

**CONVENTIONAL SIGNS**

|                                   |       |   |  |
|-----------------------------------|-------|---|--|
| STATE LINE                        | ===== | TIMBER                                      |  |
| COUNTY LINE                       | ===== | BRUSH                                       |  |
| TOWNSHIP OR RANGE LINE            | ===== | ORCHARD                                     |  |
| SECTION LINE                      | ===== | ROCK LEDGE                                  |  |
| QUARTER LINE                      | ===== | SAND  |  |
| SIXTEENTH LINE                    | ===== | EDGE OF CUT                                 |  |
| RIGHT-OF-WAY LINE                 | ===== | TOE OF EMBANKMENT                           |  |
| PRESENT ROAD 1/2 W. LINE          | ===== | CATCH BASIN                                 |  |
| LIMITED ACCESS                    | ===== | MANHOLE                                     |  |
| PROPERTY LINE (Except Land Lines) | ===== | DROP INLET                                  |  |
| VACATED PLATTED PROPERTY          | ===== | FIRE HYDRANT                                |  |
| CORPORATE OR CITY LIMITS          | ===== | ARC LAMP                                    |  |
| TRUNK HIGHWAY CENTER LINE         | ===== | OTHER LAMPS (State Kind)                    |  |
| RETAINING WALL                    | ===== | RAILROAD CROSSING SIGN                      |  |
| STEAM RAILROAD                    | ===== | RAILROAD CROSSING BELL                      |  |
| ELECTRIC RAILROAD                 | ===== | ELECTRIC WARNING SIGN                       |  |
| RAILROAD RIGHT-OF-WAY LINE        | ===== | CROSSING GATE                               |  |
| CREEK                             | ===== | CATTLE GUARD                                |  |
| RAPIDS OR WATERFALL               | ===== | OVERHEAD (Highway Over)                     |  |
| DRY RUN                           | ===== | UNDERPASS (Highway Under)                   |  |
| DRAINAGE DITCH                    | ===== | ABUTMENT, WALL & PIER                       |  |
| HIGH TENSION LINE                 | ===== | BRIDGE                                      |  |
| POWER POLE LINE                   | ===== | CULVERT                                     |  |
| TELEPHONE OR TELEGRAPH LINE       | ===== | BUILDING (One Story Frame)                  |  |
| TELEPHONE CONDUIT                 | ===== | C-CONCRETE S-STONE T-TILE B-BRICK ST-STUCCO |  |
| GUARD RAIL                        | ===== | HEDGE                                       |  |
| WIRE FENCE                        | ===== | IRON PIPE                                   |  |
| RAILROAD SNOW FENCE               | ===== | STONE MONUMENT                              |  |
| BOARD OR HIGHWAY SNOW FENCE       | ===== | WOOD STAKE OR HUB                           |  |
| STONE WALL OR FENCE               | ===== | MEANDER CORNER                              |  |
| GAS MAIN                          | ===== |   |  |
| WATER PIPE                        | ===== |   |  |
| SEWER PIPE                        | ===== |   |  |
| GRAIN TILE                        | ===== |   |  |
| GRAVEL PIT                        | ===== |   |  |
| SAND PIT                          | ===== |   |  |
| CLAY PIT                          | ===== |   |  |
| ROCK QUARRY                       | ===== |   |  |
| SPRINGS                           | ===== |   |  |
| MARSH                             | ===== |   |  |

