL BE SHOWN IN THE MAINTENANCE OF TRAFFIC PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION.

THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH-INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRE CONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 300 DAYS

(NOTE: 2 SIGNS WILL BE REQUIRED FOR THIS PROJECT, 2 SIGNS x 5 MONTHS = 300 DAYS)

SHEET NUMBER														PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.						
16	17	18	20	21	22	23	24	25	26	27	28	29	115	116	117	118	119							120	121	OF&H URBAN	OF&H RURAL	URBAN PAVING	CITY OF ZANESVILLE
														600		600	CU. YD.	PAVEMENT REPAIR											
				82900	3515	29879	3285	94037	2990	6371	14723	408	374					33,164	118,903	86,415	253	02000	600	CU. YD.	PAVEMENT REPAIR				
						1070	112	7053	225	478	1121	30	28					1,162	8,935		254	01000	238,482	SO. YD.	PAVEMENT PLANING, ASPHALT CONCRETE				
						713	75	4703	150	319	739	21	19					788	5,951		407	10000	10,117	GALLON	TACK COAT				
				4145	177	711	91											802		4,322	407	20000	5,124	GALLON	TACK COAT FOR INTERMEDIATE COURSE				
				6218	255	1068	135											1,203		6,473	407	20100	7,676	GALLON	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE				
																			448	46050	11,768	448	46050	11,768	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22			
				215														1,623	5,915	4,230	448	46904	8,411	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M				
				170														1,169	4,239	3,003	448	46904	8,411	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M				
																				430	512	33010	430	SO. YD.	TYPE 3 WATERPROOFING				
																		10		78	604	34500	88	EACH	MANHOLE ADJUSTED TO GRADE				
				88																33	604	36000	33	EACH	GAS VALVE BOX ADJUSTED TO GRADE				
				33																	640	53020	640	SO. FT.	DETECTABLE WARNING				
						640															640	53020	640	SO. FT.	DETECTABLE WARNING				
				56																56	638	10800	56	EACH	VALVE BOX ADJUSTED TO GRADE				
																					305	00100	848	EACH	RPM				
																					305	54000	848	EACH	RAISED PAVEMENT MARKER REMOVED				
				6														2	4		632	26501	6	EACH	DETECTOR LOOP, AS PER PLAN				
																				2.26	3.01	11.55	0.14	644	00100	16.96	MILE	EDGE LINE	
																				4.62	0.02			644	00200	4.64	MILE	LANE LINE	
																				3.73	3.22	9.30	0.09	644	00300	16.34	MILE	CENTER LINE	
																				2099	2301		758	753	644	00400	5,911	FT.	CHANNELIZING LINE
																				1198	276	54	195	915	644	00500	2,638	FT.	STOP LINE
																				3814	80				644	00600	3,894	FT.	CROSSWALK LINE
																					441		778	1178	644	00700	2,397	FT.	TRANSVERSE/DIAGONAL LINE
																				116	57		274	73	644	00900	520	SO. FT.	ISLAND MARKING
																				65	27		13	18	644	01300	123	EACH	LANE ARROW
																				19	6				644	01400	25	EACH	WORD ON PAVEMENT, 72"
																					7		4	7	644	01410	18	EACH	WORD ON PAVEMENT, 96"
																					322				644	01500	322	FT.	DOTTED LINE, 4"
				40		100												15	15	70	614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE				
																		10	10	20	614	13000	40	CU. YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC				
						300												50	50	200	614	18401	300	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN				
																				0.02		4.62		614	20100	4.64	MILE	WORK ZONE LANE LINE, CLASS 1, 642 PAINT	
																				3.22	9.39	3.73		614	21100	16.34	MILE	WORK ZONE CENTER LINE, CLASS 1, 642 PAINT	
																				2,301	1,511	2,099		614	23200	5,911	FT.	WORK ZONE CHANNELIZING LINE, CLASS 1, 642 PAINT	
																				276	1,164	1,198		614	26200	2,638	FT.	WORK ZONE STOP LINE, CLASS 1, 642 PAINT	
																				80		3,814		614	27200	3,894	FT.	WORK ZONE CROSSWALK LINE, CLASS 1, 642 PAINT	
																		LUMP	LUMP	LUMP		SPECIAL	10830000	LUMP		CMP PROGRESS SCHEDULE SHORT DURATION PROJECTS			
																		LUMP	LUMP	LUMP		614	11000	LUMP		MAINTAINING TRAFFIC			
																		1	1	3		619	16010	5	MONTH	FIELD OFFICE, TYPE B			
																		LUMP	LUMP	LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES			
																		LUMP	LUMP	LUMP		624	10000	LUMP		MOBILIZATION			

GENERAL SUMMARY

MUS-60-17.93

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① - AREA BY COMPUTER

# PAVEMENT CALCULATIONS

STATION TO STATION E SURVEY & CONSTRUCTION S.R. 60 (MAPLE AVE.)	PAVEMENT WIDTH  FEET	PAVEMENT LENGTH  FEET	PAVEMENT AREA  SQ. YD.	448	448			407	407			254	512
				1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.			TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE GAL.	TACK COAT, TRACKLESS TACK, SURFACE COURSE GAL.			PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.	TYPE 3 WATERPROOFING SQ. YD.
74+22.00 - 74+88.50	61.8 (AVG)	16.5	113.3	3.9	5.5			5.7	8.5			113.3	
74+88.50 - 77+55.00	60.0	266.5	1,776.7	61.7	86.3			88.8	133.3			1,776.7	
77+55.00 - 78+35.00	54 (AVG)	80.0	480.0	16.7	23.3			24.0	36.0			480.0	
78+35.00 - 96+05.00	48.0	1,770.0	9,440.0	327.8	458.9			472.0	708.0			9,444.0	
96+05.00			SUSPEND RESURFACING					SUSPEND RESURFACING				SUSPEND RESURFACING	
104+00.00			RESUME RESURFACING					RESUME RESURFACING				RESUME RESURFACING	
104+00.00 - 152+50.00	48.0	4,850.0	25,866.7	898.4	1,257.1			1,293.3	1,940.0			25,866.7	
152+50.00			SUSPEND RESURFACING					SUSPEND RESURFACING				SUSPEND RESURFACING	
164+40.00			RESUME RESURFACING					RESUME RESURFACING				RESUME RESURFACING	
164+40.00 - 168+99.40	48.0	459.4	2,450.0	85.1	119.1			122.5	183.8			2,450.0	
168+99.40 - 169+20.00	45.5 (AVG)	25.6	129.5	4.5	6.3			6.5	9.7			129.5	
169+20.00 - 170+64.40	44.5	144.4	714.0	24.8	34.7			35.7	53.6			714.0	
170+64.40 - 174+00.00	46.0	335.6	1,715.3	59.6	83.4			85.8	128.6			1,715.3	
174+00.00 - 210+00.00	52.0	3,600.0	20,800.0	722.5	1,010.9			1,040.0	1,560.0			20,800.0	
210+00.00 - 211+50.00	56.0 (AVG)	150.0	933.4	32.4	45.4			46.7	70.0			933.4	
211+50.00 - 238+39.00	60.0	2,689.0	17,926.7	622.7	871.2			896.4	1,344.5			17,926.7	① 430
238+39.00 - 239+05.00	99.0 (AVG)	66.0	550.0(C)	19.1	26.7			27.5	41.3			550.0	
169+00.00 - 174+00.00								* 30.0 * ADDITIONAL QUANTITY FOR WEDGE AROUND CONCRETE MEDIAN					
TOTALS (CARRIED TO THE GENERAL SUMMARY)				2,879.2	4,058.8			4,144.9	6,217.3			82,899.6	430

① BRIDGE LIMITS STA. 230+48.40 - STA. 231+08.40

PAVEMENT CALCULATIONS

MUS - 60 - 17.93



# PAVEMENT CALCULATIONS

S.R. 60 (MAPLE AVENUE) APPROACHES	PAVEMENT WIDTH FEET	PAVEMENT LENGTH FEET	PAVEMENT AREA (AREA BY COMPUTER) SQ. YD.	448	448			407	407		254		608	
				1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.			TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE GAL.	TACK COAT, TRACKLESS TACK, SURFACE COURSE GAL.		PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.		DETECTABLE WARNING SQ. FT.	
THURMAN STREET (RT)			90	3.2	4.4			4.5	6.8		90		32	
FOREST AVENUE (LT.)			31	1.1	1.5			1.6	2.4		31			
FOREST AVENUE (RT.)			75	2.6	3.6			3.8	5.6		75		32	
SHERIDAN STREET (RT)			27	1.0	1.3			1.4	2.0		27			
LOCUST AVENUE (LT)			77	2.7	3.7			3.9	5.8		77			
WEBSTER STREET (RT)			58	2.0	2.8			2.9	4.4		58		32	
LENOX AVENUE (LT)			75	2.6	3.7			3.8	5.6		75		32	
VAN HORN AVENUE (RT)			75	2.6	3.6			3.8	5.6		75		32	
FAIRMONT AVENUE (LT)			72	2.5	3.5			3.6	5.4		72		32	
96+05.00								SUSPEND RESURFACING			SUSPEND RESURFACING		SUSPEND RESURFACING	
104+00.00								RESUME RESURFACING			RESUME RESURFACING		RESUME RESURFACING	
IMLAY DRIVE (RT)			62	2.2	3.0			3.1	4.7		62		32	
JACOBS STREET (LT)			76	2.6	3.7			3.8	5.7		76		32	
GLENDALE AVENUE (RT)			76	2.6	3.7			3.8	5.7		76		32	
HEADLEY STREET (LT)			72	2.5	3.5			3.6	5.4		72		32	
SOMERS STREET (LT)			78	2.7	3.8			3.9	5.9		78		32	
BROOKOVER DRIVE (RT)			82	2.9	4.0			4.1	6.2		82		32	
ARTIS DRIVE (LT)			75	2.6	3.6			3.8	5.6		75		32	
TAYLOR STREET (RT)			95	3.3	4.6			4.8	7.1		95			
TAYLOR STREET (LT)			105	3.7	5.1			5.3	7.9		105			
WINTON AVENUE (RT)			76	2.6	3.7			3.8	5.7		76		32	
KINZEL DRIVE (RT)			92	3.2	4.5			4.6	6.9		92		32	
FRANCIS STREET (LT)			75	2.6	3.6			3.8	5.6		75		32	
RICHMOND AVENUE (RT)			76	2.6	3.7			3.8	5.7		76		32	
WABASH AVENUE (LT)			75	2.6	3.6			3.8	5.6		75		32	
CAMBRIDGE STREET (RT)			80	2.8	3.9			4.0	6.4		80			
LEONARD AVENUE (LT)			20	1.0	1.0			1.0	1.5		20		32	
PRINCETON AVENUE (LT)			130	4.5	6.3			6.5	9.8		130			
HARDING ROAD (RT)			108	3.8	5.3			5.4	8.1		108		32	
152+50.00								SUSPEND RESURFACING			SUSPEND RESURFACING		SUSPEND RESURFACING	
164+40.00								RESUME RESURFACING			RESUME RESURFACING		RESUME RESURFACING	
JAMES ROAD (RT)			25	1.0	1.2			1.3	1.9		25			
COUNTRY CLUB DRIVE (LT)			97	3.4	4.7			4.9	7.3		97			
BEVERLY AVENUE (LT)			115	4.0	5.6			5.8	8.6		115			
MILITARY ROAD (RT)			210	7.3	10.2			10.5	15.8		210			
MILITARY ROAD (LT)			155	5.4	7.5			7.8	11.6		155			
ORCHARD HILL (RT)			70	2.5	3.4			3.5	5.3		70			
GARDEN ROAD (RT)			70	2.5	3.4			3.5	5.3		70			
GROVE ROAD (RT)			80	2.8	3.9			4.0	6.0		80			
BRANDYWINE BLVD. (LT)			135	4.7	6.6			6.8	10.1		135			
BRANDYWINE BLVD. (RT)			120	4.2	5.8			6.0	9.0		120			
COLONY DRIVE (RT)			200	7.0	9.7			10.0	15.0		200			
KAY DRIVE (RT)			205	7.1	10.0			10.3	15.4		205			
TOTALS (CARRIED TO THE GENERAL SUMMARY)				123.0	170.7			176.6	254.6		3,515.0		640.0	

PAVEMENT CALCULATIONS

MUS - 60 - 17.93

MS00PARTIMP.CALC.DGN 6-6-11 ADDENDA

# PAVEMENT CALCULATIONS

(C) - AREA BY COMPUTER

STATION TO STATION SURVEY & CONSTRUCTION S.R. 60 & APPROACHES	WIDTH PAV'T.  (FEET)	FEET	PAVEMENT AREA  SQ. YD.	448	448				407	407	407	407	254
				1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M  CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22  CU. YD.				TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y.  GAL.	TACK COAT @ 0.075 GAL./S.Y.  GAL.	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE  GAL.	TACK COAT, TRACKLESS TACK, SURFACE COURSE  GAL.	
S.R. 60 BRANDYWINE & RICHEY RD.	34.5 AVG.	180.0	(C) 980.0	34.0	47.6						49.0	73.5	980.0
1116+63.39 - 1118+11.02	8.46' AVG.	147.63'	138.8	4.8	6.8						6.4	10.4	179.8
1118+11.02 - 1119+13.39	VAR.	102.37'	(C) 516.2	17.9	25.1						25.8	38.7	629.9
1119+13.39 - 1139+25.00	40.0'	2,011.61'	8,940.5	310.4	434.6						447.0	670.5	10,058.1
TURN LANES - 1122+00-1123+30 & 1129+60-1132+50	10'-12'	420.0	496.0	17.2	24.1						24.8	37.2	496.0
1139+25.00 - 1141+98.49	38.0'	273.49'	1,154.7	40.1	56.1						57.7	86.6	1,230.7
1141+98.49 - 1143+20.40	37.0' AVG.	121.91'	501.2	17.4	24.4						25.1	37.6	535.1
1143+20.40 - 1145+90.40	30.0' AVG.	270.00'	900.0	31.3	43.8						45.0	67.5	900.0
1145+90.40 - 1146+70.00	24.0'	79.60'	212.3	7.4	10.3						10.6	15.9	212.3
1146+70.00 - 1176+50.00	24.0'	2,980.00'	7,946.7	275.9	386.3			397.3	596.0				7,946.7
1176+50.00 - 1177+92.55	24.0'	142.55'	380.1	13.2	18.5			19.0	28.5				380.1
1177+92.55 - 1181+22.55	30.0' AVG.	330.00'	1,100.0	38.2	53.5			55.0	82.5				1,100.0
1181+22.55 - 1186+72.54	36.0'	549.99'	2,200.0	76.4	106.9			110.0	165.0				2,200.0
1186+72.54 - 1190+02.54	30.0' AVG.	330.00'	1,100.0	38.2	53.5			55.0	82.5				1,100.0
1190+02.54 - 1192+00.00	24.0'	197.46'	526.6	18.3	25.6			26.3	39.5				526.6
1192+00.00 - 1192+50.00	24.0'	50.00'	133.3	4.6				6.7	10.0				133.3
C.R. 298 (OLDE FALLS ROAD)													
0+18.23 - 0+79.33 (RADIUS)	VAR.	61.10'	(C) 332.6	11.5	16.2						16.6	24.9	349.6
0+79.33 - 0+87.72	26.0'	8.39'	24.2	0.8	1.2						1.2	1.8	26.5
0+87.72 - 1+00.00	25.21' AVG.	12.28'	34.4	1.2	1.7						1.7	2.6	34.4
C.R. 309 (FAIRVIEW ROAD RT.)													
0+19.13 - 1+17.30 (RADIUS)	VAR.	98.17'	(C) 462.2	16.0	22.5			23.1	35.7				462.2
T.R. 309 (FAIRVIEW ROAD LT.)													
0+19.18 - 1+00.08 (RADIUS)	VAR.	80.90'	(C) 397.1	13.8	19.3			19.9	29.8				397.1
TOTALS (CARRIED TO THE GENERAL SUMMARY)				988.6	1,378.0			712.3	1,069.5	710.9	1,067.2		29,878.4

PAVEMENT CALCULATIONS

MUS-60-17.93

APPCAL C. 03/87 8-6-11 ADDENDUM



# SHOULDER CALCULATIONS

STATION TO STATION SURVEY AND CONSTRUCTION S.R. 60 AND APPROACHES	LT. SIDE		RT. SIDE		SHOULDER AREA SQ. YD.	448	448			407	407	407	407	254
	WIDTH BERM (FEET)	FEET	WIDTH BERM (FEET)	FEET		1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y.	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE	TACK COAT, TRACKLESS TACK, SURFACE COURSE	PAVEMENT PLANING, ASPHALT CONCRETE		
1139+25.00 - 1146+70.00			4.0'	745.00'	331.1	11.5	16.1					16.6	24.8	331.1
1146+70.00 - 1176+50.00			2.0'	2,980.00'	662.2	23.0	32.2					33.1	49.7	662.2
1176+50.00 - 1177+50.00			3.0'AVG.	100.00'	33.3	1.2	1.6					1.7	2.5	33.3
1177+50.00 - 1183+02.12			4.0'	552.13'	245.4	8.5	11.9					12.3	18.4	245.4
1184+54.11 - 1191+00.00			4.0'	645.89'	287.1	10.0	14.0					14.4	21.5	287.1
1191+00.00 - 1192+00.00			3.0'AVG.	100.00'	33.3	1.2	1.6					1.7	2.5	33.3
1192+00.00 - 1192+50.00			2.0'	50.00'	11.1	0.4	0.5					0.6	0.8	11.1
1443+20.21 - 1145+90.40	4.0'	270.19'			120.1	4.2	5.8					6.0	9.0	120.1
1145+90.40 - 1146+70.00	3.0'AVG.	79.60'			26.5	0.9	1.3					1.3	2.0	26.5
1146+70.00 - 1176+50.00	2.0'	2,980.00'			662.2	23.0	32.2			33.1	49.7			662.2
1176+50.00 - 1177+50.00	3.0'AVG.	100.00'			33.3	1.2	1.6			1.7	2.5			33.3
1177+50.00 - 1183+55.97	4.0'	605.97'			269.3	9.4	13.1			13.5	20.2			269.3
1184+99.77 - 1191+00.00	4.0'	600.23'			266.8	9.3	13.0			13.3	20.0			266.8
1191+00.00 - 1192+00.00	3.0'AVG.	100.00'			33.3	1.2	1.6			1.7	2.5			33.3
1192+00.00 - 1192+50.00	2.0'	50.00'			11.1	0.4	0.5			0.6	0.8			11.1
C.R. 298(OLDE FALLS RD.)														
0+18.23 - 0+59.0(RADIUS)			4.0'	70.7'	31.4	1.1	1.5					1.6	2.4	31.4
0+59.01 - 0+90.00			4.0'	30.99'	13.8	0.5	0.7					0.7	1.0	13.8
0+90.00 - 1+00.00			3.0'AVG.	10.00'	3.3	0.1	0.2					0.2	0.3	3.3
C.R. 309(FAIRVIEW RD. RT.)														
0+19.13 - 1+17.30(RADIUS)			4.0'	119.7'	53.2	1.8	2.6			2.7	4.0			53.2
0+19.23 - 0+65.51(RADIUS)	4.0'	87.40'			38.8	1.3	1.9			1.9	2.9			38.8
0+65.51 - 1+17.30	4.0'	51.79'			23.0	0.8	1.1			1.2	1.7			23.0
T.R. 309(FAIRVIEW RD. LT.)														
0+19.18 - 1+00.08(RADIUS)			4.0'	101.20'	45.0	1.6	2.2			2.3	3.4			45.0
0+19.18 - 0+50.80(RADIUS)	4.0'	63.40'			28.2	1.0	1.4			1.4	2.1			28.2
0+50.80 - 1+00.08	4.0'	49.28'			21.9	0.8	1.1			1.1	1.6			21.9
TOTALS (CARRIED TO THE GENERAL SUMMARY)						114.4	159.7			74.5	111.4	90.2	134.9	3,284.7

SHOULDER CALCULATIONS

MUS-60-17.93

BCALC.DWG 6-6-11 ADDENDA

CALCULATED  
DATE  
CHECKED  
DATE

# PAVEMENT CALCULATIONS

(C) - AREA BY COMPUTER

STATION TO STATION & SURVEY & CONSTRUCTION S.R. 60	PAV'T. WIDTH  (FEET)	FEET	PAVEMENT AREA  SQ. YD.	448	448					407	407				254
				1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22					TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y.	TACK COAT @ 0.075 GAL./S.Y.				PAVEMENT PLANING, ASPHALT CONCRETE  SQ. YD.
				CU. YD.	CU. YD.					GAL.	GAL.				
1192+50.00 - 1198+50.00	24.37 AVG.	600.00	1624.7	56.4	79.0					81.2	121.9				1624.7
1198+50.00 - 1204+37.65	24.00	587.65	1567.1	54.4	76.2					78.4	117.5				1567.1
1204+37.65 - 1206+08.75	27.80 AVG.	171.10	528.5	18.4	25.7					26.4	39.6				528.5
1206+08.75 - 1207+07.56	23.3 AVG.	98.81	255.8	8.9	12.4					12.8	19.2				255.8
FULL DEPTH	11.0 AVG.	98.81	120.8	4.2	5.9					6.0	9.1				120.8
1207+07.56 - 1209+55.81	23.75' AVG.	248.25	655.1	22.7	31.8					32.8	49.1				655.1
FULL DEPTH	11.50 AVG.	248.25	317.2	11.0	15.4					15.9	23.8				317.2
1209+55.81 - 1212+25.00	23.75 AVG.	269.19	710.4	24.7	34.5					35.5	53.3				710.4
FULL DEPTH	5.5 AVG.	269.19	164.5	5.7	8.0					8.2	12.3				164.5
1212+25.00 - 1224+00.00	24.00	1175.00	3133.3	108.8	152.3					156.7	235.0				3133.3
1224+00.00 - 1240+37.51	24.00	1637.51	4366.7	151.6	212.3					218.3	327.5				4366.7
1240+37.51 - 1243+67.51	30.00 AVG.	330.00	1100.0	38.2	53.5					55.0	82.5				1100.0
1243+67.51 - 1250+74.54	36.00	707.03	2828.1	98.2	137.5					141.4	212.1				2828.1
1250+74.54 - 1256+14.42	21.00 AVG.	539.88	1259.7	43.7	61.2					63.0	94.5				1259.7
FULL DEPTH	15.00 AVG.	539.88	899.8	31.2	43.7					45.0	67.5				899.8
1256+14.42 - 1282+54.58	36.00	2640.16	10560.6	366.7	513.4					528.0	792.0				10560.6
APPROACH SLAB															
1282+54.58 - 1282+69.58															
BRIDGE LIMITS															
1282+69.58 - 1283+04.25															
APPROACH SLAB															
1283+04.25 - 1283+02.77															
1283+02.77 - 1303+47.39	24.00	2044.62	5452.3	189.3	265.0					272.6	408.9				5452.3
FULL DEPTH	12.00	2044.62	2726.2	94.7	132.5					136.3	204.5				2726.2
1303+47.39 - 1311+17.46	24.00	770.07	2053.5	71.3	99.8					102.7	154.0				2053.5
FULL DEPTH	6.00 AVG.	770.07	513.4	17.8	25.0					25.7	38.5				513.4
1311+17.46 - 1470+62.29	24.00	15944.83	42519.5	1476.4	2066.9					2126.0	3189.0				42519.5
1470+62.29 - 1471+00.00	24.11 AVG.	37.71	101.0	3.5	4.9					5.1	7.6				101.0
1471+00.00 - 1477+22.29	30.37 AVG.	622.29	2099.9	72.9	102.1					105.0	157.5				2099.9
1477+22.29 - 1482+06.85	36.00	484.56	1938.2	67.3	94.2					96.9	145.4				1938.2
1482+06.85 - 1488+66.85	30.00 AVG.	660.00	2200.0	76.4	106.9					110.0	165.0				2200.0
1488+66.85 - 1500+00.00	24.00	1133.15	3021.7	104.9	146.9					151.1	226.6				3021.7
1500+00.00 - 1500+50.00	23.54 AVG.	50.00	130.8	4.5	6.4					6.5	9.8				130.8
APPROACH ROAD QUANTITIES															
ARROWHEAD DRIVE	26.5 AVG.	20.0	59.0	2.0	2.9					3.0	4.4				59.0
KENLO WOODS DRIVE	26.5 AVG.	30.0	175.0	6.1	8.5					8.8	13.1				175.0
POWELSON DRIVE	69 AVG.	55.0	422.0	14.6	20.5					21.1	31.7				422.0
JONES RD. TWP. RD. 470	37 AVG.	35.0	144.0	5.0	7.0					7.2	10.8				144.0
FAWN RD.	37 AVG.	25.0	103.0	3.6	5.0					5.2	7.7				103.0
MCCLADE SCHOOL RD.	44 AVG.	35.0	171.0	5.9	8.3					8.6	12.8				171.0
NEW RILEY RD.	41 AVG.	25.0	114.0	4.0	5.5					5.7	8.6				114.0
TOTALS (CARRIED TO THE GENERAL SUMMARY)				3,265.0	4,571.1					4,702.1	7,052.8				94,036.8

ADDENDUM  
PAVEMENT CALCULATIONS

MUS-60-17.93

(C) - AREA BY COMPUTER

# PAVEMENT CALCULATIONS

STATION TO STATION SURVEY & CONSTRUCTION APPROACHES	WIDTH PAV'T.  (FEET)	FEET	PAVEMENT AREA  SQ. YD.	448	448					407	407					254
				1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.					TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y. GAL.	TACK COAT @ 0.075 GAL./S.Y. GAL.					PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.
ASH MEADOWS DRIVE (EXIT)																
0+18.14 - 0+51.76	VAR.	33.62	(C) 101.2	3.5	4.9					5.1	7.6					(C) 101.2
0+51.76 - 0+90.00		17.75	75.4	2.6	3.7					3.8	5.7					75.4
ASH MEADOWS DRIVE (ENTRANCE)																
0+18.20 - 0+59.11	VAR.	40.91	(C) 134.8	4.9	6.6					6.7	10.1					(C) 134.8
0+59.11 - 0+65.00		17.04	11.2	0.4	0.5					0.6	0.8					11.2
T.R. 149 (CARNATION RD.)																
0+12.22 - 0+65.60	VAR.	53.38	(C) 217.7	7.6	10.6					10.9	16.3					(C) 217.7
C.R. 3 (RICHVALE RD.)																
0+18.00 - 0+66.30	VAR.	48.30	(C) 251.7	8.7	12.2					12.6	18.9					(C) 251.7
LIASKIM LANE																
0+18.49 - 0+66.42	VAR.	47.93	(C) 194.4	6.8	9.5					9.7	14.6					(C) 194.4
CHARDONN RD.																
0+18.21 - 0+60.48	VAR.	42.27	(C) 165.3	5.7	8.0					8.3	12.4					(C) 165.3
C.R. 500 (CREAMERY RD.)																
0+19.12 - 0+96.87	VAR.	77.75	(C) 360.9	12.5	17.5					18.0	27.1					(C) 360.9
T.R. 307 (CONN RD.)																
0+12.02 - 0+75.00	VAR.	62.98	(C) 183.1	6.4	8.9					9.2	13.7					(C) 183.1
VIRGINIA RD.																
0+18.00 - 0+53.05	VAR.	35.05	152.0	5.3	7.4					7.6	11.4					152.0
NORTH VISTA DRIVE																
0+18.11 - 0+75.37	VAR.	57.26	(C) 275.4	9.6	13.4					13.8	20.7					(C) 275.4
0+75.37 - 0+95.37	22.62 AVG.	20.00	50.3	1.7	2.4					2.5	3.8					50.3
T.R. 307 (GORSUCH RD.)																
0+22.40 - 0+67.39	VAR.	44.99	(C) 253.7	8.8	12.3					12.7	19.0					(C) 253.7
C.R. 307 (VISTA VIEW DR.)																
0+18.00 - 0+80.00	VAR.	62.00	(C) 252.9	8.8	12.3					12.6	19.0					(C) 252.9
SHANNON RD.																
0+12.01 - 0+64.82	VAR.	52.81	(C) 260.7	9.1	12.7					13.0	19.6					(C) 260.7
0+64.82 - 0+84.85	21.94 AVG.	20.03	48.8	1.7	2.4					2.4	3.7					48.8
SUB-TOTALS																
TOTALS (CARRIED TO THE GENERAL SUMMARY)				104.1	145.3					149.5	224.4					2,989.5

PAVEMENT CALCULATIONS

MUS-60-17.93

# SHOULDER CALCULATIONS

\* ADDITIONAL SHOULDER AREAS

STATION TO STATION ☉ SURVEY AND CONSTRUCTION S.R. 60	LT. SIDE		RT. SIDE		SHOULDER AREA SO. YD.	448	448				407	407	254
	WIDTH BERM (FEET)	FEET	WIDTH BERM (FEET)	FEET		1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.				TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y. GAL.	TACK COAT @ 0.075 GAL./S.Y. GAL.	PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.
1192+50.00 - 1198+50.00			2	600.0	133.3	4.6	6.5				6.7	10.0	133.3
1198+50.00 - 1199+00.00			3 AVG.	50.00	16.7	0.6	0.8				0.8	1.3	16.7
1199+00.00 - 1211+75.00			4	1275.00	566.7	19.7	27.5				28.3	42.5	566.7
1211+75.00 - 1212+25.00			3 AVG.	50.00	16.7	0.6	0.8				0.8	1.3	16.7
1212+25.00 - 1224+00.00			2	1175.00	261.1	9.1	12.7				13.1	19.6	261.1
1224+00.00 - 1224+50.00			3 AVG.	50.00	16.7	0.6	0.8				0.8	1.3	16.7
1224+50.00 - 1243+67.51			4	1917.51	852.2	29.6	41.4				42.6	63.9	852.2
1244+83.92 - 1282+54.58			4	3770.66	1675.8	58.2	81.5				83.8	125.7	1675.8
* 1281+12.97 - 1282+54.58			8	141.61	125.9	4.4	6.1				6.3	9.4	125.9
APPROACH SLAB 1282+54.58 - 1282+69.58													
BRIDGE LIMITS 1282+69.58 - 1283+04.25													
APPROACH SLAB 1283+04.25 - 1283+02.77													
* 1283+02.77 - 1285+00.00			8	197.23	175.3	6.1	8.5				8.8	13.1	175.3
* 1285+00.00 - 1285+50.00			5 AVG.	50.00	27.8	1.0	1.4				1.4	2.1	27.8
1283+02.77 - 1292+84.55			4	981.78	436.3	15.1	21.2				21.8	32.7	436.3
1294+09.33 - 1300+00.22			4	590.89	262.6	9.1	12.8				13.1	19.7	262.6
1300+24.27 - 1310+67.46			4	1043.19	463.6	16.1	22.5				23.2	34.8	463.6
1310+67.46 - 1311+17.46			3.27 AVG.	50.00	18.2	0.6	0.9				0.9	1.4	18.2
1470+62.29 - 1471+00.00			3.48 AVG.	37.71	14.6	0.5	0.7				0.7	1.1	14.6
1471+00.00 - 1500+00.00			4	2900.00	1288.9	44.8	62.7				64.4	96.7	1288.9
1500+00.00 - 1500+50.00			3.22 AVG.	50.00	17.9	0.6	0.9				0.9	1.3	17.9
TOTALS (CARRIED TO THE GENERAL SUMMARY)						221.3	309.7				318.4	477.9	6,370.3

SHOULDER CALCULATIONS

MUS-60-17.93

# SHOULDER CALCULATIONS

\* ADDITIONAL SHOULDER AREAS

(C) - AREA BY COMPUTER

STATION TO STATION & SURVEY AND CONSTRUCTION S.R. 60	LT. SIDE		RT. SIDE		SHOULDER AREA SQ. YD.	448	448			407	407	254
	WIDTH BERM (FEET)	FEET	WIDTH BERM (FEET)	FEET		1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y. GAL.	TACK COAT @ 0.075 GAL./S.Y. GAL.	PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.		
1192+50.00 - 1198+50.00	2.3 AVG.	600.00			153.3	5.3	7.5			7.7	11.5	153.3
1198+50.00 - 1199+00.00	3 AVG.	50.00			16.7	0.6	0.8			0.8	1.3	16.7
1199+00.00 - 1208+61.91	4	961.91			427.5	14.8	20.8			21.4	32.1	427.5
1209+10.88 - 1209+19.22	4	8.34			(C) 2.4	0.1	0.1			0.1	0.2	2.4
1209+74.04 - 1211+75.00	4	200.96			89.3	3.1	4.3			4.5	6.7	89.3
1211+75.00 - 1212+25.00	3 AVG.	50.00			16.7	0.6	0.8			0.8	1.3	16.7
1212+25.00 - 1224+00.00	2	1175.00			261.1	9.1	12.7			13.1	19.6	261.1
1224+00.00 - 1224+50.00	3 AVG.	50.00			16.7	0.6	0.8			0.8	1.3	16.7
1224+50.00 - 1226+58.44	4	208.44			92.6	3.2	4.5			4.6	6.9	92.6
1227+51.71 - 1248+57.04	4	2105.33			935.7	32.5	45.5			46.8	70.2	935.7
1249+54.46 - 1250+74.54	4	120.08			53.4	1.9	2.6			2.7	4.0	53.4
1250+74.54 - 1254+52.57	4	378.03			168.0	5.8	8.2			8.4	12.6	168.0
1255+45.61 - 1256+14.42	4	68.81			30.6	1.1	1.5			1.5	2.3	30.6
1256+14.42 - 1270+99.83	4	1485.41			660.2	22.9	32.1			33.0	49.5	660.2
1272+26.78 - 1282+54.58	4	1027.80			456.8	15.9	22.2			22.8	34.3	456.8
* 1281+86.06 - 1282+54.58	7.60	68.52			57.9	2.0	2.8			2.9	4.3	
APPROACH SLAB												
1282+54.58 - 1282+69.58												
BRIDGE LIMITS												
1282+69.58 - 1283+04.25												
APPROACH SLAB												
1283+04.25 - 1283+02.77												
1283+02.77 - 1284+50.75	4	147.98			65.8	2.3	3.2			3.3	4.9	65.8
* 1283+02.77 - 1284+72.25	8	169.48			150.6	5.2	7.3			7.5	11.3	150.6
1285+44.75 - 1298+76.43	4	1331.68			591.9	20.6	28.8			29.6	44.4	591.9
1300+00.45 - 1304+97.39	4	496.94			220.9	7.7	10.7			11.0	16.6	220.9
1304+97.39 - 1309+37.46	3.06 AVG.	440.07			149.6	5.2	7.3			7.5	11.2	149.6
1309+37.46 - 1311+17.46	2	180.00			40.0	1.4	1.9			2.0	3.0	40.0
1311+17.46 - 1470+62.29	2.5	15944.83	2.5	15944.83	8858.2	307.6	430.6			442.9	664.4	8858.2
1470+62.29 - 1471+00.00	3.35 AVG.	37.71			14.0	0.5	0.7			0.7	1.1	14.0
1471+00.00 - 1480+95.89	4	995.89			442.6	15.4	21.5			22.1	33.2	442.6
1482+20.04 - 1500+00.00	4	1779.96			791.1	27.5	38.5			39.6	59.3	791.1
1500+00.00 - 1500+50.00	3.08 AVG.	50.00			17.1	0.6	0.8			0.9	1.3	17.1
TOTALS (CARRIED TO THE GENERAL SUMMARY)												
						513.5	718.5			739.0	1,120.1	14,722.8

SHOULDER CALCULATIONS

MUS-60-17.93



# SHOULDER CALCULATIONS

STATION TO STATION & SURVEY AND CONSTRUCTION APPROACHES	LT. SIDE		RT. SIDE		SHOULDER AREA  SQ. YD.	448	448				407	407	254
	WIDTH BERM  (FEET)	FEET	WIDTH BERM  (FEET)	FEET		1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.				TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y.  GAL.	TACK COAT @ 0.050 GAL./S.Y.  GAL.	PAVEMENT PLANING, ASPHALT CONCRETE  SQ. YD.
ASH MEADOWS DRIVE (EXIT)													
0+18.40 - 0+47.07 (RAD.)	4	49.84			22.2	0.8	1.1				1.1	1.7	22.2
0+47.07 - 0+90.00	4	42.93			19.1	0.7	0.9				1.0	1.4	19.1
ASH MEADOWS DRIVE (ENTRANCE)													
0+18.20 - 0+59.11 (RAD.)			4	59.05	26.2	0.9	1.3				1.3	2.0	26.2
0+59.11 - 0+65.00			4	5.89	2.6	0.1	0.1				0.1	0.2	2.6
T.R. 149 (CARNATION RD.)													
0+12.22 - 0+37.05 (RAD.)	4	46.26			20.6	0.7	1.0				1.0	1.5	20.6
0+37.05 - 0+65.60	4	28.55			12.7	0.4	0.6				0.6	1.0	12.7
0+12.22 - 0+65.60 (RAD.)			4	67.64	30.1	1.0	1.5				1.5	2.3	30.1
C.R. 3 (RICHVALE RD.)													
0+18.00 - 0+66.30 (RAD.)			4	75.76	33.7	1.2	1.6				1.7	2.5	33.7
			3 AVG.										
0+18.00 - 0+66.27 (RAD.)	4	75.72			33.7	1.2	1.6				1.7	2.5	33.7
LISAKIM LANE													
0+18.49 - 0+42.90 (RAD.)	4	46.24			20.6	0.7	1.0				1.0	0.2	20.6
0+42.90 - 0+66.42	4	23.52			10.5	0.4	0.5				0.5	0.8	10.5
0+18.49 - 0+66.42 (RAD.)			4	63.68	28.3	1.0	1.4				1.4	2.1	28.3
			3 AVG.										
CHARDONN RD.													
0+18.21 - 0+46.21 (RAD.)	4	49.65			22.1	0.8	1.1				1.1	1.7	22.1
0+46.21 - 0+61.99	4	15.78			7.0	0.2	0.3				0.4	0.5	7.0
0+18.21 - 0+60.46 (RAD.)			4	60.28	26.8	0.9	1.3				1.3	2.0	26.8
C.R. 500 (CREAMERY RD.)													
0+19.12 - 0+49.51 (RAD.)	4	60.23			26.8	0.9	1.3				1.3	2.0	26.8
0+49.51 - 0+96.87	4	47.36			21.0	0.7	1.0				1.1	1.6	21.0
0+19.12 - 0+96.87 (RAD.)			4	97.07	43.1	1.5	2.1				2.2	3.2	43.1
TOTALS (CARRIED TO THE GENERAL SUMMARY)						14.1	19.7				20.3	29.2	407.1

SHOULDER CALCULATIONS

MUS-60-17.93



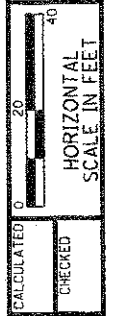
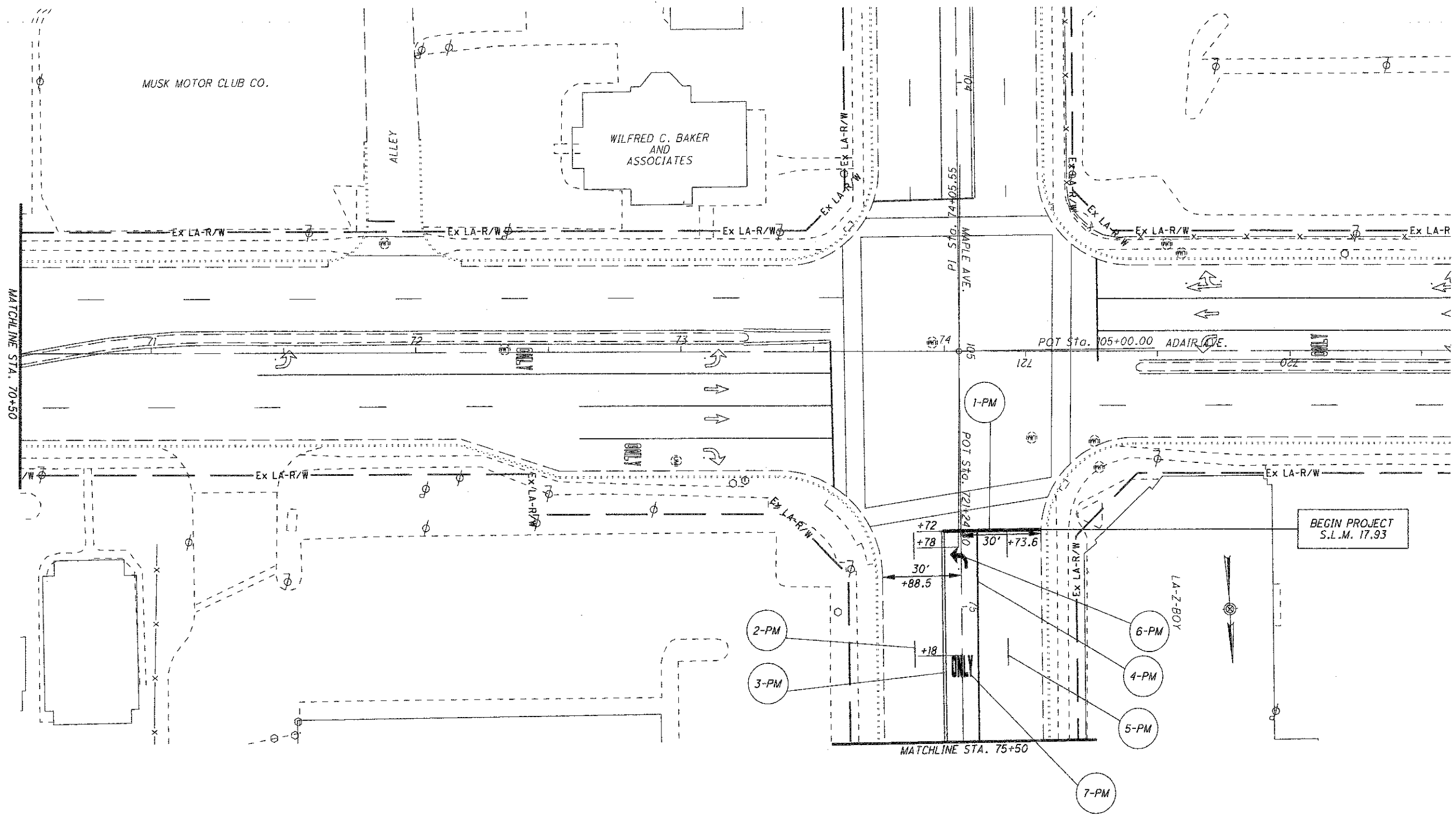
# SHOULDER CALCULATIONS

