

# INTERSECTION IMPROVEMENT PROJECT

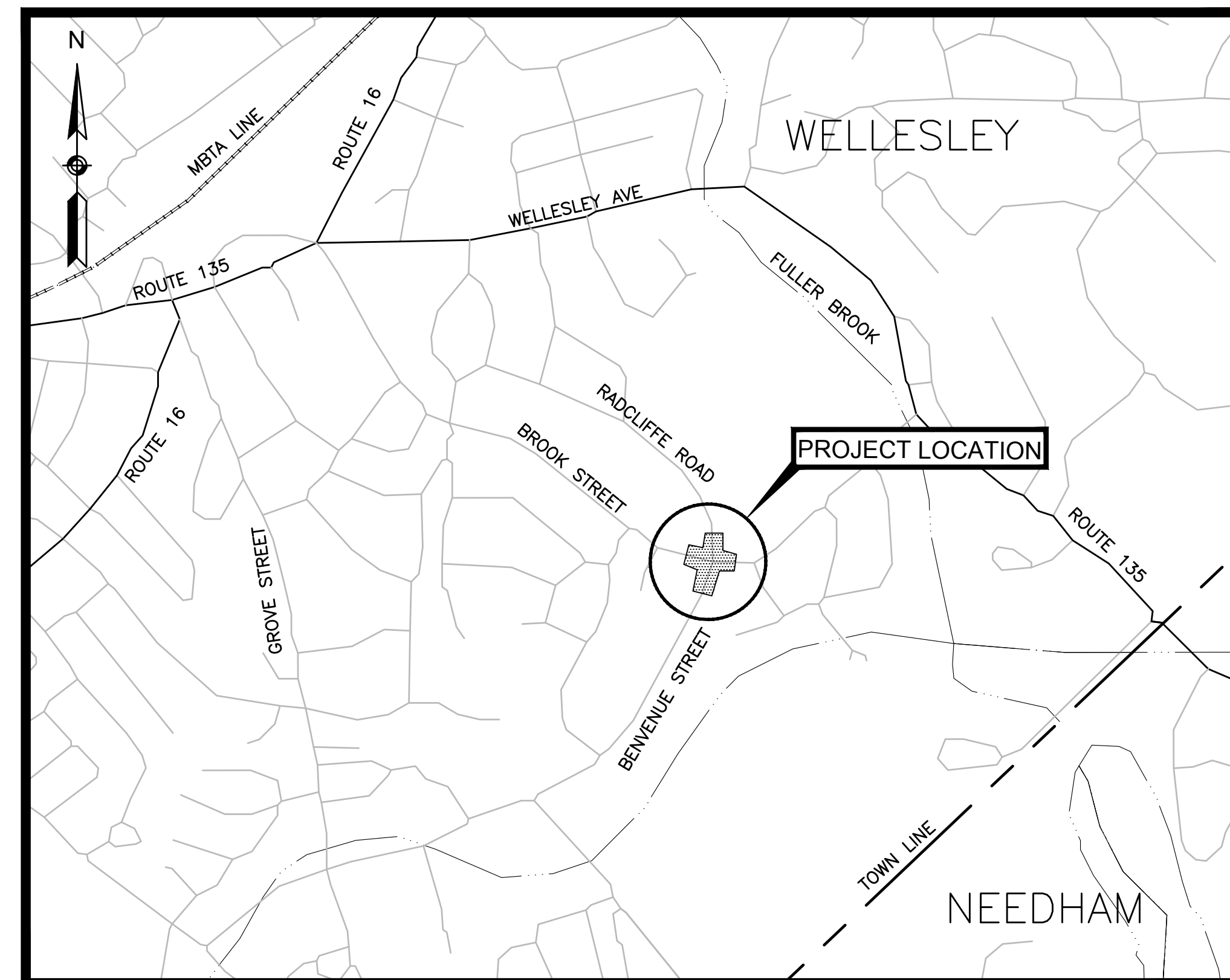
## BROOK STREET & BENVENUE STREET

IN THE TOWN OF  
**WELLESLEY**  
 NORFOLK COUNTY  
 MASSACHUSETTS

# PRELIMINARY DESIGN

WELLESLEY  
 BROOK STREET & BENVENUE STREET  
 TITLE SHEET & INDEX  
 SHEET 1 OF 7

| INDEX     |                               |
|-----------|-------------------------------|
| SHEET NO. | DESCRIPTION                   |
| 1         | TITLE SHEET & INDEX           |
| 2         | TYPICAL SECTIONS              |
| 3         | DETAILS SHEET                 |
| 4         | GENERAL PLAN                  |
| 5 - 6     | PROFILES                      |
| 7         | PAVEMENT MARKINGS & SIGN PLAN |



### DESIGN DESIGNATION

|                           | BROOK STREET          | BENVENUE STREET       | RADCLIFFE ROAD |
|---------------------------|-----------------------|-----------------------|----------------|
| DESIGN SPEED              | 30 MPH                | 30 MPH                | 30 MPH         |
| ADT (2015)                | X,XXX                 | X,XXX                 | X,XXX          |
| ADT (2026)                | X,XXX                 | X,XXX                 | X,XXX          |
| K                         | XX                    | XX                    | XX             |
| D                         | XX%                   | XX%                   | XX%            |
| T (PEAK HOUR)             | X.X%                  | X.X%                  | X.X%           |
| T (AVERAGE DAY)           | X.X%                  | X.X%                  | X.X%           |
| DHV                       | XXX                   | XXX                   | XXX            |
| DDHV                      | XXX                   | XXX                   | XXX            |
| FUNCTIONAL CLASSIFICATION | RURAL MINOR COLLECTOR | RURAL MINOR COLLECTOR | LOCAL ROAD     |

| DATE | DESCRIPTION | REV # |
|------|-------------|-------|
|      |             |       |
|      |             |       |
|      |             |       |

ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 101 Walnut Street  
 PO Box 9151  
 Watertown, MA 02471  
 617.924.1770

|                    |                        |                                      |
|--------------------|------------------------|--------------------------------------|
| DESIGNED BY<br>HJH | APPROVED BY<br>SHK     | SHEET 1 OF 7                         |
| DRAWN BY<br>HJH    | DFTG CHECKED BY<br>HJH | VHB CAD FILE NAME<br>COVER SHEET.DWG |
| CHECKED BY<br>TBM  | DATE<br>JULY 20, 2016  | JOB NO.<br>12309.08                  |

**PAVEMENT NOTES**

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 4" HOT MIX ASPHALT  
(1.5" HMA SURFACE COURSE OVER  
2.5" HMA BINDER COURSE)

\*\*SUBBASE: 4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER  
8" GRAVEL BORROW, TYPE b

PROPOSED FULL DEPTH PAVEMENT LESS THAN 4'

SURFACE: 4" HOT MIX ASPHALT  
(1.5" HMA SURFACE COURSE OVER  
2.5" HMA BINDER COURSE)