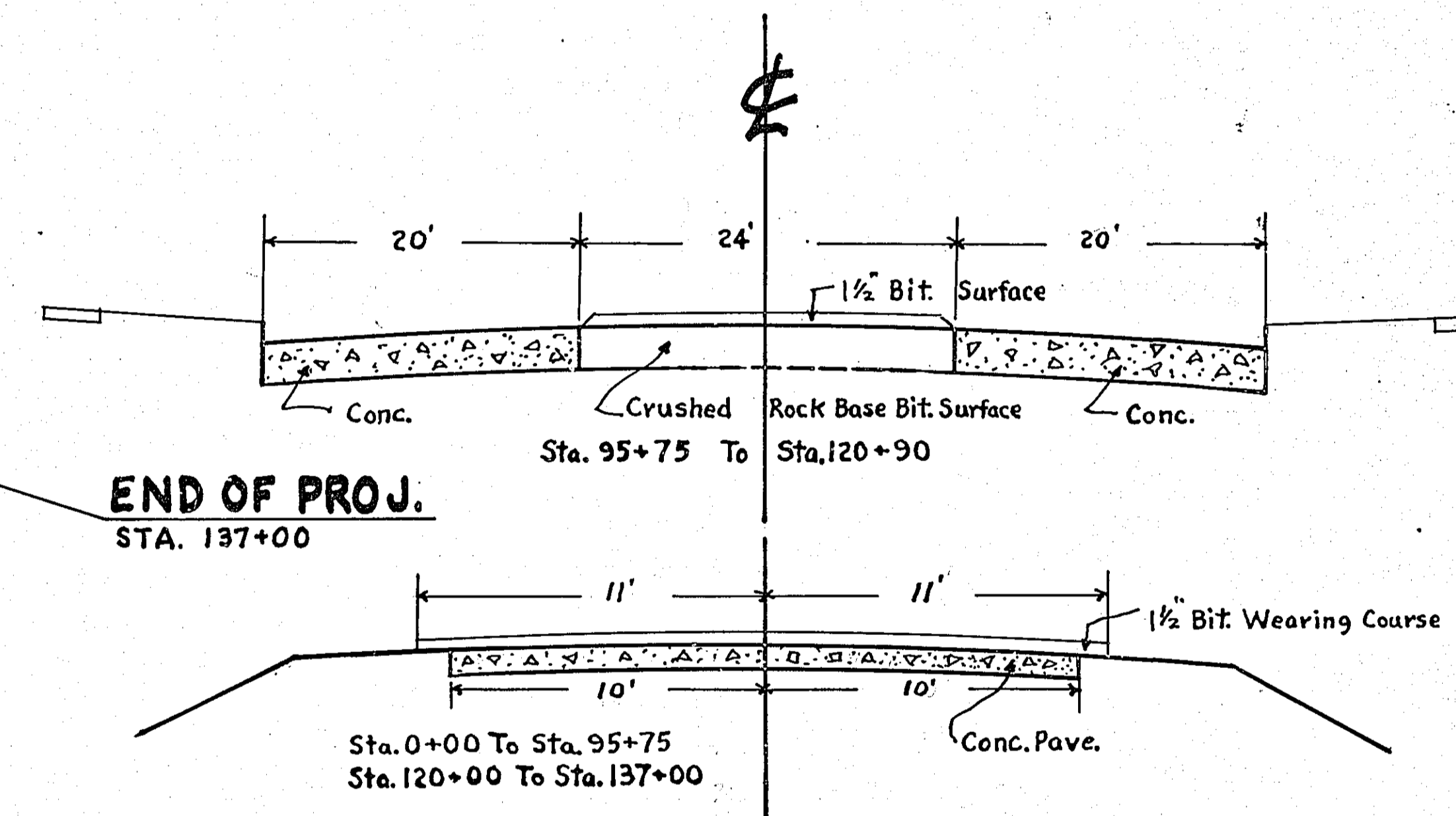
| PLATE NO. | STANDARD DETAIL PLATES                |
|-----------|---------------------------------------|
| 9001 A    | BITUMINOUS SURFACE ROAD APPROACH-ENT. |

| ESTIMATED QUANTITIES |   |      |                            |
|----------------------|---|------|----------------------------|
| SPEC. NO.            | ITEM  | UNIT | TOTAL ESTIMATED QUANTITIES |
|                      | BIT. MATERIAL FOR TACKCOAT                                  | GAL. | 3405                       |
|                      | BIT. MATERIAL FOR WEARING COURSE (INCLUDES LEVELING COURSE) | TONS | 2940                       |

**OFFICE OF COUNTY ENGINEER  
RAMSEY COUNTY**  
CONSTRUCTION PLAN FOR BITUMINOUS SURFACING  
**NORTH ST. PAUL ROAD**  
RAMSEY COUNTY PROJECT NO. 56-58  
FROM WHITE BEAR AVE. TO EAST COUNTY LINE ROAD

|                   |       |      |      |       |
|-------------------|-------|------|------|-------|
| GROSS LENGTH      | 13700 | FEET | 2.59 | MILES |
| BRIDGES-LENGTH    | 0     | FEET | 0    | MILES |
| EXCEPTIONS-LENGTH | 0     | FEET | 0    | MILES |
| NET LENGTH        | 13700 | FEET | 2.59 | MILES |