STATION TO STATION & SURVEY AND CONSTRUCTION APPROACHES	LT. SIDE		RT. SIDE		SHOULDER AREA SQ. YD.	448	448				407	407	254
	WIDTH BERM (FEET)	FEET	WIDTH BERM (FEET)	FEET		1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M CU. YD.	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD.				TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL./S.Y. GAL.	TACK COAT @ 0.075 GAL./S.Y. GAL.	PAVEMENT PLANING, ASPHALT CONCRETE SQ. YD.
VIRGINIA RD. 0+18.00 - 0+53.05 (RAD.)	4	53.03			23.6	0.8	1.1				1.2	1.8	23.6
	3 AVG.												
0+18.00 - 0+53.05 (RAD.)			4	55.03	24.5	0.8	1.2				1.2	1.8	24.5
NORTH VISTA DR. 0+18.11 - 0+61.48 (RAD.)			4	72.96	32.4	1.1	1.6				1.6	2.4	32.4
0+61.48 - 0+75.37			4	13.89	6.2	0.2	0.3				0.3	0.5	6.2
0+75.37 - 0+95.37			3 AVG.	20.00	6.7	0.2	0.3				0.3	0.5	6.7
0+18.11 - 0+75.37 (RAD.)	4	84.12			37.4	1.3	1.8				1.9	2.8	37.4
0+75.37 - 0+95.37		20.00			6.7	0.2	0.3				0.3	0.5	6.7
T.R. 307 (GORSUCH RD.) 0+22.40 - 0+67.39 (RAD.)	4	78.04			34.7	1.2	1.7				1.7	2.6	34.7
0+22.40 - 0+69.48 (RAD.)			4	79.73	35.4	1.2	1.7				1.8	2.7	35.4
C.R. 307 (VISTA VIEW DR.) 0+18.00 - 0+68.87 (RAD.)			4	79.29	35.2	1.2	1.7				1.8	2.6	35.2
0+68.87 - 0+80.00			4	11.13	4.9	0.2	0.2				0.2	0.4	4.9
0+18.00 - 0+67.24 (RAD.)	4	77.98			34.7	1.2	1.7				1.7	2.6	34.7
0+67.24 - 0+80.00	4	12.76			5.7	0.2	0.3				0.3	0.4	5.7
SHANNON RD. 0+12.01 - 0+59.30 (RAD.)	4	76.35			33.9	1.2	1.6				1.7	2.5	33.9
0+59.30 - 0+84.85	3 AVG.	25.55			8.5	0.3	0.4				0.4	0.6	8.5
0+12.01 - 0+64.82 (RAD.)			4	80.87	35.9	1.2	1.7				1.8	2.7	35.9
0+64.82 - 0+84.85			3 AVG.	20.03	6.7	0.2	0.3				0.3	0.5	6.7
TOTALS (CARRIED TO THE GENERAL SUMMARY)						12.7	17.9				18.5	27.9	373.1

SHOULDER CALCULATIONS

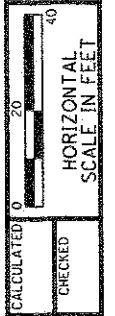
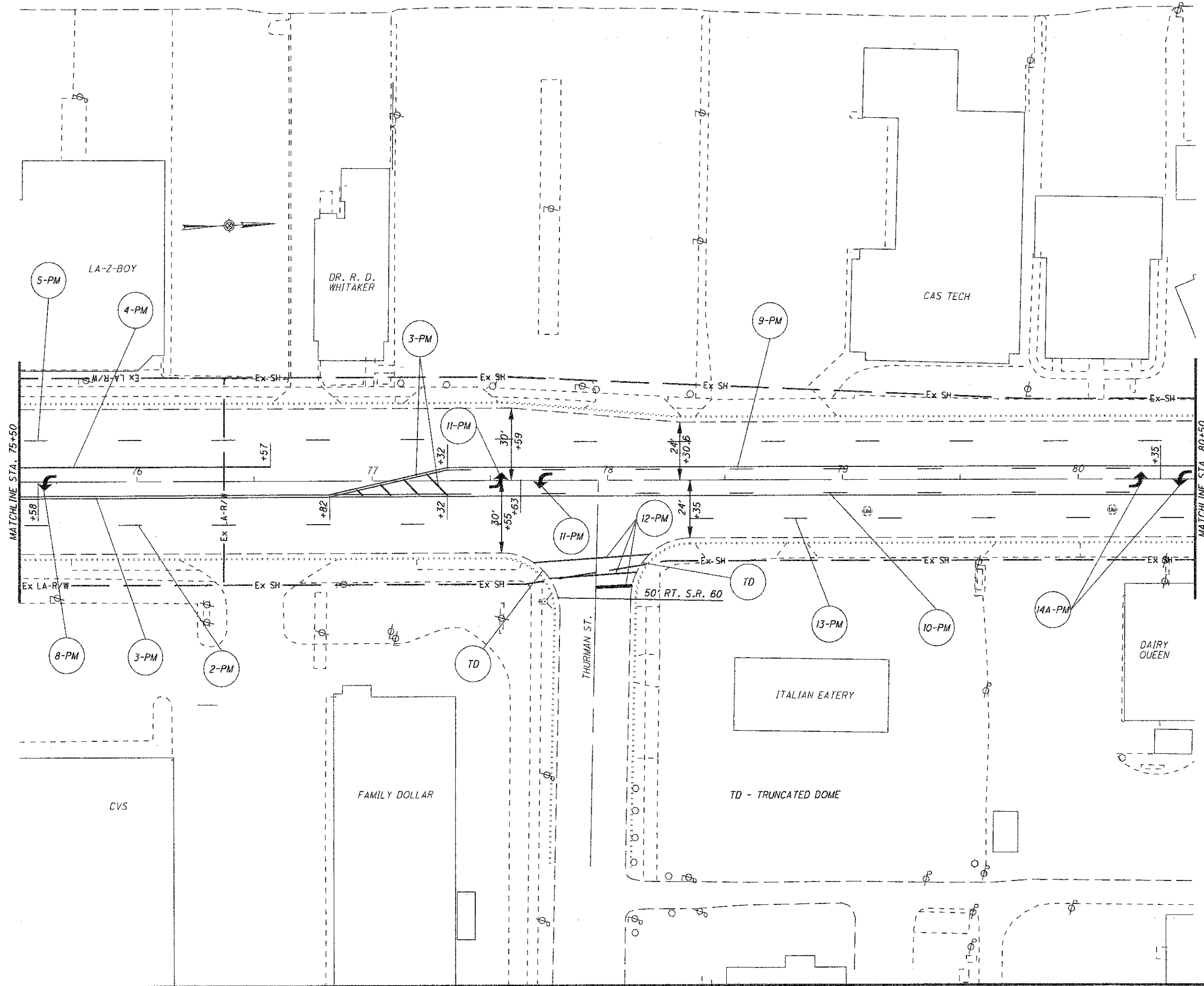
MUS-60-17.93

M60CALC1 4.DGN



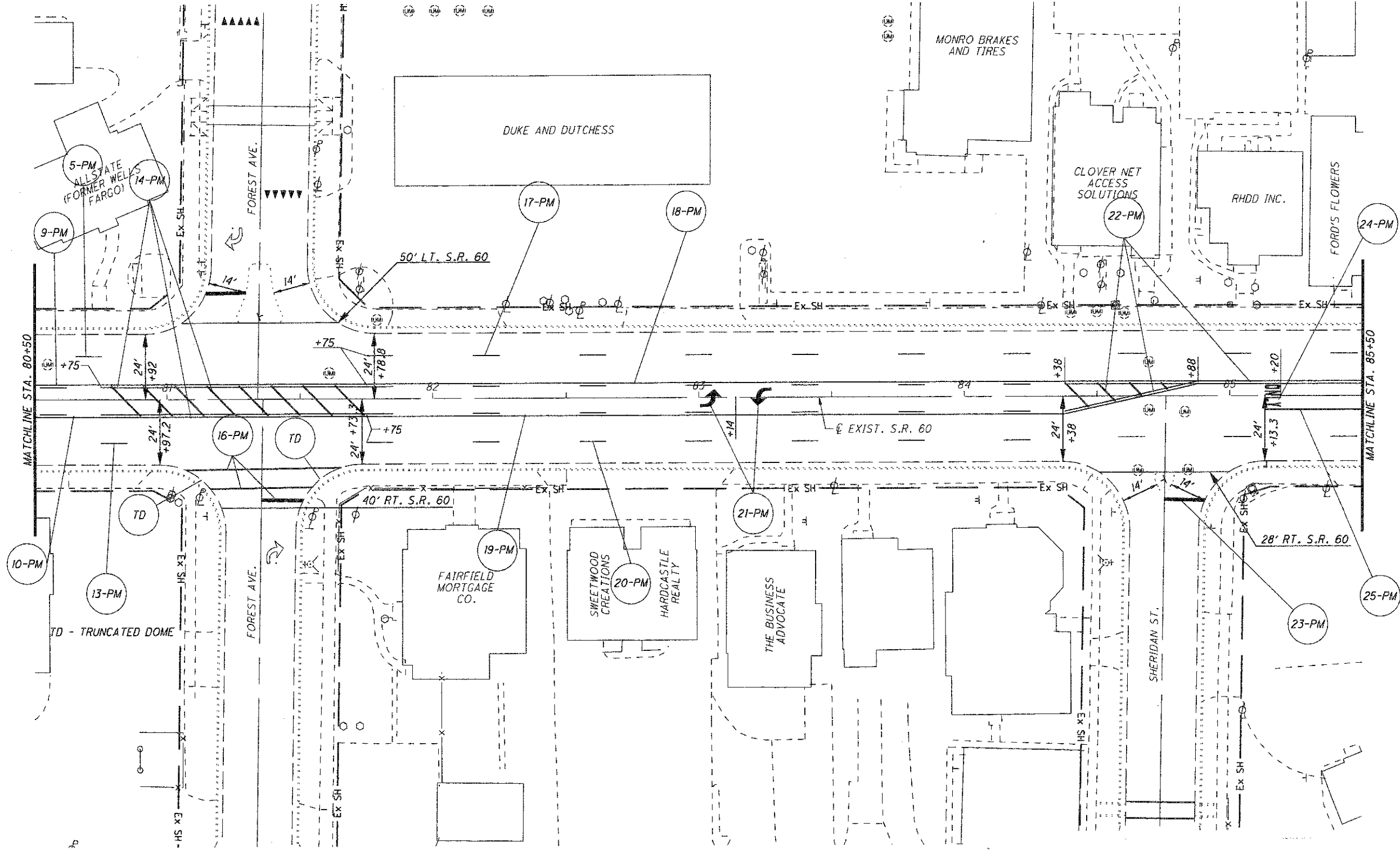
PLAN SHEET  
STA. 70+50 TO STA. 75+50 (S.R. 60)

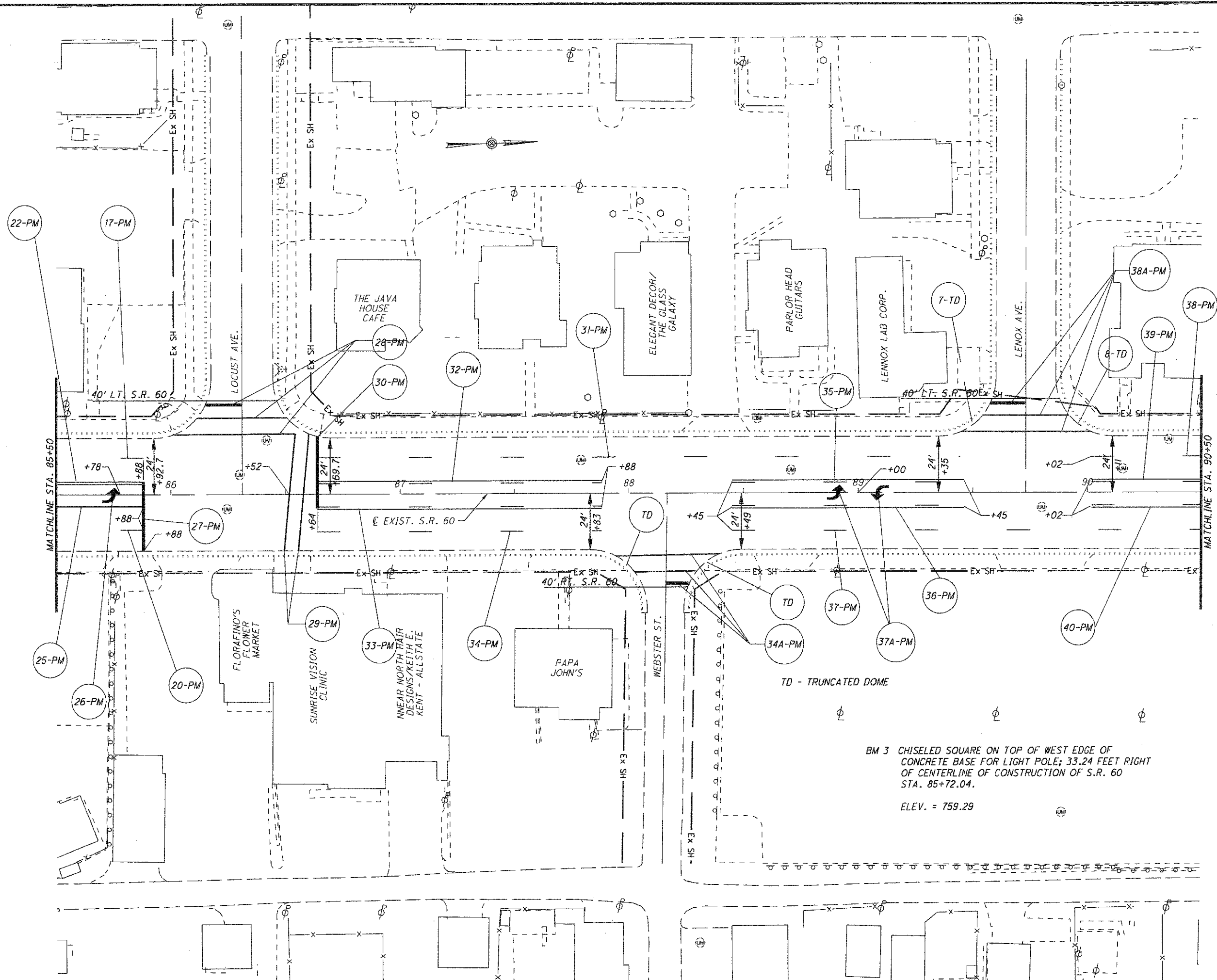
MUS-60-17.93



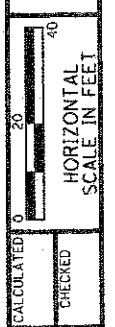
PLAN SHEET  
STA. 75+50 TO STA. 80+50 (S.R. 60)

MUS-60-17.93





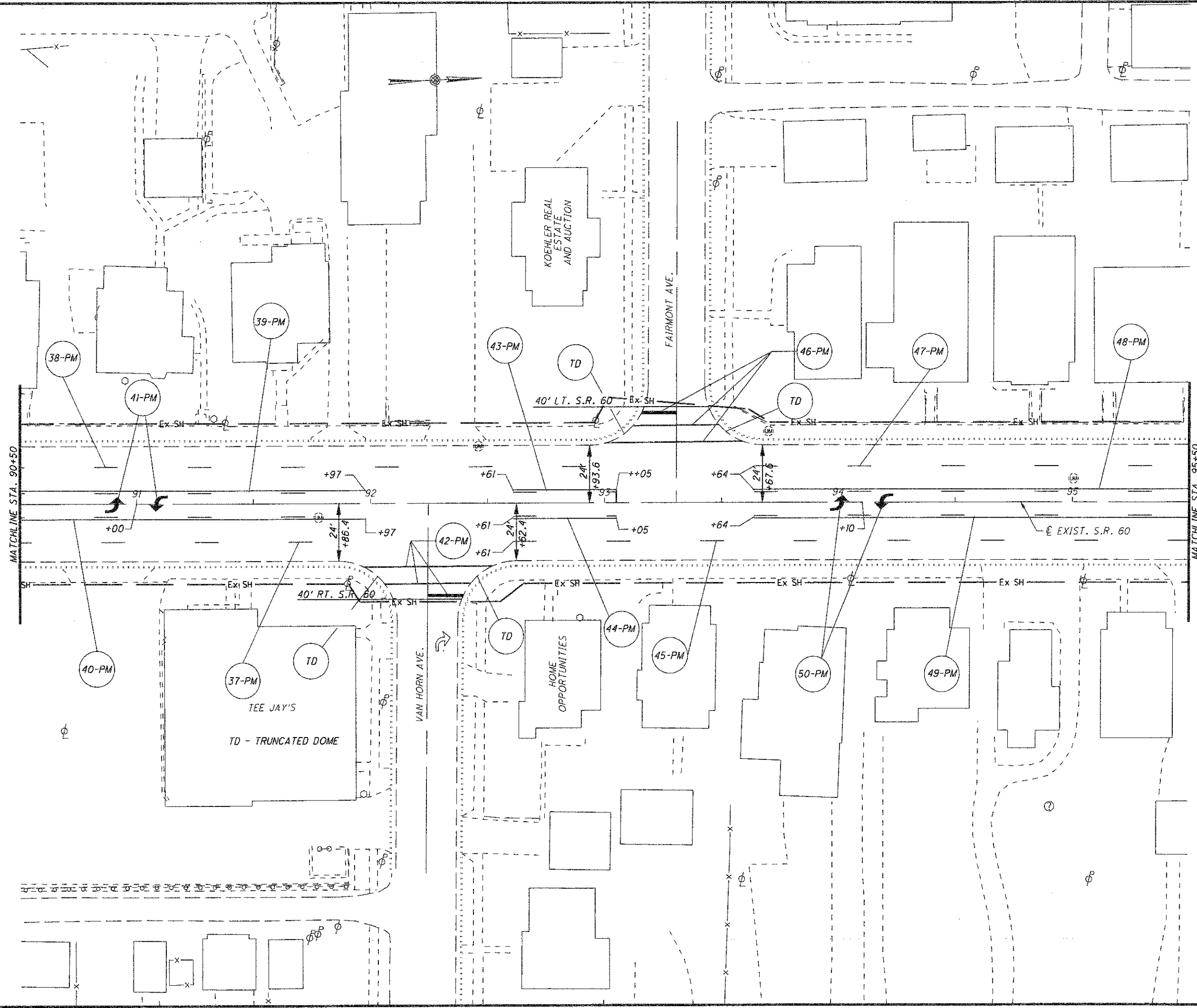
BM 3 CHISELED SQUARE ON TOP OF WEST EDGE OF  
 CONCRETE BASE FOR LIGHT POLE; 33.24 FEET RIGHT  
 OF CENTERLINE OF CONSTRUCTION OF S.R. 60  
 STA. 85+72.04.  
 ELEV. = 759.29



CALCULATED  
 CHECKED  
**PLAN SHEET**  
**STA. 85+50 TO STA. 90+50 (S.R. 60)**

**MUS-60-17.93**

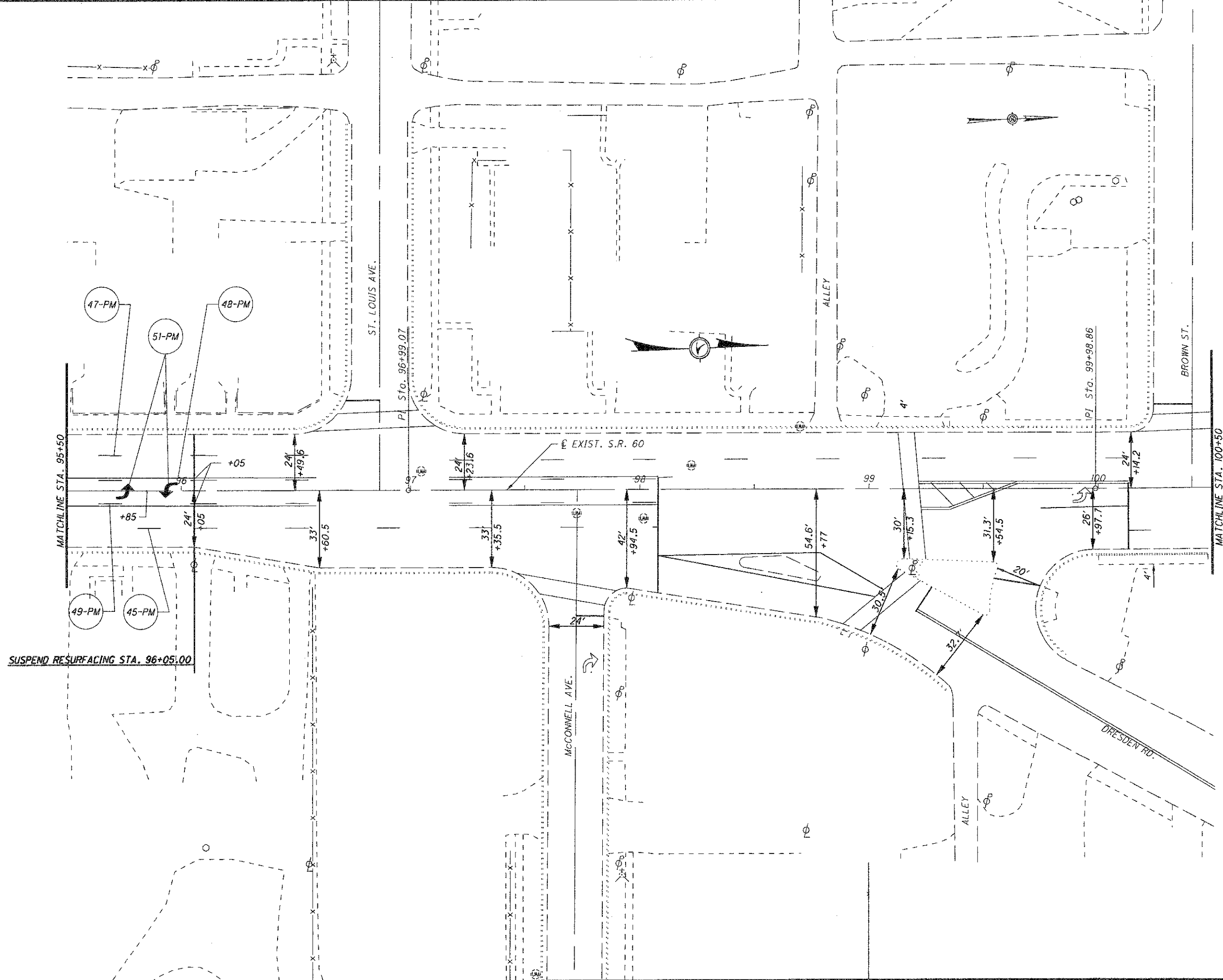
53-PM

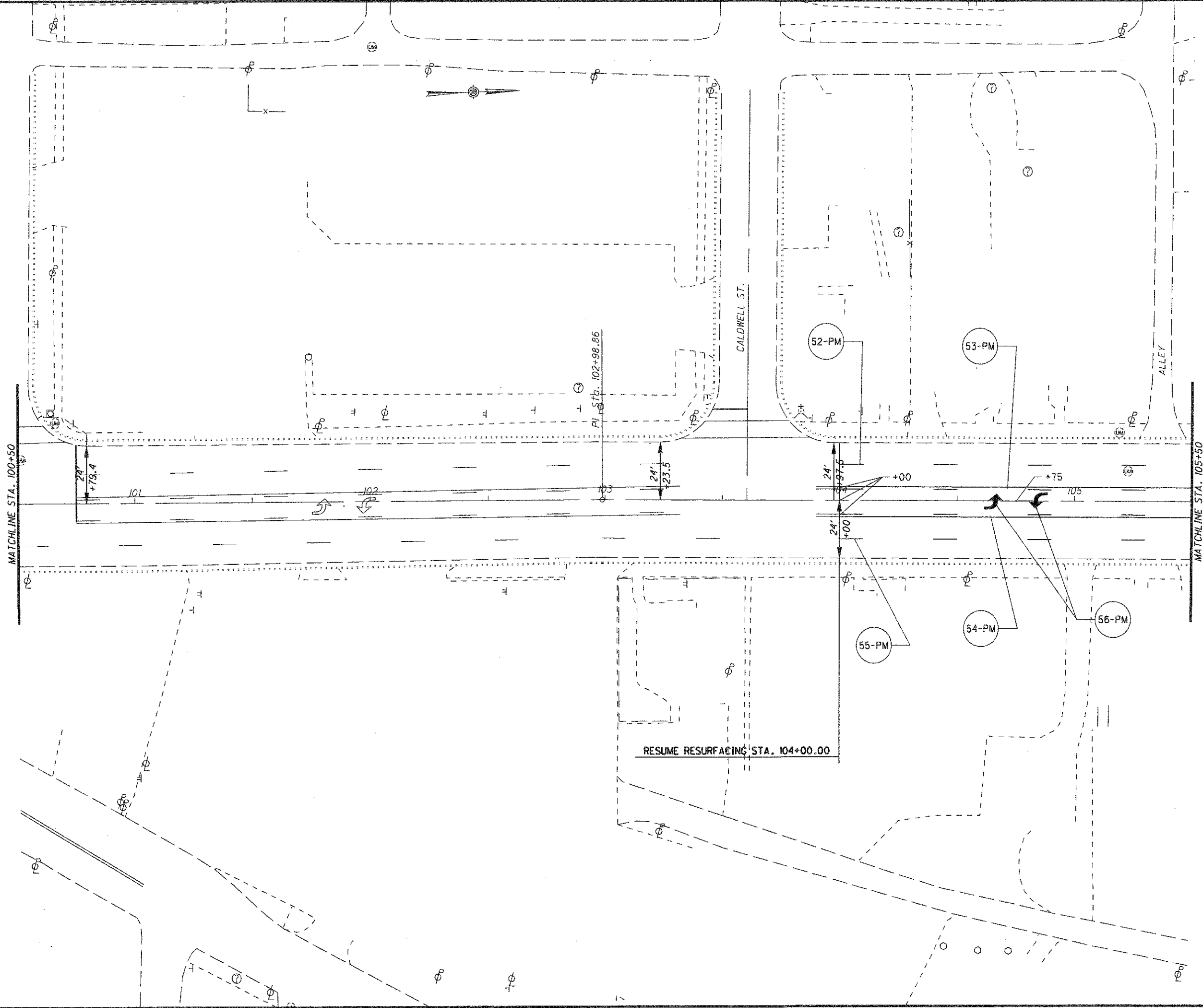


SUSPEND RESURFACING STA. 96+05.00

MATCHLINE STA. 95+50

MATCHLINE STA. 100+50





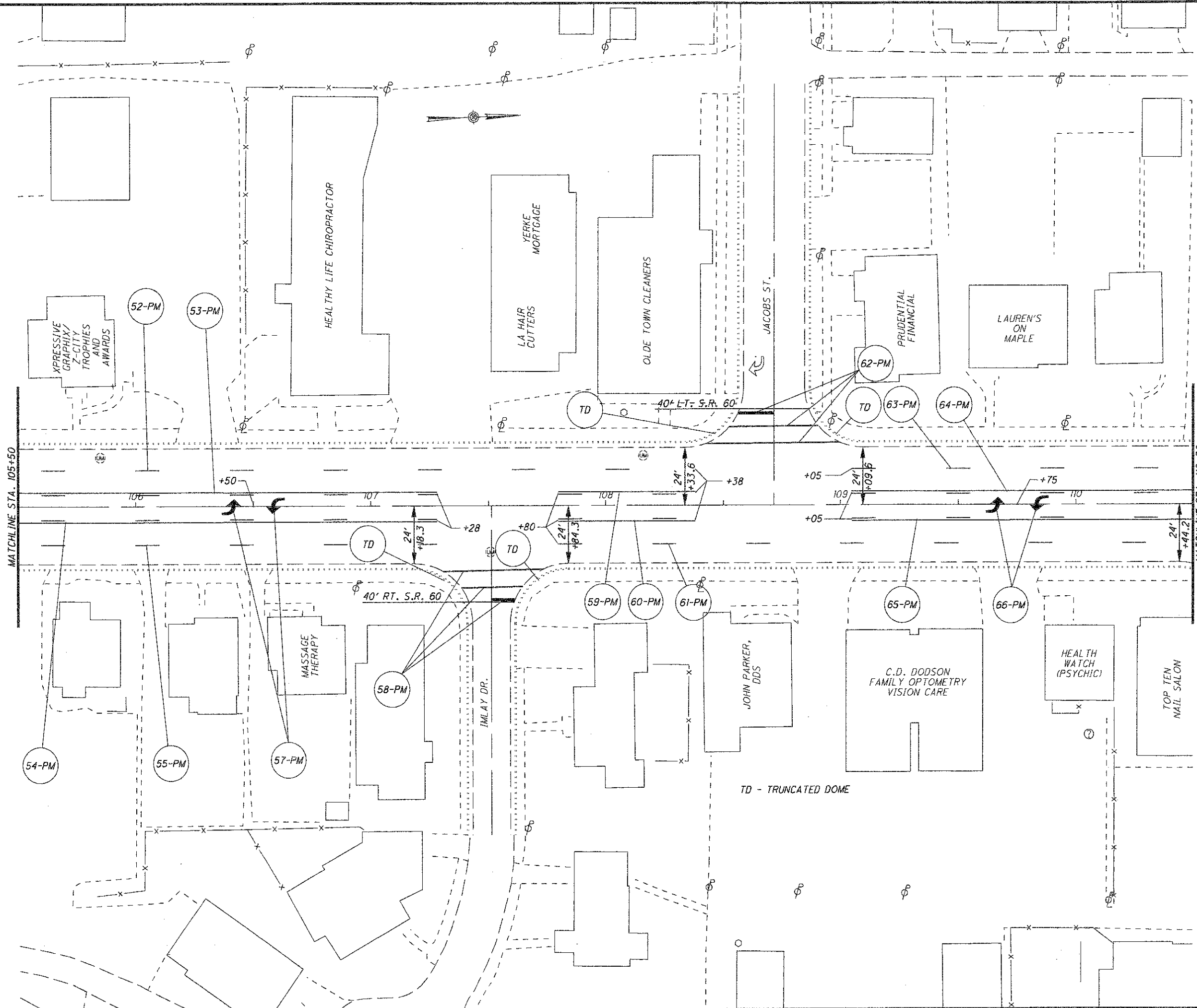
MUS-60-17.93

PLAN SHEET  
STA. 100+50 TO STA. 105+50 (S.R. 60)

CALCULATED	0	20	40
CHECKED			

HORIZONTAL SCALE IN FEET

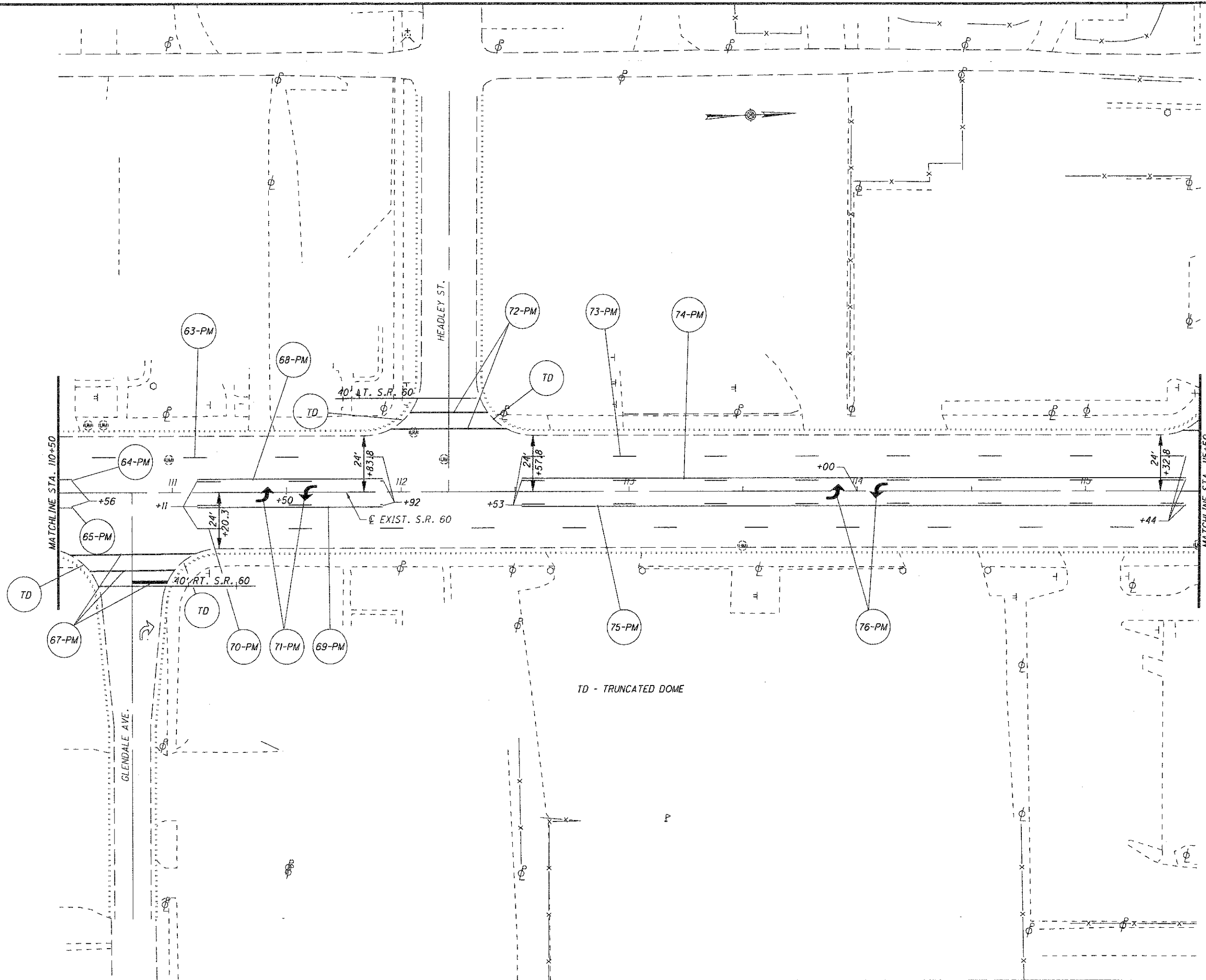


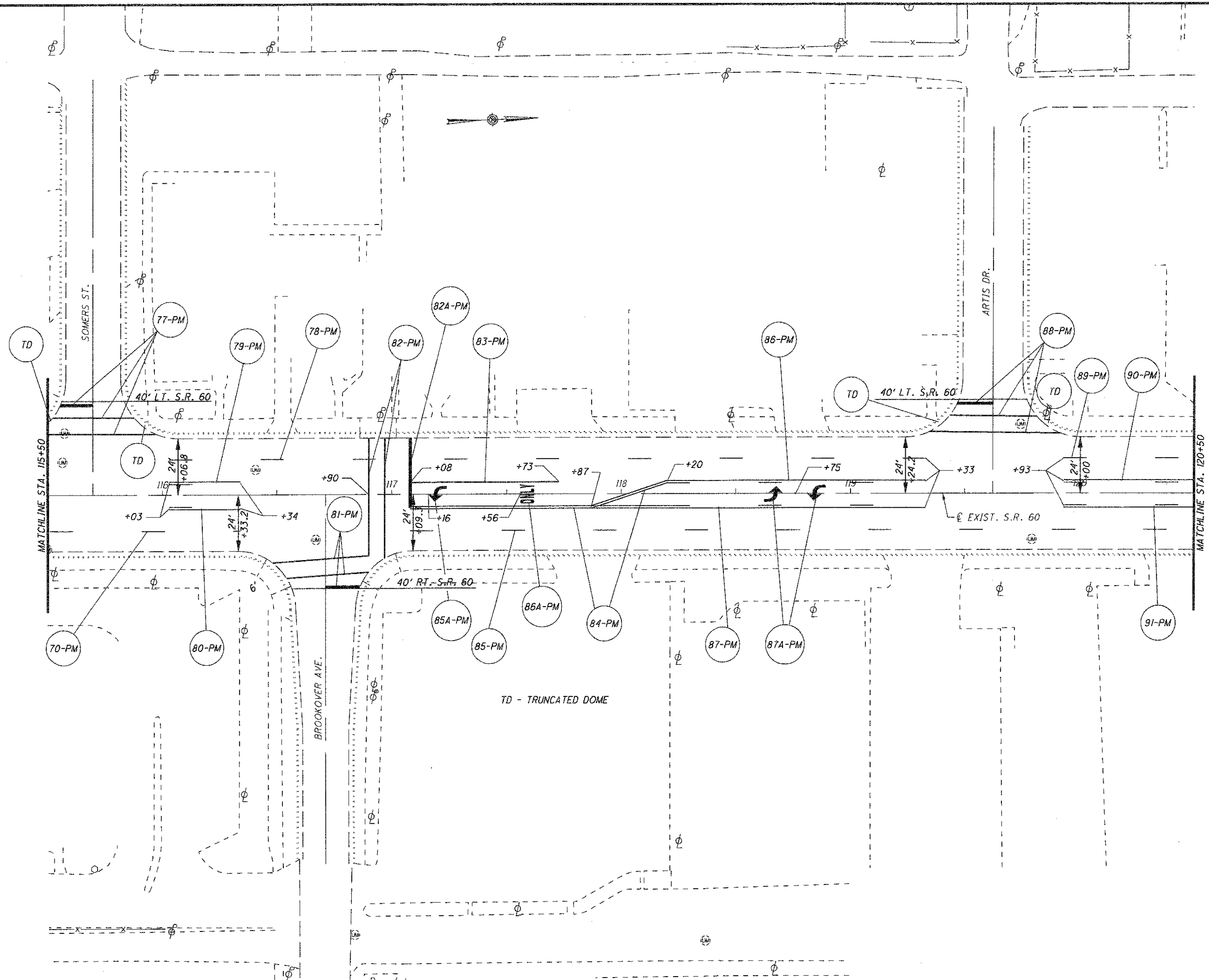


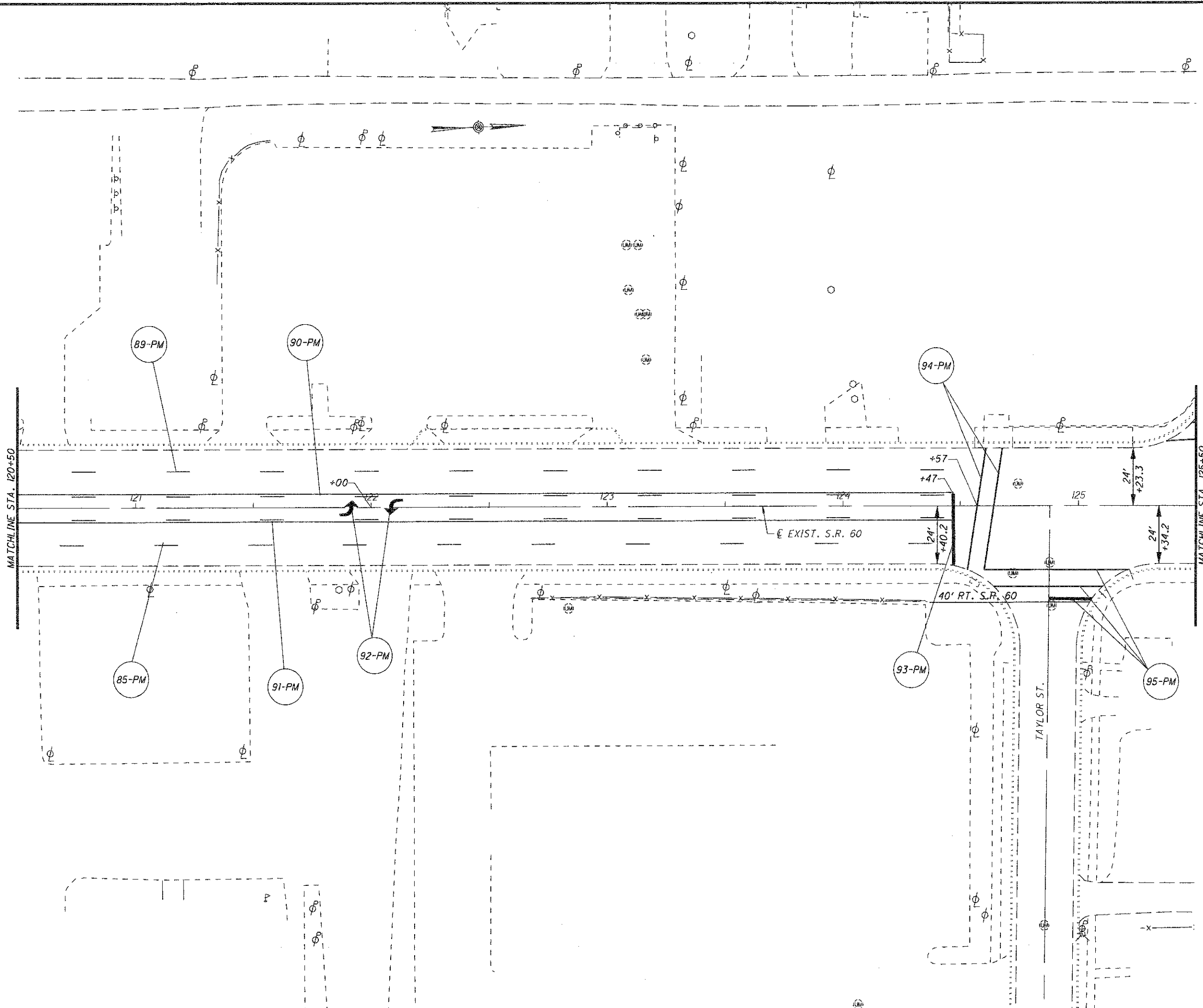
CALCULATED 0  
 CHECKED 40  
 HORIZONTAL SCALE IN FEET

PLAN SHEET  
 STA. 105+50 TO STA. 110+50 (S.R. 60)