\*\*SUBBASE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE OVER  
8" GRAVEL BORROW, TYPE b

PROPOSED PAVEMENT MICRO MILL & OVERLAY

SURFACE: 1.5" HOT MIX ASPHALT (HMA SURFACE COURSE)

MILLING: 1.5" PAVEMENT MICROMILLING TYPICAL\*

PROPOSED HMA WALK

SURFACE: 2.5" HOT MIX ASPHALT  
(1" HMA SURFACE COURSE OVER  
1.5" HMA BINDER COURSE)

\*\*SUBBASE: 8" GRAVEL BORROW, TYPE b

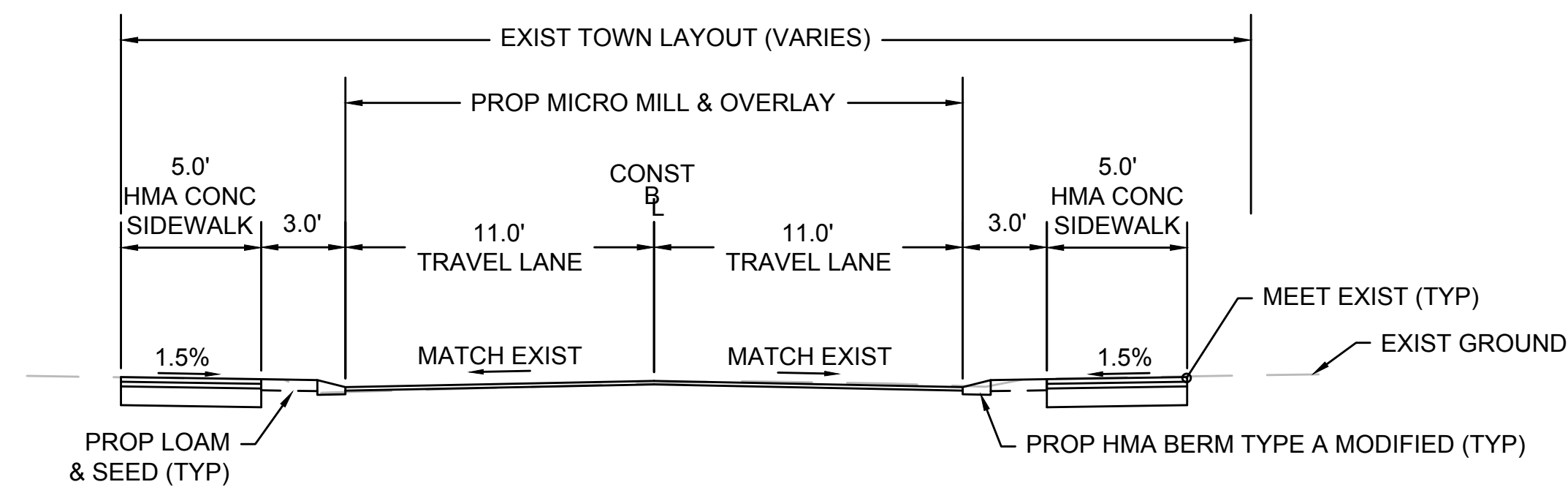
PROPOSED HMA DRIVEWAY

SURFACE: 3.5" HOT MIX ASPHALT  
(1" HMA SURFACE COURSE OVER  
2.5" HMA BINDER COURSE)

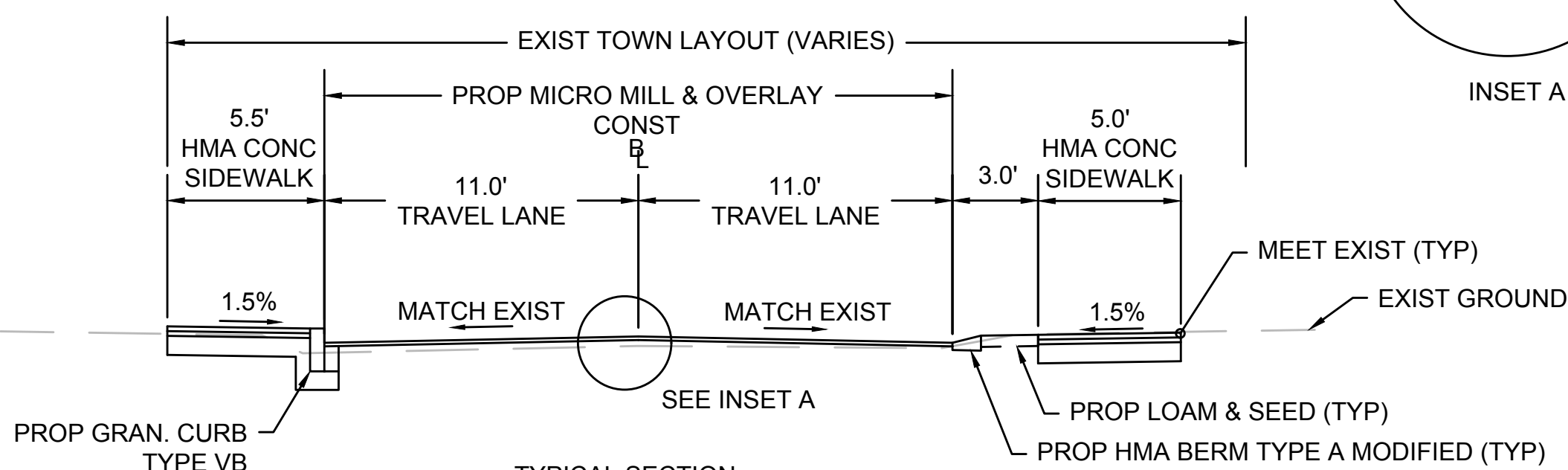
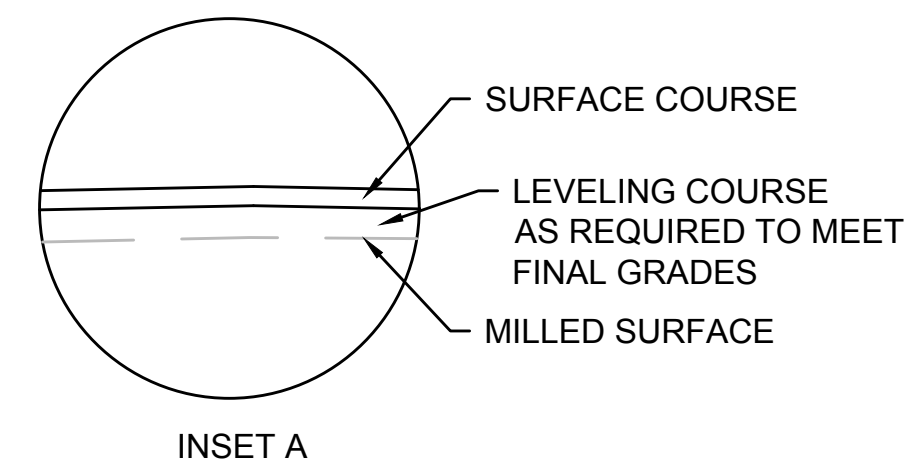
\*\*SUBBASE: 8" GRAVEL BORROW, TYPE b