PLAN, 1 inch = 100 Feet  
PROFILE, Horiz. 1 inch = 100 Feet. Vert. 1 inch = 10 Feet.  
WORKING PLANS - Horiz. 1 inch = 100 Feet  
Vert. 1 inch = 10 Feet  
Cross-Sections 1 inch = Feet  
LAYOUT, 1 inch = Feet



**TYPICAL SURFACE SECTIONS**

**BEG. PROJ.**  
STA. 0+00

**END OF PROJ.**  
STA. 137+00

**PIT DATA**

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| PIT NO. | Located in | ..... |
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| PIT NO. | Located in | ..... |
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**BASIS FOR PLANNED QUANTITIES**

|   |                       |
|---|-----------------------|
| BIT. MATERIAL FOR TACK COAT                                 | 0.10 GAL. PER SQ. YD. |
| BIT. MATERIAL FOR WEARING COURSE (INCLUDES LEVELING COURSE) | 170 LBS. PER SQ. YD.  |

**SPECIFICATIONS**

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JULY 1, 1947 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON OCTOBER 15, 1947, AS MODIFIED BY "SUPPLEMENT 1" THERETO DATED APRIL 15, 1953 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 25, 1953, SHALL GOVERN.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Raymond J. Brennan* COUNTY ENGINEER REG. NO. 818 DATE 7/1/56

RECOMMENDED FOR APPROVAL *Raymond J. Brennan* COUNTY ENGINEER DATE 7/1/56

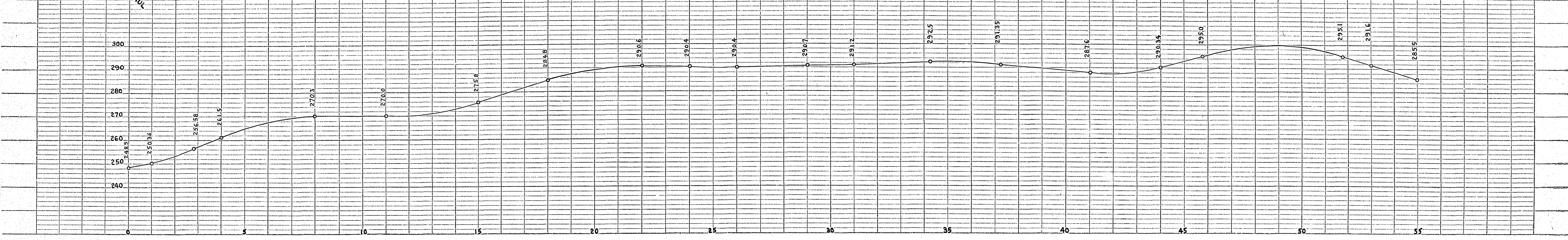
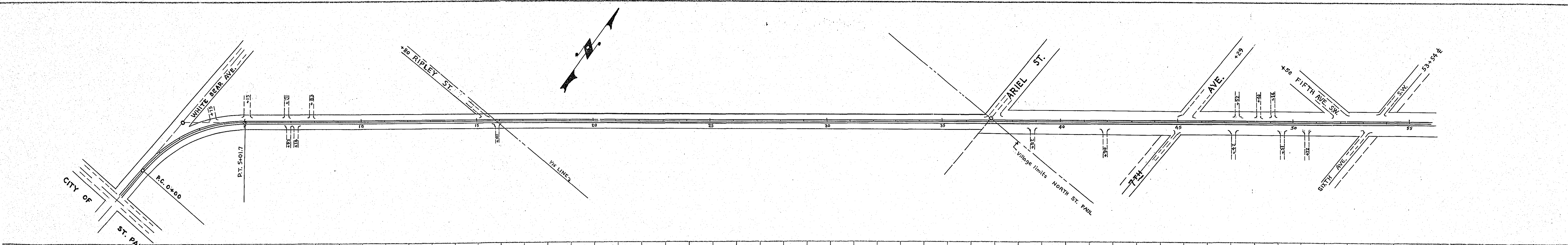
APPROVED *Genevieve B. Carlson* CHAIRMAN OF RAMSEY COUNTY BOARD DATE 7/1/56