MUS-60-17.93





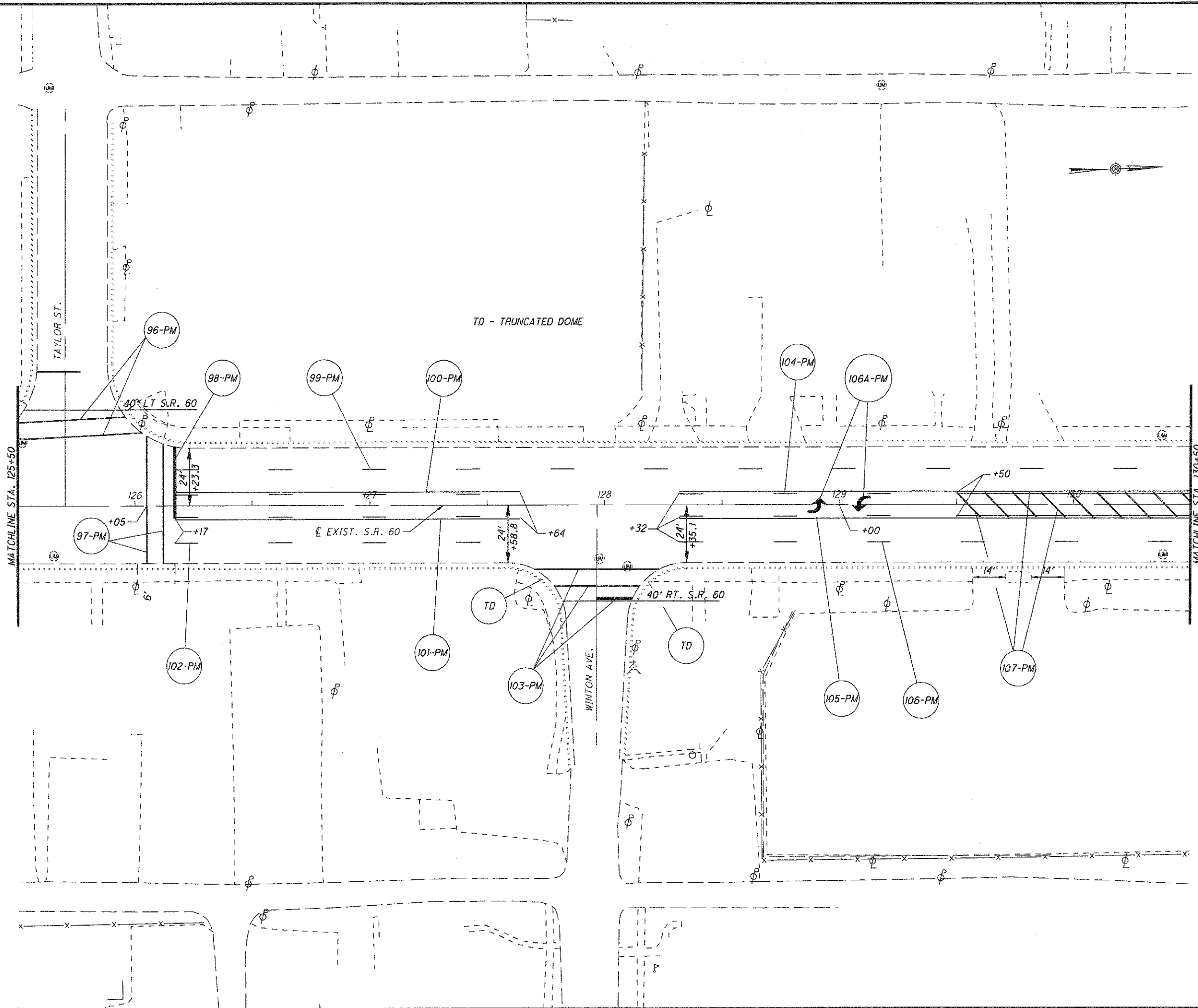


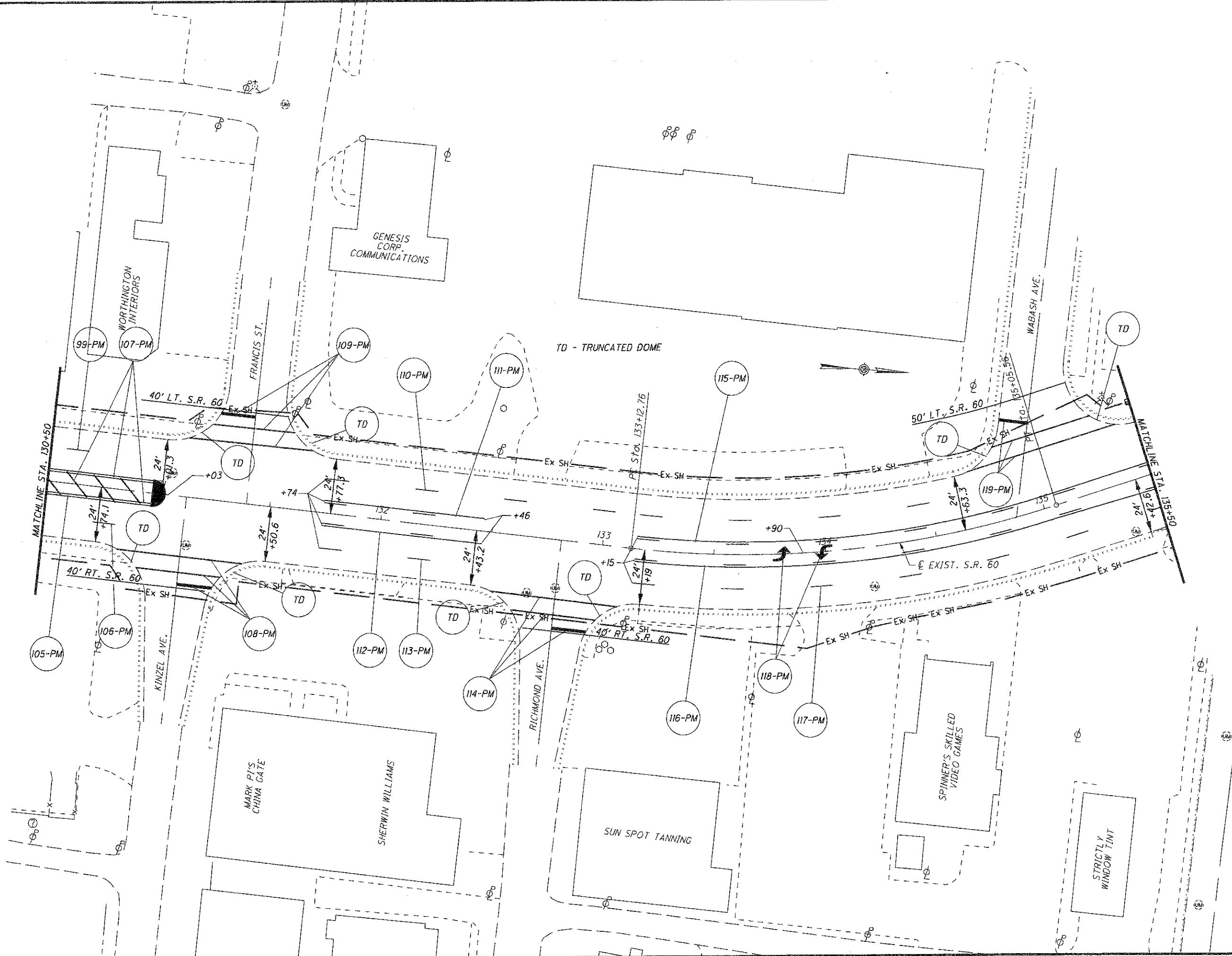
CALCULATED	0	20	40
CHECKED			

HORIZONTAL SCALE IN FEET

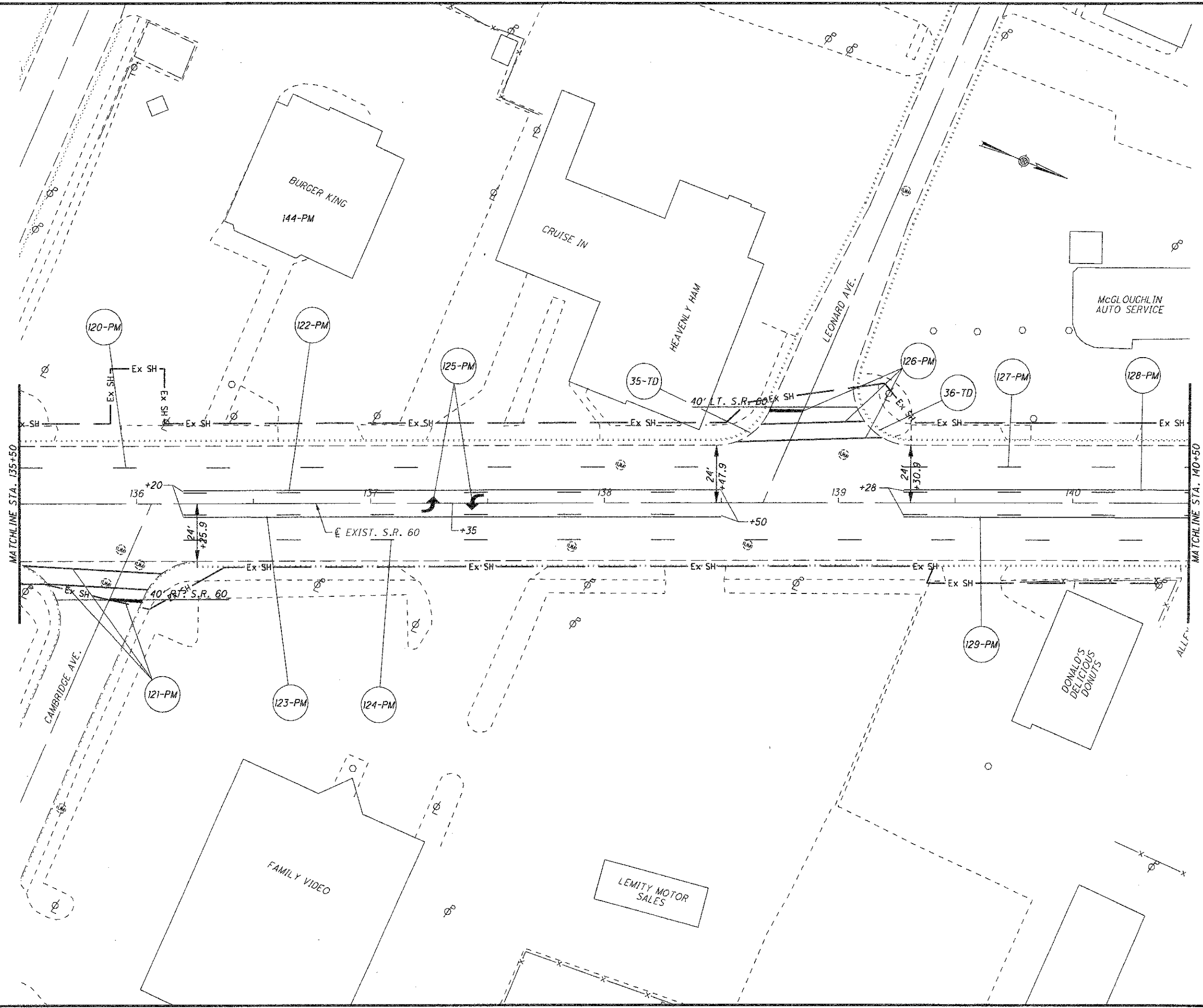
**PLAN SHEET**  
**STA. 120+50 TO STA. 125+50 (S.R. 60)**

**MUS-60-17.93**





14060.FPP-026.DGN 11/06/08



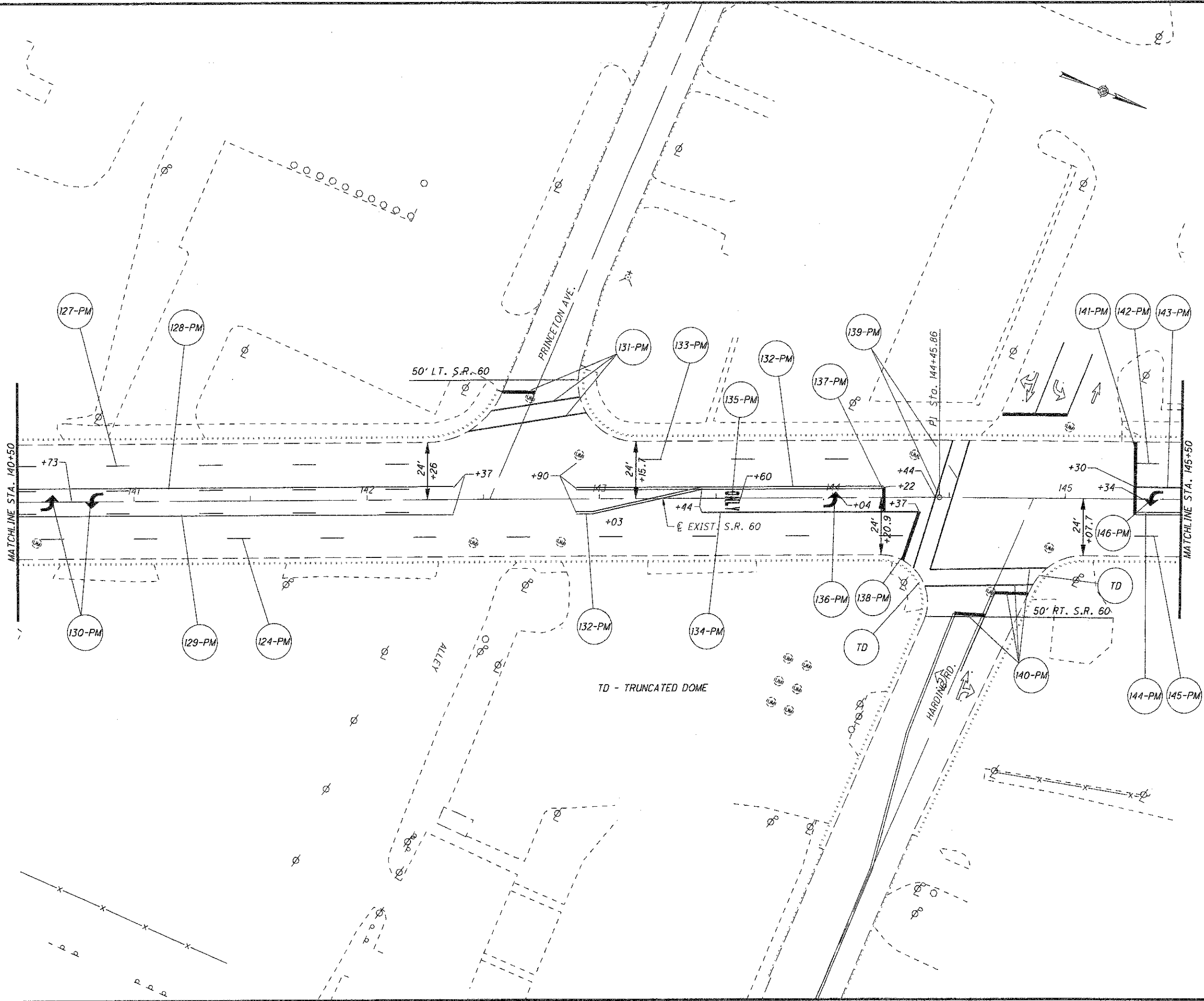
MUS-60-17.93

PLAN SHEET  
STA. 135+50 TO STA. 140+50 (S.R. 60)

CALCULATED  
CHECKED

0 20 40  
HORIZONTAL  
SCALE IN FEET

M060\_PPP\_027.DGN 11/06/08



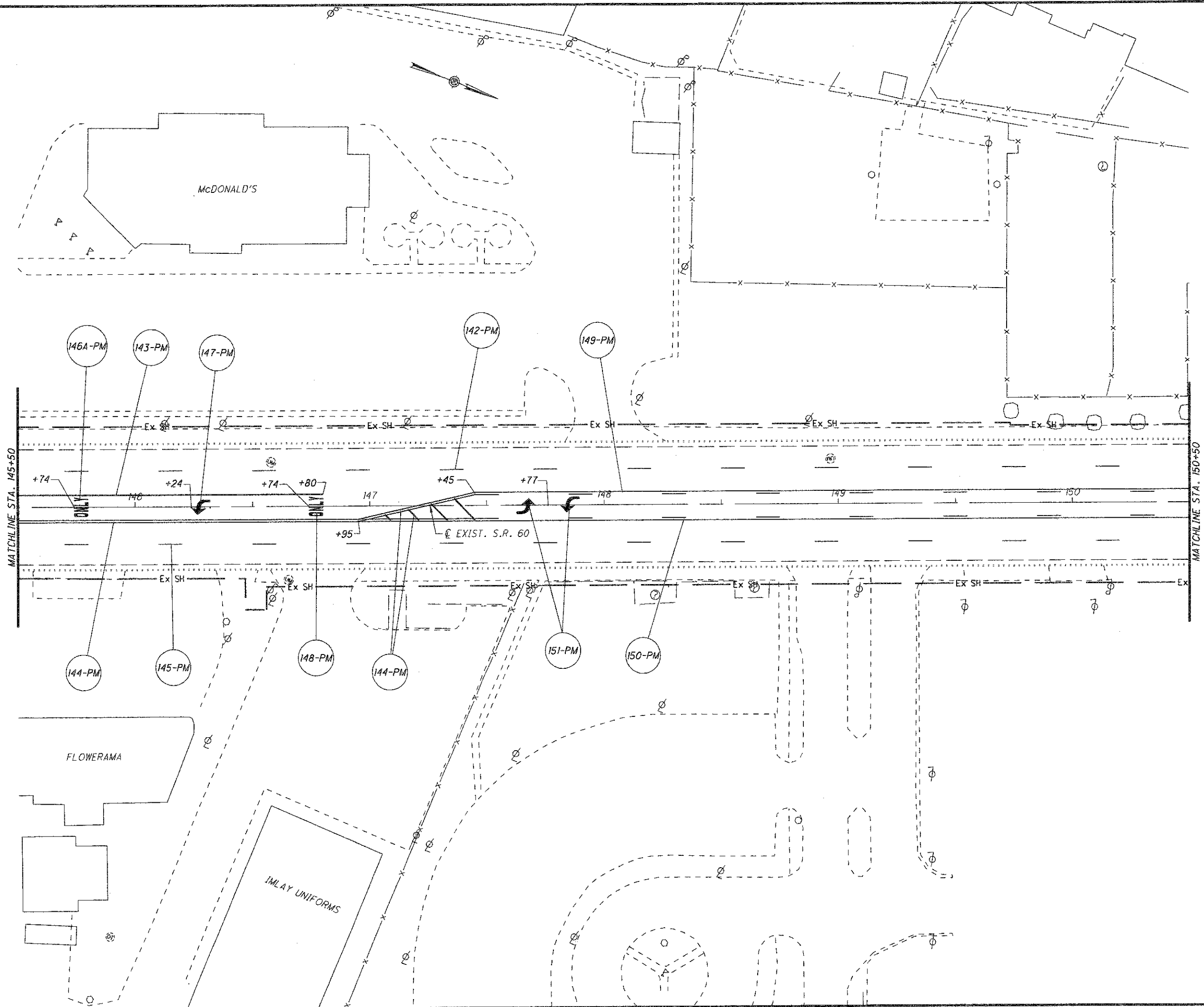
CALCULATED 0 20 40  
 CHECKED

**PLAN SHEET**  
**STA. 140+50 TO STA. 145+50 (S.R. 60)**

**MUS-60-17.93**



M060\_PPP\_02B.DGN 12/22/08

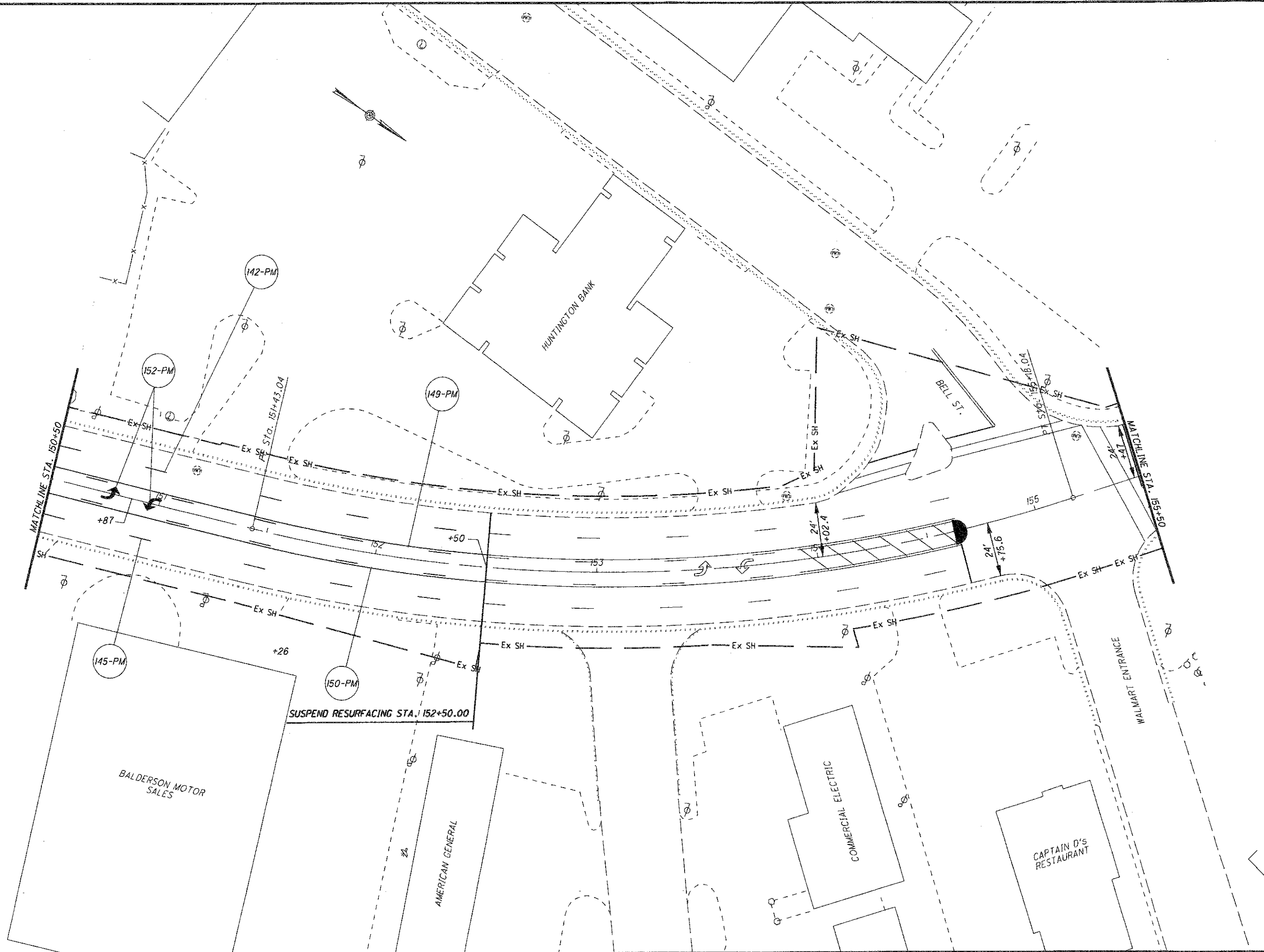


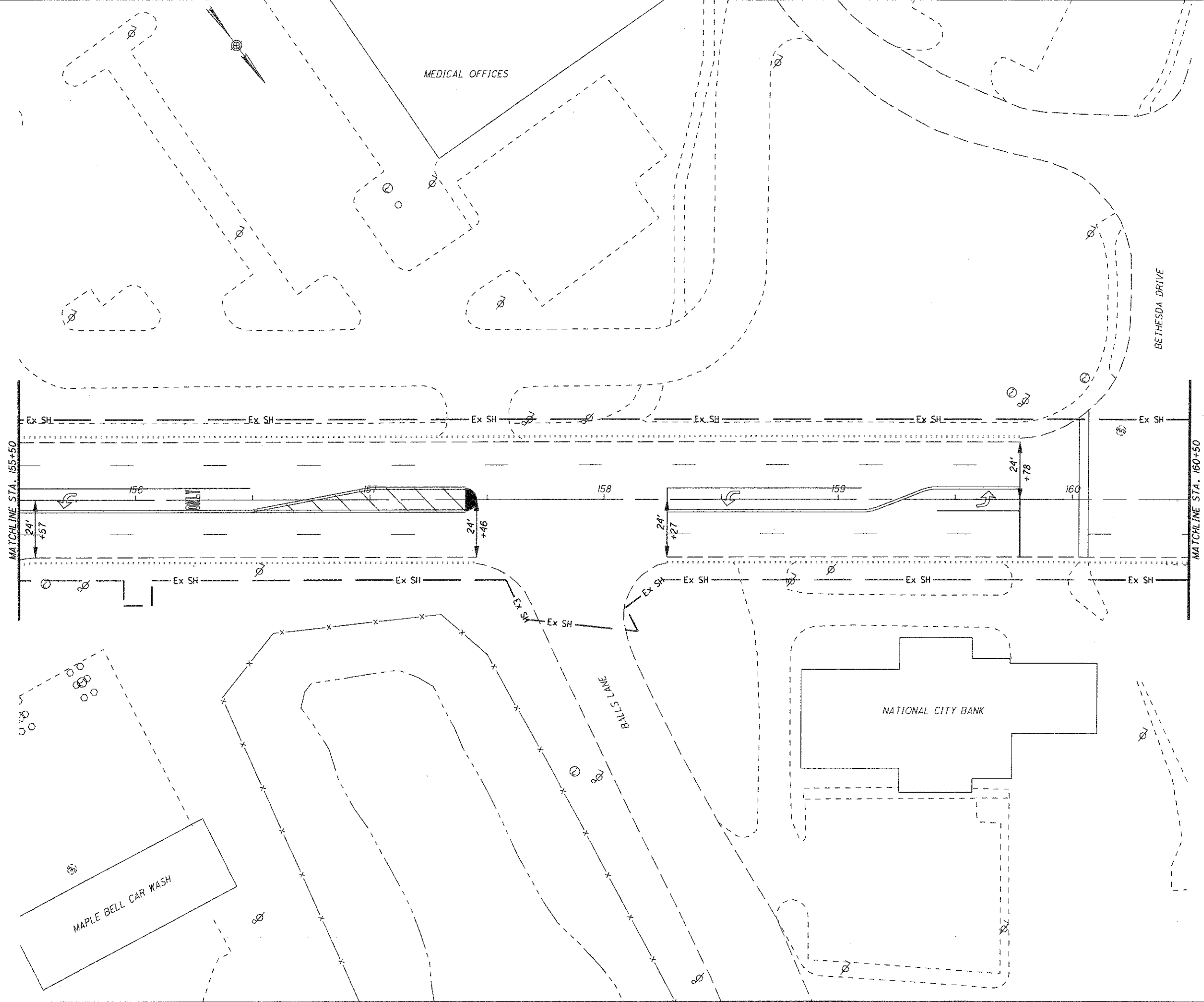
CALCULATED	0
CHECKED	

HORIZONTAL SCALE IN FEET  
0 20 40

**PLAN SHEET**  
**STA. 145+50 TO STA. 150+50 (S.R. 60)**

**MUS-60-17.93**

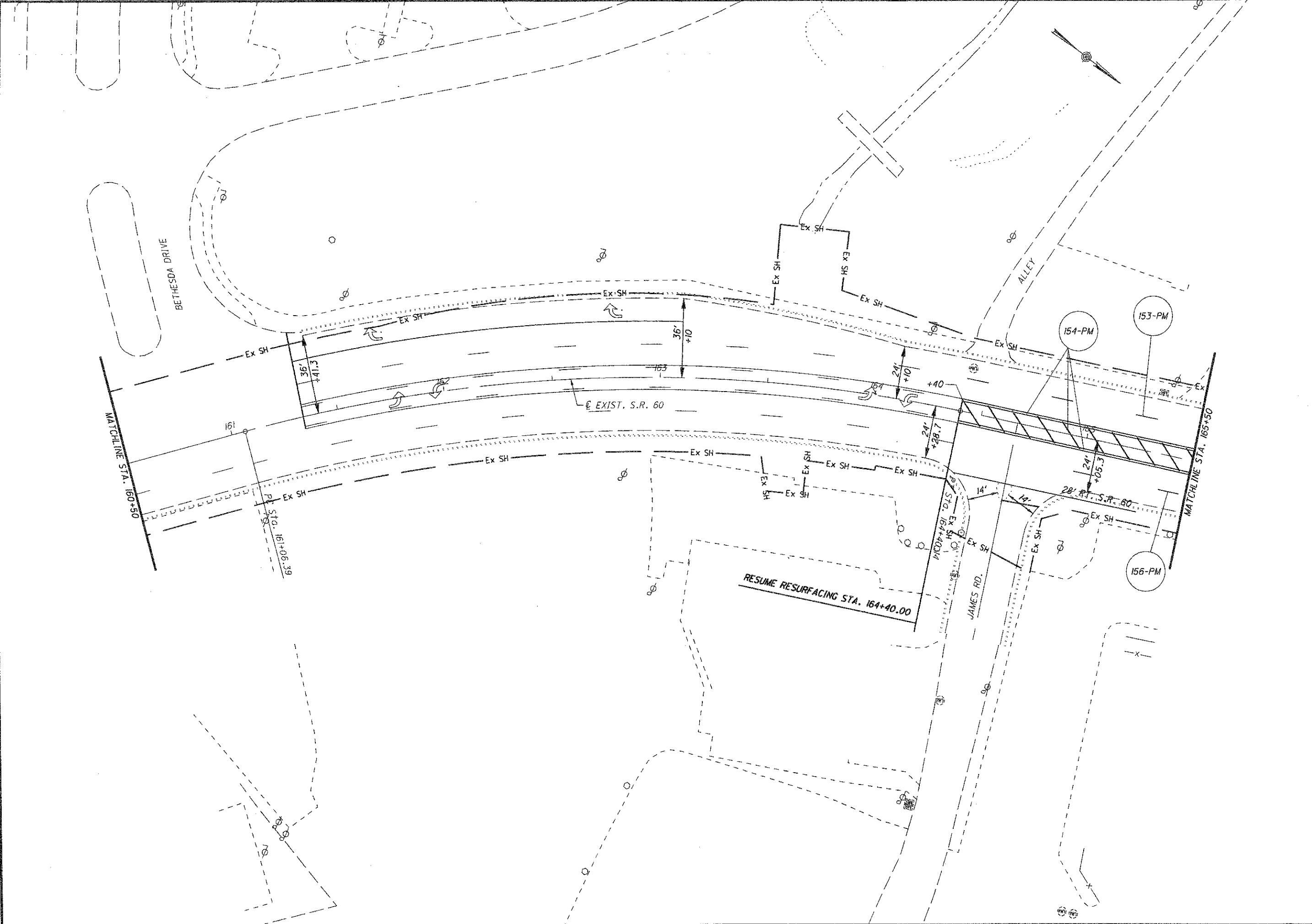




CALCULATED 0 20 40  
 CHECKED  
 HORIZONTAL SCALE IN FEET

**PLAN SHEET**  
**STA. 155+50 TO STA. 160+50 (S.R. 60)**

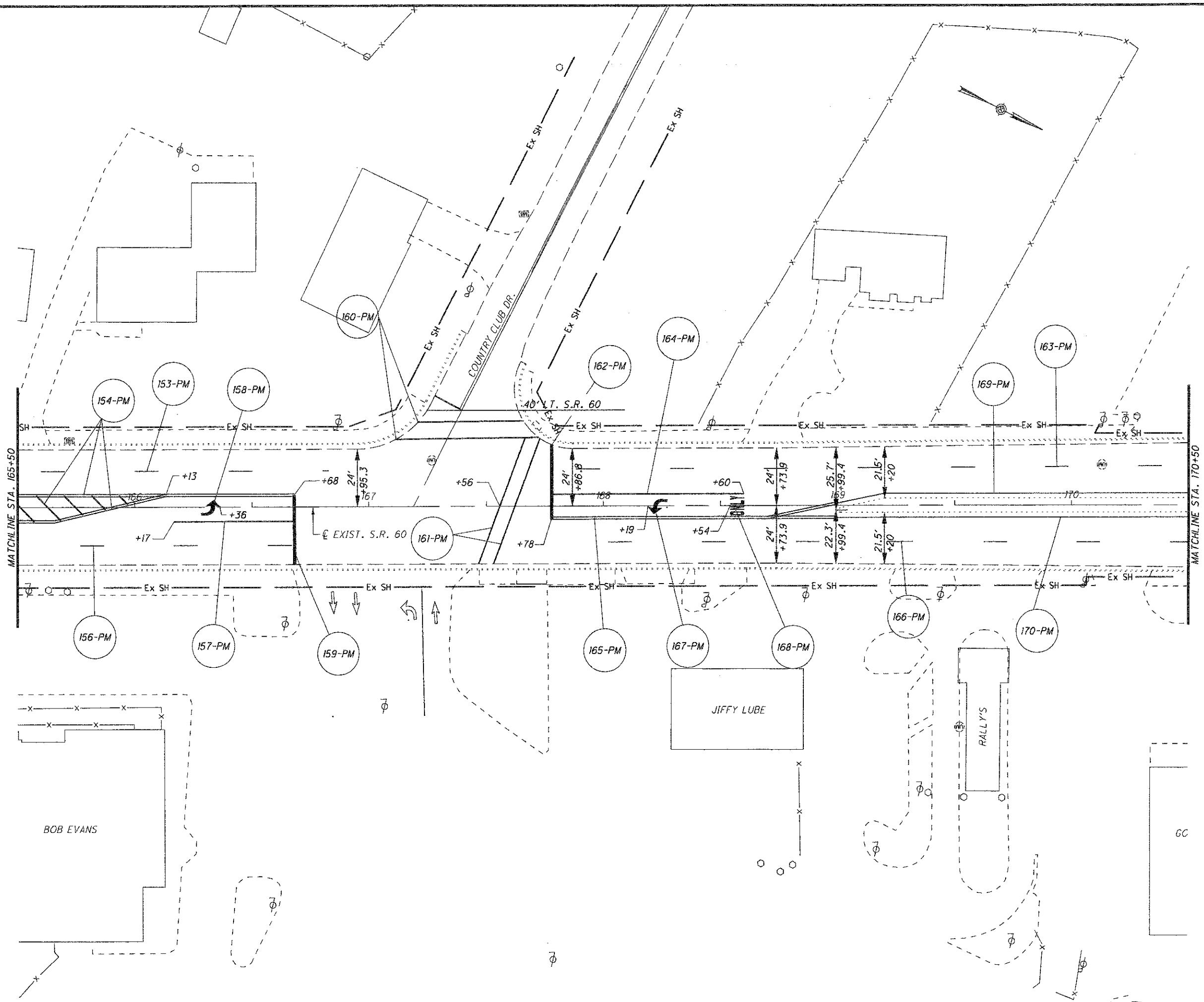
**MUS-60-17.93**  
 47  
 121



CALCULATED 0 20 40  
 HORIZONTAL SCALE IN FEET  
 CHECKED

**PLAN SHEET**  
**STA. 160+50 TO STA. 165+50 (S.R. 60)**

**MUS-60-17.93**

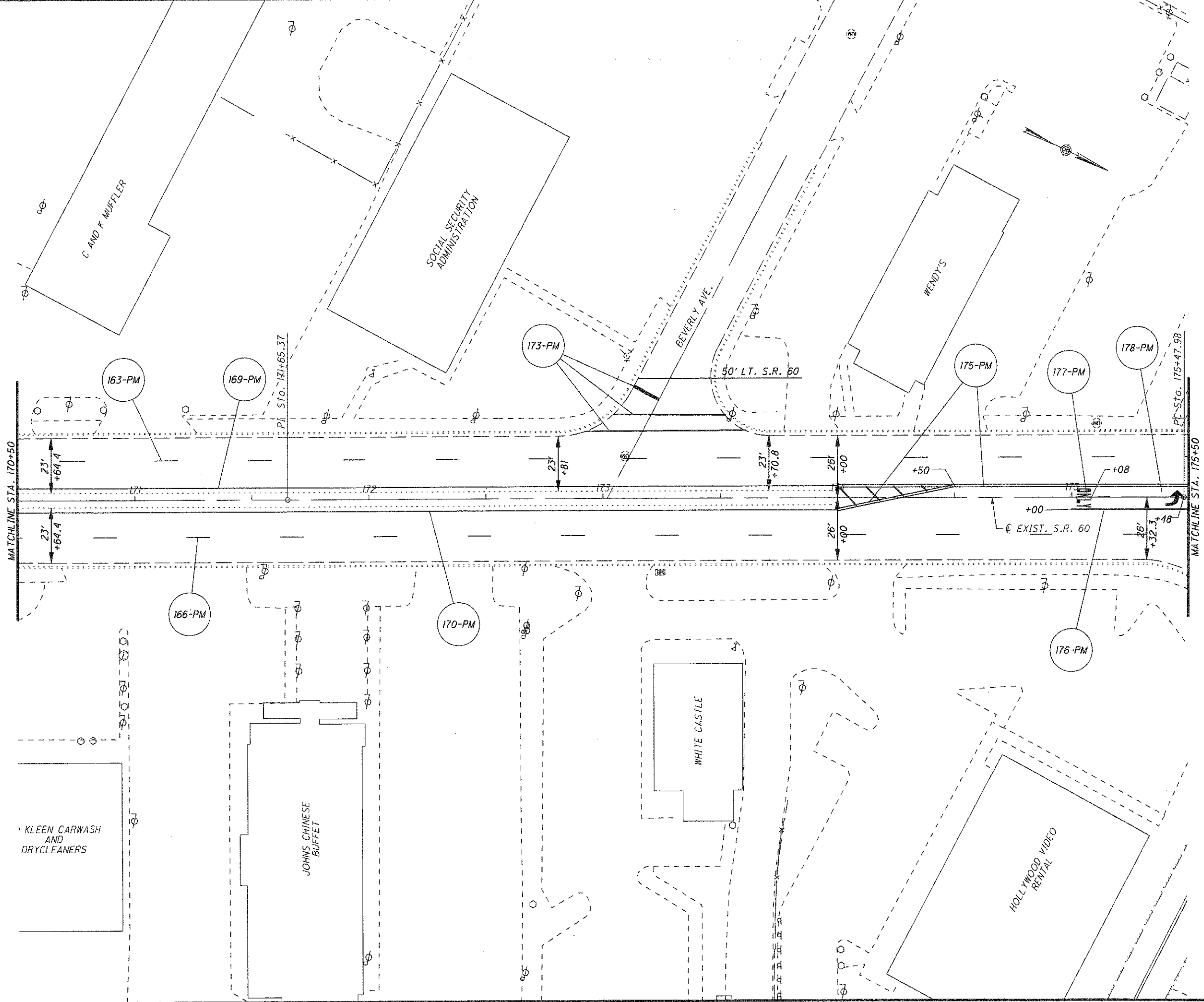


CALCULATED  
CHECKED

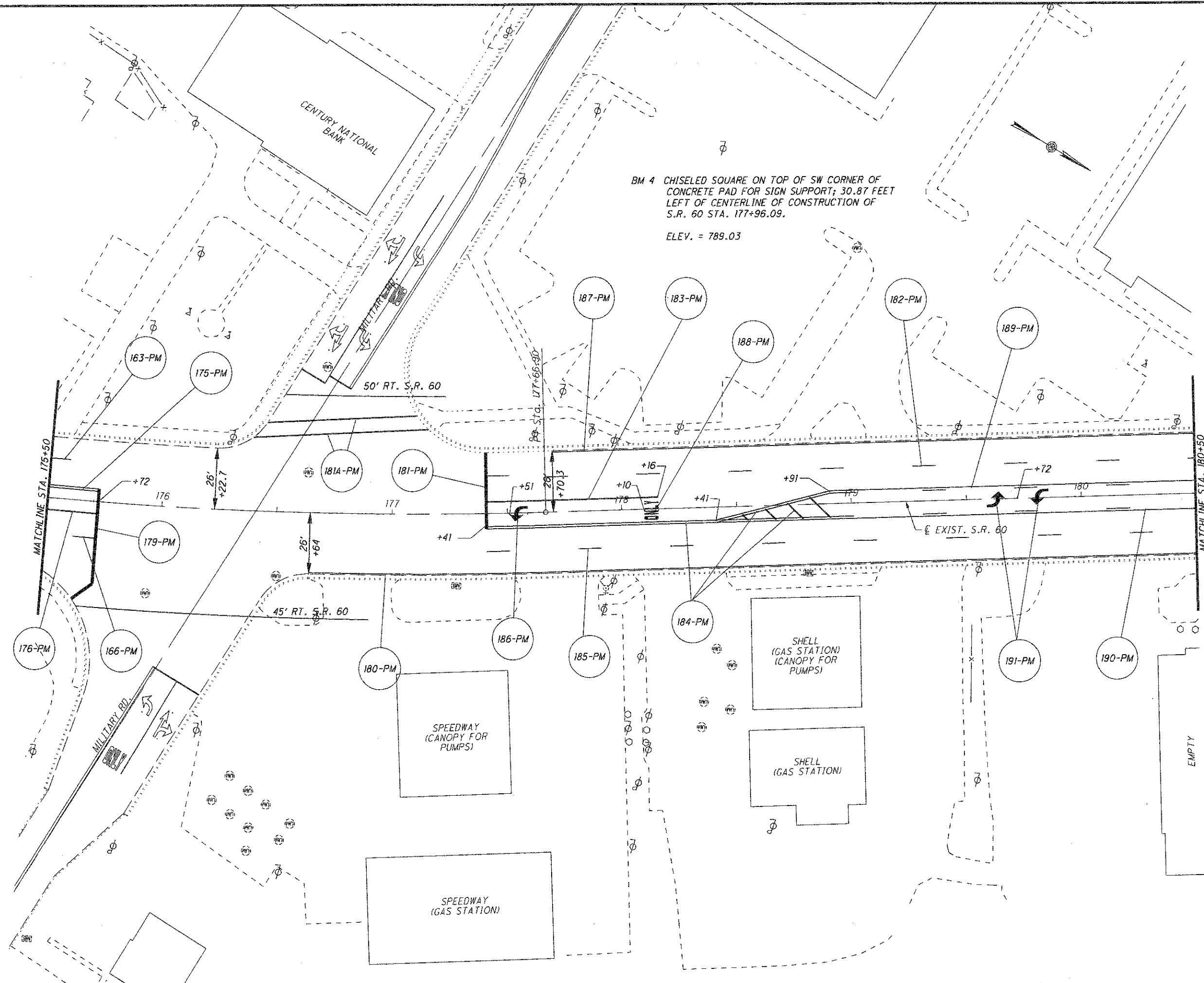
0 20 40  
HORIZONTAL SCALE IN FEET

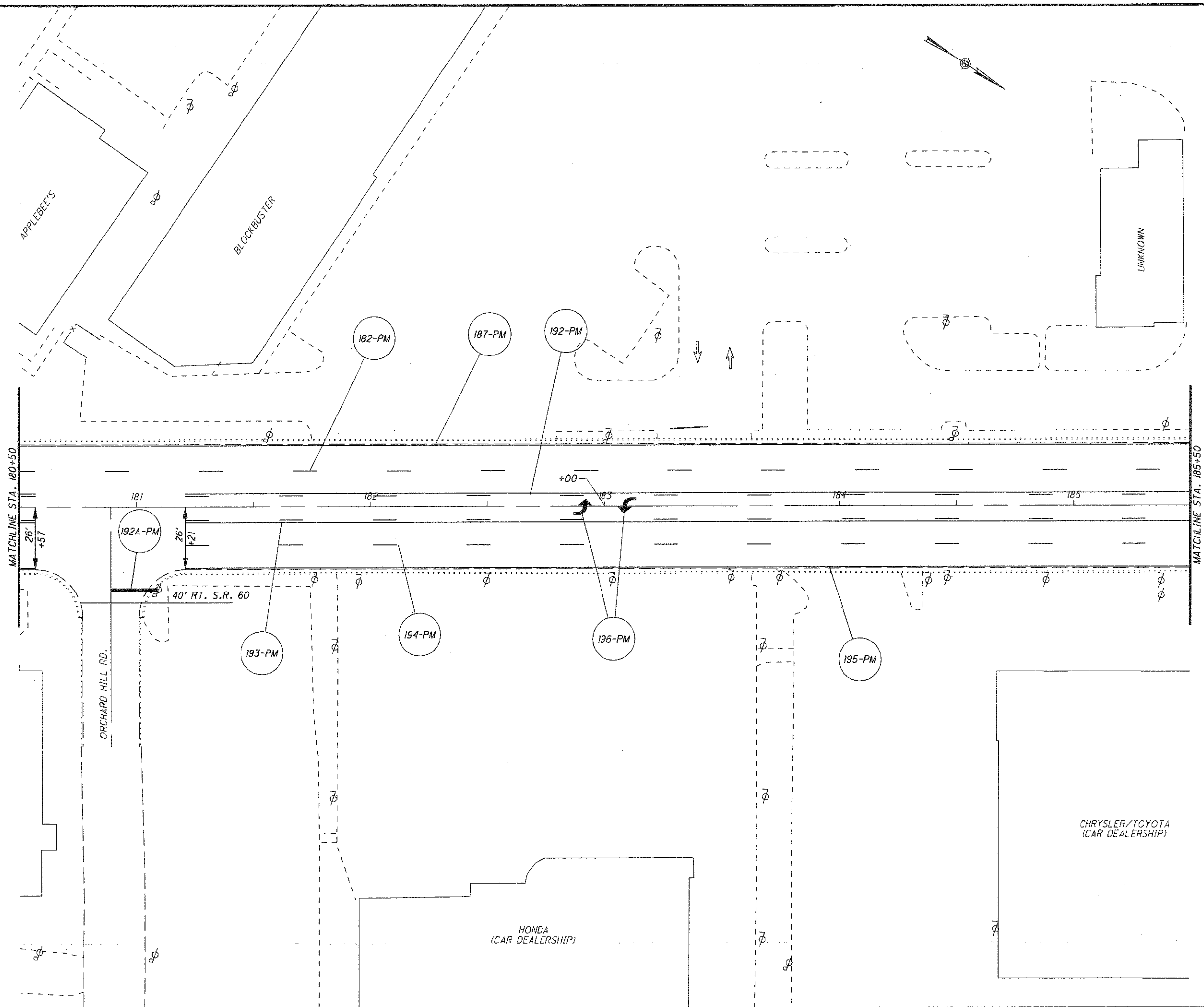
**PLAN SHEET**  
**STA. 165+50 TO STA. 170+50 (S.R. 60)**