\*\* WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

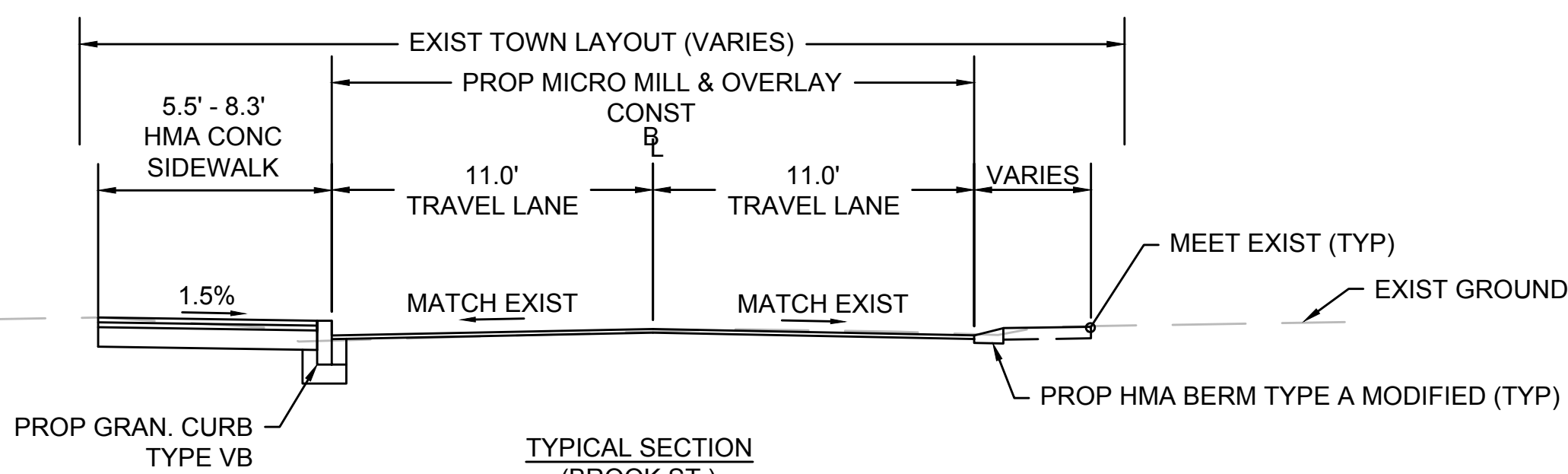
\* DEPTH OF MICROMILLING IS VARIABLE. THE CONTRACTOR SHALL COMPARE EXISTING PAVEMENT ELEVATIONS AGAINST PROPOSED ELEVATIONS TO CONFIRM DEPTH. PAVEMENT SHALL BE PLACED 2.5" LEVELING LIFTS MAX TO MEET PROPOSED GRADES.



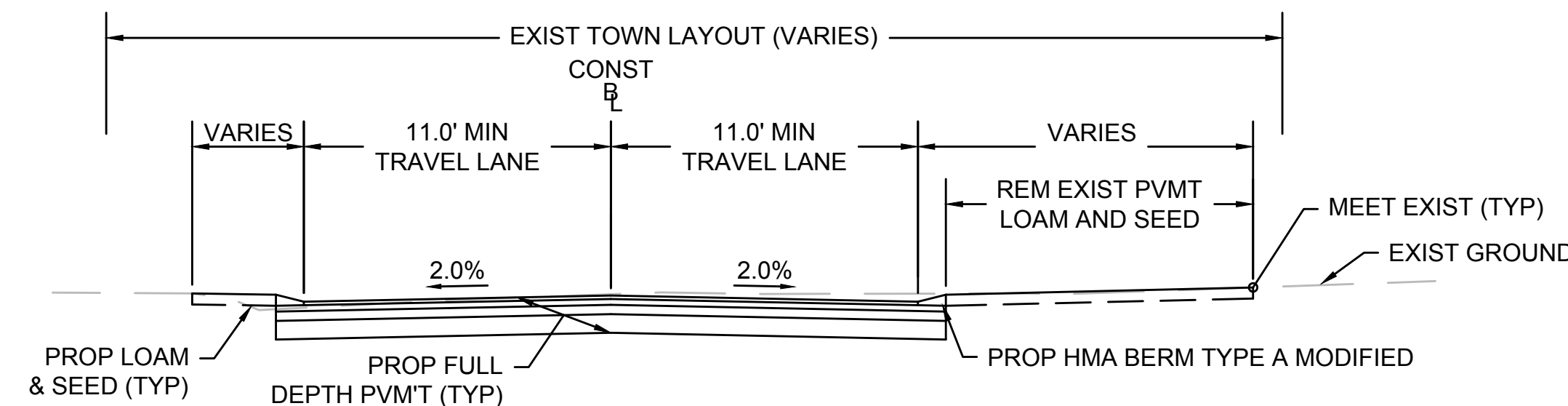
TYPICAL SECTION  
(BROOK ST.)  
13+00± TO 14+00±



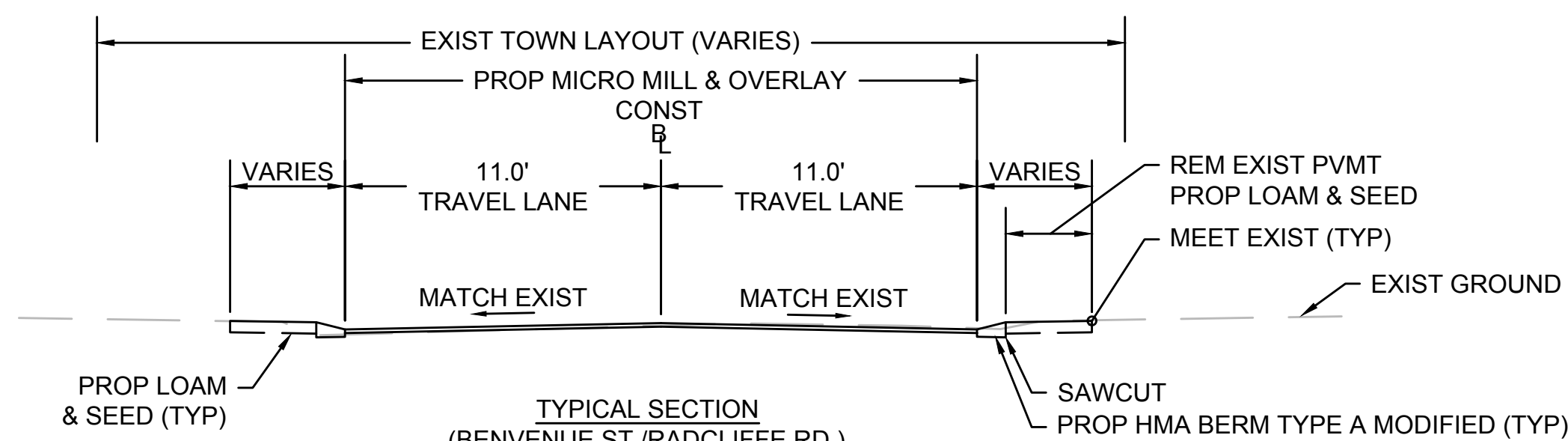
TYPICAL SECTION  
(BROOK ST.)  
12+50± TO 13+00±