APPROVED *J. W. Brennan* ENGINEER OF COUNTY DIVISION DATE 7/10/56

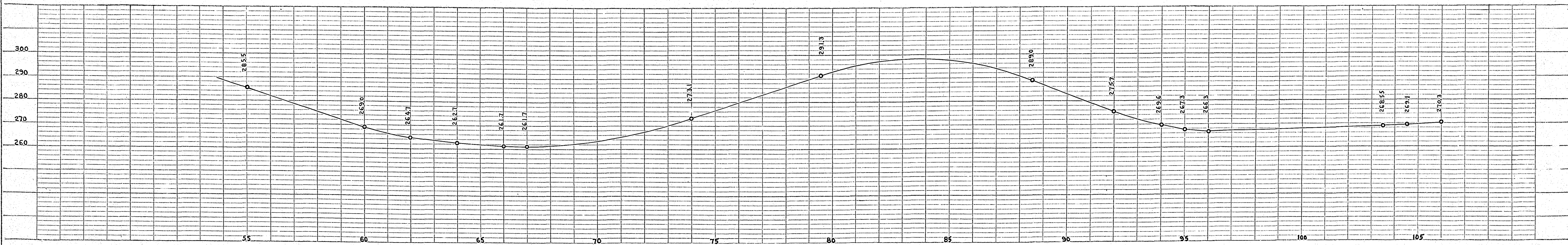
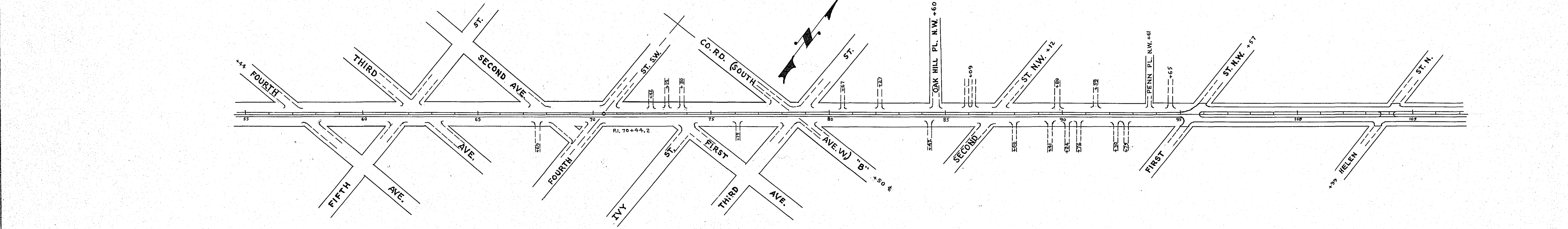
APPROVED \_\_\_\_\_ ENGINEER OF PLANS AND SURVEYS DATE \_\_\_\_\_