**MUS-60-17.93**





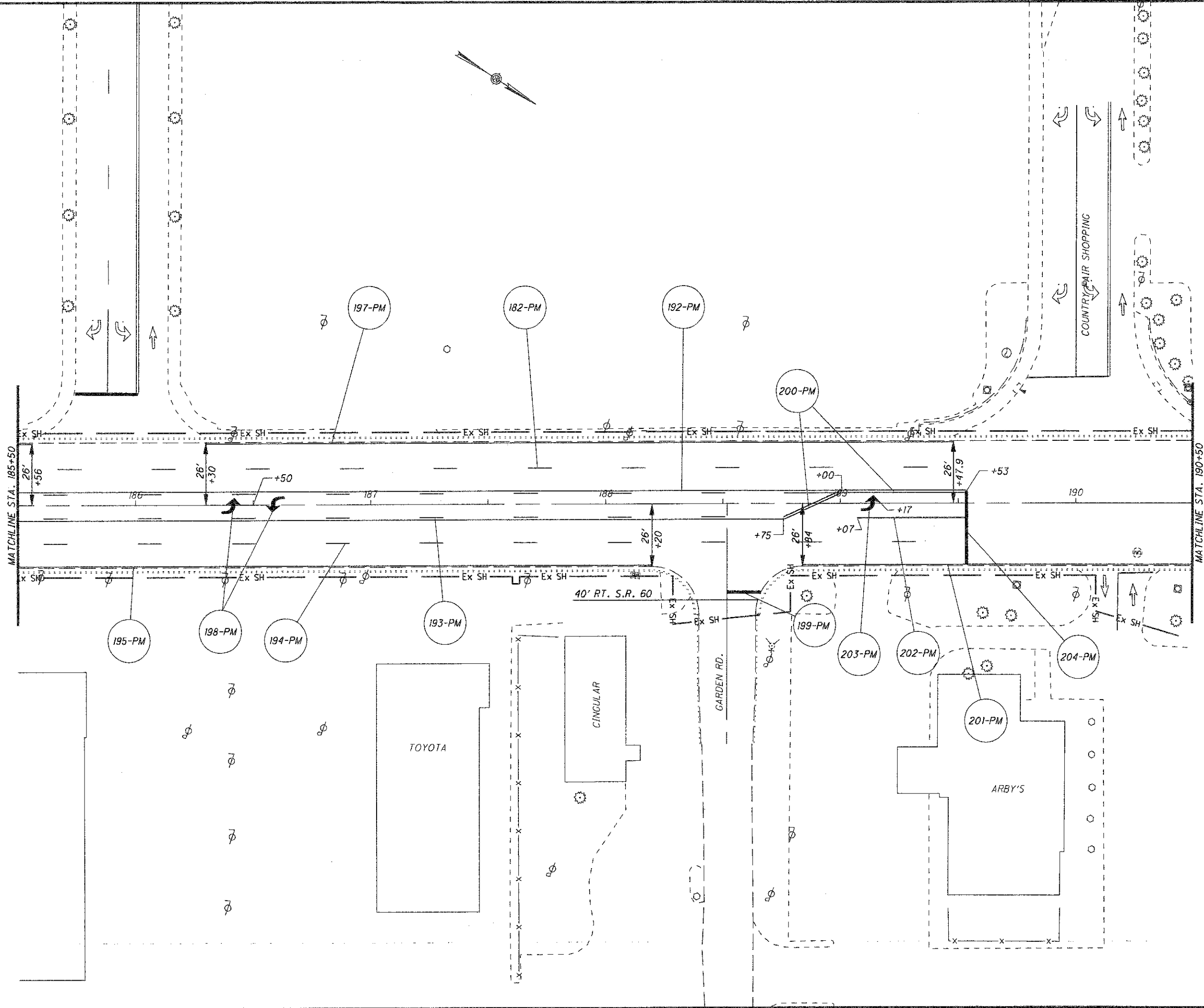


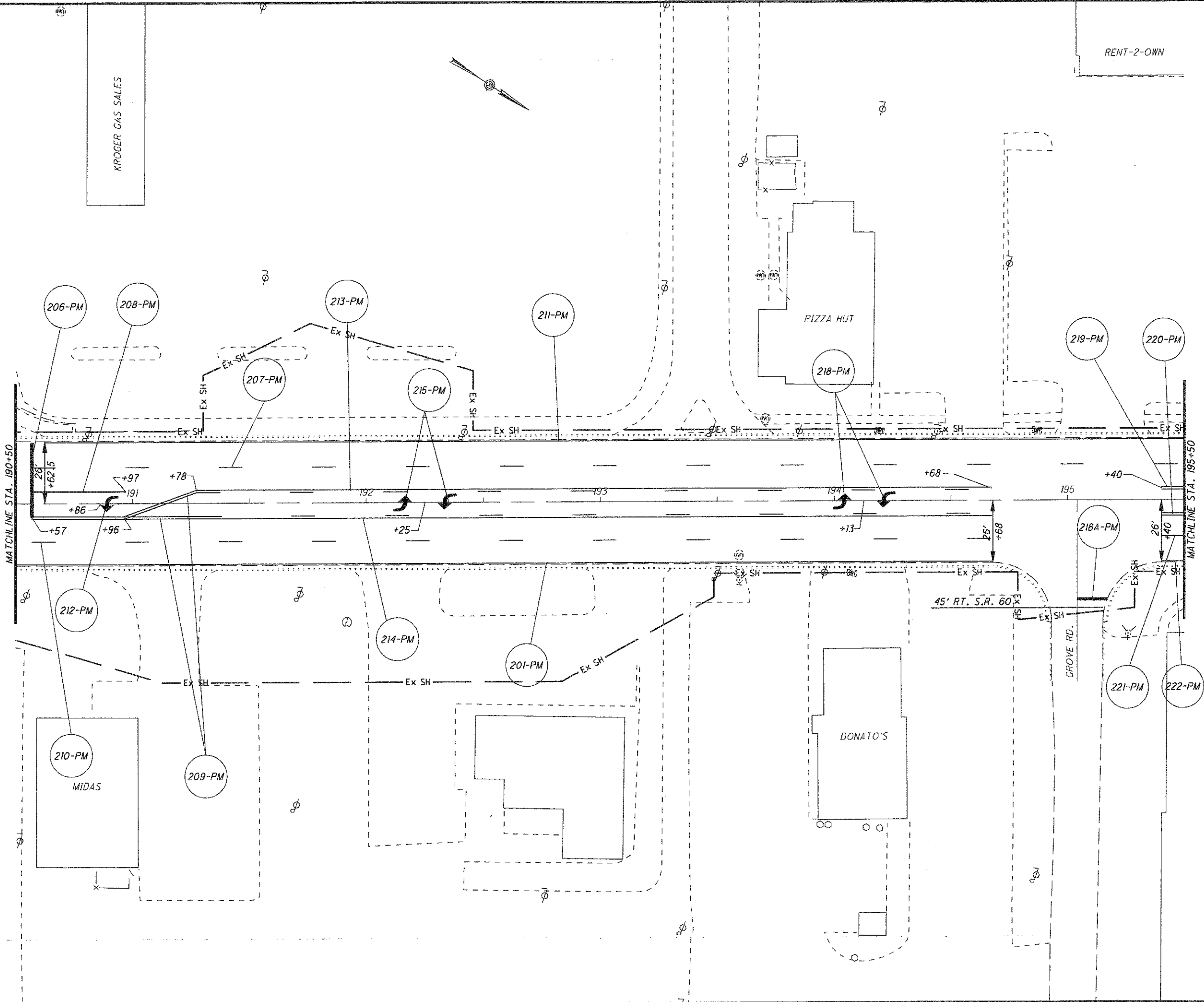


CALCULATED 0 20 40  
 CHECKED  
 HORIZONTAL SCALE IN FEET

**PLAN SHEET**  
**STA. 180+50 TO STA. 185+50 (S.R. 60)**

**MUS-60-17.93**

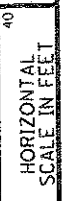


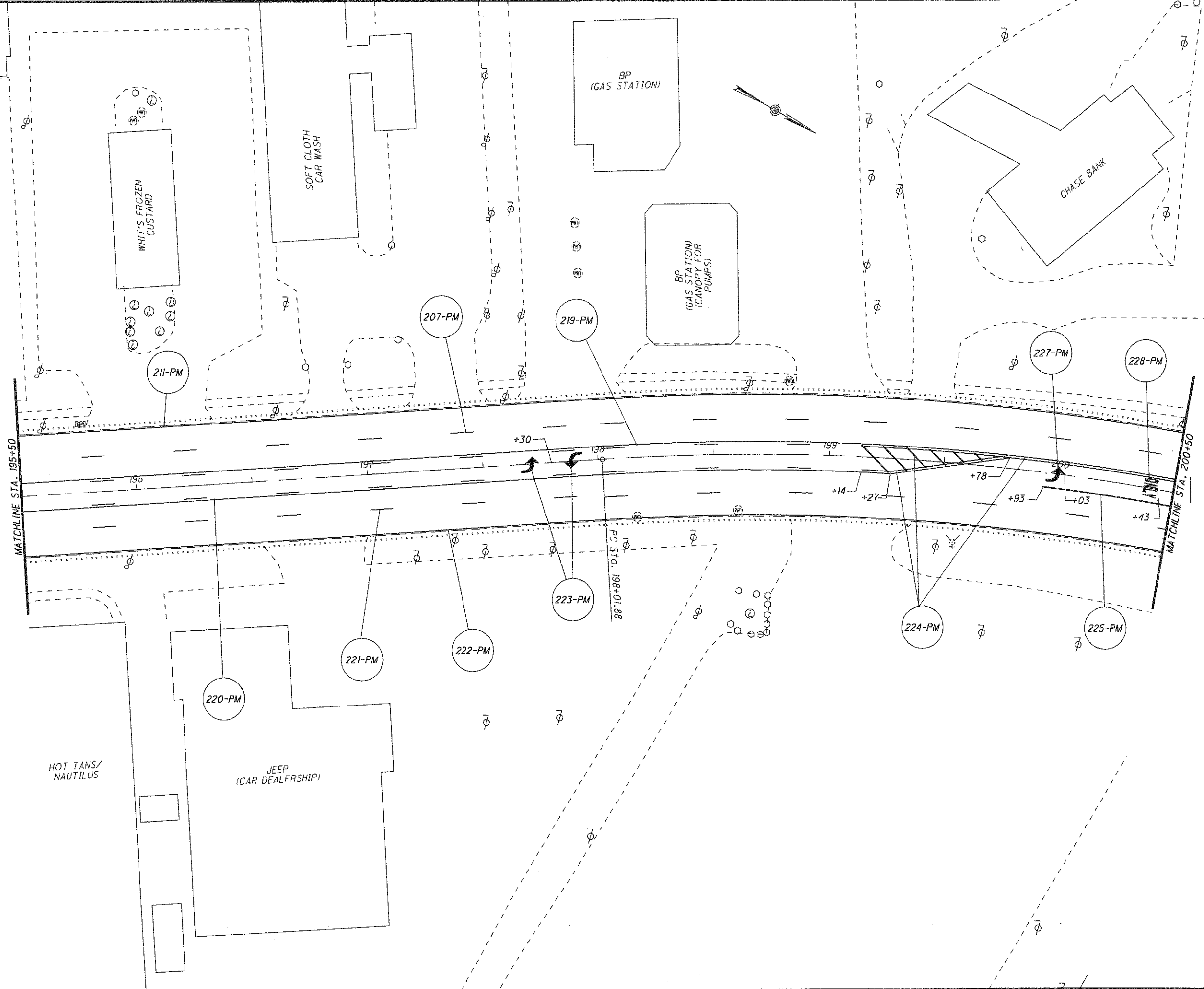


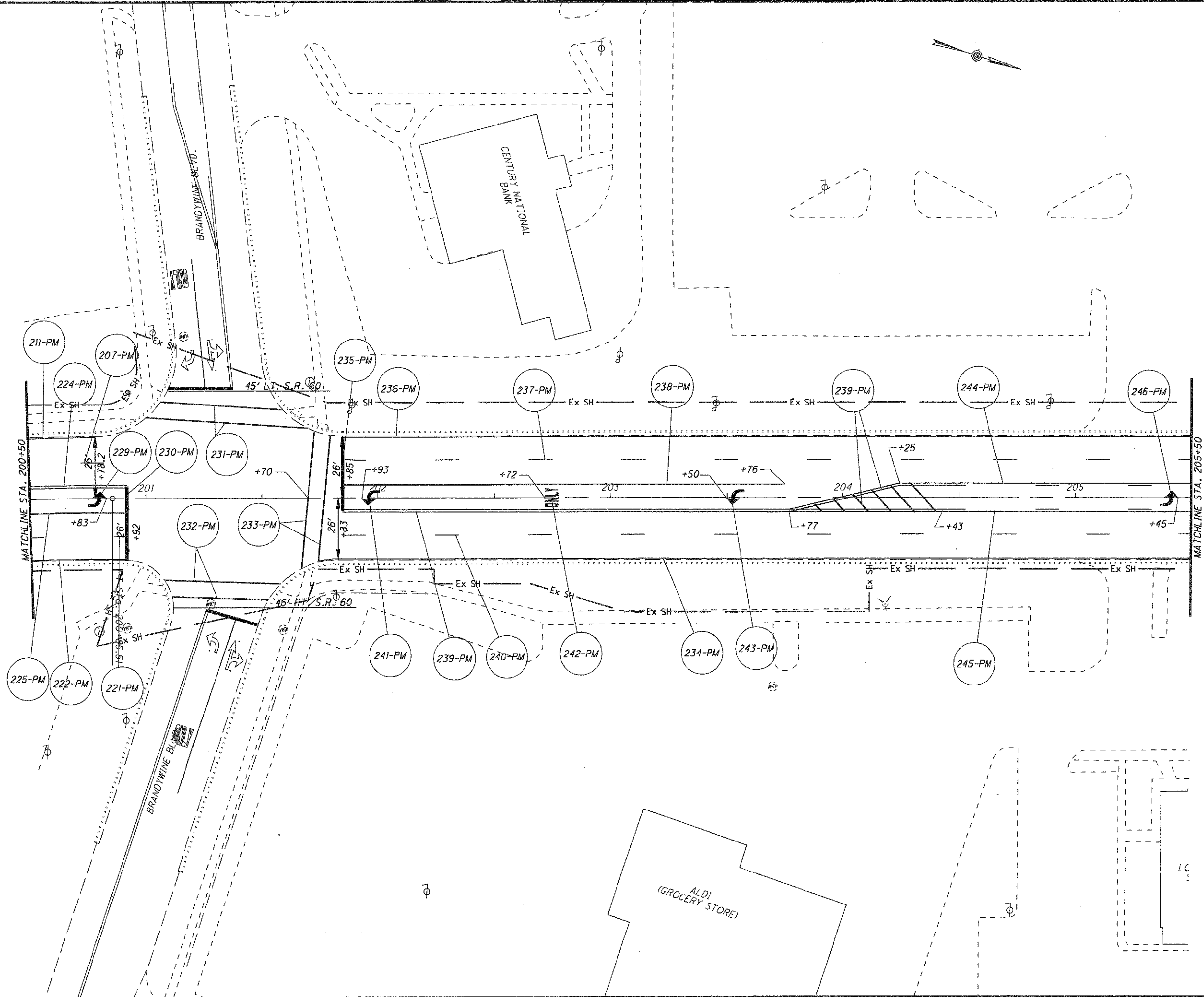
CALCULATED  
 CHECKED

**PLAN SHEET**  
**STA. 190+50 TO STA. 195+50 (S.R. 60)**

**MUS-60-17.93**

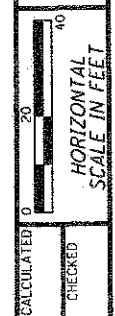




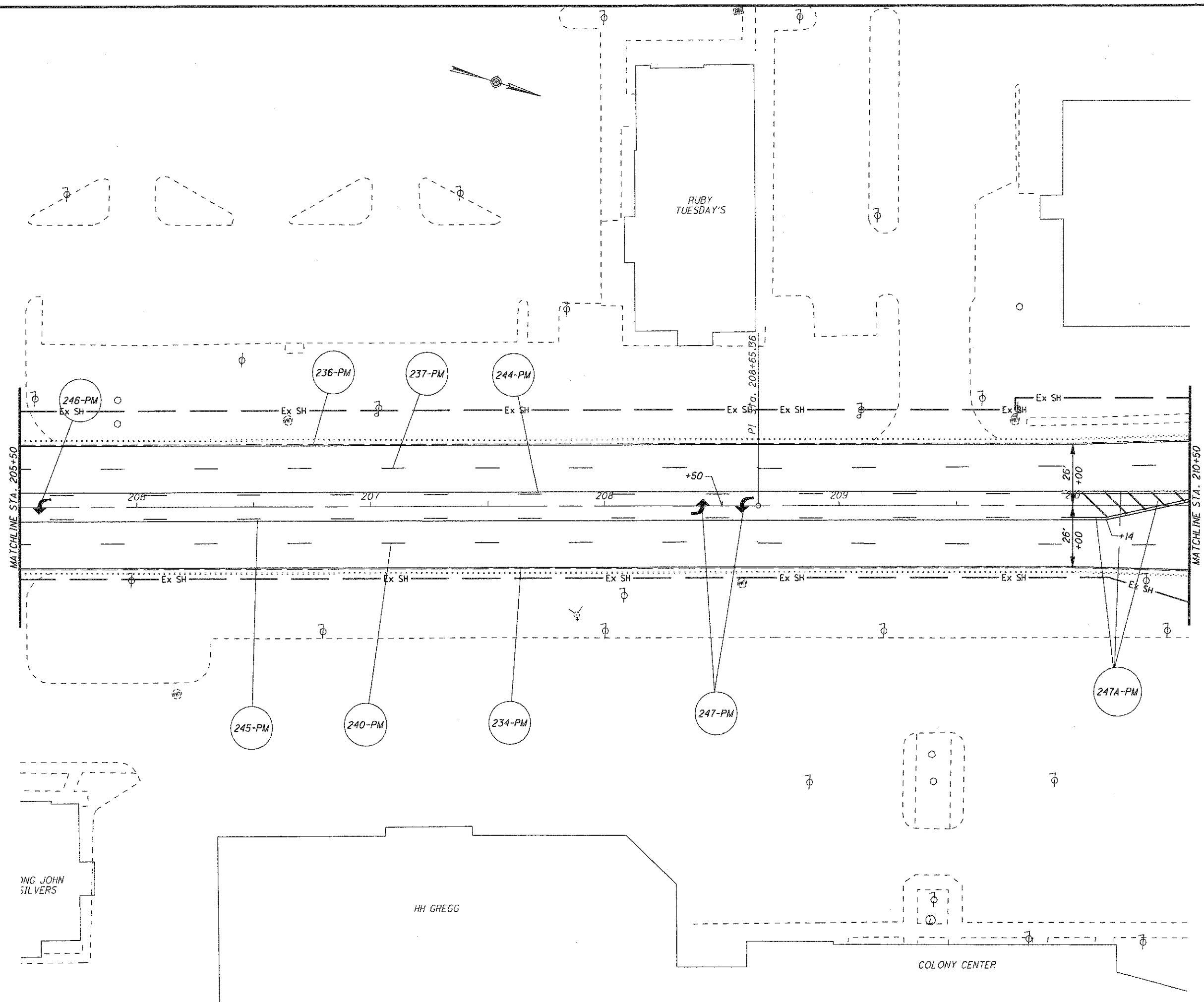


**PLAN SHEET**  
**STA. 200+50 TO STA. 205+50 (S.R. 60)**

**MUS-60-17.93**



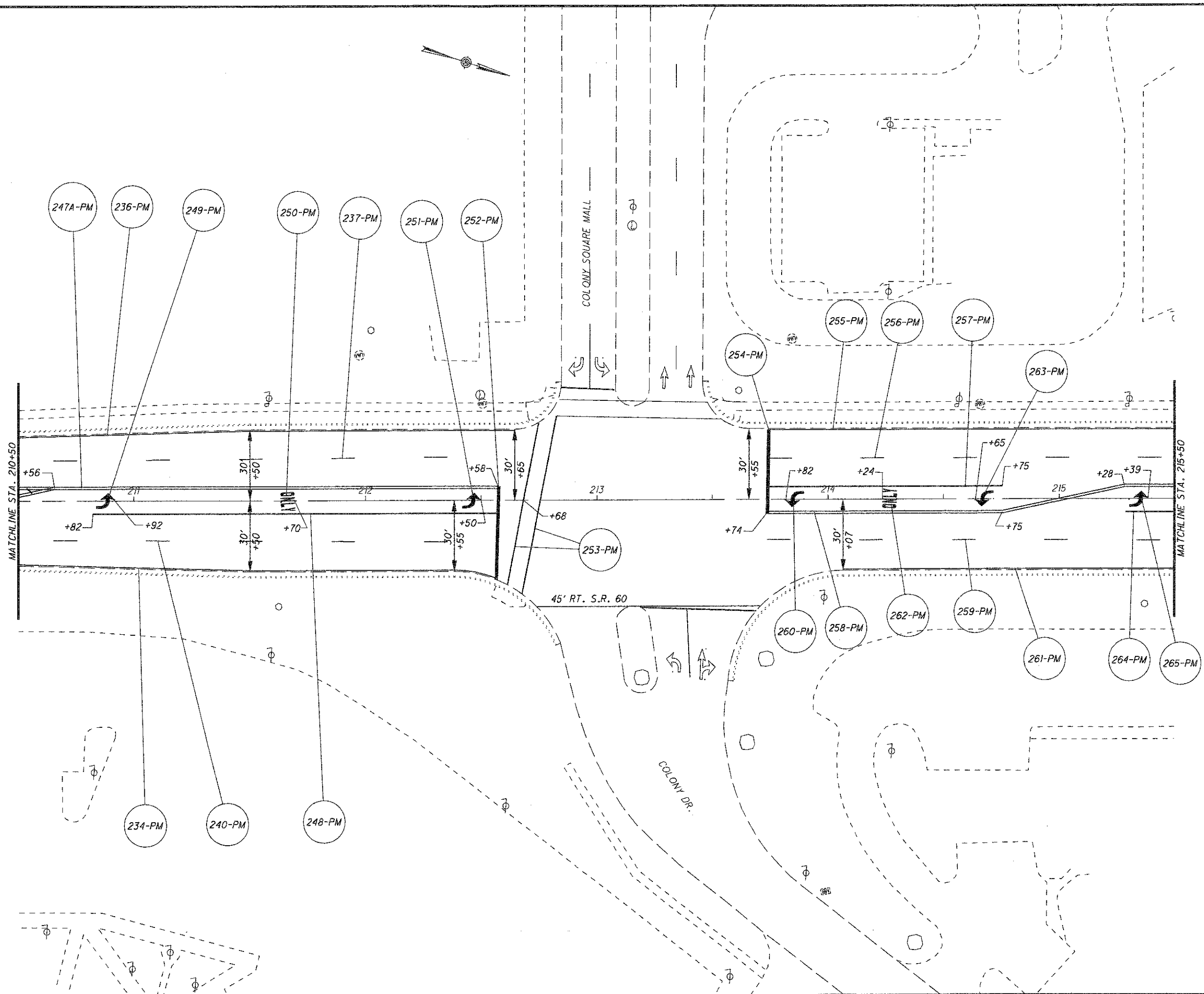




CALCULATED 0 20 40  
 HORIZONTAL SCALE IN FEET  
 CHECKED

**PLAN SHEET**  
**STA. 205+50 TO STA. 210+50 (S.R. 60)**

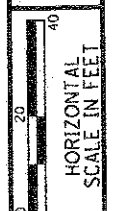
**MUS-60-17.93**

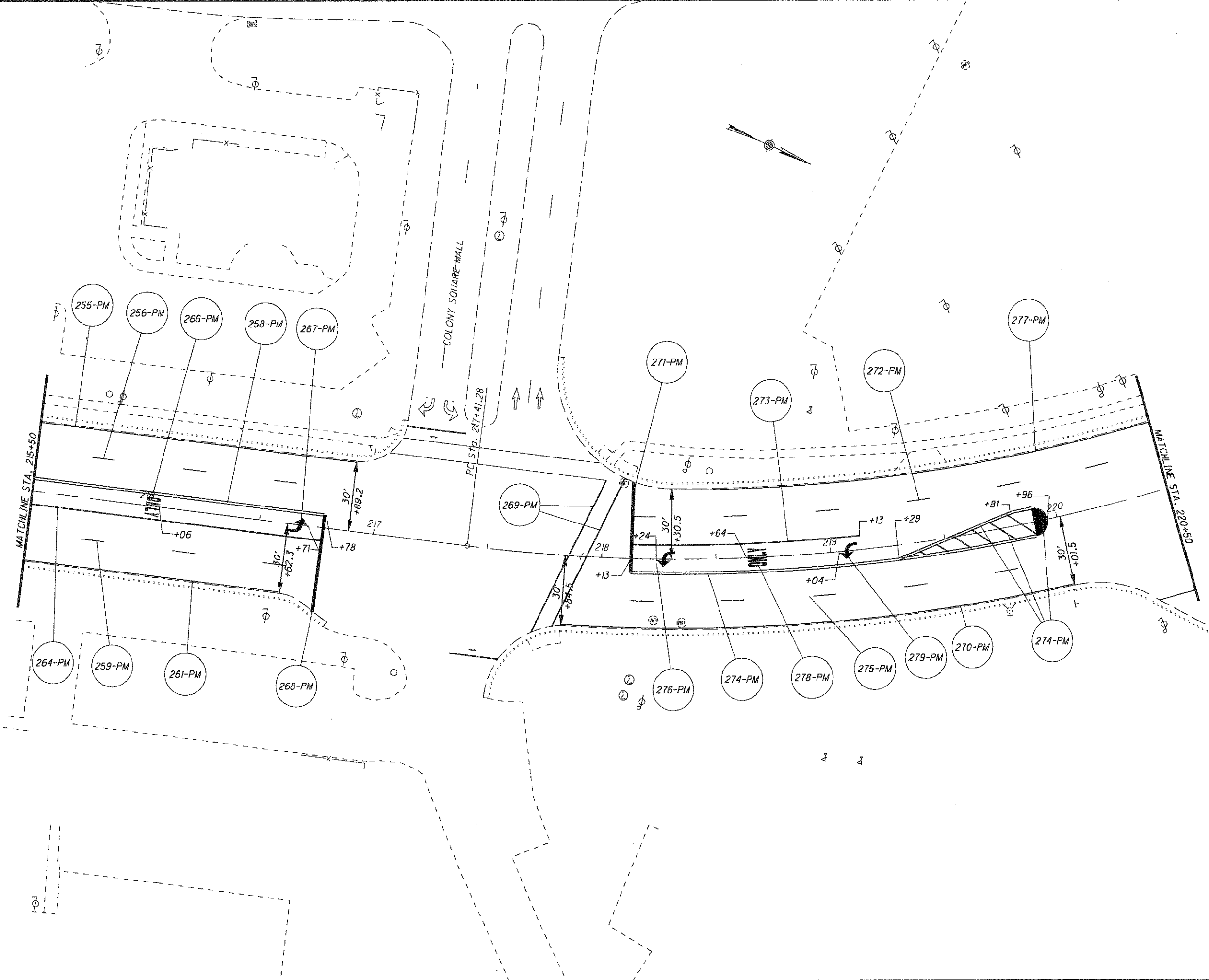


CALCULATED  
CHECKED

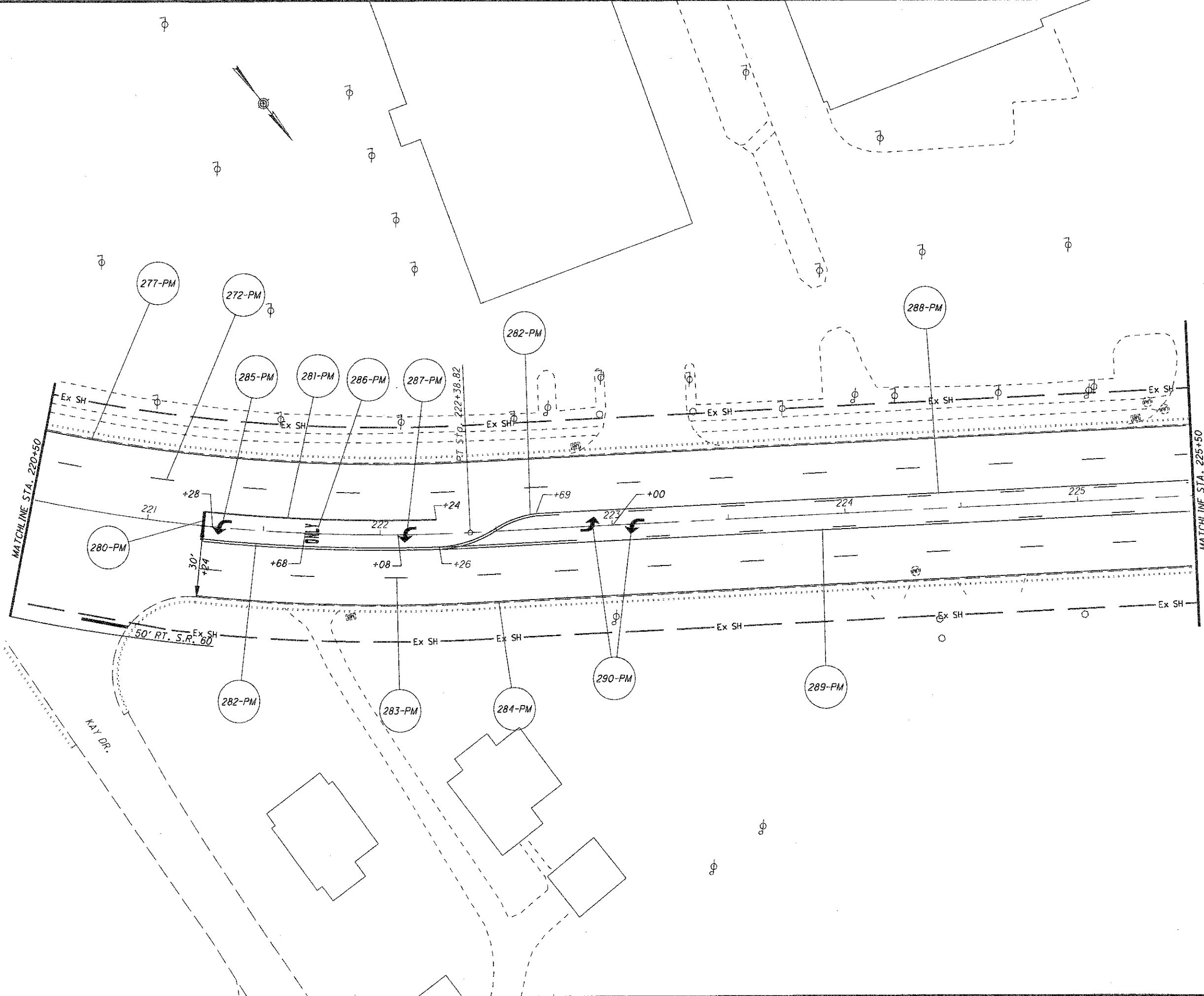
**PLAN SHEET**  
**STA. 210+50 TO STA. 215+50 (S.R. 60)**