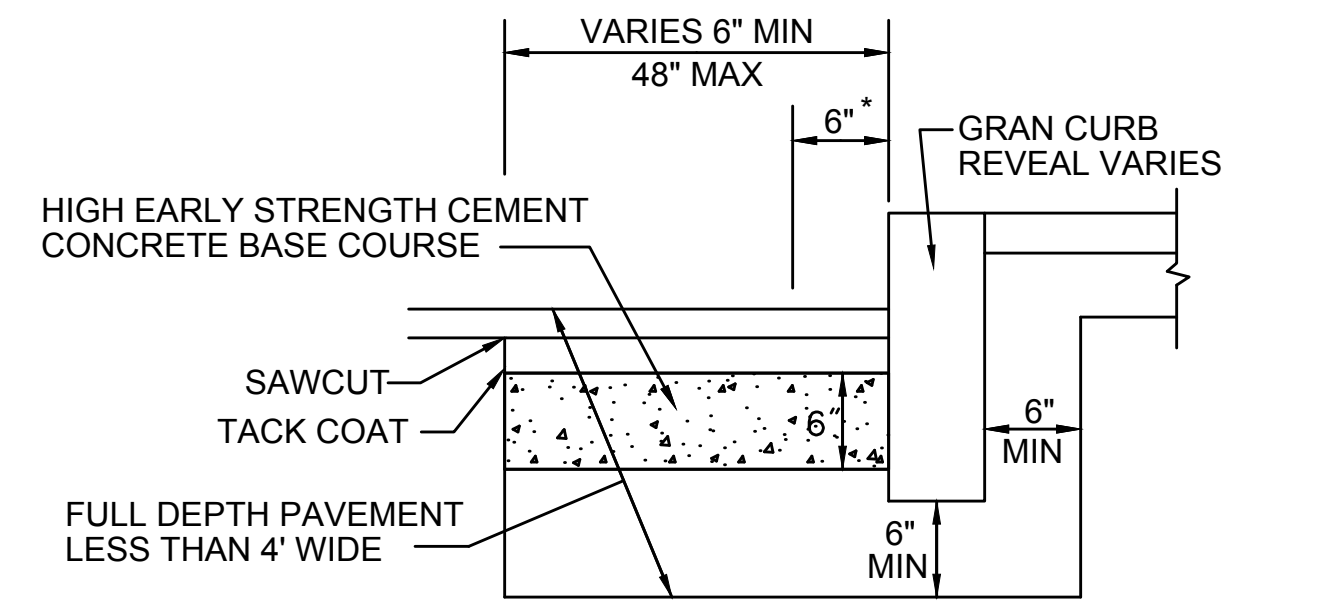
TYPICAL SECTION  
(BROOK ST.)  
11+00± TO 12+50±



TYPICAL SECTION  
(BENVENUE ST.)  
52+10± TO 52+50±



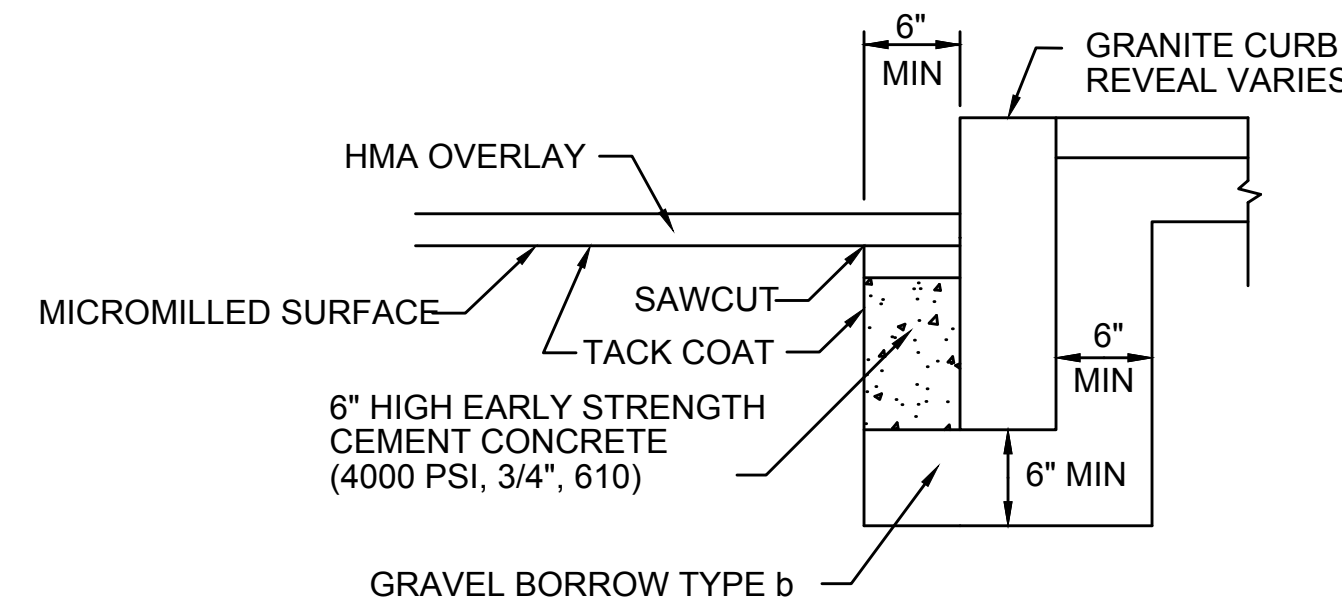
TYPICAL SECTION  
(BENVENUE ST./RADCLIFFE RD.)  
51+00± TO 52+10±  
52+50± TO 53+25±



\* 6" OF HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.

**GRANITE CURB IN FULL DEPTH PAVEMENT (LESS THAN 4')**

SCALE: N.T.S.