APPROVAL RECOMMENDATION  
*E. J. McElroy*  
District Engineer

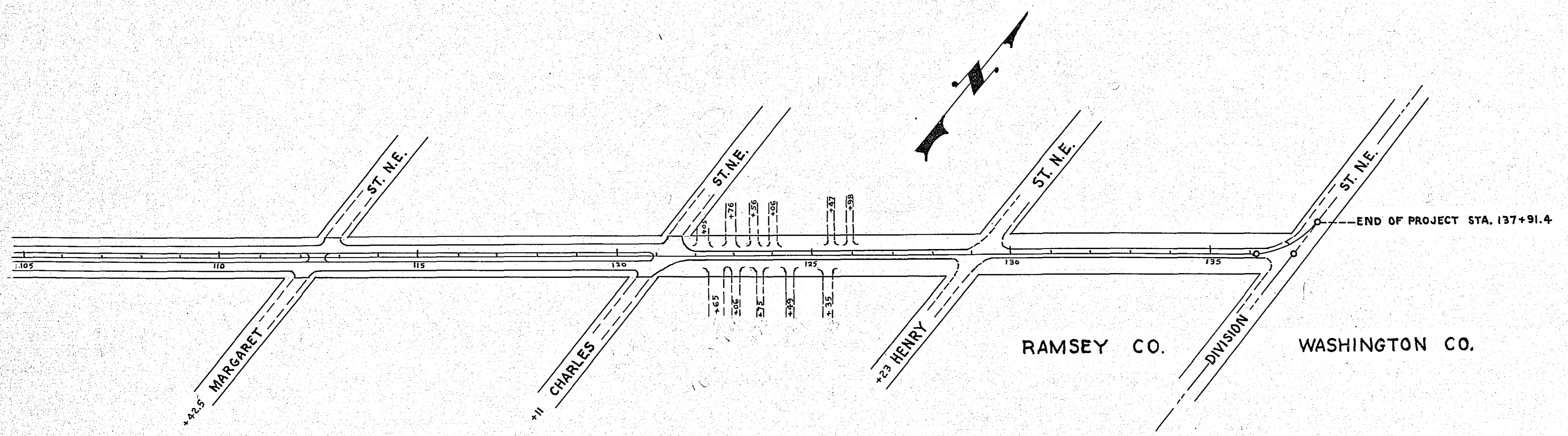
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| NOTE BOOK, GRADES CHECKED |  |
| B. HAS NOTED              |  |
| NO.                       |  |
| STRUCTURE NOTATIONS CHFD. |  |

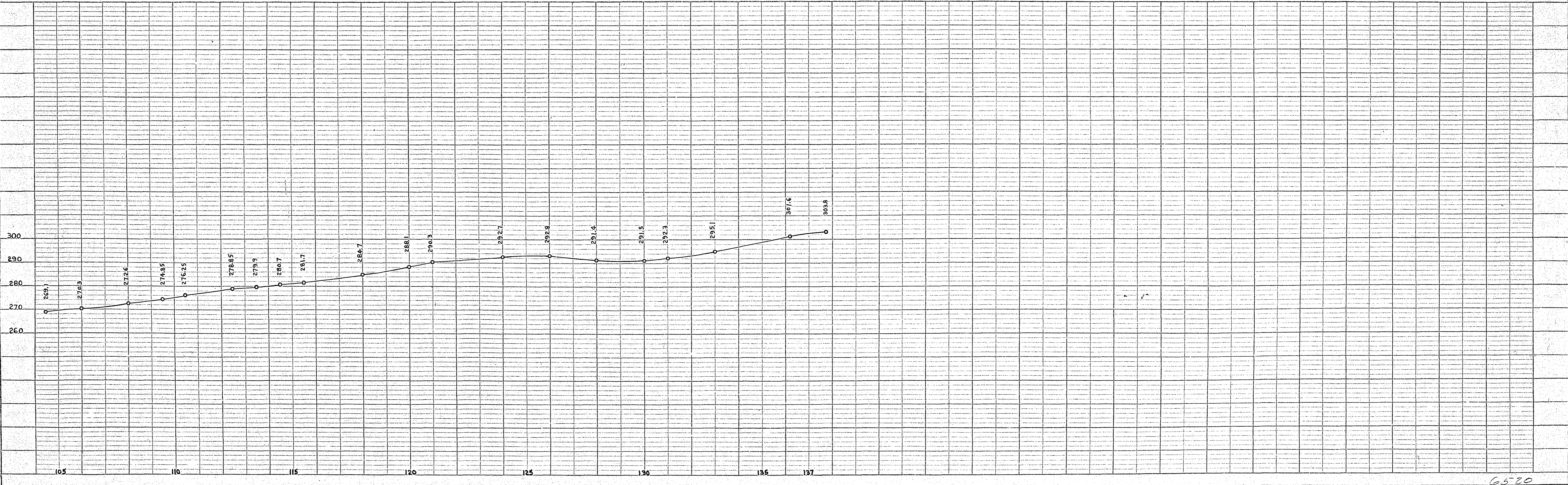


PLATE 1 - PLAN-PROFILE O. P. R. & R. E. STANDARD  
 HEUFFEL & ESSER CO., NEW YORK.  
 K & E Co. No. 242-1CA  
 1958

65-20