**MUS-60-17.93**





M060\_PPP\_043.DSN 10/29/08

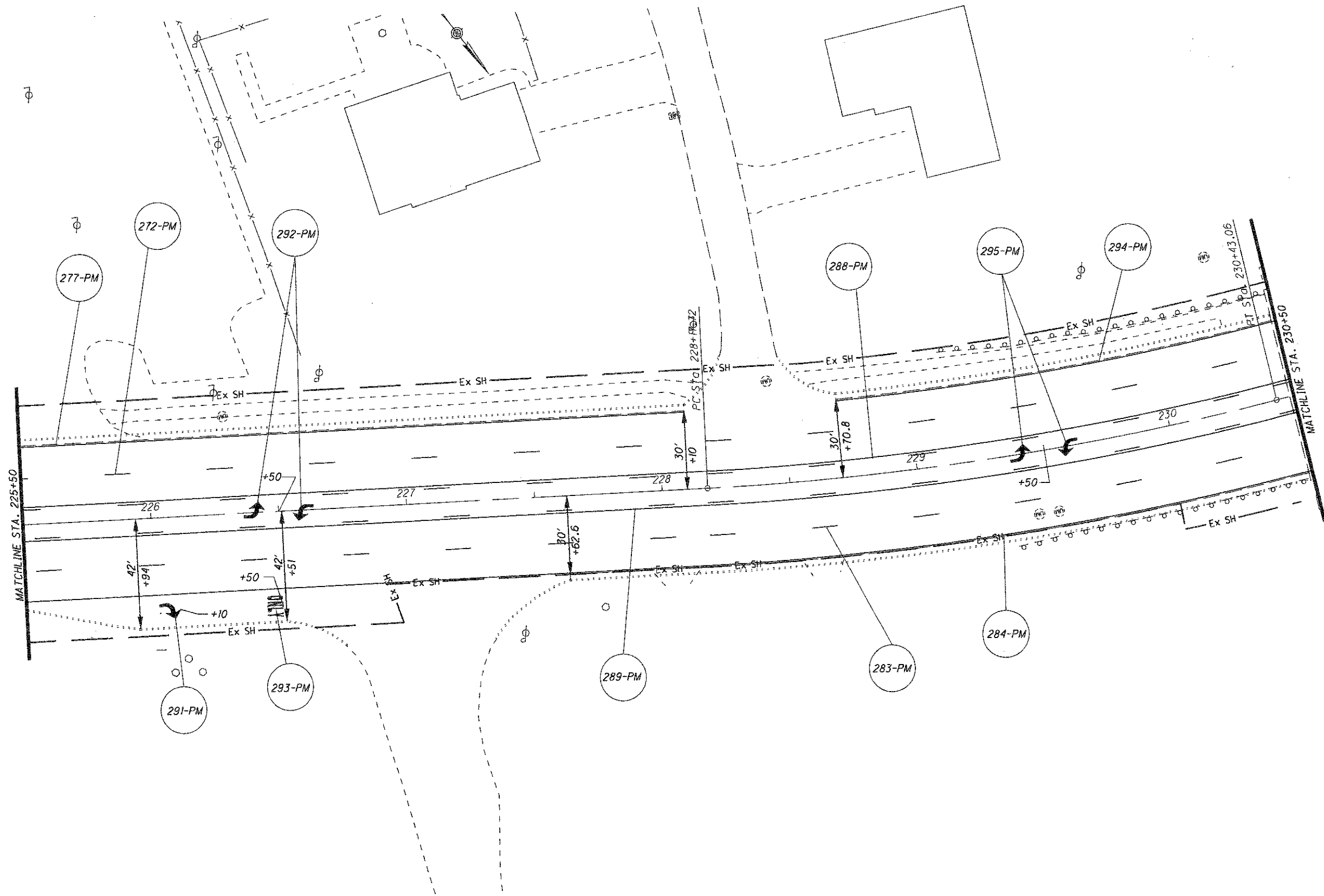


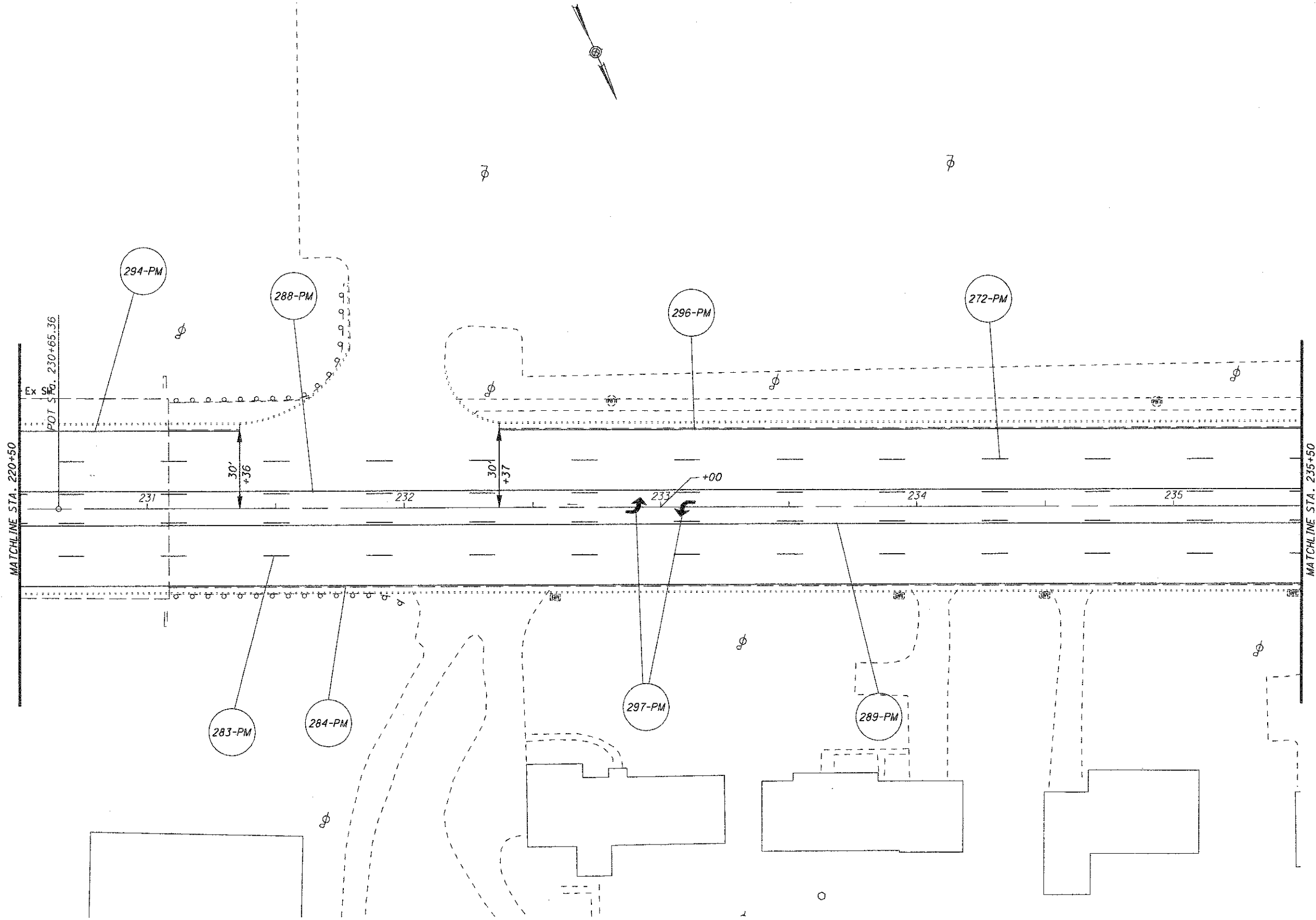
CALCULATED	CHECKED
HORIZONTAL SCALE IN FEET	

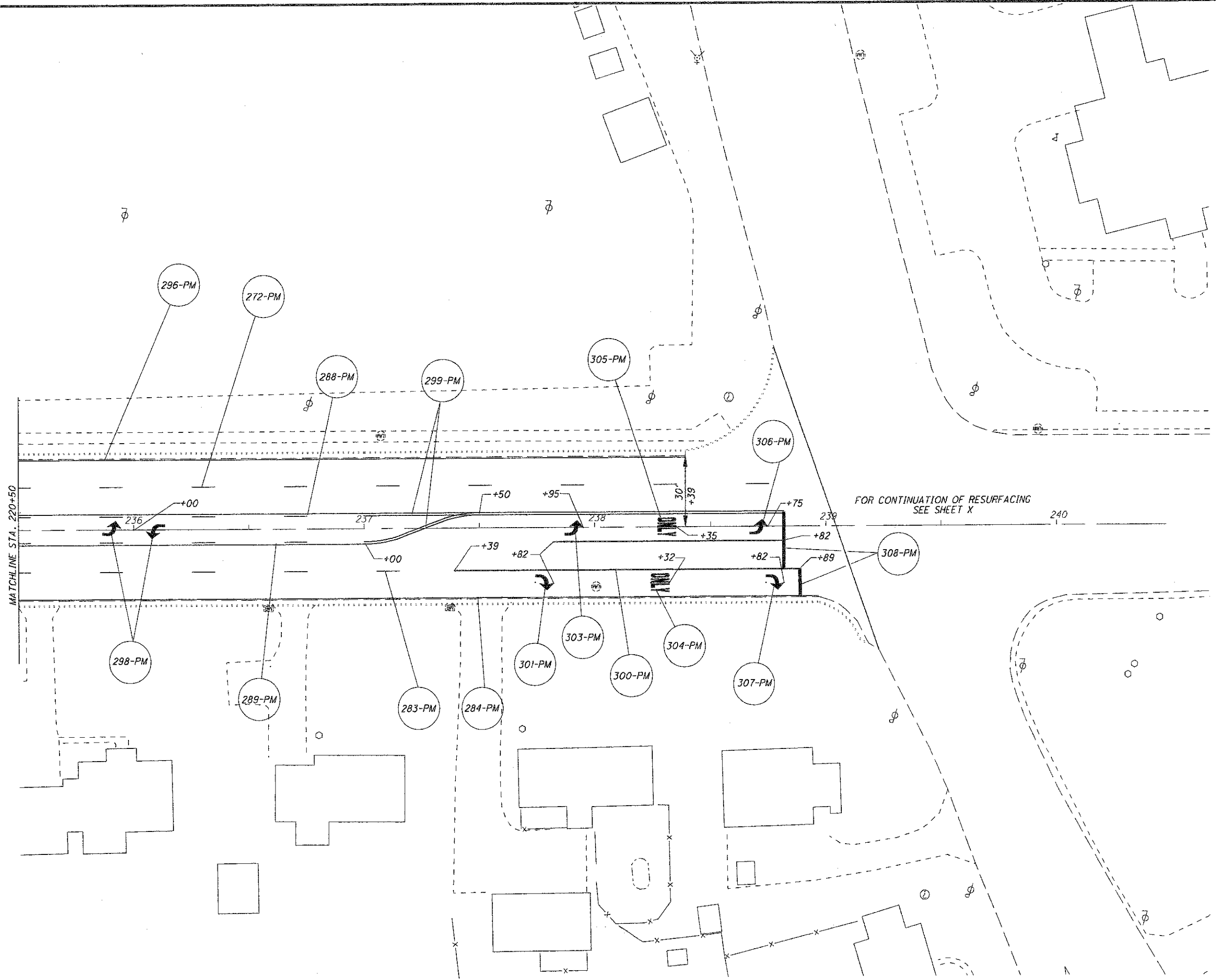
**PLAN SHEET**  
**STA. 220+50 TO STA. 225+50 (S.R. 60)**

**MUS-60-17.93**

60  
121







PLAN SHEET  
 STA. 235+50 TO STA. 239+05 (S.R. 60)

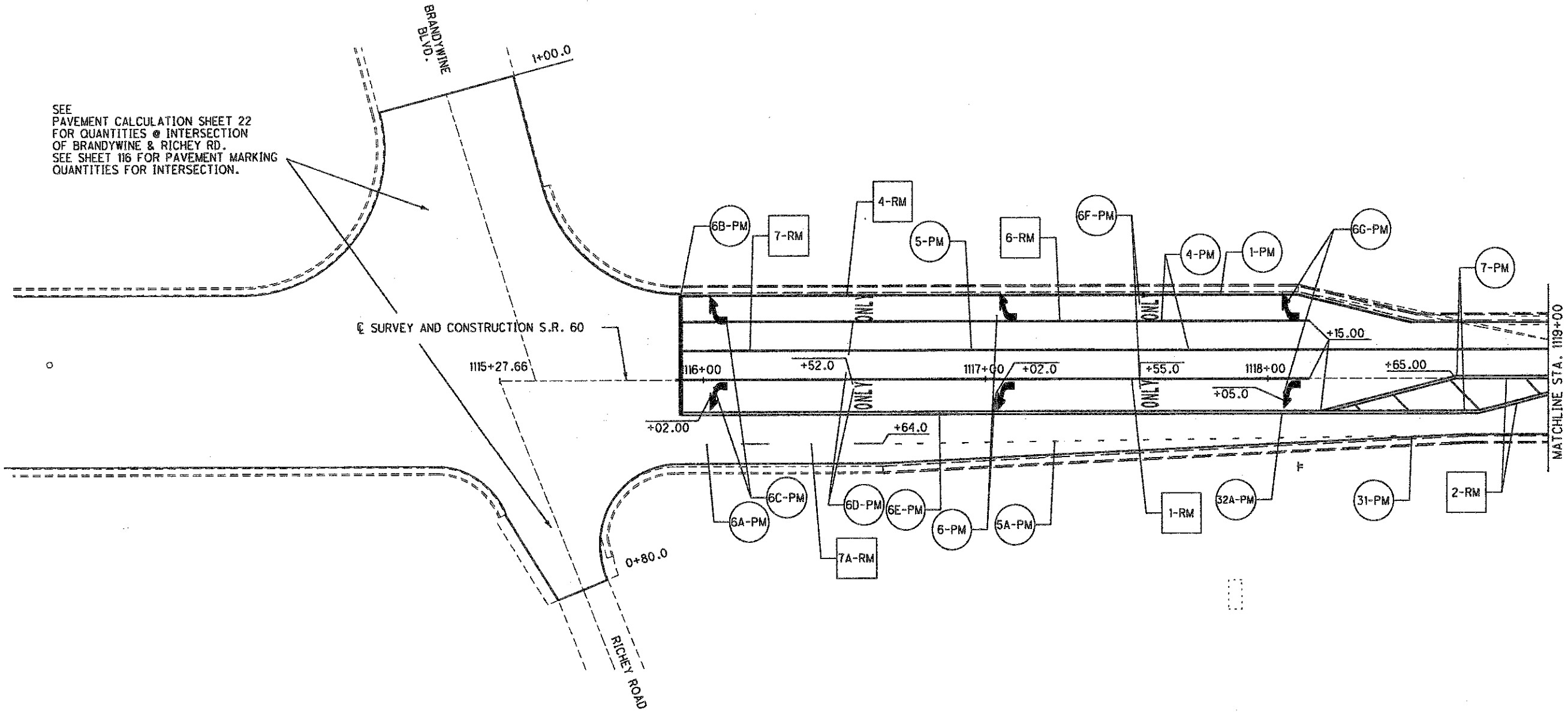
MUS-60-17.93

CALCULATED	CHECKED





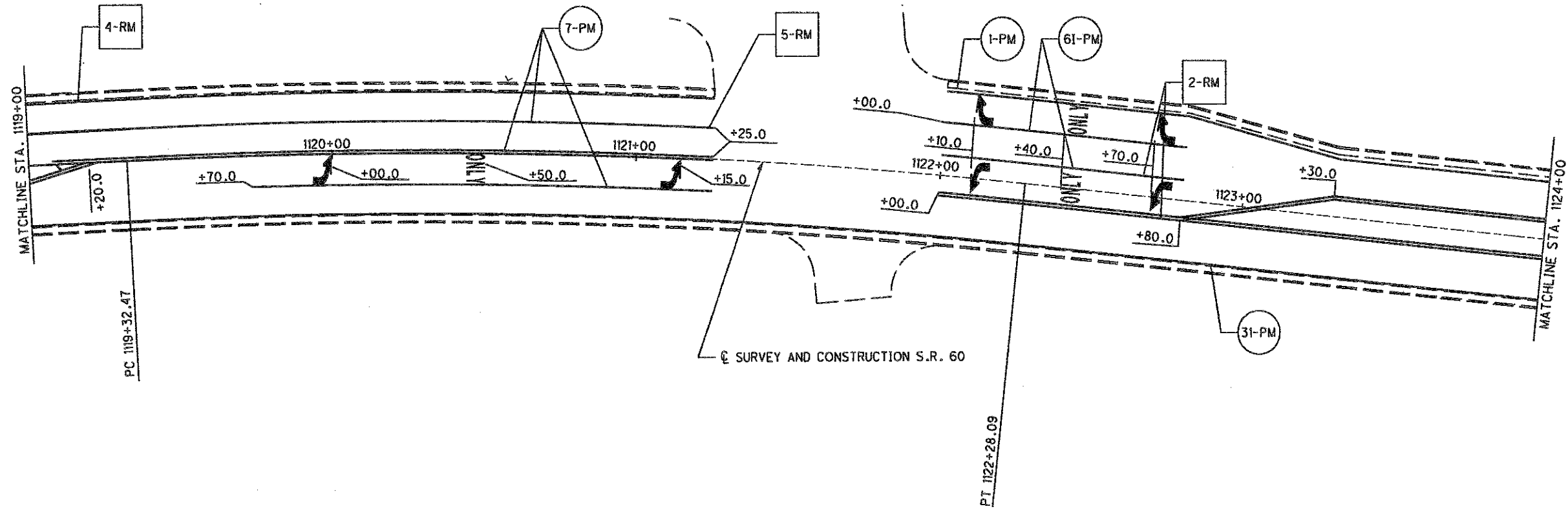
SEE PAVEMENT CALCULATION SHEET 22 FOR QUANTITIES @ INTERSECTION OF BRANDYWINE & RICHEY RD. SEE SHEET 116 FOR PAVEMENT MARKING QUANTITIES FOR INTERSECTION.



CALCULATED	SAB	12/18/97
CHECKED	BFD	12/18/97

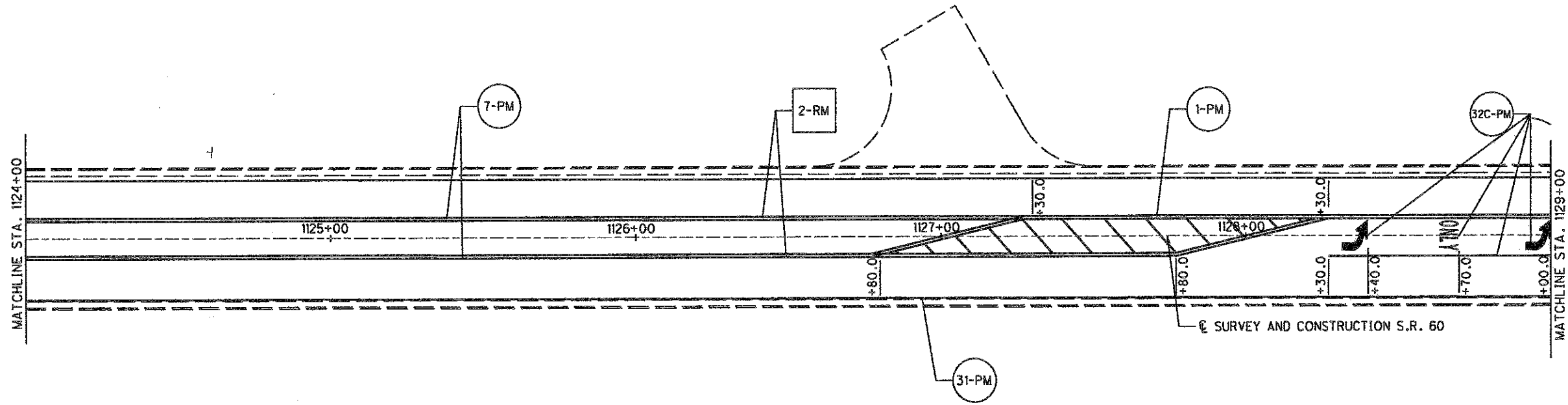
**TRAFFIC CONTROL SHEET**  
**STA. 1116+63.39 TO STA. 1119+00**

**MUS-60-17.93**



P.I. STA. 1120+80.58  
 $\Delta = 8^{\circ}52'07''$  RT.  
 $D_c = 3^{\circ}00'00''$   
 $T = 148.12'$   
 $R = 1,909.86'$   
 $L = 295.62'$   
 $E = 5.73'$



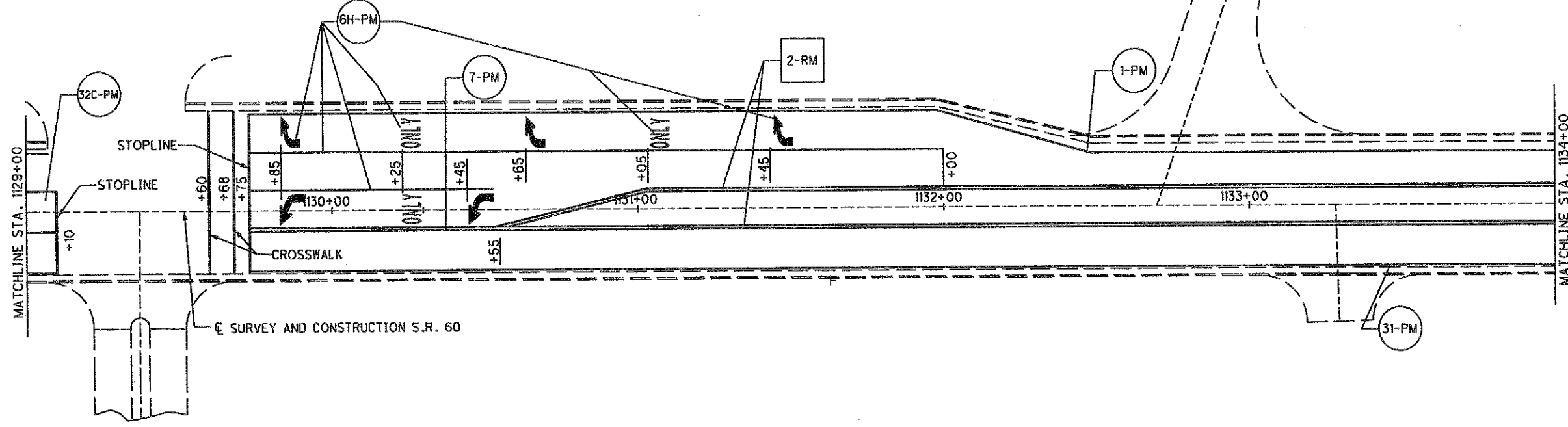


MUS-60-17.93

TRAFFIC CONTROL SHEET  
STA. 1124+00 TO STA. 1129+00

CALCULATED SAB 12/18/97	CHECKED BFB 12/18/97
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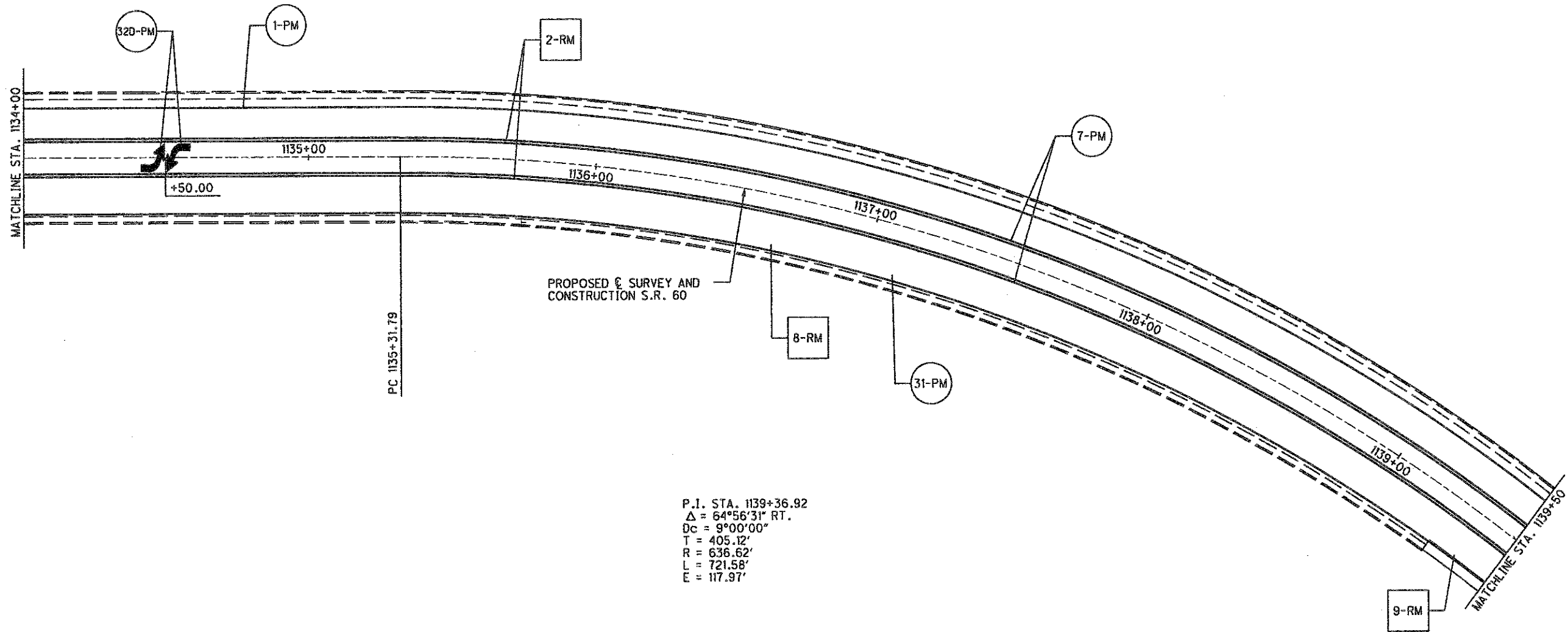
0 20 40  
HORIZONTAL  
SCALE IN FEET



CALCULATED SAB 12/18/97	CHECKED BFB 12/18/97
HORIZONTAL SCALE IN FEET	

**TRAFFIC CONTROL SHEET**  
**STA. 1129+00 TO STA. 1134+00**

MUS-60-17.93



PROPOSED  $\bar{C}$  SURVEY AND CONSTRUCTION S.R. 60

P.I. STA. 1139+36.92  
 $\Delta = 64^{\circ}56'31''$  RT.  
 $D_c = 9^{\circ}00'00''$   
 $T = 405.12'$   
 $R = 636.62'$   
 $L = 721.58'$   
 $E = 117.97'$

PC 1135+31.79

+50.00

1135+00

1136+00

1137+00

1138+00

1139+00

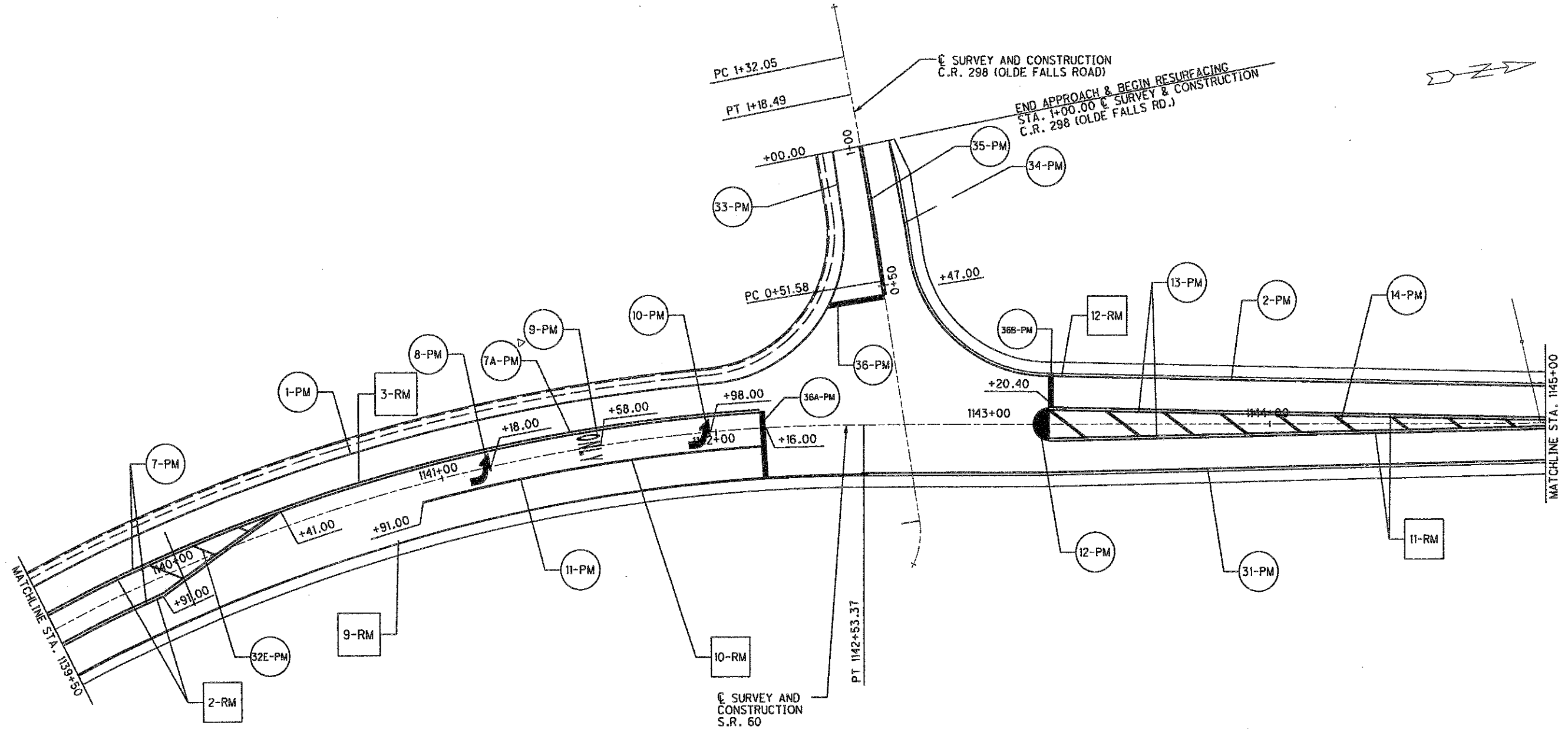
MATCHLINE STA. 1139+50

MATCHLINE STA. 1134+00

CALCULATED	SAB	9-10-97
CHECKED	BFB	9-10-97

**TRAFFIC CONTROL SHEET**  
**STA. 1134+00 TO STA. 1139+50**

MUS - 60 - 17.93



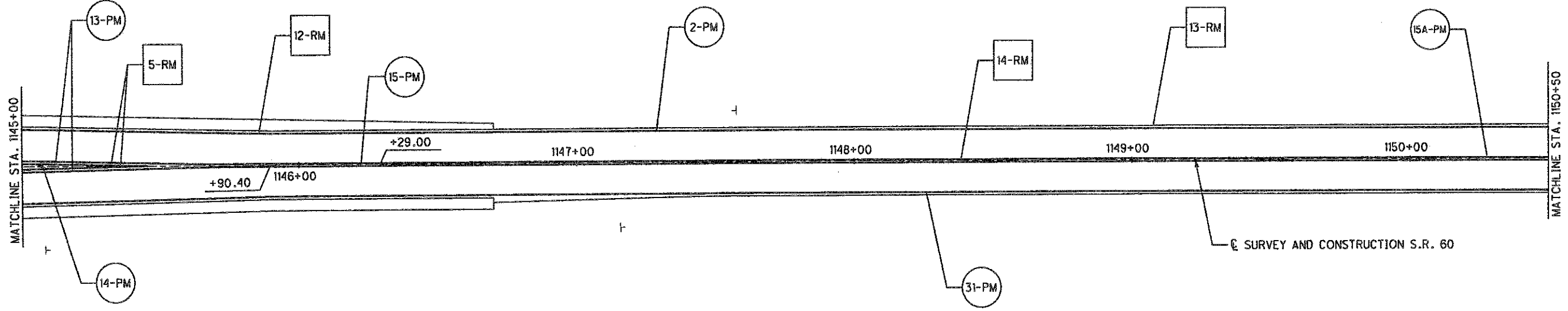
P.I. STA. 1139+36.92  
 $\Delta = 64^{\circ}56'31''$  RT.  
 $Dc = 9^{\circ}00'00''$   
 $T = 405.12'$   
 $R = 636.62'$   
 $L = 721.58'$   
 $E = 117.97'$

CALCULATED  
 SAB  
 9-10-97  
 CHECKED  
 RFB  
 9-10-97

HORIZONTAL  
 SCALE IN FEET

TRAFFIC CONTROL SHEET  
 STA. 1139+50 TO STA. 1145+00

MUS-60-17.93



CALCULATED SAB 9-10-97	CHECKED BFB 9-10-97
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HORIZONTAL  
SCALE IN FEET

**TRAFFIC CONTROL SHEET**  
**STA. 1145+00 TO STA. 1150+50**

**MUS-60-17.93**



MATCHLINE STA. 1150+50

13-RM

1151+00

1152+00

1153+00

1154+00

1155+00

MATCHLINE STA. 1156+00

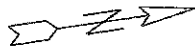
—E SURVEY AND CONSTRUCTION S.R. 60

15A-PM

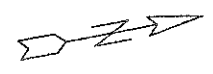
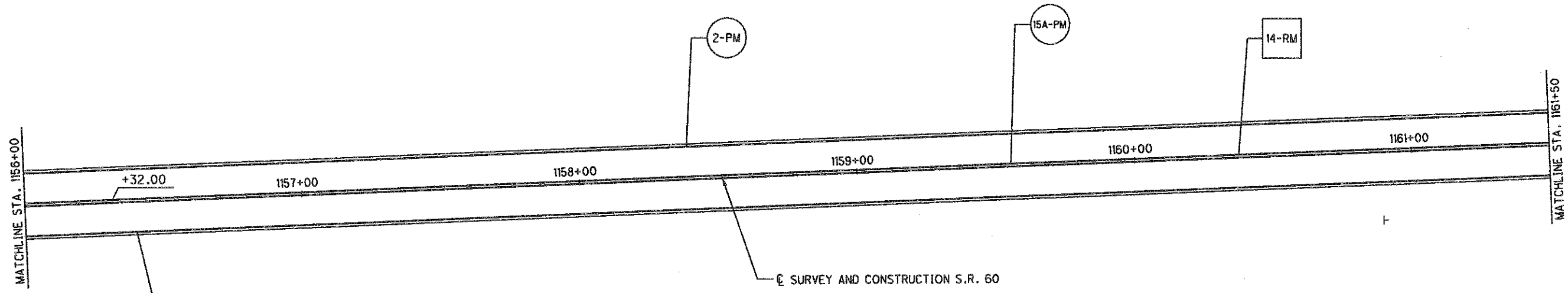
14-RM

2-PM

31-PM



MO602H65.DGN 10/15/97



CALCULATED 9-10-97 DESIGNED BFB 9-10-97	0 10 20 30 HORIZONTAL SCALE IN FEET
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**TRAFFIC CONTROL SHEET**  
**STA. 1156+00 TO STA. 1161+50**

**MUS-60-17.93**

MATCHLINE STA. 1161+50

1162+00

1163+00

1164+00

+45.00

1165+00

1166+00

MATCHLINE STA. 1167+00

15A-PM

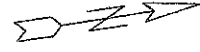
2-PM

☒ SURVEY AND CONSTRUCTION SR. 60

14-RM

31-PM

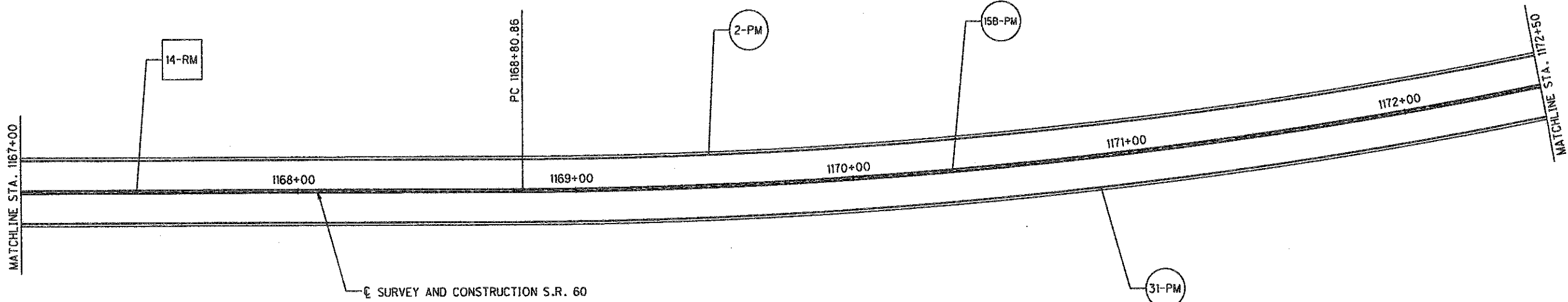
15B-PM



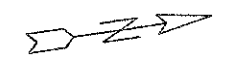
CHECKED BY  
9-10-97  
BFB

**TRAFFIC CONTROL SHEET**  
**STA. 1161+50 TO STA. 1167+00**

**MUS-60-17.93**



P.I. STA. 1170+85.51  
 $\Delta = 12^{\circ}13'54''$  LT.  
 $Dc = 3^{\circ}00'00''$   
 $T = 204.64'$   
 $R = 1,909.86'$   
 $L = 407.72'$   
 $E = 10.93'$

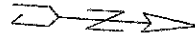
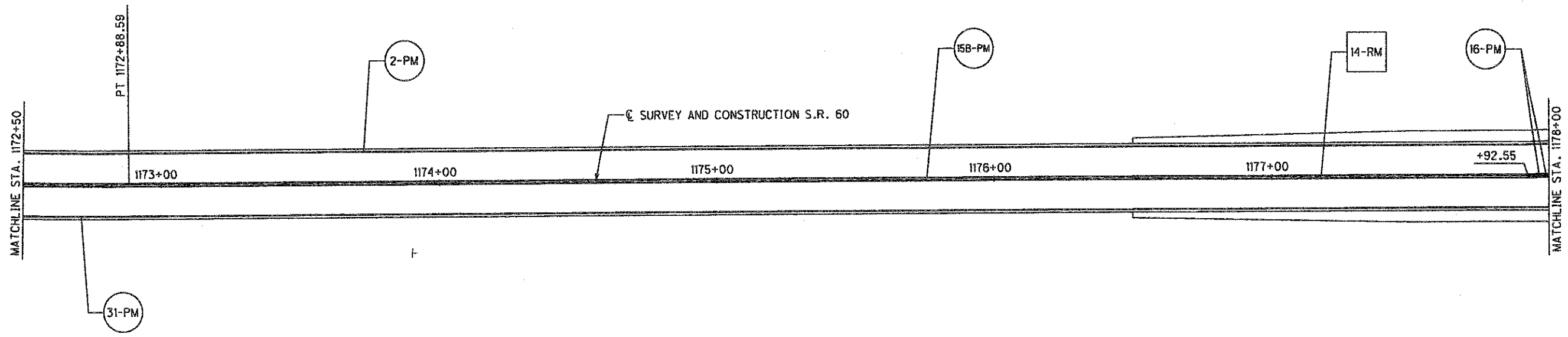


CALCULATED SAB 9-10-97	CHECKED BFP 9-10-97
HORIZONTAL SCALE IN FEET	

**TRAFFIC CONTROL SHEET**  
**STA. 1167+00 TO STA. 1172+50**

**MUS-60-17.93**

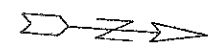
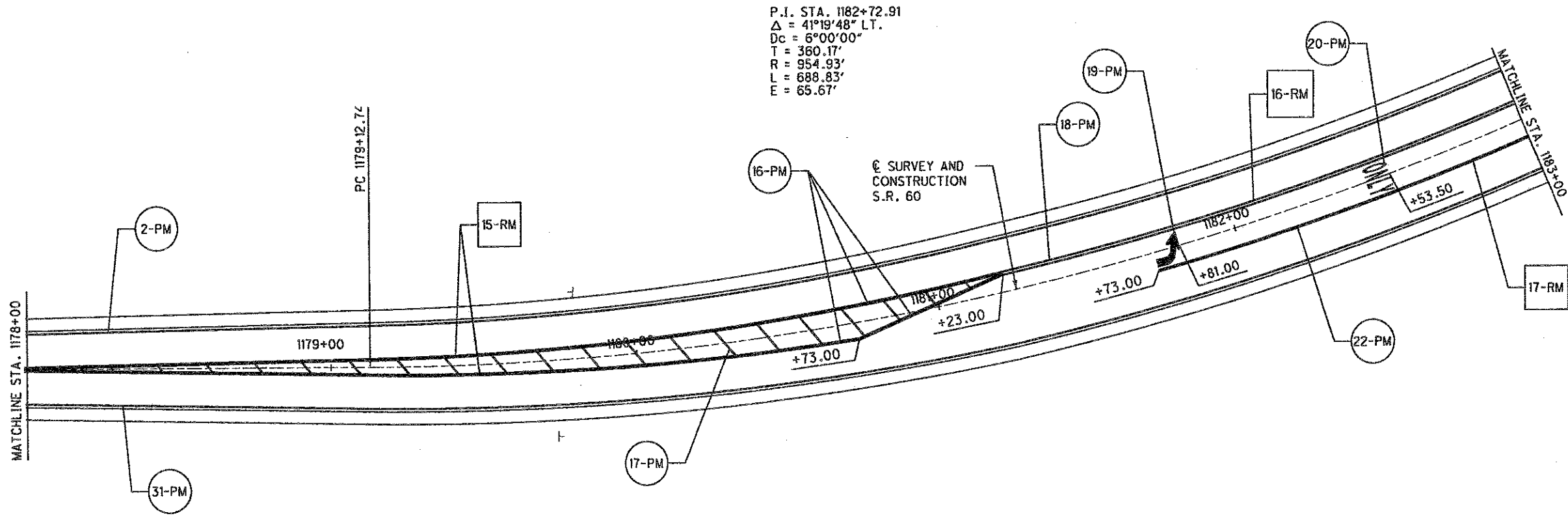
P.I. STA. 1170+85.51  
Δ = 12°13'54" LT.  
Dc = 3°00'00"  
T = 204.64'  
R = 1,909.86'  
L = 407.72'  
E = 10.93'



CALCULATED SAB 9-10-97	CHECKED BFB 9-10-97
HORIZONTAL SCALE IN FEET	

**TRAFFIC CONTROL SHEET**  
**STA. 1172+50 TO STA. 1178+00**

**MUS-60-17.93**



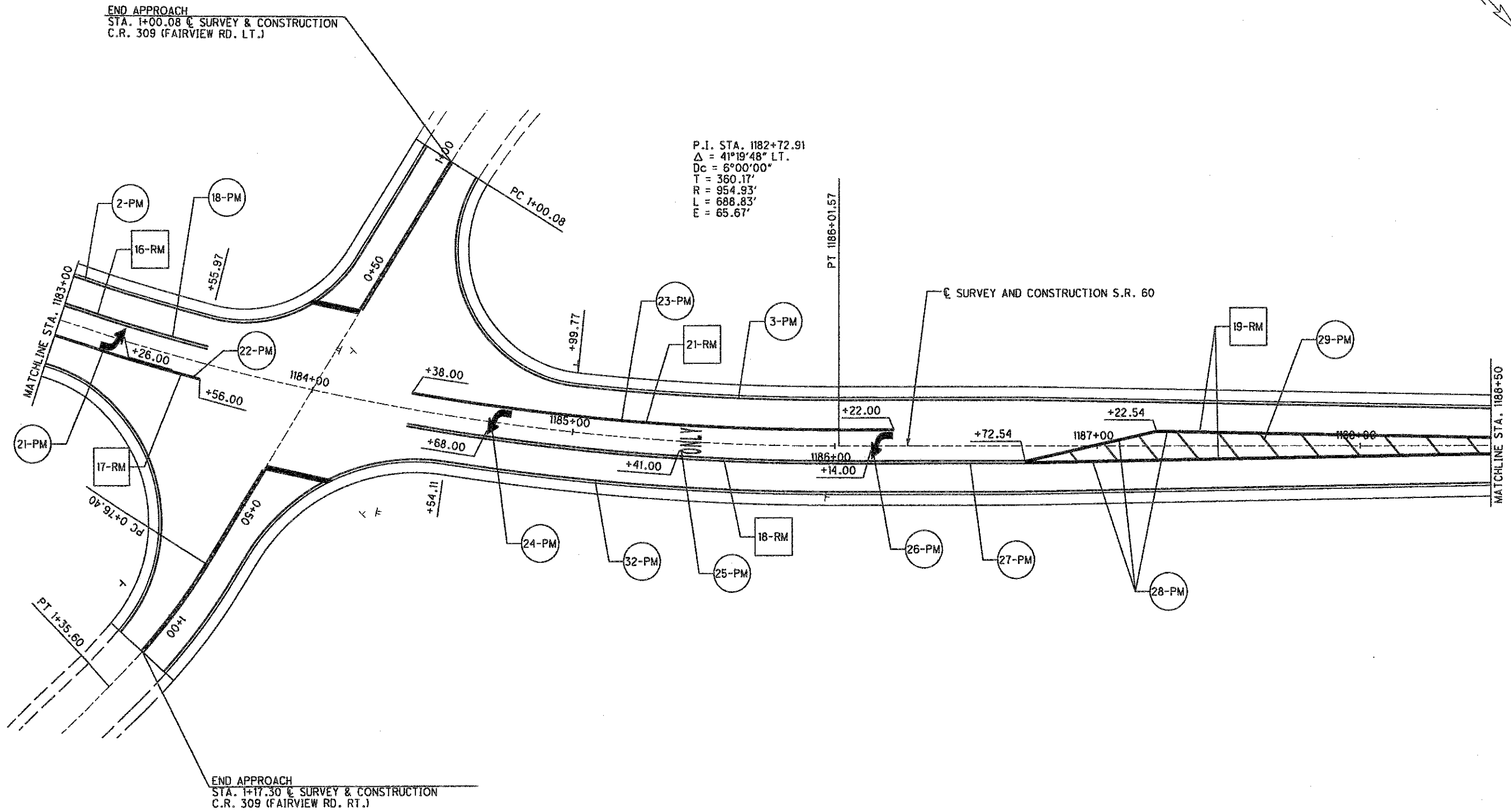
CALCULATED	9-10-97
SAB	BFB
CHECKED	9-10-97

HORIZONTAL SCALE IN FEET

**TRAFFIC CONTROL SHEET**  
**STA. 1178+00 TO STA. 1183+00**

**MUS-60-17.93**

M0602M65.DGN 10/17/97



END APPROACH  
 STA. 1+00.08 C SURVEY & CONSTRUCTION  
 C.R. 309 (FAIRVIEW RD. LT.)