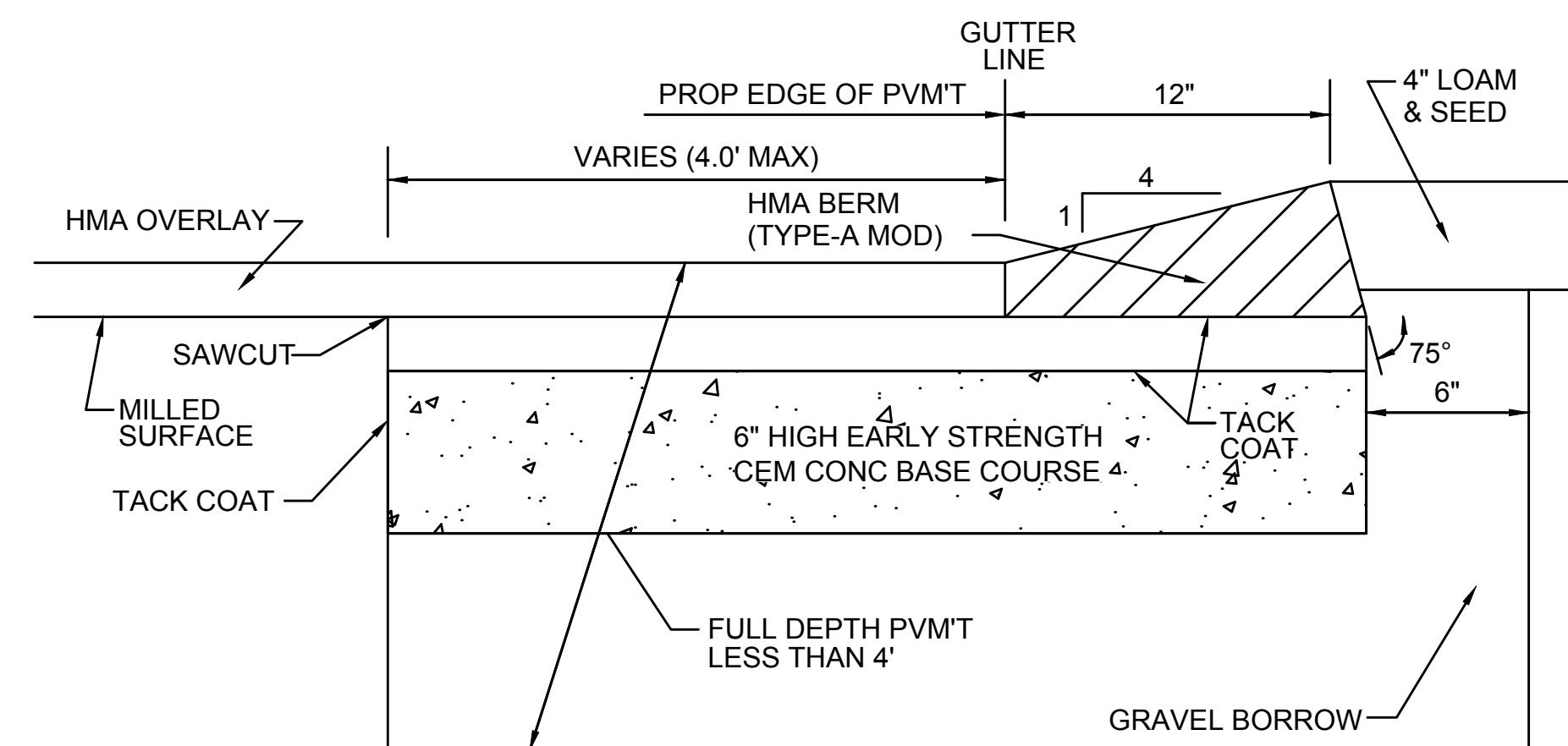


NOTES:

1. SAWCUT 6" (MIN) FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH 6" (MIN) HES CEMENT CONCRETE (8" DEPTH).
2. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.

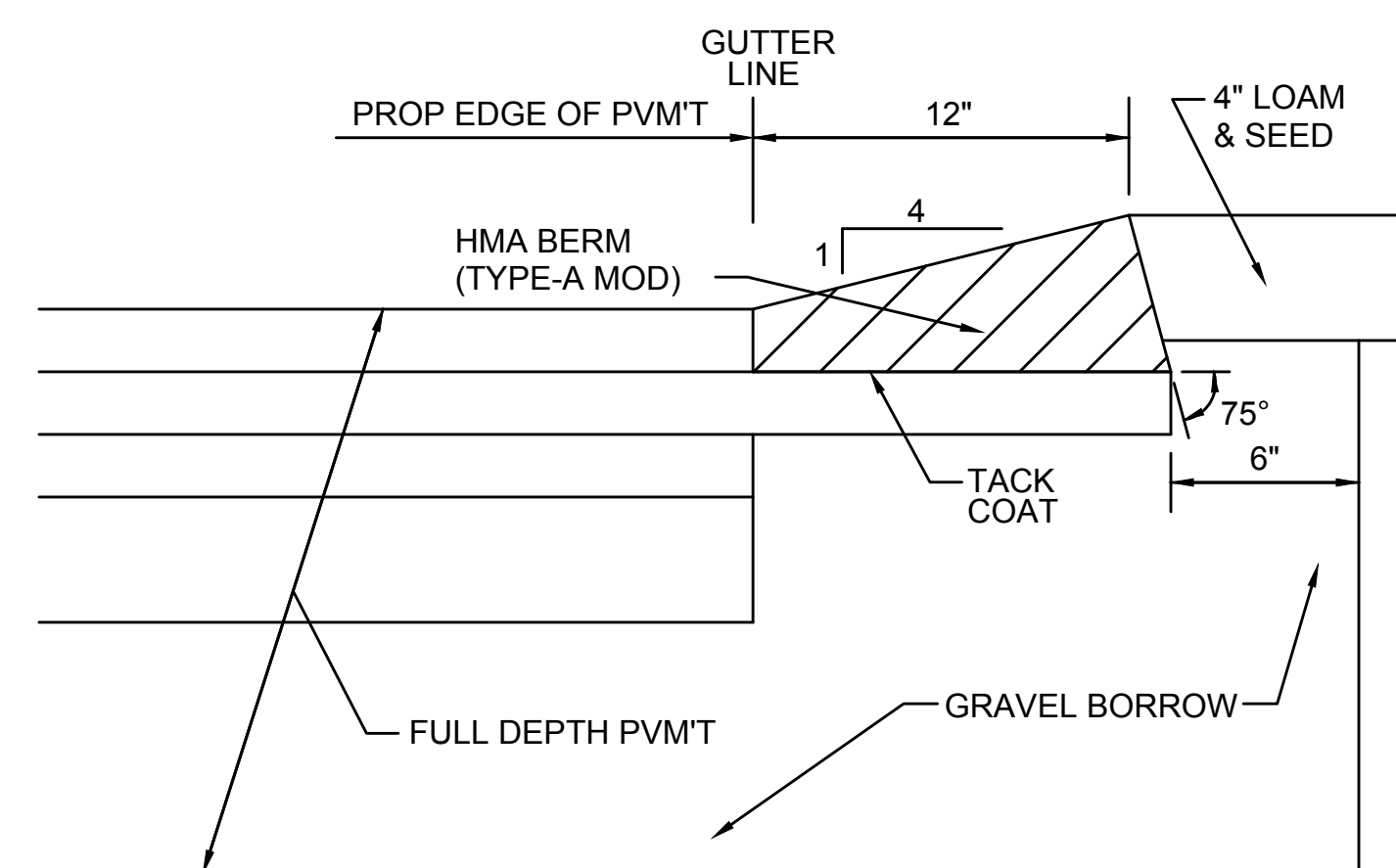
**GRANITE CURB IN PAVEMENT MILLING & OVERLAY**

SCALE: N.T.S.