END APPROACH  
 STA. 1+17.30 C SURVEY & CONSTRUCTION  
 C.R. 309 (FAIRVIEW RD. RT.)

P.I. STA. 1182+72.91  
 $\Delta = 41^{\circ}19'48''$  LT.  
 $D_c = 6^{\circ}00'00''$   
 $T = 360.17'$   
 $R = 954.93'$   
 $L = 688.83'$   
 $E = 65.67'$

PT 1186+01.57

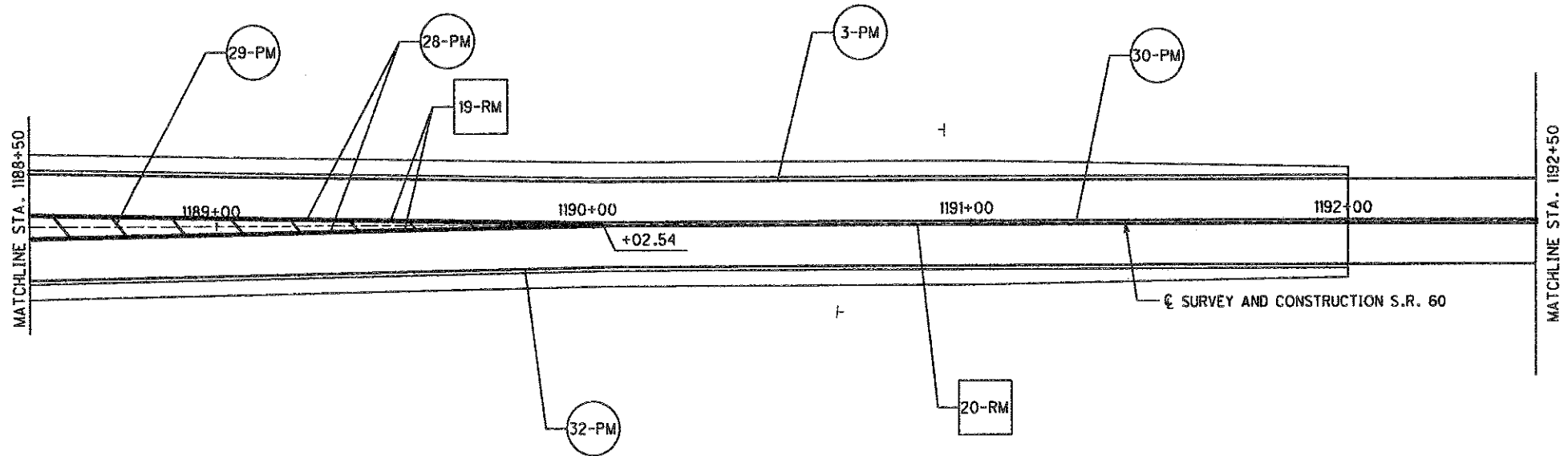
C SURVEY AND CONSTRUCTION S.R. 60

CHECKED BY  
 9-10-87  
 BFB

HORIZONTAL  
 SCALE IN FEET  
 1" = 40'

TRAFFIC CONTROL SHEET  
 STA. 1183+00 TO STA. 1188+50

MUS-60-17.93

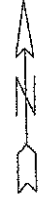
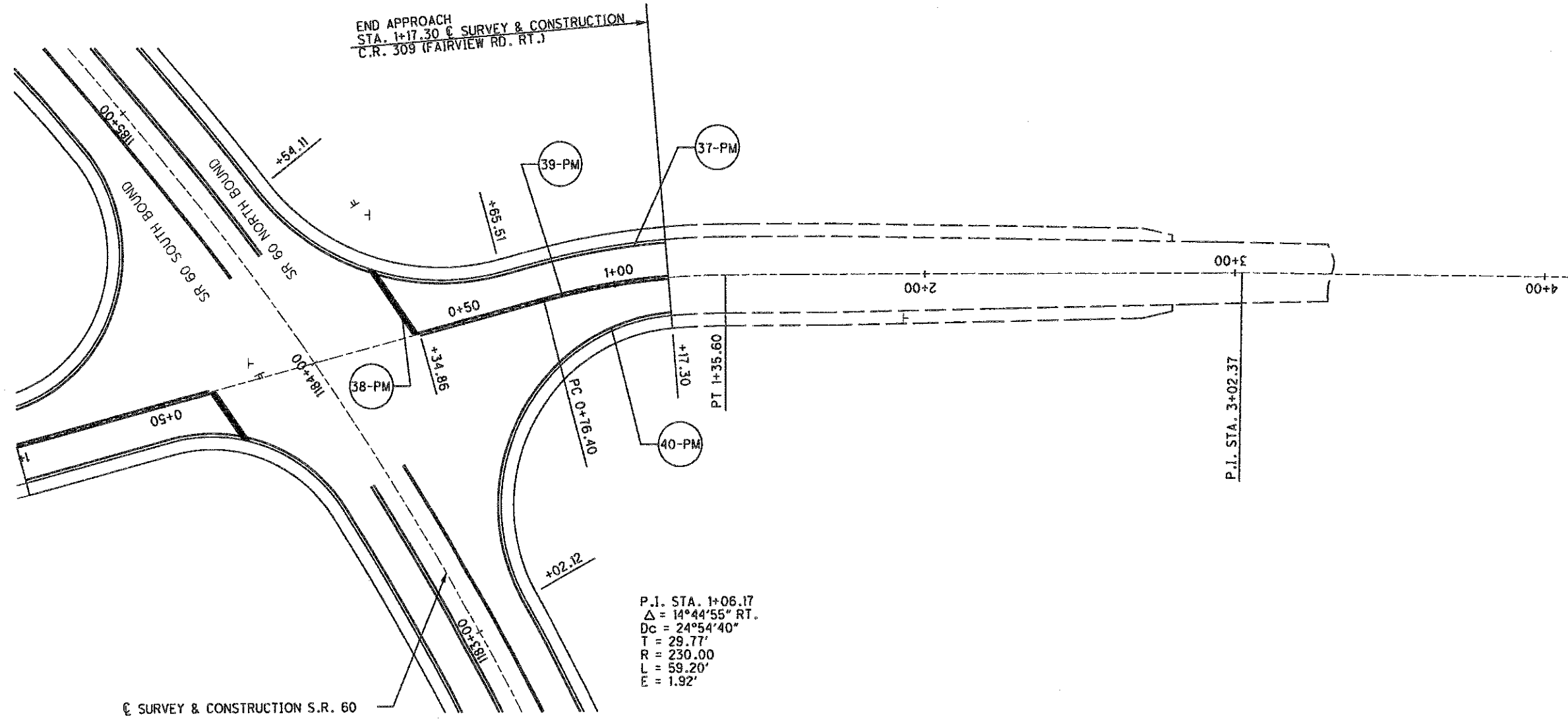


CALCULATED SAB 9-10-97	CHECKED BFB 9-10-97
HORIZONTAL SCALE IN FEET	

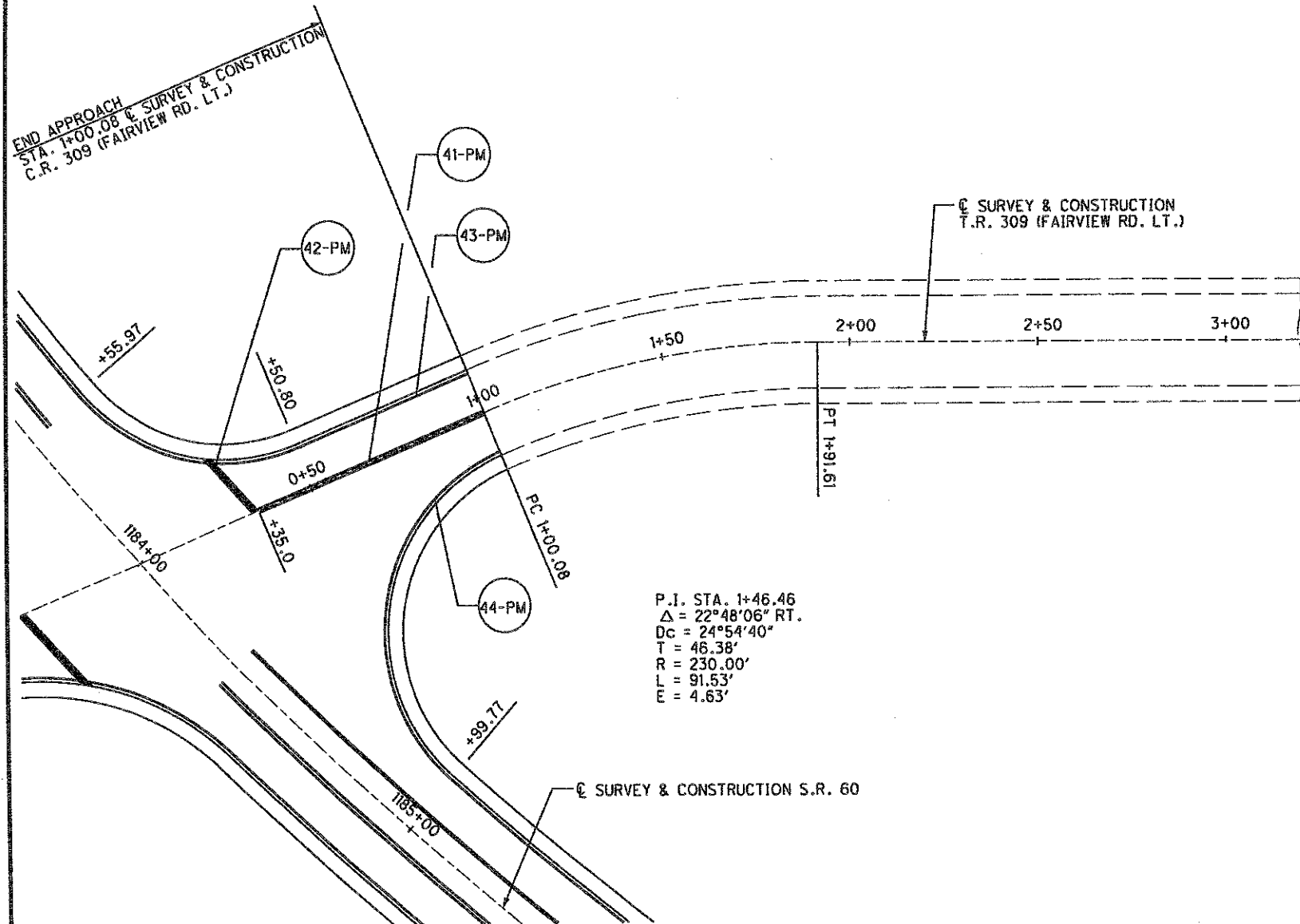
**TRAFFIC CONTROL SHEET**  
**STA. 1188+50 TO STA. 1192+50**

**MUS-60-17.93**





M0602P65.DGN 10/15/97

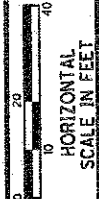
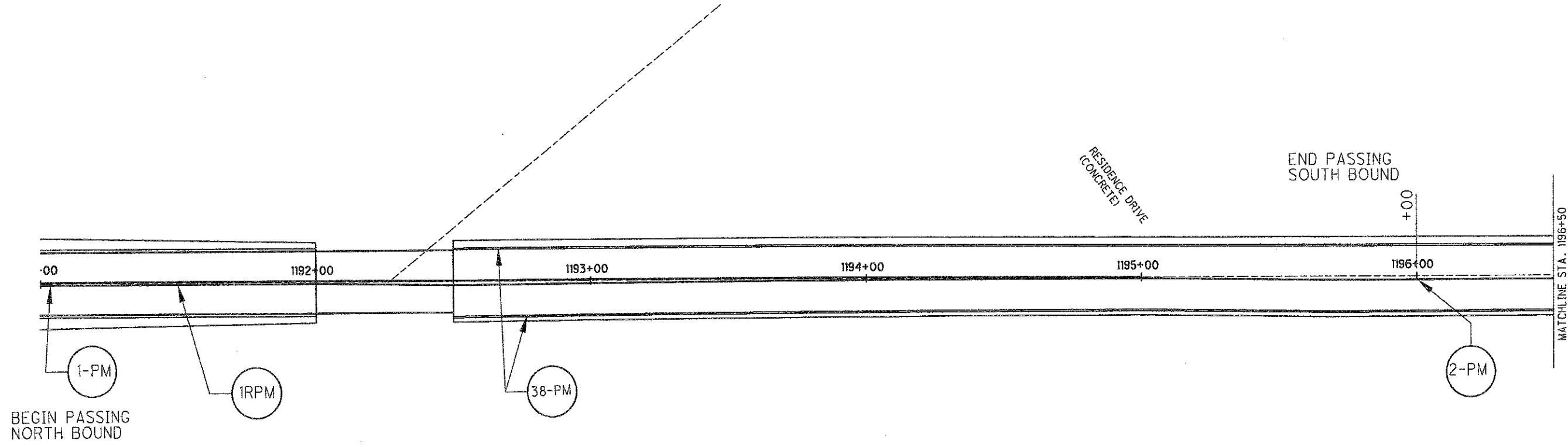


CALCULATED BY: JFB  
 9-10-97  
 CHECKED BY: JFB  
 9-10-97  
 HORIZONTAL SCALE IN FEET  
 1" = 20'

**TRAFFIC CONTROL SHEET**  
**T.R. 309 (FAIRVIEW RD. LT.)**  
**STA. 0+19.18 TO STA. 1+00.08**

**MUS-60-17.93**

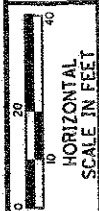
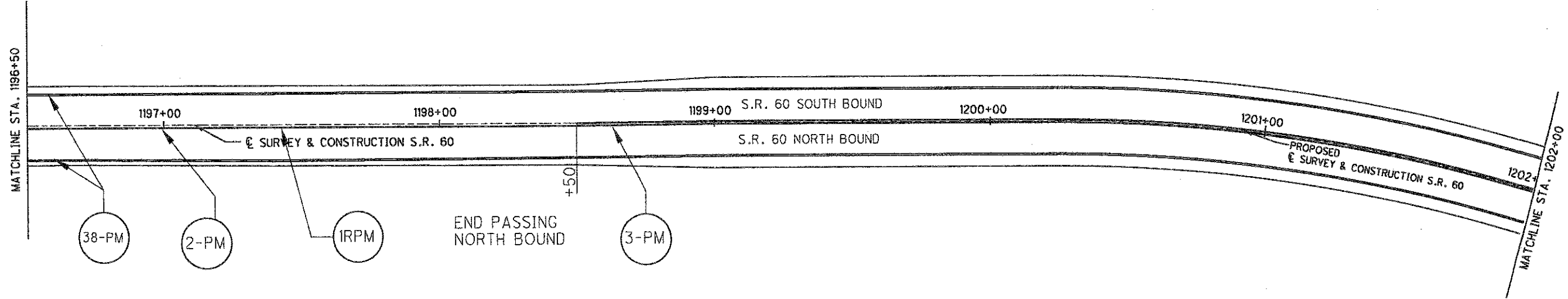
80  
21



CALCULATED  
SAB  
8/15/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1191+00 TO STA. 1196+50**

**MUS-60-17.93**

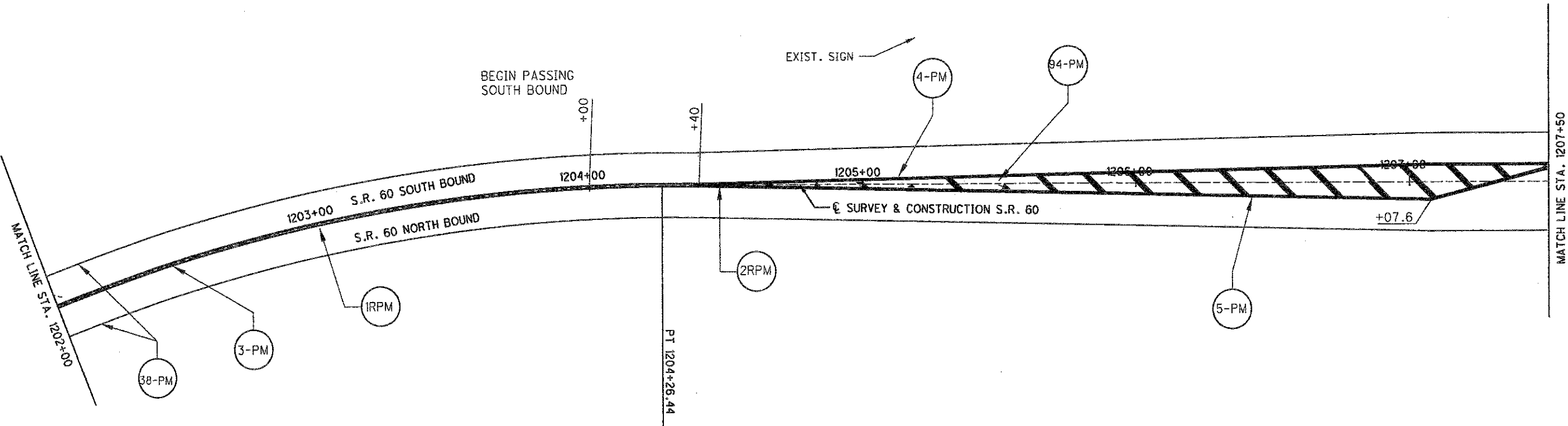


CALCULATED  
SAB 6/15/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1196+50 TO STA. 1202+00**

**MUS-60-17.93**

M060003.ITD 08/13/98



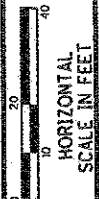
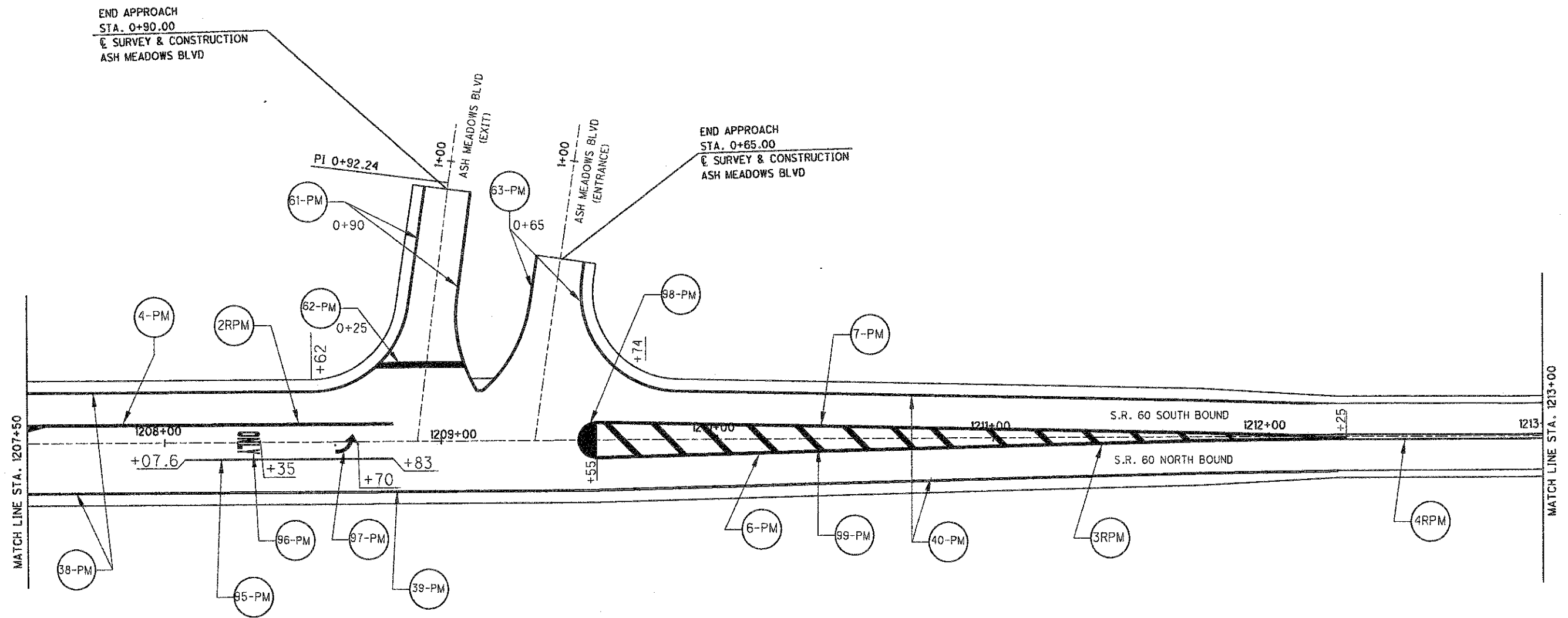
0 10 20 40  
HORIZONTAL  
SCALE IN FEET

CALCULATED  
BY  
CHECKED  
BY

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1202+00 TO STA. 1207+50**

**MUS-60-17.93**

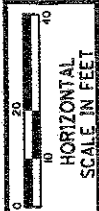
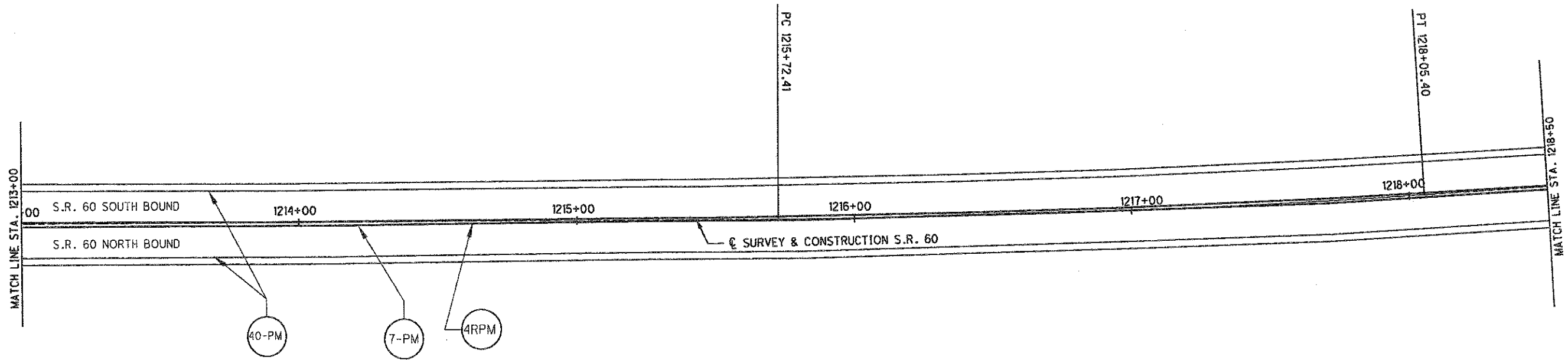
MO60004.TTD 08/13/98



CALCULATED  
SAS  
6/7/98  
CHECKED  
BFB

TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1207+50 TO STA. 1213+00

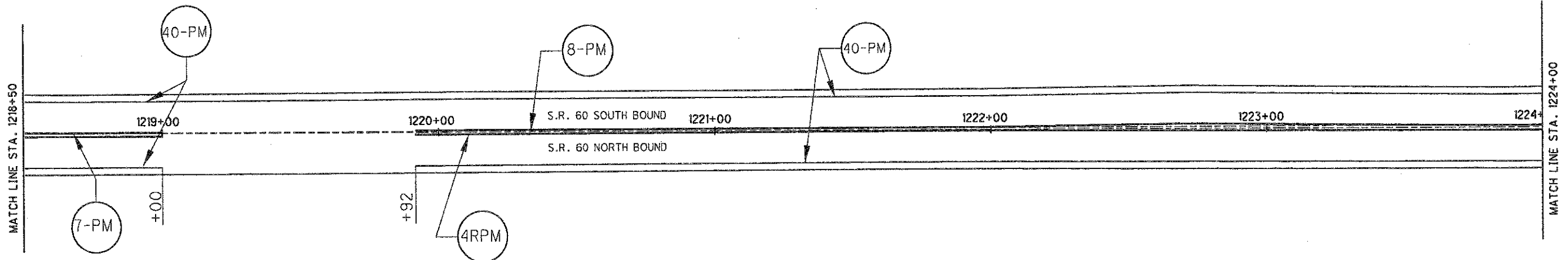
MUS-60-17.93



CALCULATED  
SAB  
6/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1213+00 TO STA. 1218+50**

**MUS -60-17.93**



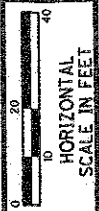
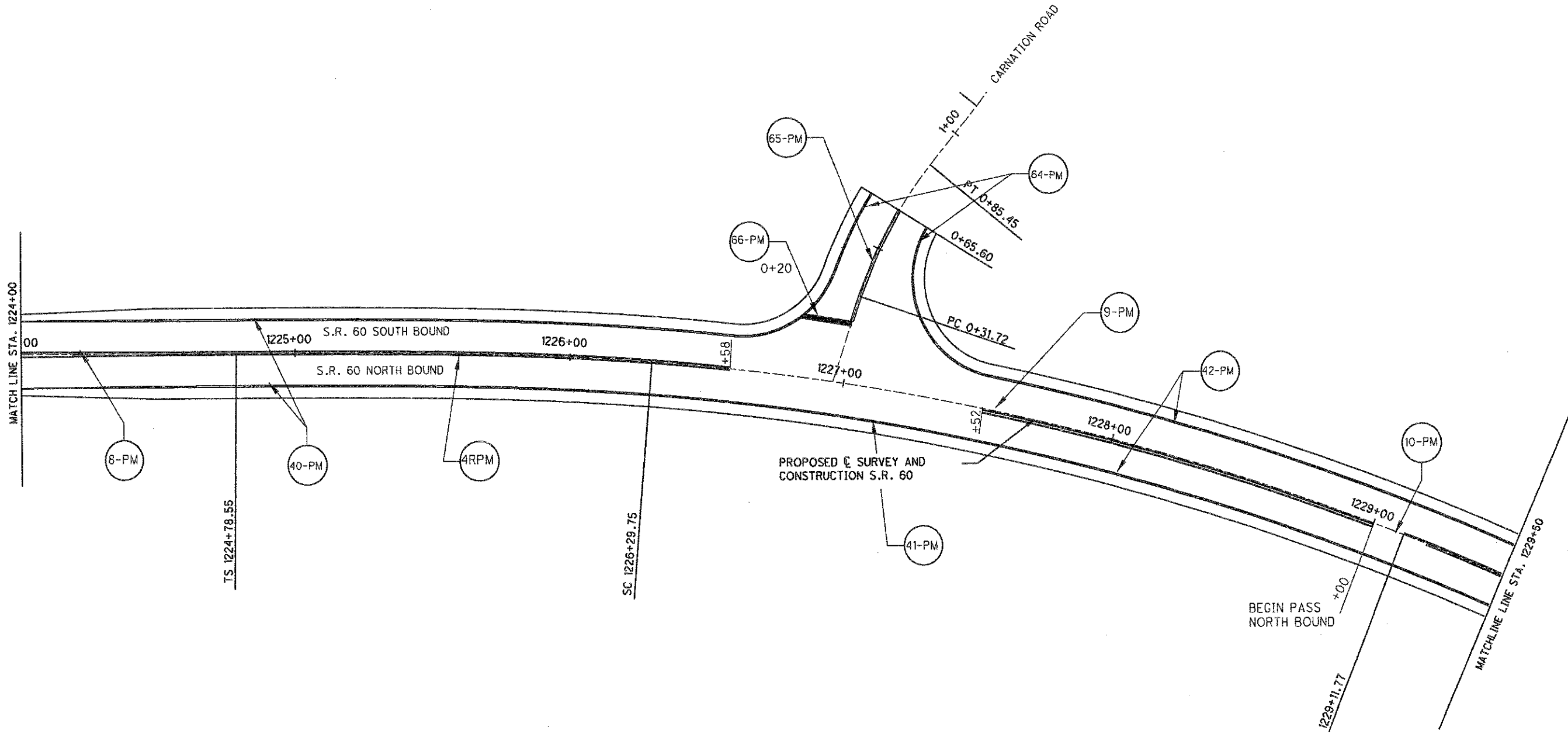
CALCULATED SAB 6/17/98		HORIZONTAL SCALE IN FEET
CHECKED BFB		

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
STA. 1218+50 TO STA. 1224+00

MUS-60-17.93



M0600007.TTD 08/13/98

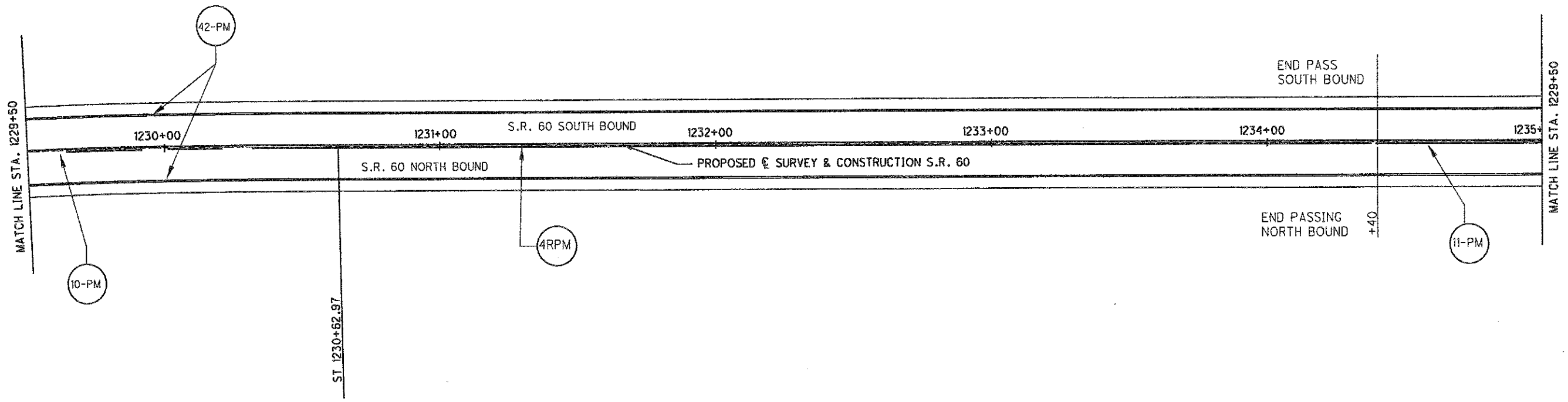


CALCULATED  
SAB 8/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1224+00 TO STA. 1229+50**

**MUS-60-17.93**

M0600008.ITD 8/13/98



HORIZONTAL SCALE IN FEET  
0 20 40

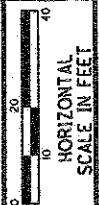
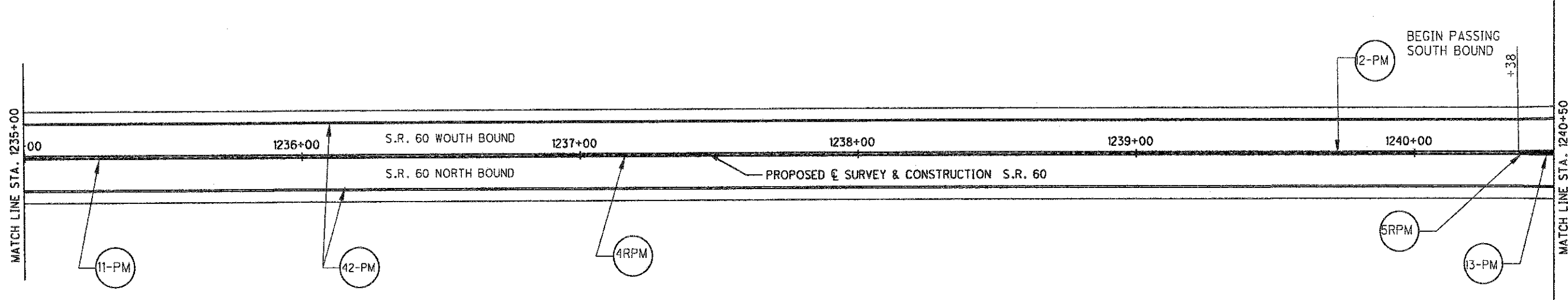
CALCULATED  
SAB  
6/18/98  
CHECKED

TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1229+50 TO STA. 1235+00

MUS-60-17.93

88  
121

M0600009.ITD 08/13/98



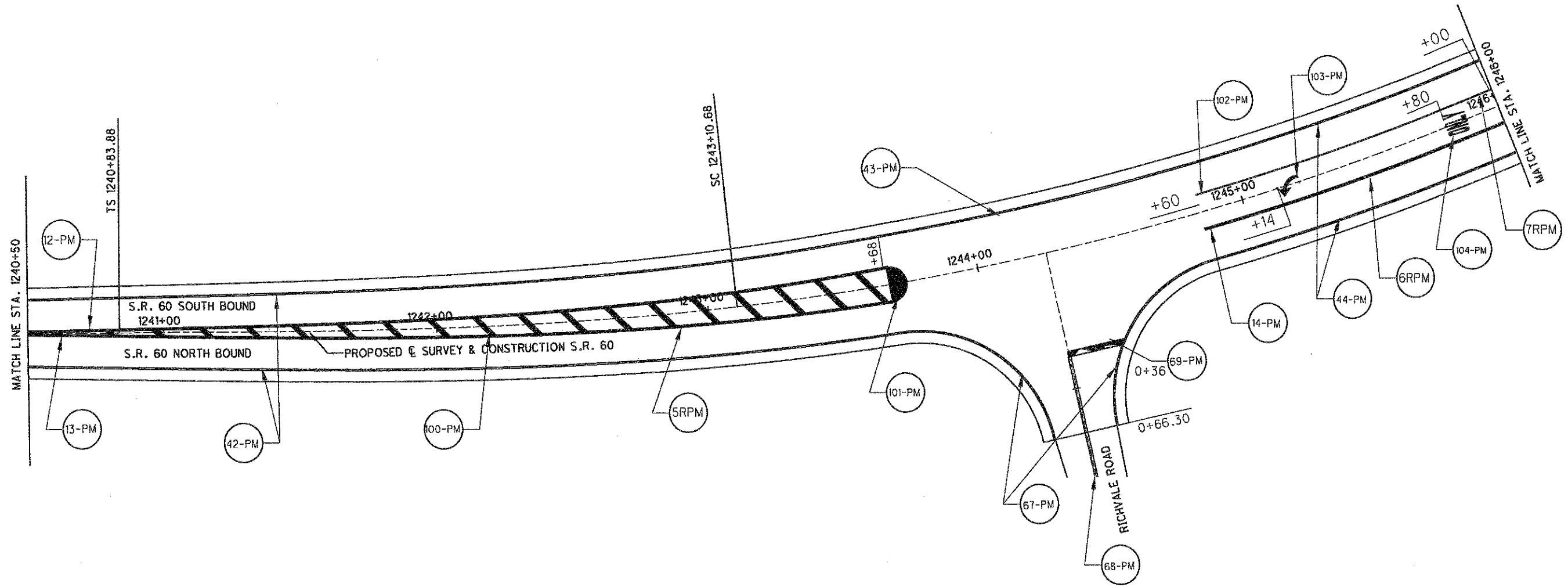
CALCULATED  
SAB 6/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1235+00 TO STA. 1240+50**

**MUS -60-17.93**

89  
121

MO600010.TTD 08/13/98

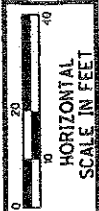
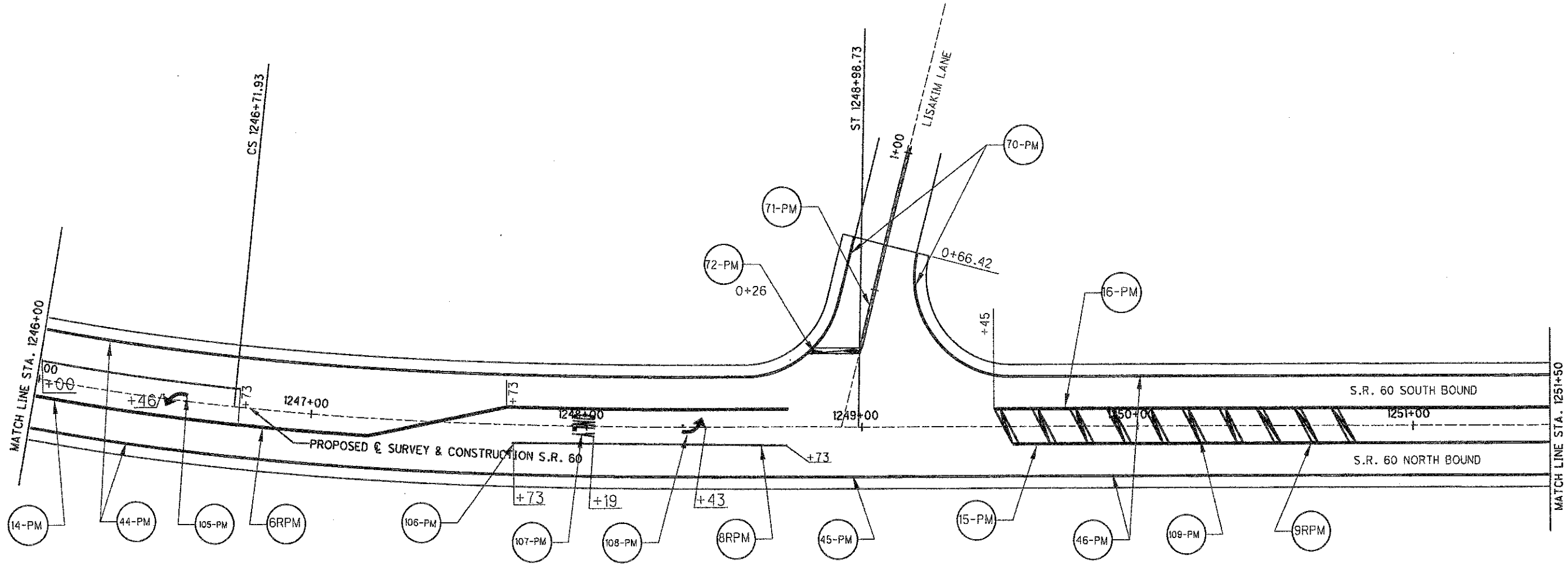


CALCULATED B/W/98	CHECKED BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1240+50 TO STA. 1246+00**

**MUS-60-17.93**

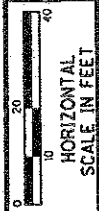
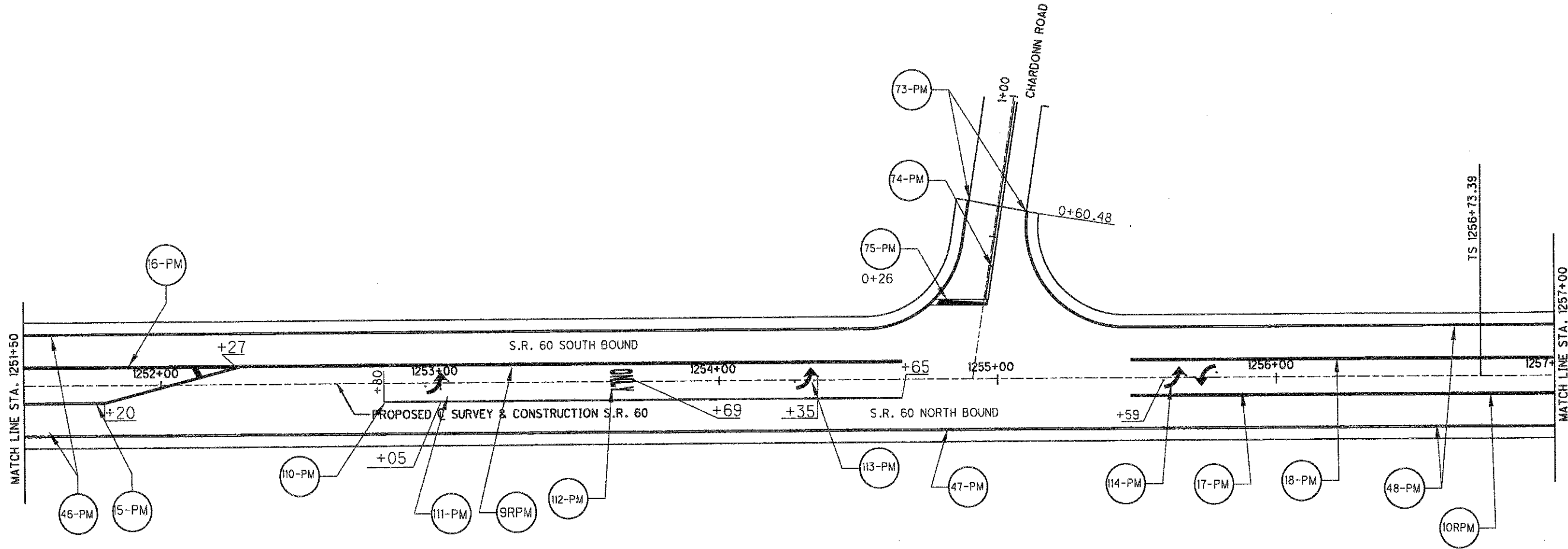
90  
121