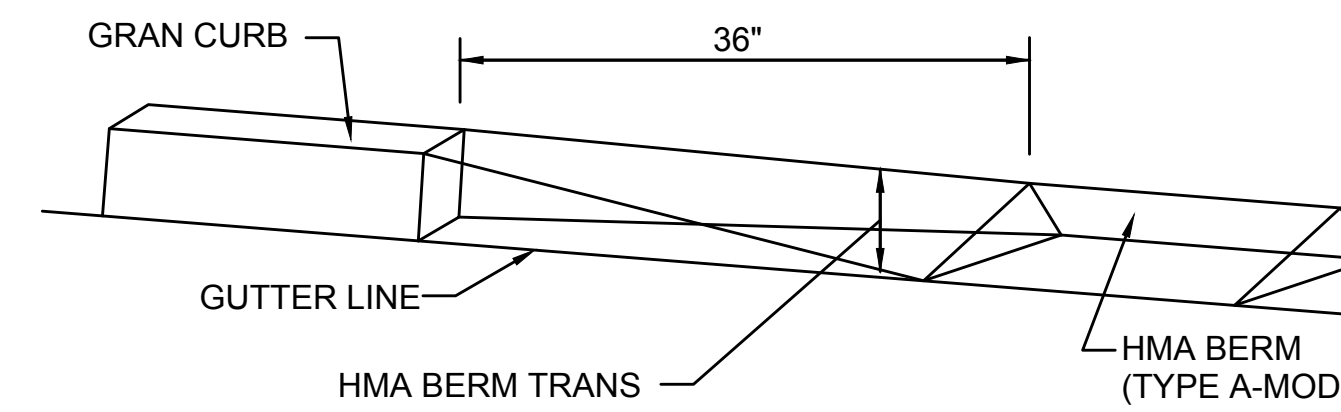
**HOT MIX ASPHALT BERM (TYPE A-MOD) IN FULL DEPTH PVM'T (LESS THAN 4')**

SCALE: N.T.S.



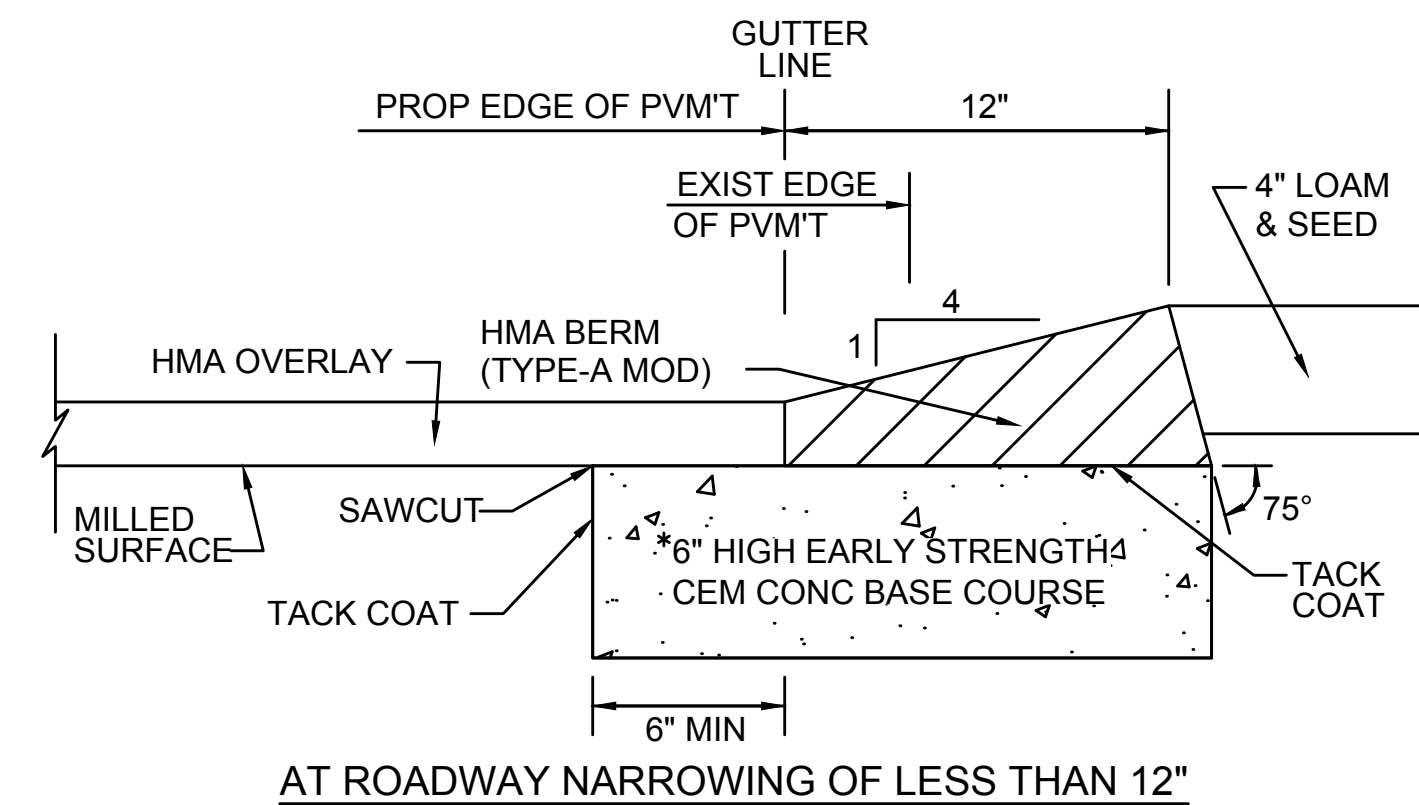
**HOT MIX ASPHALT BERM (TYPE A-MOD) IN FULL DEPTH PVM'T**

SCALE: N.T.S.

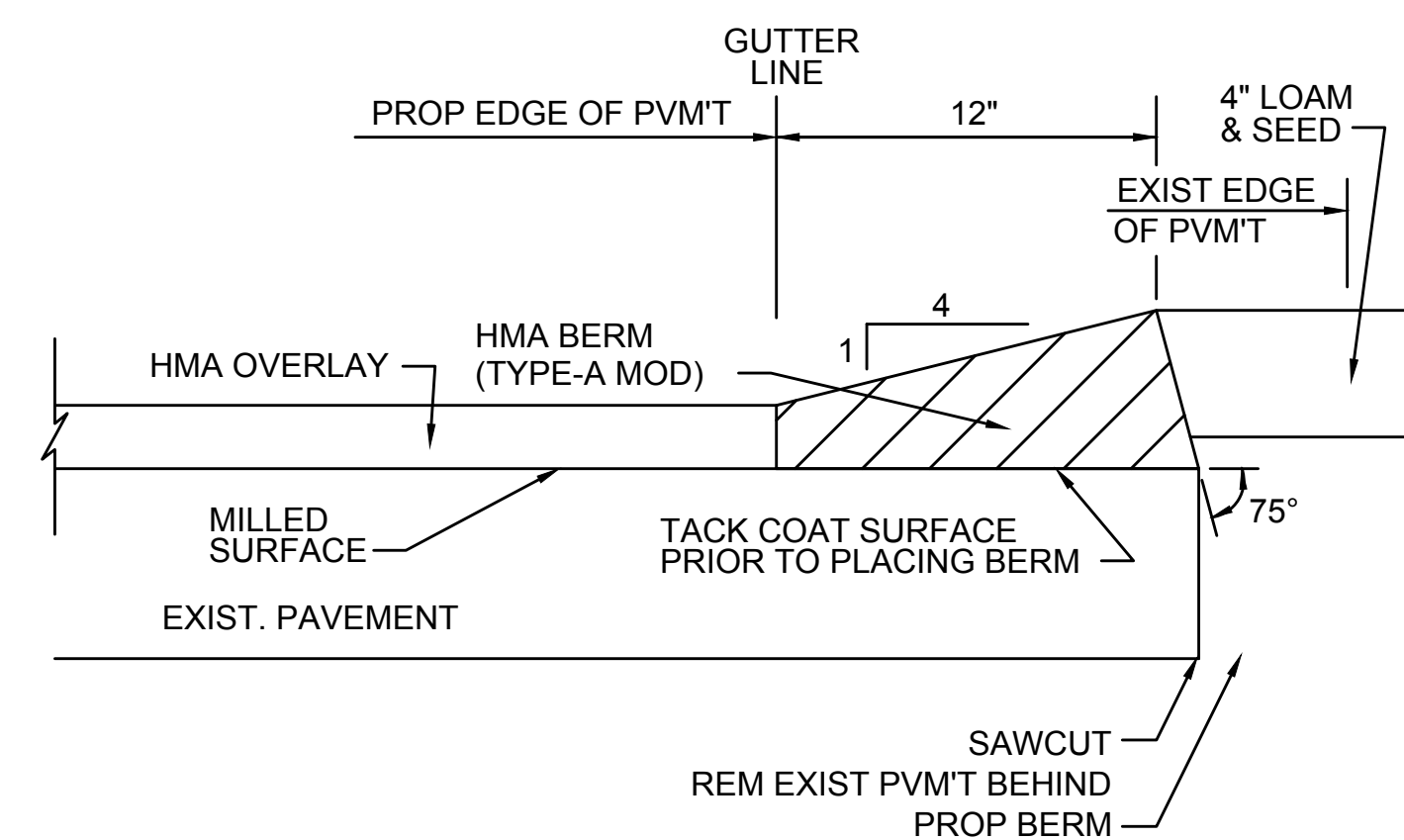


**HMA BERM TRANSITION**

SCALE: N.T.S.



AT ROADWAY NARROWING OF LESS THAN 12"



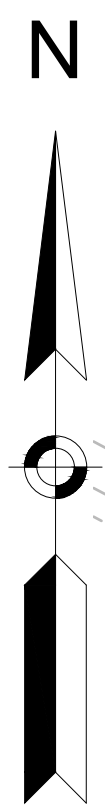
AT ROADWAY NARROWING OF GREATER THAN 12"  
\* TO BE PLACED UNLESS THE ENGINEER DETERMINES THAT A SUITABLE BASE ALREADY EXISTS.

**HOT MIX ASPHALT BERM (TYPE A-MOD) IN PAVEMENT MILLING & OVERLAY**

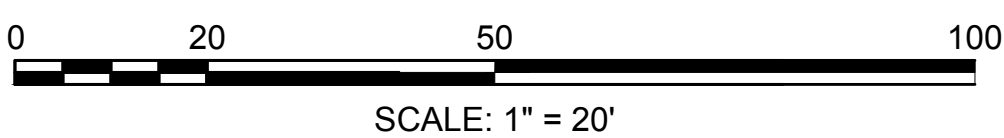
SCALE: N.T.S.