CALCULATED  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1246+00 TO STA. 1251+50**

**MUS - 60 - 17.93**

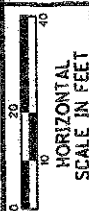
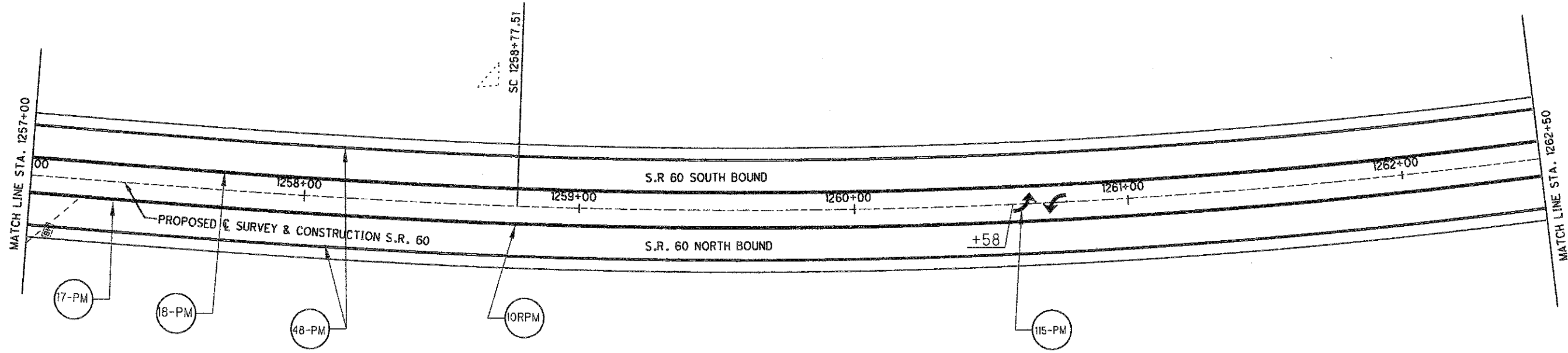


CALCULATED  
SAB 8/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1251+50 TO STA. 1257+00**

**MUS-60-17.93**

M0600013.TTD 08/13/98

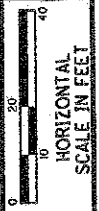
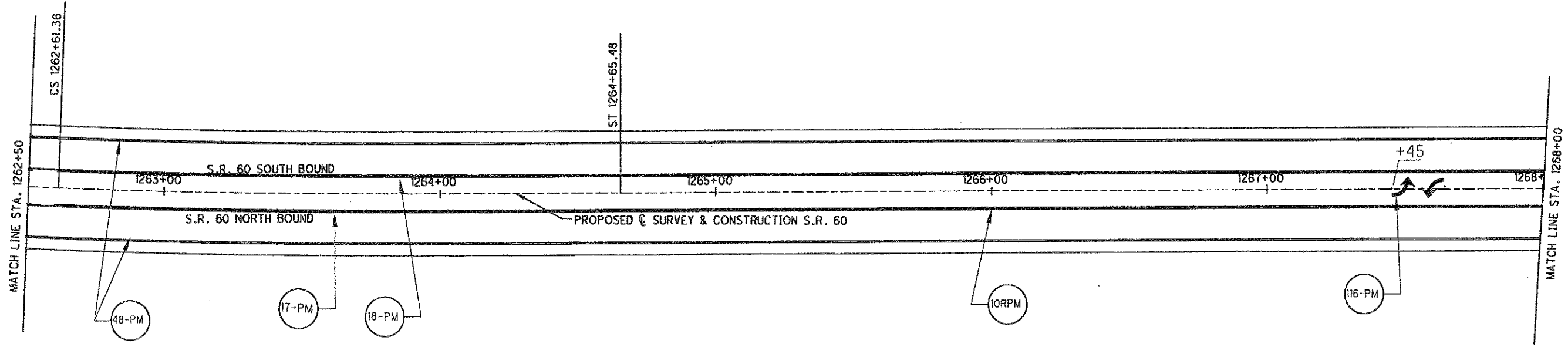


CALCULATED	DATE
5/17/98	
CHECKED	DATE
BFB	

**TRAFFIC CONTROL SHEET**  
**STA. 1257+00 TO STA. 1262+50**

**MUS-60-17.93**

M060004.TTD 08/13/98



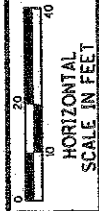
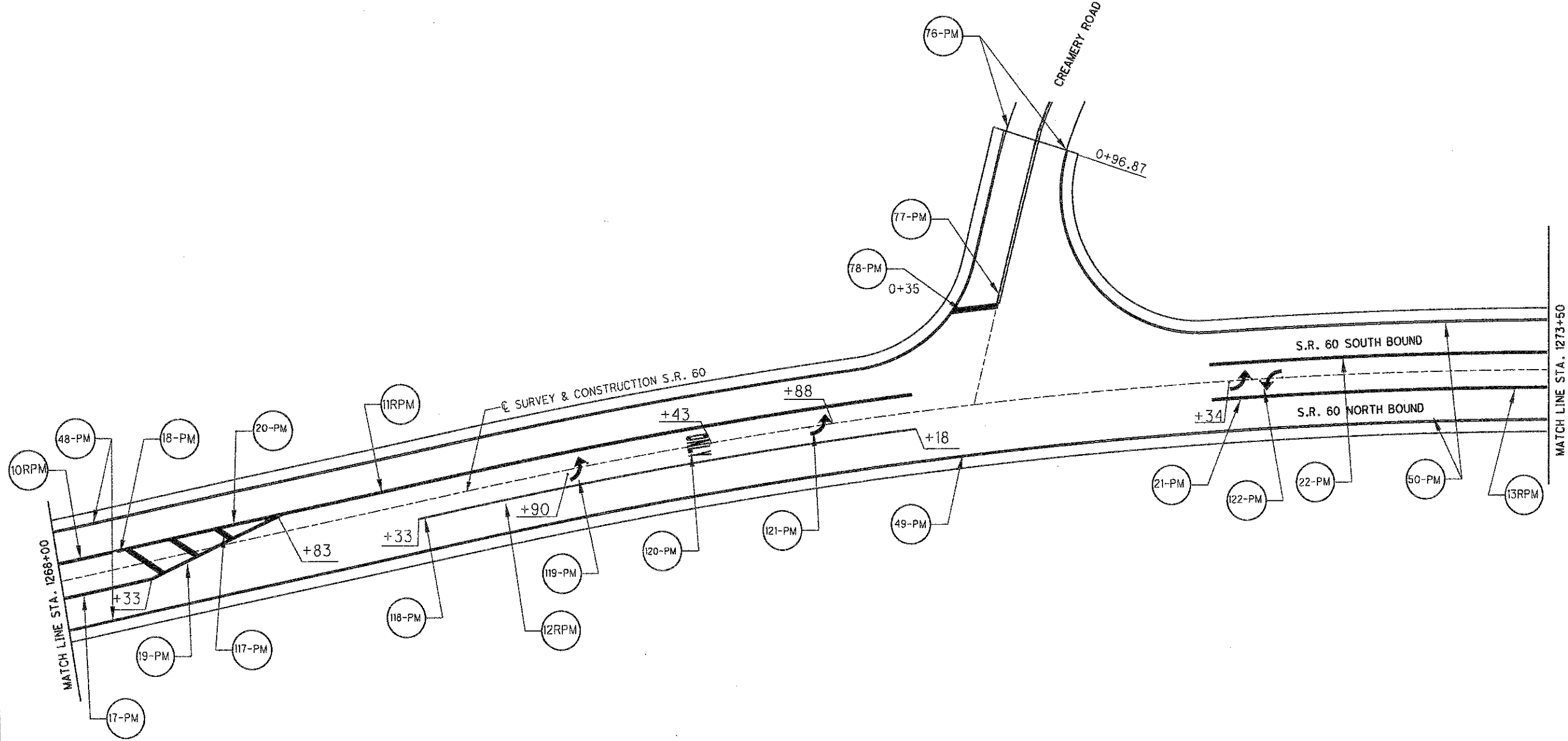
HORIZONTAL SCALE IN FEET  
CALCULATED BY SAE 8/17/98  
CHECKED BY BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1262+50 TO STA. 1268+00**

**MUS-60-17.93**



MO600015.TTD 08/13/98

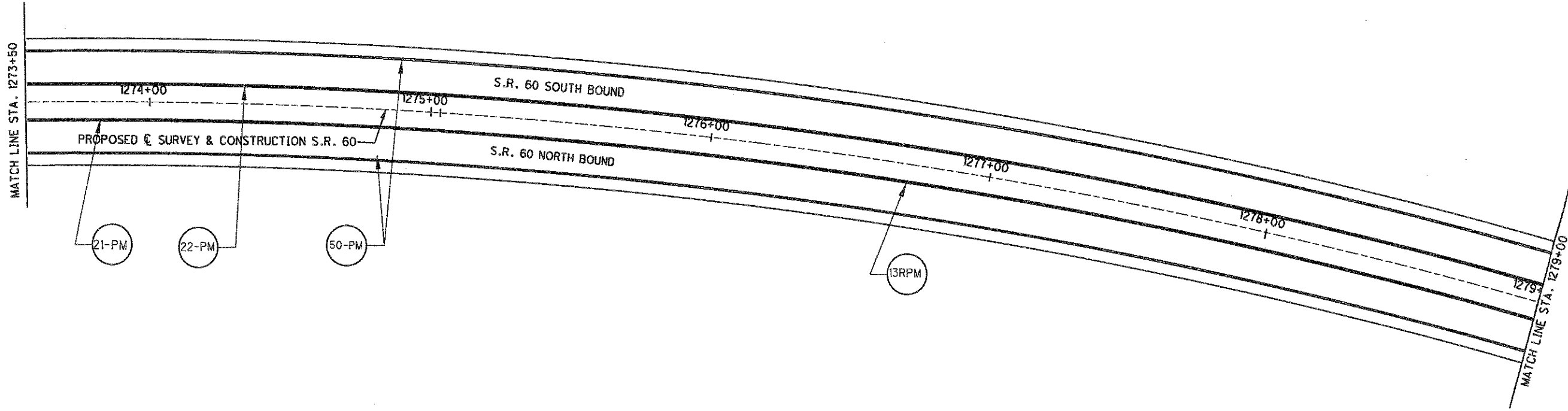


CALCULATOR	
SAB	6/17/98
CHECKED	BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1268+00 TO STA. 1273+50**

**MUS-60-17.93**

M0600016.TTD 08/13/98



0 10 20 40  
HORIZONTAL  
SCALE IN FEET

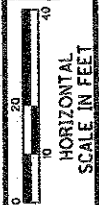
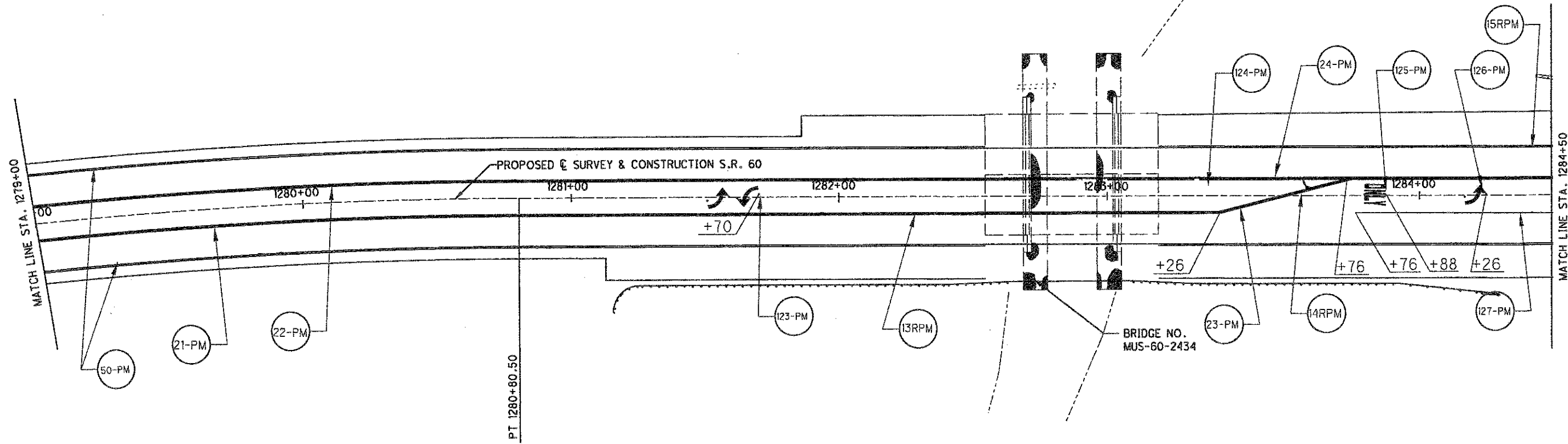
CHECKED  
DATE  
BY

TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1273+50 TO STA. 1279+00

MUS-60-17.93

96  
121

M0600017.TTD 08/13/98

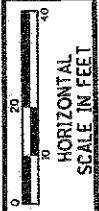
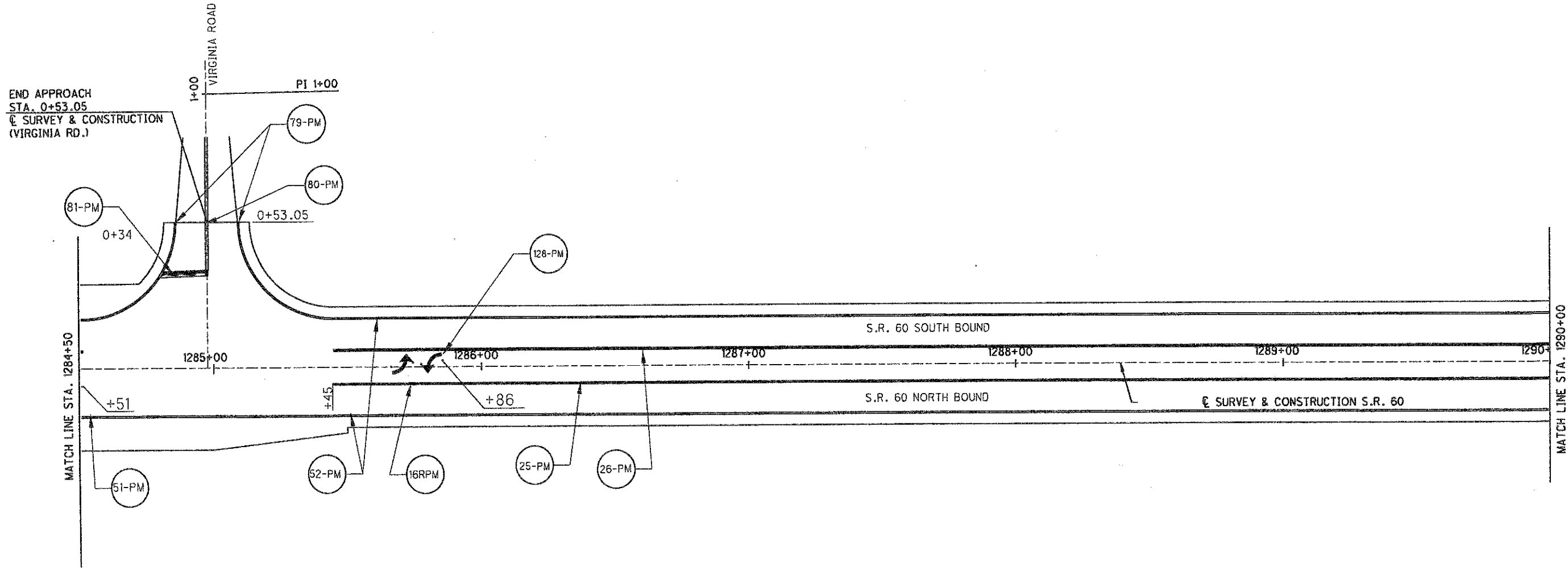


CALCULATED  
SAB  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1279+00 TO STA. 1284+50**

**MUS-60-17.93**

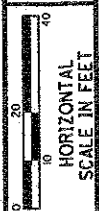
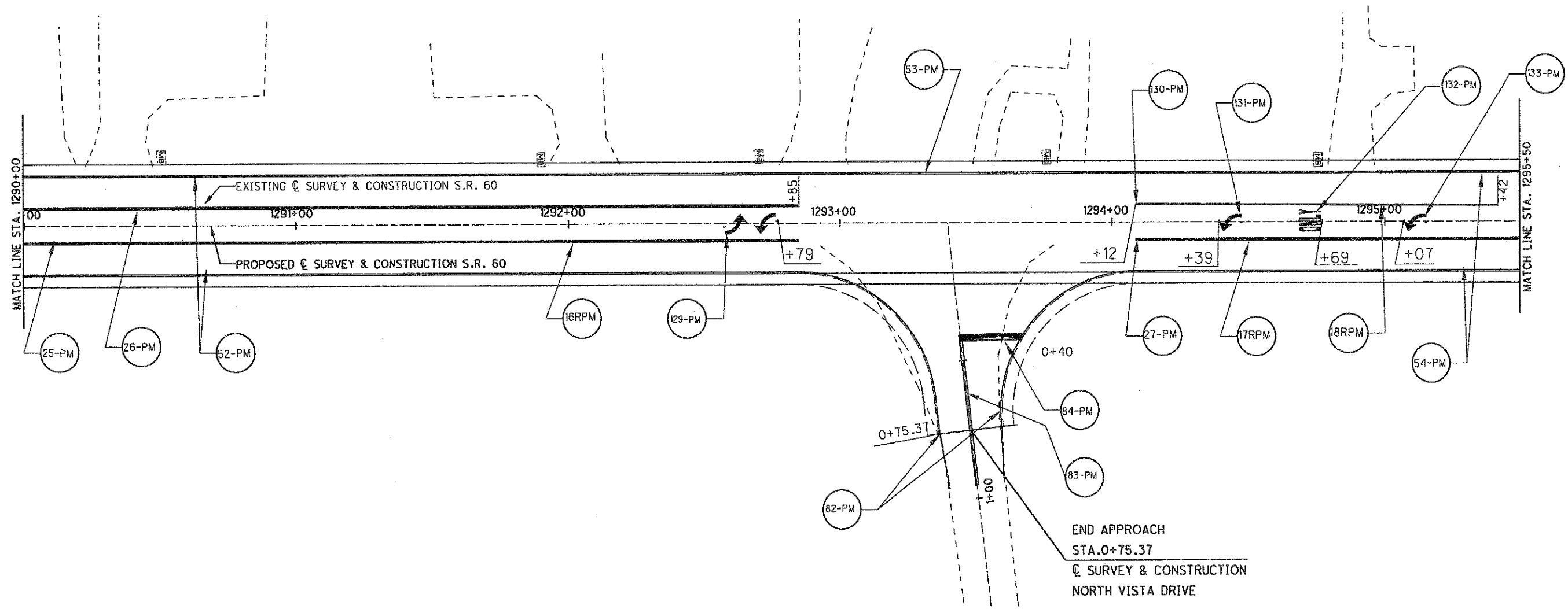
MO600018.TTD 08/13/98



CALCULATED  
SAP 8/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1284+50 TO STA. 1290+00**

**MUS-60-17.93**

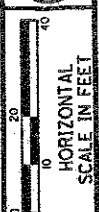
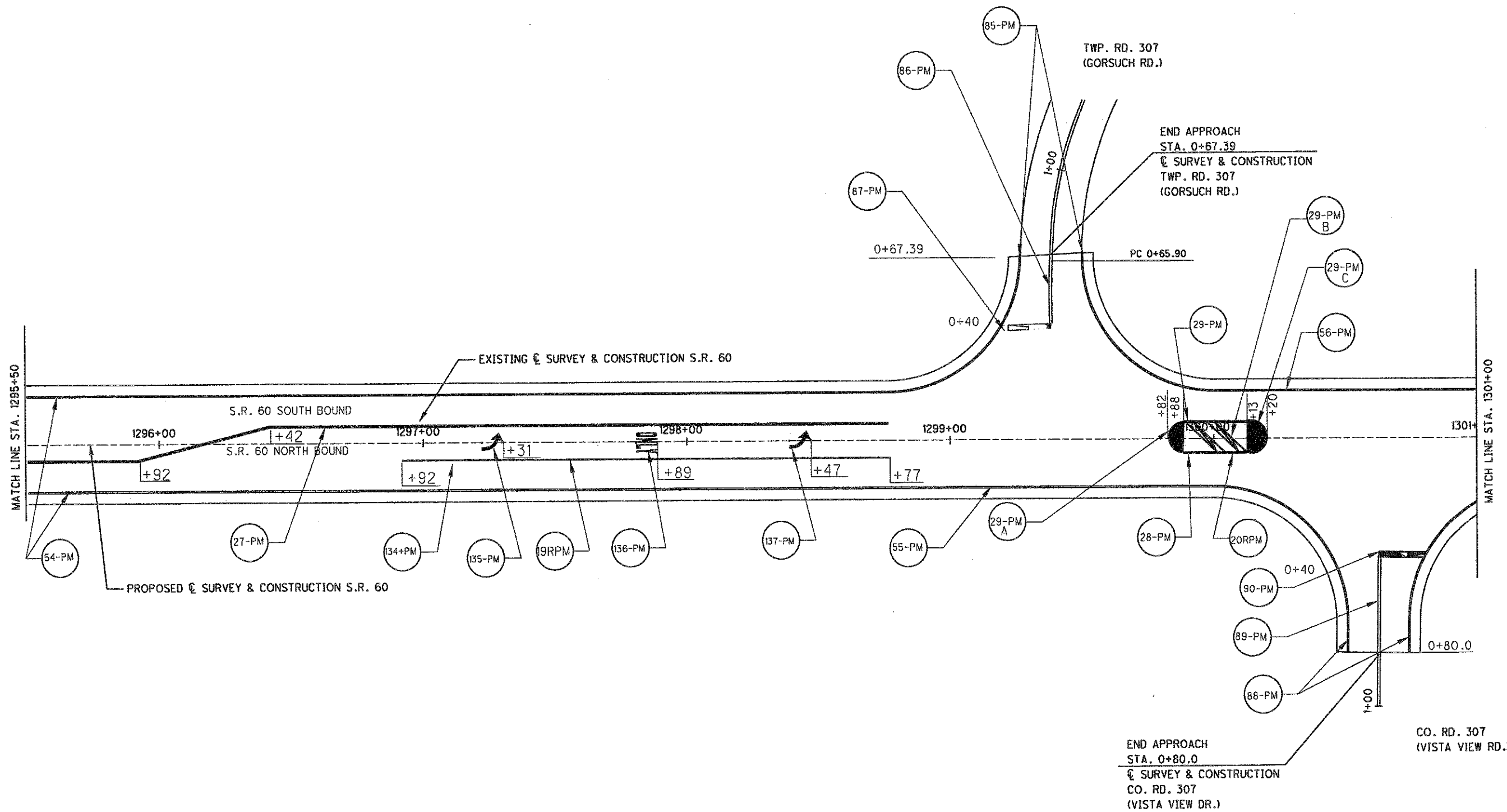


HORIZONTAL SCALE IN FEET

TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1290+00 TO STA. 1295+50

MUS-60-17.93

MO600020.ITD 08/13/98

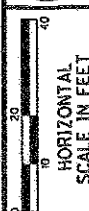
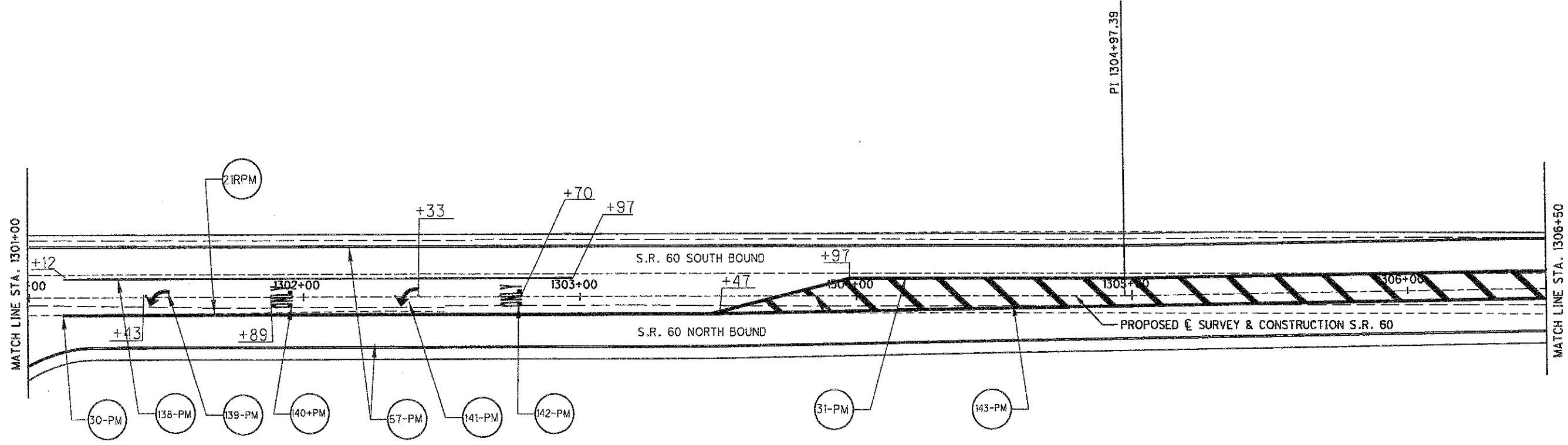


HORIZONTAL SCALE IN FEET

TRAFFIC CONTROL SHEET PAVEMENT MARKING

MUS-60-17.93

100  
121



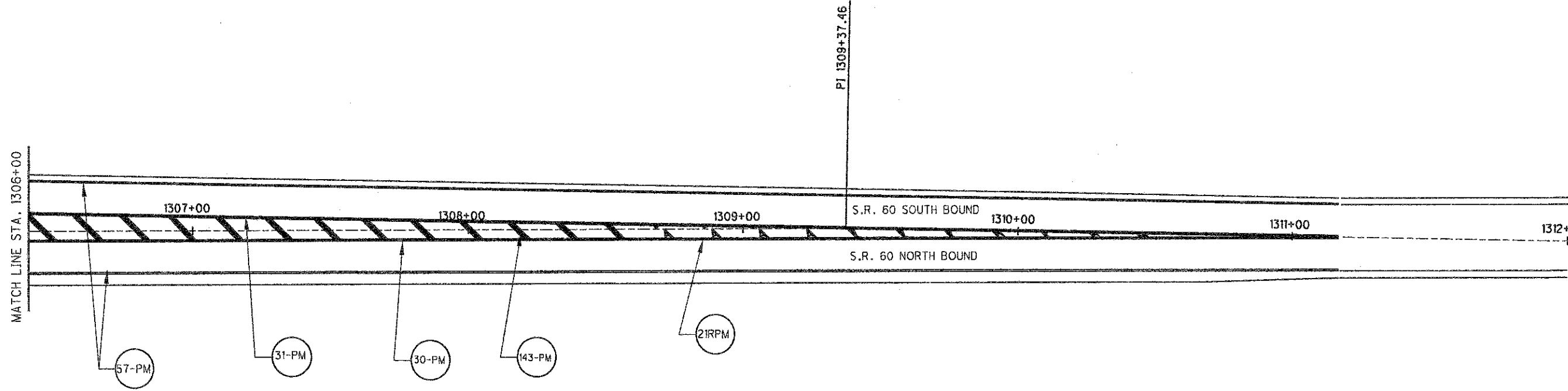
CALCULATED  
SAB 04/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1301+00 TO STA. 1306+50**

**MUS-60-17.93**

101  
121

M0600022.TTD 08/13/98



102  
121

MUS-60-17.93

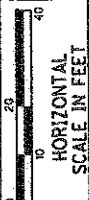
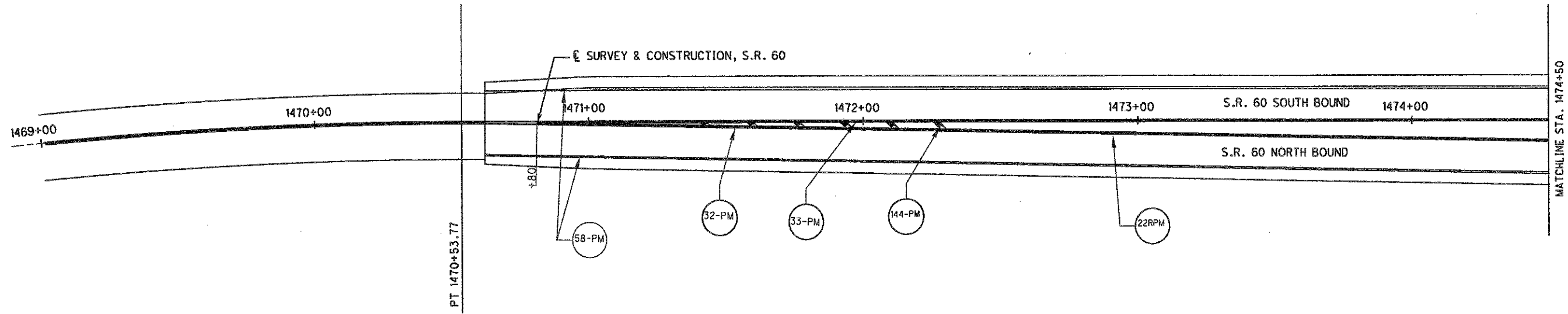
TRAFFIC CONTROL SHEET PAVEMENT MARKING  
STA. 1306+50 TO STA. 1312+00

CALCULATED  
SAB  
6/17/98  
CHECKED  
BFB

0 10 20  
HORIZONTAL  
SCALE IN FEET



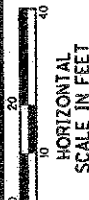
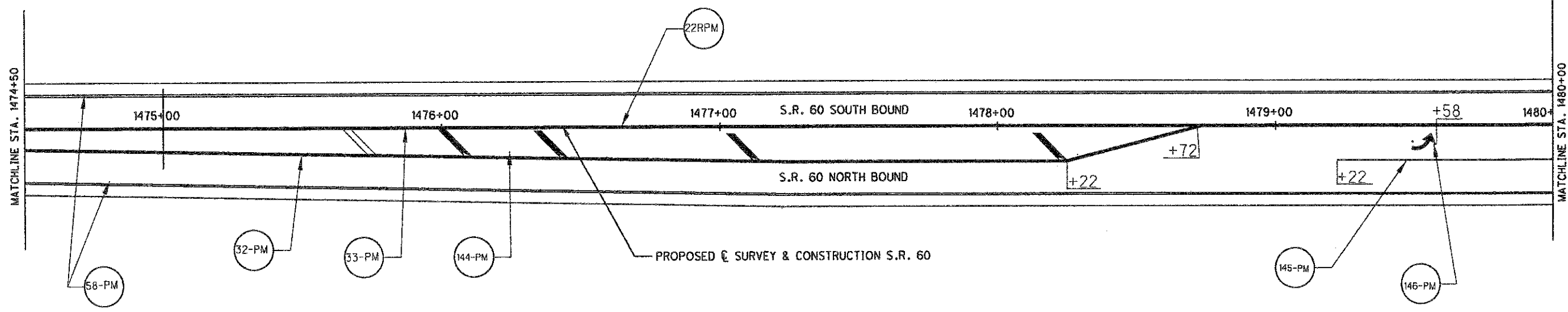




CALCULATED BY: BFB  
CHECKED BY: BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1469+00 TO STA. 1474+50**

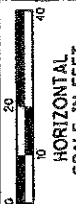
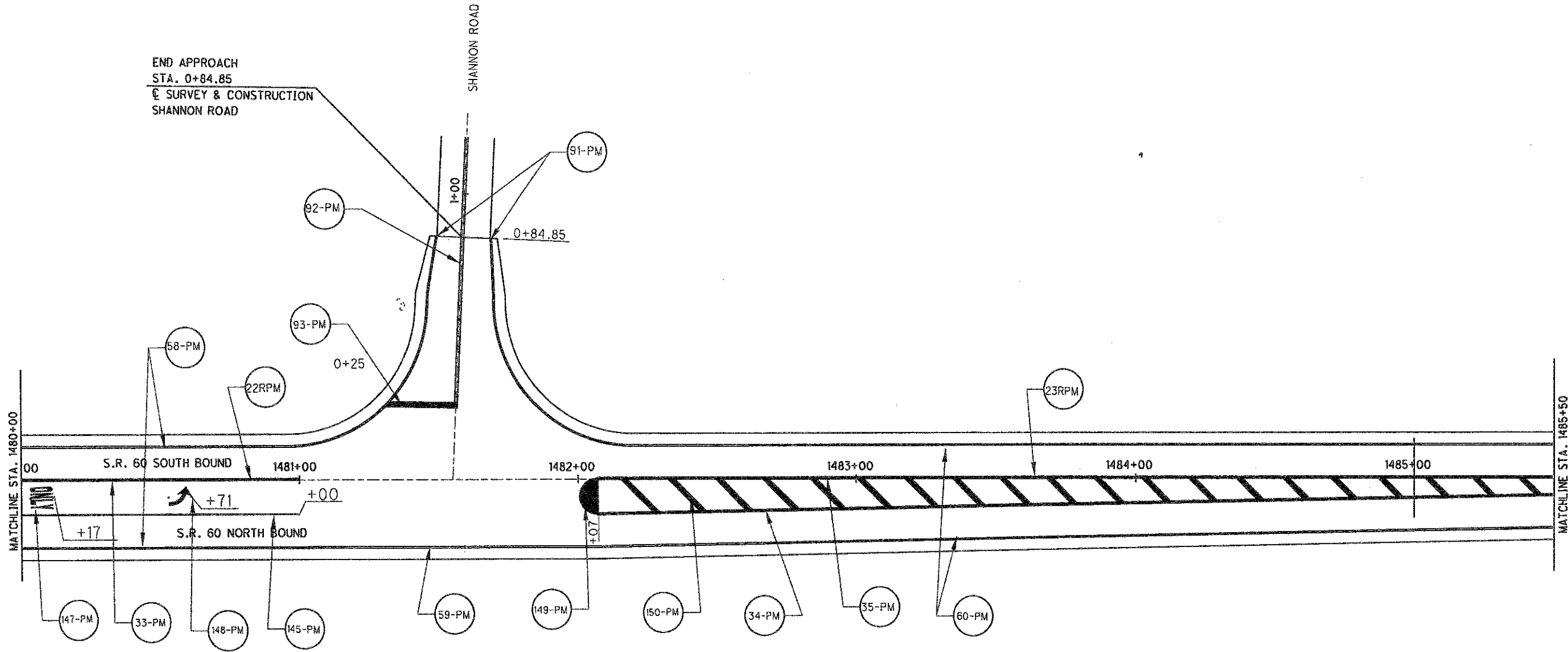
**MUS-60-17.93**



CALCULATED  
SAS  
6/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
STA. 1474+50 TO STA. 1480+00

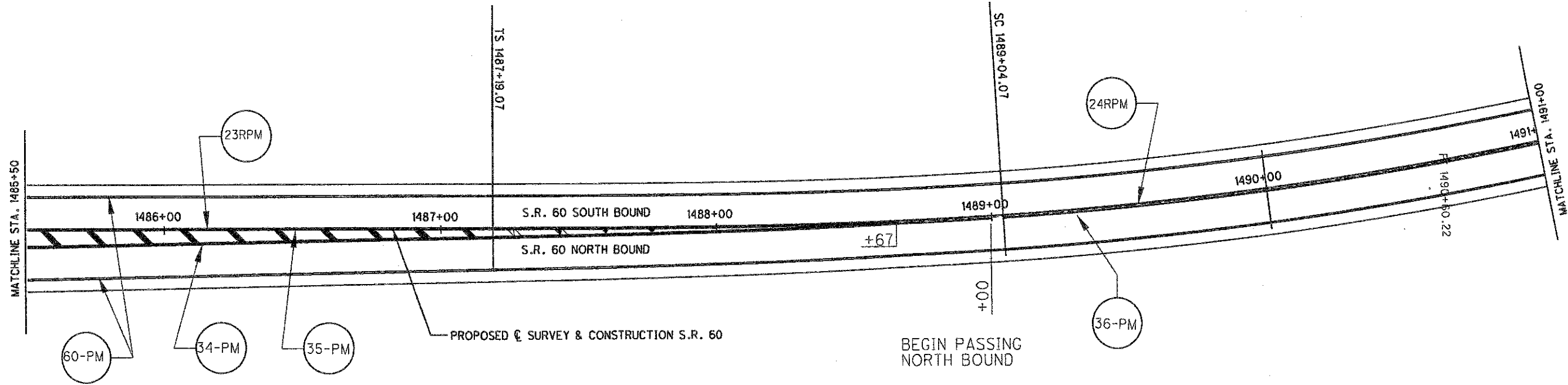
MUS-60-17.93



CALCULATED BY: JFB  
CHECKED BY: JFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1480+00 TO STA. 1485+50**

**MUS-60-17.93**



CALCULATED BY: BJT/98  
 CHECKED: BFB

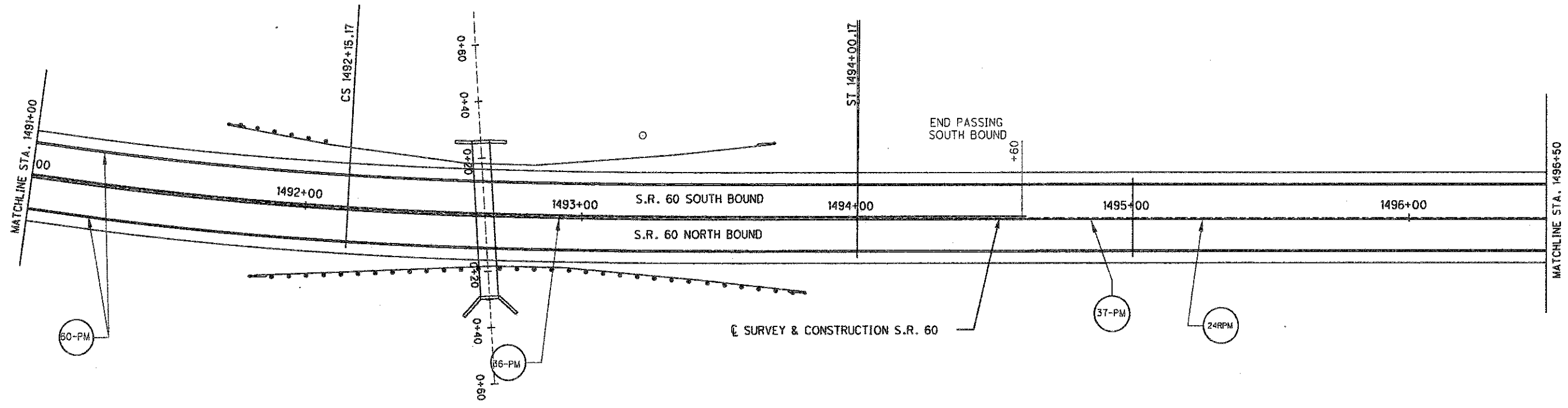
0 10 20 40  
 HORIZONTAL SCALE, IN FEET

N

TRAFFIC CONTROL SHEET PAVEMENT MARKING  
 STA. 1485+50 TO STA. 1491+00

MUS-60-17.93

MO500032.TTD 08/13/98



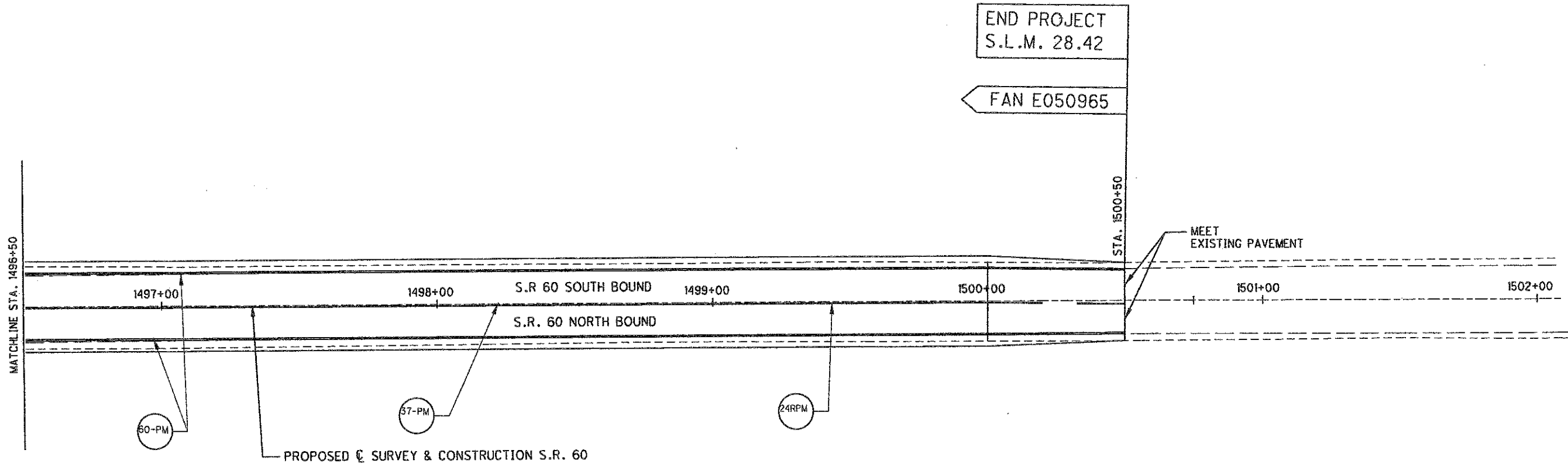
HORIZONTAL SCALE IN FEET

CALCULATED  
SAB  
6/17/98  
CHECKED  
BFB

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
**STA. 1491+00 TO STA. 1496+50**