WELLESLEY  
BROOK STREET & BENVENUE STREET  
GENERAL PLAN  
SHEET 4 OF 7

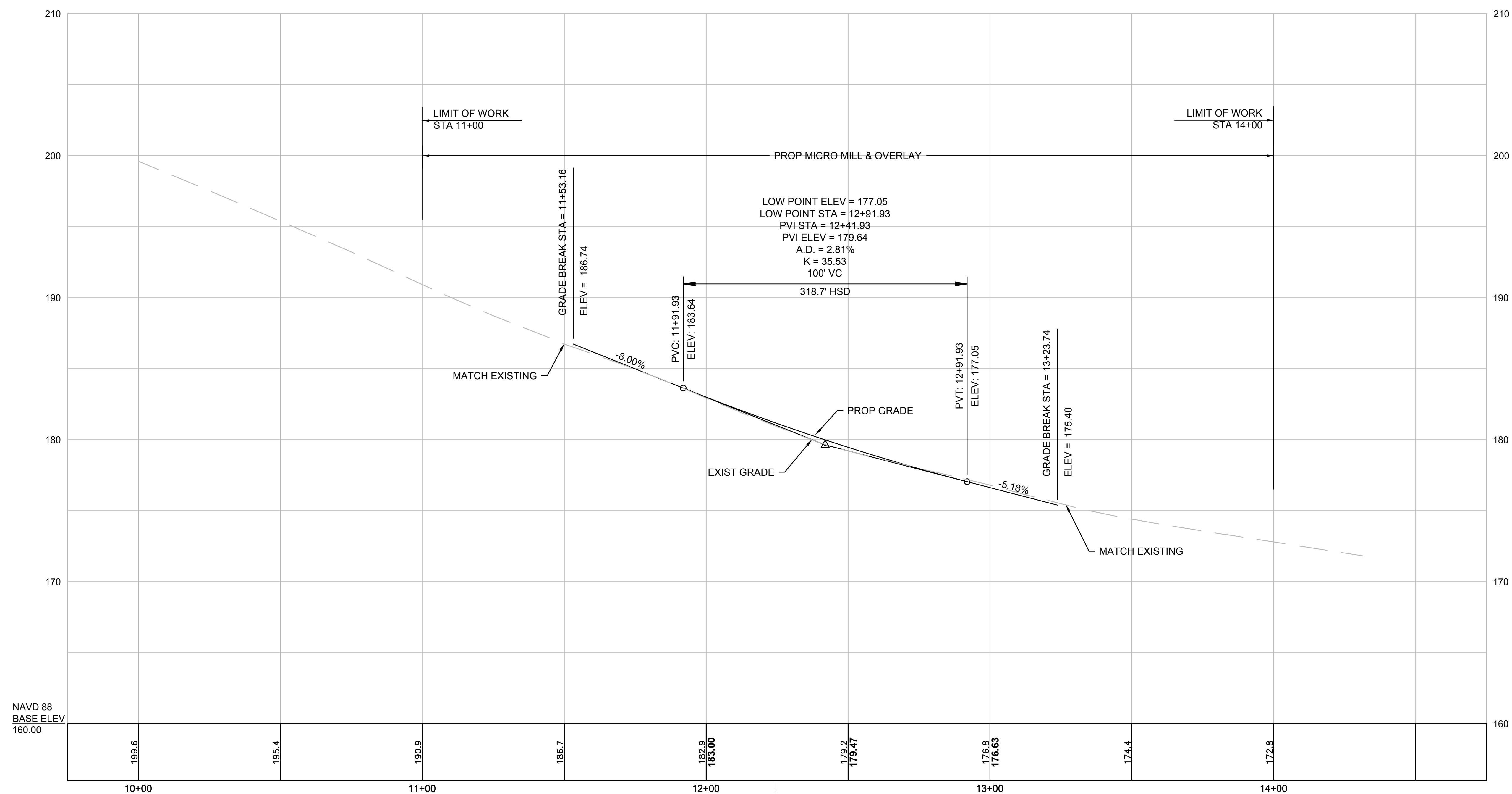


- NOTES:
1. THE CONTRACTOR SHALL TAKE ALL NECESSARY CARE WHEN EXCAVATING OR WORKING IN THE VICINITY OF EXISTING TREES OR SHRUBS SO THAT THE ROOT SYSTEMS, TRUNKS, AND BRANCHES ARE NOT DAMAGED. ALL PRECAUTIONS SHALL BE TAKEN TO INSURE THAT HEAVY EQUIPMENT DOES NOT DAMAGE ANY ROOTS, INCLUDING THOSE THAT LIE BELOW THE LIMITS OF EXCAVATION.
  2. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
  3. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.



FULL DEPTH ROADWAY PAVEMENT

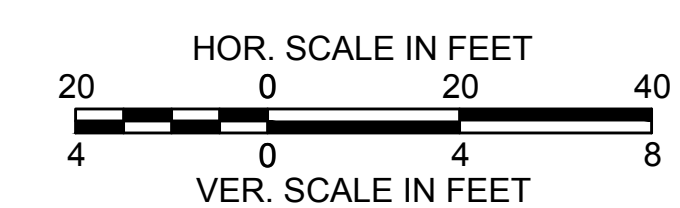
BROOK STREET



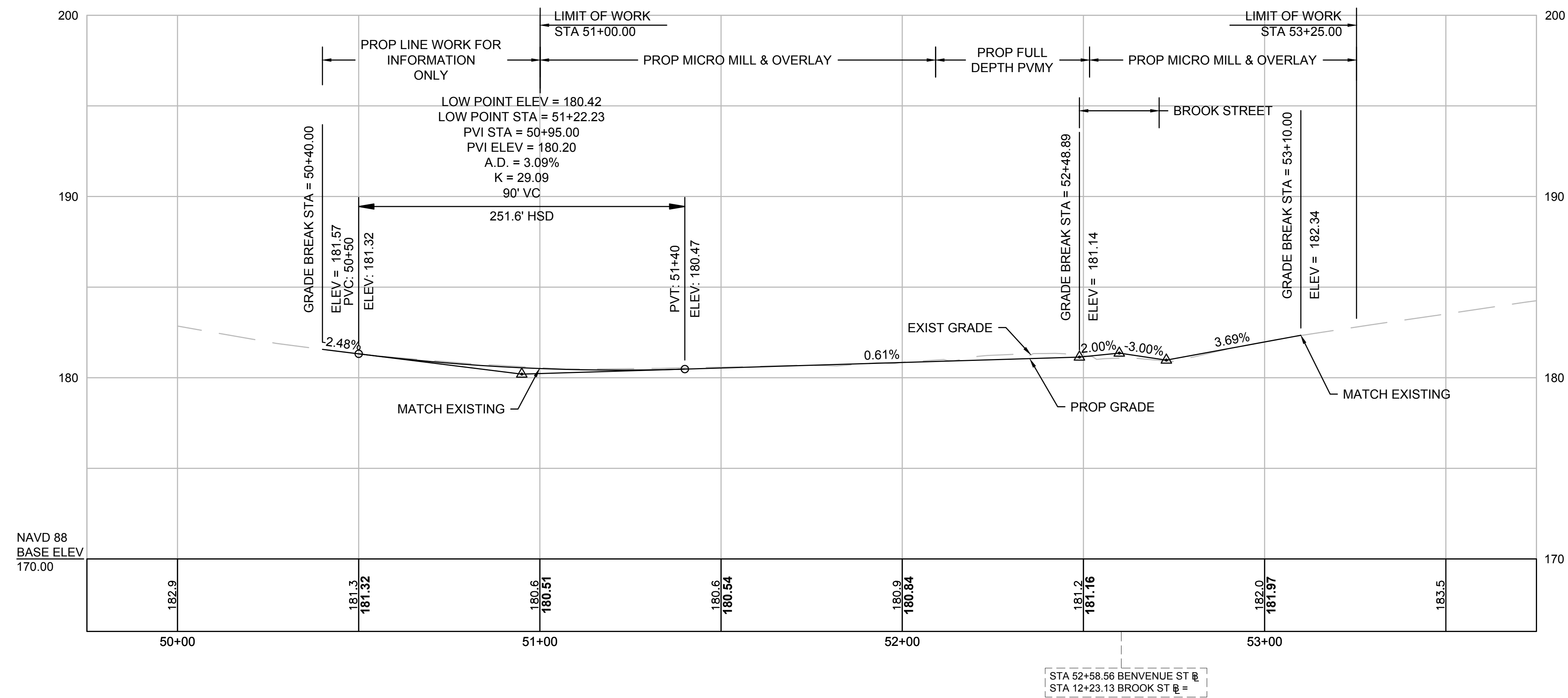
NAVD 88  
 BASE ELEV  
 160.00

STA 12+23.13 BROOK ST @  
 STA 52+58.56 BENVENUE ST @

FOR GENERAL PLAN:  
 SEE SHEET NO. 4



BENVENUE



FOR GENERAL PLAN:  
 SEE SHEET NO. 4