**MUS-60-17.93**

107  
121



CALCULATED  
S.A.  
5/17/98  
CHECKED  
BFB

HORIZONTAL  
SCALE IN FEET

**TRAFFIC CONTROL SHEET PAVEMENT MARKING**  
STA. 1496+50 TO STA. 1502+00

**MUS-60-17.93**

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	EDGE LINE, YELLOW MILE	EDGE LINE, WHITE MILE	LANE LINE MILE	CENTER LINE (DOUBLE SOLID) MILE	CENTER LINE (SOLID DASH) MILE	CHANNELIZING LINE FT	STOP LINE FT	CROSSWALK LINE FT	TRANSVERSE/DIAGONAL LINE FT	LANE ARROW EACH	WORD ON PAVEMENT, 72" EACH		EACH	EACH	EACH
			FROM	TO																
			RT/LT	RT/LT																
	1-PM		74+72		RT/LT						37									
	2-PM		74+72	77+55	RT			0.054												
	3-PM		74+72	77+32	RT/LT				0.06											
	4-PM		74+72	76+57	LT					185										
	5-PM		74+72	80+92	LT			0.118												
	6-PM		74+78		☒									1						
	7-PM		75+18		☒										1					
	8-PM		75+58		☒									1						
	9-PM		77+32	80+75	LT				0.065											
	10-PM		77+32	80+75	RT				0.065											
	11-PM		77+63		☒									1						
	12-PM	THURMAN STREET			RT						16	85								
	13-PM		78+35	80+97	RT			0.05												
	14A-PM		80+35		☒									1						
	14-PM		80+75	81+75	RT/LT				0.038				128							
	15-PM	NOT USED																		
	16-PM	FOREST AVENUE			RT						16	98								
	17-PM		81+75	85+88	LT			0.078												
	18-PM		81+75	84+38	LT				0.05											
	19-PM		81+75	84+38	RT				0.05											
	20-PM		81+75	85+88	RT			0.078												
	21-PM		83+14		☒									1						
	22-PM		84+38	85+88	RT/LT				0.038				34							
	23-PM	SHERIDAN STREET			RT						18									
	24-PM		85+20		☒										1					
	25-PM		85+13	85+88	RT					75										
	26-PM		85+78		☒									1						
	27-PM		85+88		RT/LT						30									
	28-PM	LOCUST AVENUE			LT						16	92								
	29-PM		86+52		RT/LT							100								
	30-PM		86+64		RT/LT						31									
	31-PM		86+64	89+45	LT			0.053												
	32-PM		86+64	87+88	LT				0.023											
	33-PM		86+64	87+88	RT				0.023											
	34-PM		86+64	87+88	RT			0.023												
	34A-PM	WEBER STREET			RT						12	72								
	35-PM		88+45	89+45	LT				0.019											
	36-PM		88+45	89+45	RT				0.019											
	37-PM		88+45	91+87	RT			0.065												
	37A-PM		89+00		☒									1						
	38A-PM	LENOX AVENUE			LT						16	95								
	38-PM		90+02	92+94	LT			0.055												
	39-PM		90+02	91+97	LT				0.037											
	40-PM		90+02	91+97	RT				0.037											
TOTALS CARRIED TO SHEET 115								0.574	0.524		260.0	192.0	542.0	162.0	7.0	2.0				

PAVEMENT MARKING SUBSUMMARY

MUS - 60 - 17.93

SR60\_PART1.PM\_SUM.DGN

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644															621		
			FROM	TO		EDGE LINE, YELLOW MILE	EDGE LINE, WHITE MILE	LANE LINE MILE	CENTER LINE (DOUBLE SOLID) MILE	CENTER LINE (SOLID DASH) MILE	CHANNELIZING LINE FT	STOP LINE FT	CROSSWALK LINE FT	TRANSVERSE/DIAGONAL LINE FT	LANE ARROW EACH	WORD ON PAVEMENT, 72" EACH	EACH	EACH	EACH				
41-PM			91+00		℄											1							
42-PM		VAN HORN AVENUE			RT						16	92											
43-PM			92+61	93+05	LT				0.008														
44-PM			92+61	93+05	RT				0.008														
45-PM			92+61	96+05	RT			0.065															
46-PM		FAIRMONT AVENUE			LT						16	95											
47-PM			93+64	96+05	LT			0.046															
48-PM			93+64	96+05	LT				0.046														
49-PM			93+64	96+05	RT				0.046														
50-PM			94+10		℄										1								
51-PM			95+85		℄										1								
52-PM			104+00	108+38	LT			0.083															
53-PM			104+00	107+28	LT				0.062														
54-PM			104+00	107+28	RT				0.062														
55-PM			104+00	107+28	RT			0.062								1							
56-PM			104+75		℄										1								
57-PM			106+50		℄										1								
58-PM		IMLAY DRIVE			RT						10	69											
59-PM			107+80	108+38	LT				0.011														
60-PM			107+80	108+38	RT				0.011														
61-PM			107+80	110+50	RT			0.051															
62-PM		JACOBS STREET			LT						16	95											
63-PM			109+05	111+84	LT			0.053															
64-PM			109+05	110+56	LT				0.029														
65-PM			109+05	110+56	RT				0.029														
66-PM			109+75		℄										1								
67-PM		GLENDALE AVENUE			RT						16	92											
68-PM			111+11	111+92	LT				0.015														
69-PM			111+11	111+92	RT				0.015														
70-PM			111+11	116+34	RT			0.100															
71-PM			111+50		℄										1								
72-PM		HEADLEY STREET			LT						13	85											
73-PM			112+53	115+44	LT			0.055															
74-PM			112+53	115+44	LT				0.055														
75-PM			112+53	115+44	RT				0.055														
76-PM			114+00		℄										1								
77-PM		SOMERS STREET			LT						15	90											
78-PM			116+03	119+33	LT			0.063			15												
79-PM			116+03	116+34	LT				0.006														
80-PM			116+03	116+34	RT				0.006														
81-PM		BROOKOVER AVENUE			RT						15	78											
82-PM			116+90		RT/LT							102											
82A-PM			117+08		RT/LT						30												
83-PM			117+08	117+73	LT					65													
84-PM			117+08	118+20	RT/LT				0.028														
85-PM			117+08	124+47	RT			0.140															
85A-PM			117+56		℄										1								
86-PM			118+20	119+33	LT				0.022														
86A-PM			117+56		℄										1								
<b>TOTALS CARRIED TO SHEET 115</b>								0.718	0.514		65.0	162.0	798.0			9.0	1.0						

CALCULATED  
C.Y.  
CHECKED

PAVEMENT MARKING SUBSUMMARY

MUS-60-17.93

SR60-PART1-PM-SUM.DGN



CALCULATED  
C.Y.  
CHECKED

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644																	621		
			FROM	TO		EDGE LINE, YELLOW	EDGE LINE, WHITE	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 72"								
			MI	MI		MI	MI	MI	FT	FT	FT	FT	SQ-FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH					
	87-PM		118+20	119+33	RT					0.022															
	87A-PM		118+75		C																				
	88-PM	ARTIS DRIVE			LT						16	94						1							
	89-PM		119+93	124+47	LT			0.086																	
	90-PM		119+93	124+47	LT					0.086															
	91-PM		119+93	124+47	RT					0.086															
	92-PM		122+00		C													1							
	93-PM		124+47		RT/LT						30														
	94-PM		124+57									102													
	95-PM	TAYLOR STREET			RT						19	108													
	96-PM	TAYLOR STREET			LT							114													
	97-PM		126+05									103													
	98-PM		126+17								30														
	99-PM		126+17	130+97	LT			0.091																	
	100-PM		126+17	127+64	LT					0.028															
	101-PM		126+17	127+64	RT					0.028															
	102-PM		126+17	127+64	RT			0.028																	
	103-PM	WINTON STREET			RT						16	91													
	104-PM		128+32	129+50	LT					0.022															
	105-PM		128+32	129+50	RT					0.022															
	106-PM		128+32	130+97	RT			0.050																	
	106A-PM		129+00		C													1							
	107-PM		129+50	131+03	RT/LT				0.055				173	58											
	108-PM	KINZEL AVENUE			RT						16	94													
	109-PM	FRANCIS STREET			LT						16	93													
	110-PM		131+74	134+63	LT			0.055																	
	111-PM		131+74	132+46	LT					0.014															
	112-PM		131+74	132+46	RT					0.014															
	113-PM		131+74	132+46	RT			0.014																	
	114-PM	RICHMOND AVENUE			RT						16	95													
	115-PM		133+15	135+50	LT					0.045															
	116-PM		133+15	135+50	RT					0.045															
	117-PM		133+15	135+50	RT			0+045																	
	118-PM		133+90		C													1							
	119-PM	WABASH AVENUE			LT						13	115													
	120-PM		135+50	138+50	LT			0.057																	
	121-PM	CAMBRIDGE AVENUE			RT						14	102													
	122-PM		136+20	138+50	LT					0.044															
	123-PM		136+20	138+50	RT					0.044															
	124-PM		136+20	144+35	RT			0.154																	
	125-PM		137+35															1							
	126-PM	LEONARD AVENUE			LT						15	106													
	127-PM		139+28	142+37	LT			0.059																	
	128-PM		139+28	142+37	LT					0.059															
	129-PM		139+28	142+37	RT					0.059															
<b>TOTALS CARRIED TO SHEET 115</b>							0.594		0.673		204.0	1,217.0	173.0	58.0	5.0										

SR60\_PART1\_PM\_SUM.DGN

**PAVEMENT MARKING SUBSUMMARY**

**MUS -60-17.93**

644

621

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644										621									
			FROM	TO		EDGE LINE, YELLOW	EDGE LINE, WHITE	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	LANE ARROW	WORD ON PAVEMENT, 72"									
			MI	MI		MI	MI	MI	FT	FT	FT	FT	EACH	EACH	EACH										
	130-PM		3		℄											1									
	131-PM	PRINCETON AVENUE			LT						15	91													
	132-PM		142+90	144+22	RT/LT				0.035																
	133-PM		143+16	144+44	LT			0.024																	
	134-PM		143+44	144+37	RT						93														
	135-PM		143+60		℄												1								
	136-PM		144+04		℄											1									
	137-PM		144+22		RT/LT						10														
	138-PM		144+37		RT						22														
	139-PM		144+44		RT/LT								113												
	140-PM	HARDING ROAD			RT						28	98													
	141-PM		145+30		RT/LT						31														
	142-PM		145+30	152+50	LT			0.136																	
	143-PM		145+30	146+80	LT						150														
	144-PM		145+30	147+45	RT/LT				0.050					33											
	145-PM		145+30	152+50	RT			0.136																	
	146-PM		145+34		℄											1									
	146A-PM		145+74		℄												1								
	147-PM		146+24		℄											1									
	148-PM		146+74		℄												1								
	149-PM		147+45	152+50	LT					0.096															
	150-PM		147+45	152+50	RT					0.096															
	151-PM		147+77		℄											1									
	152-PM		150+87		℄											1									
	153-PM		164+40	166+95	LT			0.048																	
	154-PM		164+40	166+68	RT/LT				0.077					206											
	155-PM	NOT USED																							
	156-PM		165+00	166+68	RT			0.032																	
	157-PM		166+17	166+68	RT						51														
	158-PM		166+36		℄											1									
	159-PM		166+68		RT/LT						29														
	160-PM	COUNTRY CLUB DRIVE			LT								106												
	161-PM		167+56		RT/LT								112												
	162-PM		167+78		RT/LT						32														
	163-PM		167+78	175+72	LT			0.150																	
	164-PM		167+78	168+60	LT						82														
	165-PM		167+78	169+00	RT/LT				0.023																
	166-PM		167+78	175+72	RT			0.150																	
	167-PM		168+19		℄											1									
	168-PM		168+54		℄												1								
	169-PM		169+00	174+00	LT	0.095																			
	170-PM		169+00	174+00	RT	0.095																			
	171-PM	NOT USED																							
	172-PM	NOT USED																							
	173-PM	BEVERLY AVENUE			LT						12	117													
	174-PM	NOT USED																							
	175-PM		174+00	175+72	RT/LT				0.042					31											
	176-PM		175+00	175+72	RT						72														
	177-PM		175+08		℄												1								
	178-PM		175+48		℄											1									
<b>TOTALS CARRIED TO SHEET 115</b>						0.190		0.676	0.419		448.0	179.0	637.0	270.0		9.0	5.0								

SR60 PART 1 PM SUM DGN

CALCULATED  
C.Y.  
CHECKED

**PAVEMENT MARKING SUBSUMMARY**

**MUS-60-17.93**

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	EDGE LINE, YELLOW	EDGE LINE, WHITE	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	LANE ARROW	WORD ON PAVEMENT, 72"				
			FROM	TO		MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH
	179-PM		175+72								52									
	180-PM		176+64	180+57	RT		0.074													
	181-PM		177+41		RT/LT						33									
	182-PM		177+41	189+48	LT			0.029												
	183-PM		177+41	178+16	LT					75										
	184-PM		177+41	178+91	RT/LT				0.038				33							
	185-PM		177+41	180+57	RT			0.060												
	186-PM		177+51		€										1					
	187-PM		177+70	185+56	LT		0.149													
	188-PM		178+10		€											1				
	189-PM		178+91	180+57	LT				0.032											
	190-PM		178+91	180+57	RT				0.032											
	191-PM		179+72		€										1					
	192-PM		181+21	188+75	LT				0.143											
	192A-PM	ORCHARD HILL ROAD			RT						20									
	193-PM		181+21	188+75	RT				0.143											
	194-PM		181+21	189+53	RT			0.158												
	195-PM		181+21	188+20	RT		0.132													
	196-PM		183+00		€										1					
	197-PM		186+30	189+48	LT		0.060													
	198-PM		186+50		€										1					
	199-PM	GARDEN ROAD			RT						15									
	200-PM		188+75	189+53	RT/LT				0.020											
	201-PM		188+84	194+68	RT		0.111													
	202-PM		189+07	189+53	RT					46										
	203-PM		189+17		€										1					
	204-PM		189+53		RT/LT						31									
	205-PM	NOT USED																		
	206-PM		190+57								32									
	207-PM		190+57	200+92	LT			0.196												
	208-PM		190+57	190+97	LT					40										
	209-PM		190+57	191+78	RT/LT				0.020											
	210-PM		190+50	194+68	RT			0.079												
	211-PM		190+62	200+79	LT		0.193													
	212-PM		190+86		€										1					
	213-PM		191+78	194+68	LT				0.055											
	214-PM		191+78	194+68	RT				0.055											
	215-PM		192+25		€										1					
	216-PM	NOT USED																		
	217-PM	NOT USED																		
	218-PM		194+13		€										1					
	218A-PM	GROVE ROAD			RT						13									
	219-PM		195+40	199+14	LT				0.071											
	220-PM		195+40	199+14	RT				0.071											
	221-PM		195+40	200+92	RT			0.105												
	222-PM		195+40	200+92	RT		0.105													
	223-PM		197+30												1					
	224-PM		199+14	200+92	RT/LT			0.046					65.0							
	225-PM		199+93	200+92	RT					99										
<b>TOTALS CARRIED TO SHEET 115</b>						0.824	0.627	0.726		260.0	196.0		98.0		9:0	1:0				

SR60\_PART1\_PM\_SUM.DGN

CALCULATED  
C.Y.  
CHECKED

PAVEMENT MARKING SUBSUMMARY

MUS-60-17.93

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644															621		
			FROM	TO		EDGE LINE, YELLOW	EDGE LINE, WHITE	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	LANE ARROW	WORD ON PAVEMENT, 72"							
						MI	MI	MI	MI	MI	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
226-PM		NOT USED																					
227-PM			200+03		☉												1						
228-PM			200+43		☉													1					
229-PM			200+83		☉												1						
230-PM			200+92		RT/LT						31												
231-PM		BRANDYWINE BLVD.			LT							124											
232-PM		BRANDYWINE BLVD			RT							94											
233-PM			201+70		RT/LT							112											
234-PM			201+83	212+58	RT		0.204																
235-PM			201+85		RT/LT						32												
236-PM			201+85	212+65	LT		0.205																
237-PM			201+85	212+58	LT			0.203															
238-PM			201+85	203+76	LT					191													
239-PM			201+85	204+43	LT			0.062				67											
240-PM			201+85	212+58	RT			0.203															
241-PM			201+93		☉											1							
242-PM			202+72		☉												1						
243-PM			203+50		☉											1							
244-PM			204+43	210+00	LT					0.105													
245-PM			204+43	210+00	RT					0.105													
246-PM			205+45		☉											1							
247-PM			208+50		☉											1							
247A-PM			210+00	212+58	RT/LT			0.063				57											
248-PM			210+82	212+58	RT					176													
249-PM			210+92		☉											1							
250-PM			211+70		☉												1						
251-PM			212+50		☉											1							
252-PM			212+58		RT/LT						40												
253-PM			212+68		RT/LT							147											
254-PM			213+74		RT/LT						36												
255-PM			213+74	216+89	LT		0.060																
256-PM			213+74	216+78	LT			0.058															
257-PM			213+74	214+75	LT					99													
258-PM			213+74	216+78	RT/LT			0.058															
259-PM			213+74	216+78	RT			0.058															
260-PM			213+82		☉											1							
261-PM			214+07	216+62	RT		0.048																
262-PM			214+24		☉												1						
263-PM			214+65		☉											1							
264-PM			215+28	216+78	RT					150													
265-PM			215+39		☉											1							
266-PM			216+06		☉												1						
267-PM			216+71		☉											1							
268-PM			216+78		RT/LT						42												
269-PM			217+85		RT/LT							143											
270-PM			217+85	220+01	RT		0.041																
271-PM			218+13		RT/LT						39												
272-PM			218+13	238+39	LT			0.384															
273-PM			218+13	219+13	LT					100													
							0.558	0.906	0.183														
<b>TOTALS CARRIED TO SHEET 115</b>								1.089	0.210	716.0	220.0	620.0	124.0			12.0	5.0						

CALCULATED  
C.Y.  
CHECKED

PAVEMENT MARKING SUBSUMMARY

MUS-60-17.93

114  
121

SR60 PART 1 PM SUM.DGN

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	644															621		
			FROM	TO		EDGE LINE, YELLOW	EDGE LINE, WHITE	LANE LINE	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 72"						
						MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	50-FT	EACH	EACH	EACH	EACH	EACH	EACH		
274-PM			218+13	219+96	RT/LT				0.047					62	58								
275-PM			218+13	220+01	RT			0.036															
276-PM			218+24		€									1									
277-PM			218+13	228+10	LT		0.189																
278-PM			218+64		€										1								
279-PM			219+04																				
280-PM			221+24		RT/LT						12												
281-PM			221+24	222+24	LT					100													
282-PM			221+24	222+69	RT/LT				0.038														
283-PM			221+24	237+39	RT			0.306															
284-PM			221+24	238+89	RT		0.334																
285-PM			221+28		€									1									
286-PM			221+71		€										1								
287-PM			221+68		€									1									
288-PM			222+69	237+00	LT				0.271														
289-PM			222+69	237+00	RT				0.271														
290-PM			223+00		€										1								
291-PM			226+10		RT										1								
292-PM			226+50		€										1								
293-PM			226+50		RT											1							
294-PM			228+71	231+36	LT		0.050																
295-PM			229+50		€										1								
296-PM			232+37	238+39	LT		0.114																
297-PM			233+00		€										1								
298-PM			236+00		€										1								
299-PM			237+00	238+82	RT/LT				0.034														
300-PM			237+39	238+89						150													
301-PM			237+82		RT										1								
302-PM			237+82	238+82	RT					100													
303-PM			237+95		€										1								
304-PM			238+32		RT												1						
305-PM			288+35		€												1						
306-PM			238+75		€										1								
307-PM			238+82		RT										1								
308-PM			238+82	238+89	RT/LT						36												
TOTALS THIS SHEET						0.687	0.342	0.661	0.542	350.0	48.0		62.0	58.0	14.0	5.0							
TOTALS FROM SHEET 109							.574	.524		260	192	542	162		7	2							
TOTALS FROM SHEET 110							.718	.514		65	162	798	173		9	1							
TOTALS FROM SHEET 111							.594	.673			201	1217		58	5								
TOTALS FROM SHEET 112						.190	.676	.419		448	179	637	270		9	5							
TOTALS FROM SHEET 113						.824	.627	.726		260	196		98		9	1							
TOTALS FROM SHEET 114						.558	1.089	.210		716	220	620	124		12	5							
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>						2.259	4.620	3.727		2,099.0	1,198.0	3,814.0	889.0	116.0	65.0	19.0							

CALCULATED  
C.Y.  
CHECKED

PAVEMENT MARKING SUBSUMMARY

MUS-60-17.93

SR60\_PART1\_PM\_SUM.DGN

ITEM 644

MARK	STATION TO STATION C SURVEY AND CONSTRUCTION	EDGE LINE	LANE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE 24"	TRANSVERSE LINE (YELLOW)	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 72 IN. "ONLY"	WORD ON PAVEMENT, 96 IN. "ONLY"	CROSSWALK LINE	DOTTED LINE, 4"
		MILE	MILE	MILE	FT.	FT.	FT.	SQ. FT.	EACH	EACH	FT.	FT.	
	S.R. 60 BRANDYWINE & RICHEY RD.	0.050			130	80							
1-PM	1115+92.00 - 1142+00.60	0.494											
2-PM	1143+20.40 - 1183+55.97	0.764											
3-PM	1184+99.77 - 1192+50.00	0.142											
4-PM	1115+92.00 - 1121+25.00				756				2	1			
5-PM	1115+92.00 - 1117+11.02				223								
5A-PM	1115+92.00 - 1119+13.39												322
6-PM	1115+92.00 - 1118+65.00			0.052									
6A-PM	1115+92.00 - 1116+64.00		0.014										
6B-PM	1115+92.00					40							
6C-PM	1116+02.00								2				
6D-PM	1116+52.00									2			
6E-PM	1117+02.00								2				
6F-PM	1117+55.00								2	1			
6G-PM	1118+05.00												
6H-PM	1129+60.00 - 1132+00.00				305	40			5		3	80	
6I-PM	1122+00.00 - 1122+80.00				160				4	2			
7-PM	1118+65.00 - 1139+91.00			0.805	155								
7A-PM	1139+91.00 - 1142+16.00			0.052									
8-PM	1141+18.00								1				
9-PM	1141+53.00										1		
10-PM	1141+98.00								1				
11-PM	1140+91.00 - 1142+16.00				125								
12-PM	1143+20.40							57					
13-PM	1143+20.40 - 1145+90.40			0.102									
14-PM	1143+20.40 - 1145+90.40						95						
15-PM	1145+90.40 - 1146+29.00			0.007									
15A-PM	1146+29.00 - 1164+45.00			0.344									
15B-PM	1164+45.00 - 1177+92.55			0.255									
16-PM	1177+92.55 - 1181+22.55			0.125									
17-PM	1177+92.55 - 1181+22.55						150						
18-PM	1181+22.55 - 1183+56.00			0.044									
19-PM	1181+81.00								1				
20-PM	1182+53.50										1		
21-PM	1183+26.00								1				
22-PM	1181+73.00 - 1183+56.00				183								
23-PM	1184+38.00 - 1186+22.00				184								
24-PM	1184+68.00								1				
25-PM	1185+41.00										1		
26-PM	1186+14.00								1				
27-PM	1184+38.00 - 1186+72.54			0.044									
28-PM	1186+72.54 - 1190+02.54			0.125									
29-PM	1186+72.54 - 1190+02.54						150						
30-PM	1190+02.54 - 1193+12.00			0.059									
31-PM	1115+92.00 - 1183+02.12	1.271											
32-PM	1184+54.11 - 1192+50.00	0.151											
32A-PM	1117+61.02 - 1118+11.02						23						
32B-PM	(NOT USED)												
32C-PM	1128+30.00 - 1129+10.00				80	24			2		1		
32D-PM	1134+50.00								2				
32E-PM	1139+91.00 - 1140+41.00												
	CO. RD. 298(OLDE FALLS RD.)												
33-PM	RADIUS - 1+00.00	0.020											
34-PM	RADIUS - 1+00.00	0.020											
35-PM	0+46.52 - 1+00.00			0.010									
36-PM	0+47.00					20							
36A-PM	1142+16.00 (S.R. 60)					24							
36B-PM	1143+20.40 (S.R. 60)					12							
	CO. RD. 309(FAIRVIEW RD. RT.)												
37-PM	RADIUS - 1+17.30	0.027											
38-PM	0+34.86					26							
39-PM	0+34.86 - 1+17.30			0.016									
40-PM	RADIUS - 1+17.30	0.025											
	TWP. RD. 309(FAIRVIEW RD. LT.)												
41-PM	RADIUS - 1+00.00	0.022											
42-PM	0+35.00					20							
43-PM	0+35.00 - 1+00.00			0.012									
44-PM	RADIUS - 1+00.00	0.020											
TOTALS (CARRIED TO GENERAL SUMMARY)		3.006	0.014	3.222	2,301	276	441	57	27	6	7	80	322

PAVEMENT MARKING QUANTITIES

MUS-60-17.93

MUS-60-17.93



SHEETS	MARK	STATION TO STATION C SURVEY AND CONSTRUCTION S.R. 60	SPACING C/C  FEET	ITEM 621			ITEM 621
				2-WAY YELLOW/ YELLOW  EACH	2-WAY WHITE/ RED  EACH	1-WAY WHITE  EACH	RAISED PAVEMENT MARKER REMOVED  EACH
	1-RM	1116+63.39 - 1117+61.02	80	3			
	2-RM	1117+61.02 - 1130+51.79	80	36			
		1130+51.79 - 1135+31.79	40	24			
		1135+31.79 - 1140+41.00	20	54			
	3-RM	1140+41.00 - 1142+16.00	20	10			
	4-RM	1115+92.00 - 1119+92.00	40			11	
	5-RM	1119+92.00 - 1123+92.00	80			5	
	6-RM	1115+92.00 - 1111+11.02	40		7		
	7-RM	1115+92.00 - 1117+11.02	40		4		
	7A-RM	1115+92.00 - 1116+63.39	40		3		
	8-RM	1134+16.00 - 1138+16.00	80			5	
	9-RM	1138+16.00 - 1142+16.00	40			11	
	10-RM	1140+91.00 - 1142+16.00	40		5		
	11-RM	1143+20.40 - 1145+90.40	40	16			
	12-RM	1143+20.40 - 1147+20.40	40			11	
	13-RM	1147+20.40 - 1151+20.40	80			5	
	14-RM	1145+90.40 - 1148+00.40	40	7			
		1148+00.40 - 1177+92.55	80	39			
	15-RM	1177+92.55 - 1181+23.00	80	12			
	16-RM	1181+23.00 - 1186+56.00	80	4			
	17-RM	1181+73.00 - 1183+56.00	40		6		
	18-RM	1184+38.00 - 1186+72.54	80	4			
	19-RM	1186+72.54 - 1190+02.54	80	12			
	20-RM	1190+02.54 - 1193+12.00	80	5			
	21-RM	1184+38.00 - 1186+22.00	40		6		
SUB-TOTALS				226	31	48	
TOTAL (CARRIED TO GENERAL SUMMARY)					305		305

TRAFFIC CONTROL QUANTITIES

MUS-60-17.93

DATE PLANNED  
 7/25/93  
 CHECKED  
 BFB  
 1/23/97

ITEM 644

LOCATION	MARK	STATION TO STATION Q SURVEY AND CONSTRUCTION	EDGE LINE (WHITE) MILE	CENTERLINE (DASH) MILE	CENTER LINE (DOUBLE SOLID) MILE	CENTER LINE (SOLID DASH) MILE	CHANNELIZING LINE FT.	STOP LINE 24" FT.	TRANSVERSE LINE (YELLOW) FT.	ISLAND MARKING SQ. FT.	LANE ARROW EACH	LANE ARROW EACH	WORD ON PAVEMENT, 72 IN. "ONLY" EACH	WORD ON PAVEMENT, 96 IN. "ONLY" EACH	DOTTED LINE, 4" FT.
SR 60	1PM	1190+50 - 1196+00				0.10									
SR 60	2PM	1196+00 - 1198+50		0.05											
SR 60	3PM	1198+50 - 1204+00				0.11									
SR 60	4PM	1204+00 - 1208+83			0.09										
SR 60	5PM	1204+37.6 - 1207+56.6			0.06										
SR 60	6PM	1209+55 - 1212+28.25			0.05										
SR 60	7PM	1209+55 - 1219+00			0.18										
SR 60	8PM	1219+92 - 1226+58			0.13										
SR 60	9PM	1227+52 - 1229+00			0.03										
SR 60	10PM	1229+00 - 1234+40				0.10									
SR 60	11PM	1234+40 - 1240+38				0.11									
SR 60	12PM	1240+38 - 1243+68			0.06										
SR 60	13PM	1240+38 - 1243+68			0.06										
SR 60	14PM	1244+60 - 1248+73			0.08										
SR 60	15PM	1249+48 - 1255+27			0.11										
SR 60	16PM	1249+48 - 1254+65			0.10										
SR 60	17PM	1255+52 - 1268+33				0.24									
SR 60	18PM	1255+52 - 1268+33				0.24									
SR 60	19PM	1268+33 - 1268+83			0.01										
SR 60	20PM	1268+33 - 1271+18			0.05										
SR 60	21PM	1272+27 - 1283+26				0.21									
SR 60	22PM	1272+27 - 1283+26				0.21									
SR 60	23PM	1283+26 - 1283+76			0.01										
SR 60	24PM	1283+26 - 1284+51			0.02										
SR 60	25PM	1285+45 - 1292+85				0.14									
SR 60	26PM	1285+45 - 1292+85				0.14									
SR 60	27PM	1294+12 - 1298+77			0.09										
SR 60	28PM	1299+85 - 1300+13			0.01										
SR 60	29PM	1299+85 - 1300+13			0.01										
SR 60	30PM	1301+12 - 1311+17			0.19										
SR 60	31PM	1303+47 - 1311+17			0.15										
SR 60	-	1311+17 - 1470+62.29	6.04		4.76	0.57									
SR 60	32PM	1470+62.29 - 1478+72			0.15										
SR 60	33PM	1470+80 - 1481+00			0.19										
SR 60	34PM	1482+07 - 1489+00			0.13										
SR 60	35PM	1482+07 - 1489+00			0.13										
SR 60	36PM	1489+00 - 1494+60				0.11									
SR 60	37PM	1494+60 - 1500+50		0.11											
SR 60	38PM	1192+22.4 - 1208+62			0.62										
SR 60	39PM	1208+62 - 1209+74			0.02										
SR 60	40PM	1209+74 - 1226+58			0.64										
SR 60	41PM	1226+58 - 1227+52			0.02										
SR 60	42PM	1227+52 - 1243+68			0.62										
SR 60	43PM	1243+68 - 1244+60			0.02										
SR 60	44PM	1244+60 - 1248+73			0.16										
SR 60	45PM	1248+73 - 1249+48			0.01										
SR 60	46PM	1249+48 - 1254+65			0.20										
SR 60	47PM	1254+65 - 1255+52			0.02										
SR 60	48PM	1255+52 - 1271+18			0.59										
SR 60	49PM	1271+18 - 1272+27			0.02										
SR 60	50PM	1272+27 - 1284+51			0.46										
SR 60	51PM	1284+51 - 1285+45			0.02										
SR 60	52PM	1285+45 - 1292+85			0.28										
SR 60	53PM	1292+85 - 1294+12			0.02										
SR 60	54PM	1294+12 - 1298+77			0.18										
SR 60	55PM	1298+77 - 1300+43			0.03										
SR 60	56PM	1299+85 - 1301+12			0.02										
SR 60	57PM	1301+12 - 1311+17			0.38										
SR 60	58PM	1470+62.29 - 1481+00			0.39										
SR 60	59PM	1481+00 - 1482+07			0.02										
SR 60	60PM	1482+07 - 1500+50			0.70										
ASH MEADOWS BLVD	61PM	RADIUS - 0+90	0.03												
ASH MEADOWS BLVD	62PM	0+25					34								
ASH MEADOWS BLVD	63PM	RADIUS - 0+65	0.02												
CARNATION RD	64PM	RADIUS - 0+65	0.02												
CARNATION RD	65PM	0+22 - 0+65			0.01										
CARNATION RD	66PM	0+20					20								
SUB-TOTALS				0.16	6.86	2.28									
TOTALS CARRIED TO GENERAL SUMMARY			11.55		9.30		54								

PAVEMENT MARKING QUANTITIES

MUS-60-17.93

MEOPH01.DGN



LOCATION	MARK	STATION TO STATION E SURVEY AND CONSTRUCTION	EDGE LINE (WHITE)	CENTERLINE (DASH)	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE 24"	TRANSVERSE LINE (YELLOW)	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 96 IN. "ONLY"				
			MILE	MILE	MILE	MILE	FT.	FT.	FT.	SQ. FT.	EACH	EACH				
RICHVALE RD	67PM	RADIUS - 0+65.60 RT & LT	0.01		0.01											
	68PM	0+38 - 0+65.60														
	69PM	0.36						22								
LISAKIM LA	70PM	RADIUS - 0+66.42	0.01		0.01											
	71PM	0+28 - 0+66.42														
	72PM	0+26						20								
CHARDONN RD	73PM	RADIUS - 0+68.48	0.01		0.01											
	74PM	0+28 - 0+68.48														
	75PM	0+26						22								
CREAMERY RD	76PM	RADIUS - 0+96.87	0.02		0.01											
	77PM	0+37 - 0+96.87														
	78PM	0+35						20								
VIRGINIA RD	79PM	RADIUS - 0+53.05	0.01		0.01											
	80PM	0+36 - 0+53.05														
	81PM	0+34						20								
NORTH VISTA DR	82PM	RADIUS - 0+95.37	0.04		0.01											
	83PM	0+42 - 0+95.37														
	84PM	0+40						25								
GORSUCH RD	85PM	RADIUS - 0+67.39	0.01		0.01											
	86PM	0+42 - 0+67.39														
	87PM	0+40						20								
VISTA VIEW DR	88PM	RADIUS - 0+80	0.01		0.01											
	89PM	0+42 - 0+80														
	90PM	0+40						20								
SHANNON RD	91PM	RADIUS - 0+84.85	0.02		0.01											
	92PM	0+27 - 0+84.85														
	93PM	0+25						26								
SR60	29PM,A	1299+82							56							
SR60	29PM,B	1299+88 - 1300+13						34								
SR60	29PM,C	1300+20							78							
SR60	94PM	1204+37.6 - 1207+57.6							157							
SR60	95PM	1208+08 - 1208+83					75					1				
SR60	96PM	1208+35									1					
SR60	97PM	1208+70														
SR60	98PM	1209+55								73						
SR60	99PM	1209+55 - 1212+25							136							
SR60	100PM	1240+38 - 1243+68							164							
SR60	101PM	1243+68								67						
SR60	102PM	1244+60 - 1246+73					213									
SR60	103PM	1245+14									1					
SR60	104PM	1245+80										1				
SR60	105PM	1246+46														
SR60	106PM	1247+73 - 1248+73						100								
SR60	107PM	1248+19														
SR60	108PM	1248+43														
SR60	109PM	1249+48 - 1252+27								252						
SR60	110PM	1252+80 - 1254+65						185								
SR60	111PM	1253+05														
SR60	112PM	1253+69														
SR60	113PM	1254+35														
SR60	114PM	1255+59														
SR60	115PM	1260+58														
SR60	116PM	1267+45														
SR60	117PM	1268+33 - 1268+83								35						
SR60	118PM	1269+33 - 1271+18						185								
SR60	119PM	1269+90														
SUB TOTALS					0.09											
TOTALS CARRIED TO GENERAL SUMMARY			0.14		0.09		758	195	778	274	13	4				

PAVEMENT MARKING QUANTITIES

MUS-60-17.93

LOCATION	MARK	STATION TO STATION ± SURVEY AND CONSTRUCTION	EDGE LINE (WHITE)	CENTERLINE (DASH)	CENTER LINE (DOUBLE SOLID)	CENTER LINE (SOLID DASH)	CHANNELIZING LINE	STOP LINE 24"	TRANSVERSE LINE (YELLOW)	ISLAND MARKING	LANE ARROW	WORD ON PAVEMENT, 96 IN. "ONLY"				
			MILE	MILE	MILE	MILE	FT.	FT.	FT.	SQ. FT.	EACH	EACH				
SR60	120PM	1270+43										1				
SR60	121PM	1270+88										2				
SR60	122PM	1272+34										2				
SR60	123PM	1281+70														
SR60	124PM	1283+26 - 1283+76							31			1				
SR60	125PM	1283+88										1				
SR60	126PM	1284+26										1				
SR60	127PM	1283+76 - 1284+51					75					2				
SR60	128PM	1285+86										2				
SR60	129PM	1292+79										1				
SR60	130PM	1294+12 - 1295+42						130				1				
SR60	131PM	1294+39										1				
SR60	132PM	1294+69										1				
SR60	133PM	1295+07						185				1				
SR60	134PM	1296+92 - 1298+77										1				
SR60	135PM	1297+31										1				
SR60	136PM	1297+89										1				
SR60	137PM	1298+47						185				1				
SR60	138PM	1301+12 - 1302+97										1				
SR60	139PM	1301+43										1				
SR60	140PM	1301+89										1				
SR60	141PM	1302+33										1				
SR60	142PM	1302+70										1				
SR60	143PM	1303+47 - 1311+17							391			1				
SR60	144PM	1470+80 - 1478+72							438			1				
SR60	145PM	1479+22 - 1481+00						178				1				
SR60	146PM	1479+58										1				
SR60	147PM	1480+17										1				
SR60	148PM	1480+71								73		1				
SR60	149PM	1482+07							318			1				
SR60	150PM	1482+07 - 1488+67										1				
SR60	-	ARROWHEAD DRIVE						12								
SR60	-	KENLO WOODS DRIVE						24								
SR60	-	POWELSON DRIVE						40								
SR60	-	JONES RD. TWP. RD. 470						20								
SR60	-	FAWN RD.						23								
SR60	-	MCGLADE SCHOOL RD.						23								
SR60	-	NEW RILEY RD.						20								
TOTALS (CARRIED TO GENERAL SUMMARY)								753	915	1,178	73	18	7			

CALCULATED  
BY  
CHECKED  
DATE

PAVEMENT MARKING QUANTITIES

MUS-60-17.93

120  
121

# LOCATION SUB-SUMMARY

DETAIL	
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40' (NOTE 2)
12	HORIZONTAL CURVE ALT. (NOTE 3)
GAP	CENTERLINE AT 80' TYP.

LOCATION NUMBER	LOCATION	DETAIL	ITEM QUANTITIES	PRISMATIC RETRO-REFLECTOR COLORS					REMARKS
	STATION		INSTALLATION ONLY	ONE-WAY		TWO-WAY			
			RPM	WHITE	YELLOW	WHITE/WHITE	YELLOW/YELLOW	WHITE/RED	
1RPM	1192+22-1204+40	GAP	15				15		
2RPM	1204+40-1208+83	10	15				12	3	
3RPM	1209+55-1212+25	REMARKS	7				7		80' SPACING
4RPM	1212+25-1240+38	GAP	35				35		
5RPM	1240+38-1243+68	REMARKS	9				9		80' SPACING
6RPM	1244+60-1248+73	REMARKS	11				11		40' SPACING CL
7RPM	1244+60-1246+73	REMARKS	6					6	40' SPACING CHANNEL
8RPM	1247+63-1248+73	REMARKS	3					3	40' SPACING CHANNEL
9RPM	1249+48-1254+65	10	16				11	5	
10RPM	1255+52-1268+33	19	32				32		
11RPM	1268+33-1271+18	REMARKS	7				7		80' SPACING CL
12RPM	1269+33-1271+18	REMARKS	5					5	40' SPACING CHANNEL
13RPM	1272+27-1283+26	19	28				28		
14RPM	1283+26-1284+51	REMARKS	6				6		80' SPACING CL
15RPM	1283+76-1284+51	REMARKS	3					3	40' SPACING CHANNEL
16RPM	1285+45-1292-85	19	20				20		
17RPM	1294-12-1298+77	REMARKS	12				12		40' SPACING CL
18RPM	1294+12-1295+42	REMARKS	3					3	40' SPACING CHANNEL
19RPM	1296+92-1298+77	REMARKS	5					5	40' SPACING CHANNEL
20RPM	1299+88-1280+13	19	2				2		
21RPM	1301+12-1311+17	10	29				24	5	
-	1311+17 - 1470+62	REMARKS	211				211		80' SPACING CL
22RPM	1470+62-1481+00	10	30				25	5	
23RPM	1482+07-1489+00	REMARKS	18				18		40' SPACING CL
24RPM	1489+00-1500+50	GAP	15				15		
TOTAL			543				500	43	

ITEM 621 RAISED PAVEMENT MARKER REMOVED  
543 EACH

ITEM 621 RAISED PAVEMENT MARKER  
543 EACH

TOTALS CARRIED TO GENERAL SUMMARY

M60PMQ4.DGN

CALCULATED  
BY  
CHECKED  
BY

RPM LOCATION SUB-SUMMARY

MUS-60-17.93

121  
121